eDOCSNL
ELECTRONIC MEDICAL RECORD

Fee for Service Physician

Agreement for Participation in eDOCSNL through an NLHS Electronic Medical Record

August 13, 2021, revised January 2025

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External Physician Agreement for Participation in eDOCSNL through an NLHS Electronic Medical Record

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eDOCSNL
ELECTRONIC MEDICAL RECORD

External Physician Agreement for Participation in eDOCSNL through a NLHS Electronic Medical Record

BETWEEN: **PROVINCIAL HEALTH AUTHORITY, OPERATING AS NEWFOUNDLAND AND LABRADOR HEALTH SERVICES**, established under the *Provincial Health Authority Act*, SNL 2022 Chapter P-30.1
("**NLHS**")

AND: (Name)
(the "**Participating Physician**")

Herein referred to as "**the Parties**"

WHEREAS:

Her Majesty in Right of Newfoundland and Labrador as represented by the Minister of the Department of Health and Community Services (HCS), and the Newfoundland and Labrador Medical Association (NLMA) and the Newfoundland and Labrador Centre for Health Information (NLCHI) signed a Memorandum of Understanding (MOU) on the 30th day of October 2015 to jointly govern, implement and operate a sustainable Electronic Medical Record Program ("EMR Program") herein referred to as eDOCSNL; (Appendix A)

AND WHEREAS:

On April 1, 2023, pursuant to the *Provincial Health Authority Act*, SNL 2022 c. P–30.1 (the "Act") the 4 regional health authorities, as defined in the Act, (the "RHAs') and NLCHI were succeeded by NLHS. Pursuant to section 7 of the Act: all property and assets of the RHAs and NLCHI is vested in NLHS; NLHS assumes all obligations and liabilities of the RHAs and NLCHI; and an agreement or contract made with one of the RHAs or NLCHI prior to the coming into force of the Act is binding on NLHS;

AND WHEREAS:

The purpose of eDOCSNL is to improve collaboration and information sharing between Physicians and other healthcare providers, improve the overall quality of care, enhance the overall capability for patient safety within healthcare, provide a means for Physicians to improve clinical efficiencies, and provide health information to inform future health planning and policy development;

AND WHEREAS:

The EMR Management Committee is responsible for the governance of eDOCSNL and NLHS is responsible for administrative support for eDOCSNL, the integration between the Electronic Medical Record (EMR) and the provincial Electronic Health Record (HEALTHe NL), and vendor management;

AND WHEREAS:

NLHS, for and on behalf of eDOCSNL will provide the Participating Physician with EMR, the EMR Services provided by EMR Vendor consisting of a comprehensive suite of medical practice management applications to support enhanced patient care;

AND WHEREAS:

NLHS is a participant in eDOCSNL and is interested in the participation of External Physicians in the NLHS EMR Instance. Participation in the NLHS instance of EMR does not create an employment or agent relationship between the External Physician and NLHS;

AND WHEREAS:

NLHS has a mandate to assist individuals, communities, health service providers and policy makers at federal, provincial and regional levels in making informed decisions to enhance the health and well-being of persons in the province by providing accurate and current information to users of the health and community services system and integrating data from all components of the health and community services system, among other duties;

AND WHEREAS:

This Agreement sets out the terms and conditions to enable each party to meet its obligations as a Custodian under the *Personal Health Information Act,* SNL 2008, c P-7.01 ("PHIA"), as amended;

AND WHEREAS:

Additional details of the terms and conditions for sharing of EMR Data are agreed upon in the Information Management Framework, attached as Appendix B;

AND WHEREAS:

Pursuant to a Professional Services Agreement ("Professional Services Agreement") between NLCHI and the EMR Vendor, as amended from time to time, NLCHI retained the services of the EMR Vendor for the processing, retrieval, storage or disposal of EMR Data, and to provide information management and information technology services for Participating Physicians and their Authorized Users, as defined therein;

AND WHEREAS:

The Participating Physician and NLHS agree to use NLHS' EMR pursuant to the terms and conditions as set out herein.

NOW THEREFORE, the Parties agree as follows:

1.0 Definitions

1.1 Terms defined in PHIA have the same meanings in this Agreement, unless they conflict with a term defined in this Agreement or the context requires otherwise. In all cases, the terms set out in PHIA or other applicable legislation shall prevail.

1.2 The additional definitions that apply to this Agreement are:

a) "**Agent**" has the meaning defined in PHIA;

b) "**Agreement**" means this *External Physician Agreement for Participation in eDOCSNL through an NLHS Electronic Medical Record*, including all schedules and appendices, as it may be modified, amended, supplemented or restated by written agreement between the Parties;

c) **"Analytic Data Holdings**" – means Personal Health Information collected by NLHS to be used in making informed decisions to enhance the health and well-being of persons in the province of Newfoundland and Labrador

d) **"Authorized User"** means an approved user including the Participating Physician and NLHS, and their agents or contractors, who under this Agreement or the NLHS/RHA eDOCSNL Participation Agreement has been granted a subscription to use EMR by eDOCSNL and NLHS.

e) "**Circle of Care**" has the meaning defined in PHIA;

f) **"Custodian"** has the meaning defined in PHIA;

g) "**eDOCSNL**" means the Newfoundland and Labrador provincial Electronic Medical Record Program, as administered by NLHS;

h) "**Electronic Health Record**" mean the information systems that store and share such information as lab results, medication profiles, key clinical reports (e.g., hospital discharge summaries), diagnostic images (e.g., X-rays), and immunization history. The information is available electronically to authorized health care providers;

i) **"Electronic Medical Record"** or "**EMR**" means the secure, electronic patient record system that provides a collection of patient information, including, but not limited to, medical history, conditions, medications, immunizations and allergies. It is sometimes extended to include other functions, such as order entry for medications and tests;

j) **"EMR Executive Committee"** means the committee established in the MOU to adjudicate matters referred to it by the eDOCSNL Management Committee and monitor the effectiveness of the eDOCSNL program;

k) "**EMR Data**" means Personal Health Information and Metadata entered, created or stored in an EMR;

l) **"EMR Management Committee"** means the Committee established under the MOU which is responsible for the development and management of eDOCSNL;

m) **"EMR Services"** means those services provided by the EMR vendor pursuant to the Professional Service Agreement, including a subscription to the EMR solution;

n) "**EMR Solution Releases**" means updates to the EMR solution provided by the EMR Vendor;

o) **"Go-Live"** means the event upon which the use of the EMR by the Participating Physician commences in a clinical setting;

p) **"HCS"** means the Department of Health and Community Services;

q) **"HEALTHe NL"** as in g) above**,** means Newfoundland and Labrador's electronic health record system;

r) **"Intellectual Property Rights"** means all copyrights, trade secrets, inventions, patents, designs, methods, processes, procedures, written materials, trade-marks, trade names, service marks, domain names, ideas and concepts and any other intellectual property created or owned by the Participating Physician, NLHS, and EMR Vendor and its licensors, including all applications, registrations, licenses, sub-licenses, agreements or any other evidence of a right in any of the foregoing;

s) "**Information Management Framework**" means the policy of the EMR Management Committee that describes the uses and disclosures of EMR Data, the request and approval processes, and establishes the principles to be followed when using EMR Data for patient care and secondary uses;

t) **"Information Manager"** has the meaning defined in PHIA;

u) **"Material Breach"** has the meaning as defined in the *Personal Health Information Regulations* under PHIA (O.C. 2011-095);

v) **"Metadata"** means data that provides information about other data, including data descriptions and access rights to systems and documents. Metadata reveals the who, what, where, when, how and a variety of activities associated with data;

w) **"NLHS"** means the Provincial Health Authority, operating as Newfoundland and Labrador Health Services, established under the Act, and who is a signatory to this Agreement;

x) "**NLMA**" means the Newfoundland and Labrador Medical Association, a corporation continued under the *Medical Act,* SNL 2011, c M-4.02;

y) "**Participating Physician**" means a physician who is licensed or registered under the *Medical Act, 2011* to practice medicine and who is a signatory to this Agreement;

z) "**Personal Health Information**" means Personal Health Information as defined in PHIA;

aa) **"*Personal Health Information Act*" ("PHIA")** means the health-sector specific privacy law, proclaimed into force on April 1st, 2011, and as may be amended from time to time, that establishes rules that Custodians and information managers of Personal Health Information must follow when collecting, using and disclosing Personal Health Information;

bb) **"*Primary Accountability*"** means i) in respect of the collection, use, disclosure, transfer, or destruction of EMR Data, the Party that collected, used, disclosed, transferred or destroyed the EMR Data; ii) in respect of a Material Breach involving a health professional or an employee's non- compliance with Applicable Law or applicable privacy and security policies, the Party that employs such employee; iii) in respect of a Material Breach involving a system-wide or IT-related weakness or vulnerability, NLHS; iv) in respect of an accuracy, access to Personal Health Information or request for correction matter, the Party that originally collected or produced the Personal Health Information, and; v) in respect of occurrences which are not described above, a contextual analysis will be conducted to determine the Party with Primary Accountability based on custody or control of the Personal Health Information. Disagreements on Primary Accountability shall be referred to the EMR Management Committee;

cc) "**Professional Services Agreement**" means the contract between EMR Vendor and NLCHI, signed November 2, 2015, and appended to this Agreement as Appendix "C";

dd) "**NLHS EMR Committee"** means an NLHS committee to propose, adopt and evaluate NLHS policies and procedures related to the NLHS EMR. The committee's responsibilities include management of the EMR Data, compliance with this Agreement and for discussion on issues that are of specific concern to the Participating Physicians;

ee) "**NLHS Instance**" means a single unit or occurrence of the EMR software licensed by one or more zones of NLHS, even if that instance is geographically separated;

ff) "**Secondary Use**" has the meaning defined in the MOU;

gg) "**Sharing**" means the disclosure and collection of personal health information.

hh) "**EMR Vendor**" means the solution provider contracted to provide EMR services, a party to the Professional Service Agreement, and information manager for the Participating Physician.

ARTICLE ONE: TERMS AND CONDITIONS

2.0 Purpose

2.1 This Agreement establishes the terms and conditions regarding each Parties involvement in eDOCSNL.

2.2 Upon approval from NLHS, NLHS grants to the Participating Physician a subscription to EMR, as per the EMR Vendor Professional Services Agreement, for purposes including, but not limited to: creating, maintaining, reviewing, and analysing records, and for business and health care practice purposes.

2.3 The Parties acknowledge that this Agreement sets out the terms and conditions for the collection, use and disclosure of Personal Health Information between the Parties for patient care and other authorized uses and disclosures as defined by PHIA, the EMR Management Committee's Information Management Framework and NLHS EMR Policies.

2.4 All NLHS and NLHS EMR policies, manuals or similar documentation are subject to review by the EMR Management Committee, except where this Agreement requires the approval of these documents by the Management Committee.

2.4.1 Where there is a conflict between eDOCSNL, NLHS and NLHS policies that cannot be resolved at the Management Committee, the EMR Executive Committee shall make a final decision.

2.5 NLHS will maintain an eDOCSNL website with up-to-date information on EMR Management Committee approved policies, procedures, training programs, and the EMR Data elements that may be exchanged between the Participating Physician and HEALTHe NL for primary care and between the Participating Physician and NLHS for Secondary Uses. The website address is EMR program website.

2.6 NLHS will work with NLHS and EMR Vendor to supply the Participating Physician with EMR and related EMR Services, and the Participating Physician agrees to acquire the use of EMR and related EMR Services in accordance with and subject to the terms and conditions set out in this Agreement and its appendices.

3.0 Eligibility Criteria

3.1 The Participating Physician represents and warrants that as of the date of Go-Live, and for the term of this Agreement, the Participating Physician:

3.1.1 is a registered and licensed medical practitioner under the *Medical Act, 2011*;

3.1.2 agrees to manage and maintain his/her patients' medical records in EMR; and

a) to use EMR to securely house Personal Health Information necessary in the provision of healthcare; and
b) to purchase the hardware, software and other related equipment required to meet the minimum specifications of EMR Vendor, as provided by EMR Vendor, to connect to EMR Services; and

c) to comply with other criteria as reasonably determined by the EMR Management Committee, and consistent with the purposes of the MOU.

4.0 Fees and Terms of Payment

4.1 If applicable, the Participating Physician shall pay to NLHS the annual subscription fee established in Appendix "F", Newfoundland and Labrador EMR Program Subscription Cost. This annual fee covers the base installation of EMR. Any enhanced functionality purchases by the Physician with the software vendor EMR Vendor will be at the Physician's own costs.

4.2 NLHS will not require the Participating Physician to pay additional annual fees unless approved by the EMR Management Committee.

4.3 Any changes to the fees and terms of payment shall be as approved by the EMR Management Committee.

4.4 If applicable, the Participating Physician is responsible for paying to NLHS the annual subscription fee up to the end of the month in which withdrawal from eDOCSNL takes place.

4.4.1 If a Participating Physician fails to pay the annual subscription fee to NLHS, or have failed to make arranges to pay by May 31st, the Participating Physician's access to EMR will be changed to "View Only" meaning that the Participating Physician will no longer be able to make additions or modifications to patient records, until such time as the account is paid.

4.5 The Participating Physician acknowledges that it is the only authorized user of EMR in accordance with this Agreement.

4.6 The Participating Physician shall give prompt written notice to NLHS and eDOCSNL, of:

4.6.1 any change in circumstances as a result of which the Participating Physician no longer satisfies the Eligibility Criteria as set out in Subsection 3.1; and

4.6.2 any changes in his/her usage of EMR or other factors that may affect the fees payable pursuant to this Agreement.

5.0 Term and Termination

5.1 This Agreement shall come into force upon Go-Live and shall remain in force until:

5.1.1 the Participating Physician provides ninety (90) days' written notice to NLHS that he/she wishes to withdraw from participating in the eDOCSNL program through NLHS;

5.1.2 the Participating Physician provides thirty (30) days' written notice to NLHS that he/she wishes to withdraw from participating in the eDOCSNL program in

accordance with Sub-section 10.9 hereof as a result of NLHS's use or disclosure of EMR Data that is inconsistent with the Information Management Framework; or

5.1.3 the Participating Physician no longer meets the Eligibility Criteria at Article 3 at which time NLHS may terminate this Agreement within 90 days according to the policies of the EMR Management Committee and NLHS policy. NLHS will arrange for the Physician to have access to his/her records in accordance with the EMR Management Committee Policy.

5.2 If the Participating Physician no longer meets the Eligibility Criteria in Clause 3.1.1, NLHS may terminate this Agreement effective immediately upon notification from the College of Physicians and Surgeons of Newfoundland and Labrador.

5.3 NLHS must provide ninety (90) days' written notice to the Participating Physician that it intends to withdraw from the eDOCSNL program, upon such circumstances and within such timeframes as may be deemed necessary by NLHS in accordance with EMR Management Committee policy.

5.4 If either Party breaches any other obligations under this Agreement and has not resolved such breach within thirty (30) business days of being provided with a written notice thereof, then either Party may terminate this Agreement immediately, upon providing written notice of termination to the other Party.

6.0 Withdrawal by Participating Physician from the NLHS EMR Instance

6.1 The Participating Physician acknowledges that upon the effective date of withdrawal from participation in eDOCSNL, they will no longer be entitled to access, use or disclose EMR Data using EMR.

6.2 The Participating Physician acknowledges that they may request from NLHS a copy of the patient records for which the Participating Physician is recorded as the Primary Provider in EMR and shall be entitled to receive these records and the accompanying audit logs in accordance with Article 24 *Data Export*, and the policies of the EMR Management Committee.

6.3 Where the Participating Physician is closing a practice, the physician is responsible for meeting all requirements of the College of Physicians and Surgeons of Newfoundland and Labrador for the closing of a practice.

6.4 The Participating Physician acknowledges that in the event they withdraw from participation in eDOCSNL without written notice to the NLHS EMR Administrator, regardless whether such withdrawal arises because of death, abandonment, or other circumstances, the Participating Physician's EMR Data shall be managed in accordance with PHIA. If the Participating Physician has not appointed a Custodian or personal representative, then NLHS shall assume responsibility for the EMR Data and notify the applicable regulatory body governing the Participating Physician's professional practice license or registration.

6.5 Where the Participating Physician may withdraw from using the NLHS EMR to use another EMR, Articles 7.1 and 7.2 will be followed by the Parties. The Parties will engage EMR Vendor to ensure the data integrity in the transfer of the EMR Data to the other EMR.

7.0 Implementation of EMR

7.1 Under the direction of the EMR Management Committee and as deemed applicable in the Professional Services Agreement, eDOCSNL and NLHS agree to provide, and the Participating Physician agrees to participate in, implementation services including an expression of interest meeting (if applicable), orientation site visit(s), readiness assessment(s), development and execution of a site implementation plan, data conversion review(s) (if applicable), EMR user training, privacy awareness, Go-Live review, and a post Go-Live advanced training day (commonly referred to as “Day 3 Training”) (or put in the definitions above).

7.2 The Participating Physician shall avail of implementation and other EMR Services made available to them.

7.3 The Participating Physician agrees to comply with any applicable access protocols for HEALTHe NL and other health information systems via EMR that are communicated by NLHS after they have been reviewed by the EMR Management Committee,

7.4 The Participating Physician shall adopt EMR Solution Releases, provided by NLHS and EMR Vendor, as long as these releases are provided at no additional cost to the Participating Physician and are consistent with EMR Management Committee policy.

7.5 Should there be a cost associated with a required upgrade to hardware or software due to an EMR Solution Release, eDOCSNL will provide 12 months’ notice of the expected expenditure, which shall be the responsibility of the Participating Physician. The EMR Management Committee may approve a shorter notice period if circumstances warrant.

7.6 The Participating Physician shall participate, and require agents and contractors to participate, in any required user training provided by eDOCSNL or EMR Vendor and authorized by the EMR Management Committee in relation to such releases, to be held at a mutually agreeable time.

7.7 eDOCSNL and NLHS will make available reasonable support to assist the Participating Physician with the adoption and achievement of mature use of the EMR.

7.8 If NLHS requires the Participating Physician to purchase hardware that exceeds the requirements referenced in Clause 3.1.2 b) NLHS will be responsible for the incremental cost.

7.9 The Participating Physician is responsible for the entry of their own patients’ information into EMR. NLHS will not require the Participating Physician to collect more data than the information the Participating Physician considers necessary, is required by CPSNL, or approved by the EMR Management Committee.

7.10 Where NLHS identifies care plans, dashboards and other tools or new features for the EMR that it wishes the Participating Physician to use, it will provide the necessary training and information to the Physician. Physicians are not under an obligation to use the new tools and features unless the change is approved by the EMR Management Committee.

ARTICLE TWO: INFORMATION SHARING AND MANAGEMENT OF EMR DATA

8.0 Custodians and Information Manager

8.1 The Parties agree that they are simultaneous Custodians of the Personal Health Information in the NLHS EMR. The Parties agree that PHIA custodial responsibilities are a shared responsibility and decisions regarding the privacy and security of the Personal Health Information in the NLHS EMR must be made at the NLHS EMR Committee.

8.2 If either Party enters into an eDOCSNL Participation Agreement with an individual or organization that is not a Custodian the other Parties must be engaged in the decision to include non-Custodians in the NLHS instance.

8.3 The Participating Physician has Primary Accountability for the Personal Health Information collected, used and disclosed during the patient encounter with the Participating Physician, including all necessary related accesses, uses, and disclosure.

8.4 NLHS has Primary Accountability for the Personal Health Information collected, used and disclosed by its employees, agents, and contractors during the patient encounter, including all necessary related accesses, uses, and disclosures.

8.5 NLHS has Primary Accountability for EMR Data when in storage at EMR Vendor, including when in transit to and from the Participating Physician and EMR Vendor.

8.6 NLHS will not restrict the Participating Physician's access to Personal Health Information the Participating Physician has collected, and for which NLHS is the Custodian while in storage, unless directed by the applicable regulatory body governing the Participating Physician's professional practice license or registration or in accordance with a policy of NLHS that has been approved by the EMR Management Committee.

8.7 NLHS is the Custodian for EMR Data disclosed to NLHS by the Participating Physician and when that data resides with NLHS, including when in transit from EMR Vendor to NLHS.

8.8 EMR Vendor agrees to be the Participating Physician's information manager and has executed in satisfaction of PHIA s. 22 the Information Management Statement appended hereto as Appendix "E".

8.9 NLHS and the Participating Physicians using the NLHS EMR agree to establish a NLHS EMR Committee as outlined in (ee) of the Definitions for ongoing consultation on care plans, flowsheets, user support, upgrades, compliance with this Agreement and the *NLHS eDOCSNL Participation Agreement*, information governance, and issues that affect service

levels and efficiencies of the NLHS EMR. Others may participate in the NLHS EMR Committee as agreed to by the Committee members.

8.9.1 The Committee will be convened quarterly, or more often as necessary, at a time and place convenient for the members.

9.0 Sharing of EMR Data for Direct Patient Care

9.1 The Parties acknowledge that this Agreement establishes the general terms and conditions for the collection, use and disclosure of Personal Health Information for the purposes of the delivery of health care services within the Circle of Care for direct patient care.

9.2 The Parties acknowledge that to support patient care and the sharing of Personal Health Information within the Circle of Care, Personal Health Information will flow from HEALTHe NL and other appropriate health information systems to the EMR, and from the EMR to HEALTHe NL and other appropriate health information systems in accordance with PHIA, the Act and as approved by the EMR Management Committee and in accordance with the Information Management Framework.

9.3 The Parties agree that Personal Health Information from EMR and HEALTHe NL will be exchanged on an ongoing basis for the duration of this Agreement, until the Agreement is terminated in accordance with Article 6 (Termination) or Article 7 (Withdrawal).

9.4 The NLHS EMR Committee will deliberate and advise NLHS on the scope of the Circle of Care in relation to the shared patient record in EMR, including defining access by user roles and/or specific authorized users.

10.0 Sharing of EMR Data for Secondary and Other Uses

10.1 The Parties acknowledge that this Agreement also establishes the general terms and conditions for the collection, use and disclosure of EMR Data for other authorized uses, including Secondary Uses.

10.2 The EMR Management Committee has approved an Information Management Framework for the use and disclosure of EMR Data which specifies the data elements to be disclosed, the purposes, and any appropriate limitations on use of the data. The Information Management Framework is included in Appendix B.

10.3 Access to data for Secondary Uses by NLHS, the Participating Physician or NLHS will be in compliance with the Information Management Framework.

10.4 In its role as Custodian of EMR Data, NLHS may use and disclose EMR Data collected by the Participating Physician in accordance with the Information Management Framework.

10.5 NLHS shall implement policies and procedures on the collection, use and disclosure of EMR Data that have been approved by the EMR Management Committee. These policies will be available on the EMR program website.

10.6 NLHS will not use EMR Data to monitor or evaluate the Participating Physician's practice without the Physician's specific consent for the proposed activity or as provided for in the Information Management Framework.

10.7 NLHS and the DHCS have agreed and reaffirm their intent and commitment to only use and disclose EMR Data in accordance with legislation and the processes and procedures noted in this document and the Information Management Framework, and that EMR Data will be used for Physician-identifying activities only when other data sources cannot provide the necessary information.

10.8 In the event that a request for EMR Data is received from any person or organization that is inconsistent with the processes and procedures in the Information Management Framework, NLHS will advise the requestor of this inconsistency and will not disclose the data. If NLHS receives such a request and believes it is legally compelled to disclose the EMR Data, it will make best efforts to notify the affected Physicians prior to, or if prior notification is impossible at the time of, disclosure. Where prior or simultaneous notice is not possible, NLHS will notify the affected Physician within two business days.

10.9 If NLHS uses or discloses EMR Data in a manner that is inconsistent with the Information Management Framework, the Participating Physician may provide thirty (30) days' written notice of his/her intention to withdraw from eDOCSNL. Working with the NLMA, the affected Physicians will instruct NLHS regarding the timing and arrangements for transition of EMR Data to a new instance, NLHS will facilitate the transition at no cost to the affected Physicians. The NLMA on behalf of affected fee for service Physicians, will notify the Newfoundland and Labrador Office of the Information and Privacy Commissioner of this use or disclosure by NLHS that is inconsistent with the Information Management Framework.

11.0 Privacy and Security Obligations

11.1 The Parties shall protect the privacy and confidentiality of the EMR Data in compliance with PHIA.

11.2 The Participating Physician shall develop, adapt or adopt policies and procedures consistent with the eDOCSNL Physician Privacy and Security Resources (Appendix D) available at the EMR program website and as may be updated from time to time by the EMR Management Committee and the policies of NLHS. Such policies shall include, but, not be limited to:

11.2.1 Explicit requirements for all contractors and agents of the Participating Physician to comply with PHIA and all other applicable provincial and federal privacy legislation;

11.2.2 Maintenance of appropriate hardware and software including robust, up-to-date antivirus, malware protection and firewalls, as well as a commitment to promptly protect any hardware or software with known security vulnerabilities. Where

appropriate, this includes the removal of software with known security or privacy vulnerabilities;

11.2.3 Provisions to ensure the confidentiality of all passwords and ensure that each EMR account is used only by one Authorized User.

11.3 NLHS will implement appropriate measures to support ongoing adherence with privacy and security policies by all Parties. Any such policies that involve the Participating Physician's use of EMR or clinic operations will be subject to approval by the EMR Management Committee.

11.4 The Participating Physician is permitted to convey patient consent directives and other instructions to mark some or all of a patient's record confidential using the available processes in EMR, and NLHS and all other users will honour these directions.

11.5 The Participating Physician and NLHS are responsible for the actions of their Authorized Users and for the content of the Personal Health Information entered in EMR.

11.6 The Participating Physician shall require all Authorized Users and other agents who have access to EMR Data to sign a privacy and confidentiality agreement, a sample of which is included in the eDOCSNL Privacy Resources, and as required by PHIA.

11.7 NLHS shall require all Authorized Users and other agents who have access to EMR Data to sign a privacy and confidentiality agreement as required by PHIA.

11.8 The Participating Physician and his/her Authorized Users are responsible for signing the NLHS EMR User Access Agreement if requested by NLHS and renewing it in accordance with NLHS policies.

11.9 All parties agree to comply with, and cause all employees, contractors and agents to comply with PHIA and all other applicable provincial and federal privacy legislation.

11.10 The Parties agree that nothing in this Agreement will be interpreted as permitting a use, disclosure or other treatment of EMR Data that would in any matter contravene the terms of PHIA.

12.0 Retention and Disposition of Data

12.1 The following provisions shall govern the retention and disposition of Personal Health Information:

12.1.1 Both the Participating Physician and NLHS acknowledge that they are simultaneously responsible for the proper retention and disposition of Personal Health Information within their care. Such action will be in accordance with PHIA, the *Management Information Act*, any applicable legislation, regulations, guidance, Bylaws or similar issued by the applicable regulatory body governing the Participating Physician's professional practice license or registration and the direction of the EMR Management Committee.

12.1.2 NLHS warrants, through the Professional Services Agreement, that no Personal Health Information acquired or managed by the EMR Vendor shall be stored or possessed outside of Canada.

12.1.3 The Parties acknowledge that any copies of the Personal Health Information created and designated by EMR Vendor as a backup shall only be used for disaster recovery and business continuity purposes. Handling of such data shall be governed by the terms and conditions set out in the Professional Services Agreement, along with any policies established by the EMR Management Committee.

13.0 Privacy and Security Breaches

13.1 In the event of a breach within the Participating Physician's use of EMR, where a breach is an unauthorized use or disclosure of Personal Health Information, the Participating Physician is responsible for promptly taking reasonable steps to contain the breach, investigate and analyze the breach, notify the appropriate people or organizations of the breach, and take steps to prevent a recurrence of the event. The Participating Physician must notify NLHS if the breach occurred in a record for which the recorded primary provider is NLHS.

13.2 In the event of a breach within NLHS's use of EMR, where a breach is an unauthorized use or disclosure of Personal Health Information, NLHS is responsible for promptly taking reasonable steps to contain the breach, investigate and analyze the breach, notify the appropriate people, including NLHS and the Participating Physician, and take steps to prevent a recurrence of the event. NLHS must notify the Participating Physician if the breach occurred in a record for which the recorded primary provider is the Participating Physician.

13.3 If the Participating Physician reasonably believes that there has been a Material Breach involving the unauthorized collection, use, or disclosure of EMR Data in EMR, as defined in PHIA and its Regulations, the Party with Primary Accountability must notify the Office of the Information and Privacy Commissioner. The Participating Physician must promptly notify NLHS by email at: securityalerts@nlchi.nl.ca and privacy@nlhealthservices.ca.

13.4 The Participating Physician is encouraged to seek advice from NLHS for any breach, regardless if the breach occurred in EMR.

13.5 NLHS must notify the Participating Physician of a Material Breach of the Participating Physician's EMR Data in HEALTHe NL or from Analytic Data Holdings and shall provide the Participating Physician with complete details of the breach.

13.6 The Participating Physician shall work with NLHS to determine who is responsible for notifying the patient of a breach of their Personal Health Information where the Participating Physician is recorded as the primary Physician and the breach occurs in EMR or the EMR Vendor's data holdings.

13.7 NLHS is responsible for notifying the patient of a breach of their Personal Health Information when the primary provider recorded in the patient's chart is an employee or agent of NLHS.

13.8 NLHS is responsible for notifying the patient of a breach of their Personal Health Information if the breach occurred in HEALTHe NL or in the Analytic Data Holdings.

14.0 Privacy and Security Auditing

14.1 As per 11.2, the Participating Physician must develop, adapt or adopt a policy and procedure consistent with the policies of NLHS and the eDOCSNL Physician Privacy and Security Resources regarding privacy and security auditing.

14.2 The Participating Physician shall conduct regular random privacy and security audits of patient records.

14.3 The Participating Physician shall notify NLHS of any suspected unauthorized access by a NLHS employee or agent.

14.4 The Participating Physician authorizes NLHS to conduct privacy and security audits according to NLHS policy. NLHS policy requires that random audits be conducted on patient charts and by individual users. NLHS will notify the Participating Physician of any inappropriate access involving an agent or contractor of the Participating Physician or a patient where the Participating Physician is the primary provider. These audits are for privacy and security purposes. There is no audit of Physician activity outside of access to a record.

15.0 NLHS Audits

15.1 The EMR Management Committee will approve by policy the ability for NLHS to conduct an audit or assessment of NLHS's EMR for issues that may compromise the EMR Data in EMR or HEALTHe NL.

15.2 NLHS acknowledge that the NLMA may, on the request of one or more Physicians, audit the privacy and security practices of NLHS with respect to the EMR Program and the access to EMR Data by NLHS employees or agents.

15.3 NLHS is responsible for auditing the privacy and security practices of EMR Vendor and the access to EMR by EMR Vendor and its agents, as documented in the Professional Services Agreement. NLHS will report to the EMR Management Committee on all audit activities related to EMR Vendor.

16.0 Other Requirements

16.1 The Participating Physician acknowledges that NLHS is not responsible for any contracts, agreements, or any other legally binding document(s) that a Participating Physician may

have with a third party which provides internet or telecommunication network connection necessary to access EMR Services.

16.2 Pursuant to Article 1.18 of the Professional Services Agreement, the Participating Physician acknowledges that the Professional Services Agreement authorizes EMR Vendor to conduct investigations and/or audits of NLHS's operations and records, including those of the Participating Physician, but only to the extent that these relate to the EMR Services. The Participating Physician is required to cooperate with EMR Vendor in the investigations and audits. EMR Vendor shall use reasonable efforts to minimize disruption to the Participating Physician.

16.2.1 The EMR Management Committee may approve access to the Participating Physician's EMR Data without the Participating Physician's consent for the purposes of determining if the accuracy of the EMR Data has been compromised by an EMR Service.

16.3 With reasonable notice the Participating Physician will cooperate with NLHS's conduct of an audit of NLHS's EMR to assess configurations and/or implementation of technical controls to ensure EMR is maintained at an appropriate, secure level within the parameters established in EMR Management Committee policy. NLHS will also notify NLHS and the Participating Physician when they are conducting an audit.

17.0 Program Improvement

17.1 The Participating Physician agrees to respond to requests from NLHS about his/her usage and the perceived benefits of participating in eDOCSNL at the times and in a manner designated by the EMR Management Committee.

18.0 Accuracy and Integrity

18.1 The Participating Physician and NLHS agree that, before using or disclosing EMR Data that is in their custody or under their control, they will make reasonable efforts to ensure the accuracy and completeness of the EMR Data and all other provisions as required by PHIA.

18.1.1 Where possible the Participating Physician and NLHS will provide information on the limitations, if any, on the accuracy, completeness or up-to-date character of the information.

19.0 Patient Notice, Access and Correction

19.1 The Participating Physician and NLHS shall be responsible for providing information to patients about EMR and the sharing of Personal Health Information.

19.2 NLHS shall provide the Participating Physician with material to be used to inform patients of their participation in the NLHS EMR.

19.3 Access to Personal Health Information and correction requests will be processed by the Party that has Primary Accountability for the Personal Health Information.

19.4 Should the Party that receives the access or correction request not be the Party with Primary Accountability for the Personal Health Information, the first Party shall transfer the request to the secondary Party accordingly. Should several Parties be involved, they will work collaboratively together to coordinate their responses to the request.

19.5 Records, or parts of records, marked as "Confidential" may only be provided to the patient by the Participating Physician or NLHS who marked the record, or part of it, as being confidential.

ARTICLE THREE: INFORMATION MANAGEMENT SERVICES

20.0 NLHS's Responsibilities for Protection and Security of EMR Data

NLHS warrants, that in accordance with the terms and conditions of the Professional Service Agreement, the following shall apply:

20.1 EMR Vendor, as Information Manager for the NLHS EMR, protects the EMR Data in storage and from the point where it enters EMR Vendor's system.

20.2 EMR Vendor, its employees, subcontractors and agents have a duty to protect the EMR Data at a standard that must be, at a minimum, equal to that of NLHS and the Participating Physician's obligations in section 15 of PHIA. To achieve this, EMR Vendor has committed to:

20.2.1 Limit access to the EMR Data to only those employees, subcontractors or agents of EMR Vendor who require that access in order to provide the EMR Services;

20.2.2 Implement appropriate hardware, software and/or procedural mechanisms wherever possible to create a secure audit log that records a user identifier for each time its employees, subcontractor and agents' access, print, examine or otherwise interact with EMR Data in EMR. Where such audit capabilities cannot be fully implemented, reasonable alternative access control monitoring mechanisms will be implemented and reported to the EMR Management Committee.

20.2.3 Not modify or alter the EMR Data unless that is required as part of the EMR Services and only on the written instructions of the Participating Physician;

20.2.4 Ensure that its employees, subcontractors and agents who may have access to EMR Data are provided with privacy training that informs them of the need to fulfill the privacy obligations of PHIA and other applicable legislation.

20.2.5 Ensure that its employees, subcontractors and agents sign a non-disclosure agreement with EMR Vendor; and

20.2.6 Immediately notify the Participating Physician in writing if EMR Vendor or its employees, subcontractors or agents become aware that any of the conditions set out in this Agreement have been breached.

21.0 Compliance with the Professional Services Agreements between EMR Vendor and NLHS

21.1 The Participating Physician agrees, in so far as the Professional Services Agreement imposes limits, obligations, or restrictions on the Participating Physician, to be bound by the relevant provisions in the Professional Services Agreement, attached hereto as Appendix "C".

22.0 NLHS EMR Support Levels

22.1 The first point of contact for assistance with EMR for the Participating Physician is the NLHS Service Desk to request assistance and/or information.

22.2 The NLHS Service Desk will provide EMR support to Participating Physicians. NLHS Service Desk staff will resolve the issue or determine the next steps when required. The NLHS Service Desk may require assistance from other NLHS staff members, or from EMR Vendor.

23.0 EMR Vendor Maintenance of EMR Solution

23.1 EMR Solution maintenance and service expectations of the EMR Vendor will be as detailed in the contract between NLHS and the EMR Vendor and included as an appendix to this document.

24.0 NLHS and Participating Physician are allocated storage in the EMR Vendor's data holdings. NLHS, through actions approved by the EMR Management Committee, will take the necessary action to ensure alignment between the system's storage capacity and the RHA and Participating Physician's storage needs.

25.0 Data Export upon Termination of this Agreement and/or Withdrawal from the eDOCSNL Program

25.1 If requested by the Participating Physician and subject to payment of a reasonable fee set by eDOCSNL, the EMR Vendor will release to the Participating Physician, or person designated in writing by the Participating Physician, the Participating Physician's EMR Data. The Participating Physician will provide in writing the format and manner in which the Participating Physician's EMR Data is to be transferred to the Participating Physician or another custodian or person as required by PHIA S. 4(3). Options for data export will

be determined between NLHS and the EMR Vendor and approved by the EMR Management Committee. The available options for data transfer for the custodian are available in the Contract which is attached as an appendix to this document.

25.2 If the Participating Physician provides no direction to EMR Vendor or NLHS on how to receive a copy of the EMR Data, NLHS will work with the Participating Physician to address custodianship of the records.

ARTICLE FOUR: ADDITIONAL TERMS

26.0 Intellectual Property Rights

26.1 The Participating Physician shall not, and shall not permit his/her agents or contractors who are Authorized Users to, directly or indirectly;

26.1.1 Reverse engineer, decompile, disassemble or otherwise attempt to discover the source code or underlying ideas or algorithms of the EMR Services;

26.1.2 Modify, translate or create derivative works based on the EMR Services;

26.1.3 Rent, lease, distribute, sell, resell, assign or otherwise transfer rights to the EMR Services; or,

26.1.4 Remove any proprietary notices from EMR.

26.2 The Parties acknowledge and agree that:

26.2.1 NLHS, and EMR Vendor, or its licensor, is the owner of all Intellectual Property Rights created by NLHS, and EMR Vendor, or its licensor, in the EMR, including any written materials, logos, trademarks, trade names, copyright, patents, trade secrets, and moral rights, registered or unregistered but not including EMR Data; and

26.2.2 No proprietary interests or title in or to the intellectual property in EMR, as identified in Clause 26.2.1, above, is transferred to the Participating Physician by virtue of this Agreement.

26.2.3 EMR Vendor and its partners or its licensors retain the exclusive ownership of all Intellectual Property Rights created in and to the EMR Services, whether or not developed in conjunction with NLHS, a Participating Physician, or an Authorized User, excepting only those methodologies, processes, or any other modifications to components, other than the EMR Services, that are for the sole purpose of the use by NLHS, the Participating Physician or Authorized User of the EMR Services, which will remain the Intellectual Property of NLHS, the Participating Physician, or the Authorized User, respectively.

26.2.4 In the event NLHS or an authorized user develops methodologies, processes or any modification to components other than the EMR services that are for the

purpose of NLHS' or its authorized users use of the EMR services (and therefore not part of the EMR services), then such processes, methodologies or modifications shall remain the property of NLHS or Authorized users as applicable to the extent such methodologies, processes or modifications are not covered by Subsection 5.1 above and are not to be used, copied or distributed without written permission from NLHS. Notwithstanding any of the foregoing, any third party materials adapted for use in the EMR environment are for the use of NLHS and its authorized users only and are not to be used, copied or distributed by the Contractor without written permission from NLHS or the applicable third party.

26.3 Intellectual Property Rights which may be developed or created by the Participating Physician, or otherwise enuring to the Participation Physician, either before, during, or after the currency of this Agreement, either registered or unregistered, that are created by the Participating Physician, shall remain the exclusive property of the Participating Physician.

26.4 NLHS acknowledges and agrees that no property interests or title in or to the intellectual property created by the Participating Physician is transferred, licensed, sold, or given to NLHS or EMR Vendor by virtue of this Agreement.

26.5 NLHS will in no way impede, fetter, or frustrate the Participating Physician's access to, or use, reproduction, licensure, or sale of, his or her Intellectual Property, including any property located or stored in EMR.

26.6 Notwithstanding article 26.5, the Participating Physician shall not sell EMR Data, or cause EMR Data to be sold, to third parties.

26.7 For the purposes of further clarity, the Parties acknowledge and agree that no intellectual property interest is created in the EMR Data.

27.0 Notices

27.1 All notices, requests, claims, demands and other communications hereunder shall be in writing and will be effective if given:

a) by delivery in person;
b) by first class or registered mail, postage prepaid; or
c) by electronic mail, to the address of the Party specified in this Agreement, or to such other address as either Party may specify by notice to the other Party. Notices so given will be effective upon receipt by the Party to which notice is given.

27.2 NLHS, the Participating Physician, and NLHS addresses for service are as follows:

Participating Physician:

Name:

Address:

Phone:

Fax:

Email:

For NLHS:

Name:	Fred Melindy, Program Director, eDOCSNL
Address:	70 O'Leary Avenue, St. John's, NL
Phone:	709- 752-6000
Email:	info@edocsnl.ca

28.0 Dispute Resolution

28.1 The Parties will use all reasonable efforts to, promptly and in a professional and amicable manner, resolve disputes arising out of, or in connection with this Agreement.

28.2 Any dispute that remains unresolved after ten (10) business days shall be referred to the EMR Management Committee established under the MOU for resolution, with the Participating Physician and other Parties permitted to make representations to the EMR Management Committee.

28.3. Following the dispute resolution mechanism of the EMR Management Committee as defined in the MOU, disputes that cannot be resolved by the Management Committee will be referred to the EMR Executive Committee for consideration.

29.0 Representations, Warranties, Indemnities and Limitations of Liability

29.1 NLHS does not promise any particular result from the installation, implementation or use of the EMR and no representation or warranty is given in this regard.

29.2 NLHS indemnifies and holds the Participating Physician harmless from any claims, damages and losses arising out of the performance of this Agreement, including, without limitation, any and all claims, damages and losses arising out of the unauthorized disclosure of EMR Data, except to the degree that such claims, damages and losses were caused or contributed to by the Participating Physician.

29.3 The Participating Physician indemnifies and holds NLHS harmless from any claims, damages and losses arising out of the Participating Physician's performance of this Agreement, including, without limitation, any and all claims, damages and losses arising

out of the unauthorized disclosure of EMR Data except to the degree that such claims, damages and losses were caused or contributed to by NLHS.

29.4 Except as set out in this Agreement, any services or advice provided by NLHS pursuant to this Agreement are provided "as is" without any warranty, condition, guarantee or representation of any kind whatsoever, express or implied, statutory or otherwise. The Participating Physician acknowledges that the selection of EMR by NLHS, NLMA and HCS as Parties to the MOU does not constitute a representation or warranty as to the fitness for any particular purpose of EMR.

29.5 Notwithstanding any other provision in this Agreement, with the exception of, and being subject to, the indemnity provisions contained in Subsection 29.2 and 29.3 herein, the liability of each Party arising out of or in connection with this Agreement, whether in contract or in tort (including negligence), is limited to the amount paid by the Participating Physician for ongoing maintenance and support as listed in Appendix A in the one-year period prior to the date of the occurrence giving rise to the claim; and in no event will either Party be liable to the other for loss of revenue, loss of profits or loss of use, or for any indirect, incidental or consequential damages, even if such Party has been advised of the possibility of such damages. Nothing in this Section is to be interpreted as precluding remedies which may be otherwise available in equity.

29.6 The Parties agree that the party which has suffered or would suffer by the breach of this Agreement by the other may, subject to applicable law, be entitled to immediate equitable relief, including injunction and specific performance, as remedies for any such breach. Such remedies shall, subject to applicable law, not be deemed to be the exclusive remedies available for any such breach but shall be in addition to all other remedies available at law or in equity. By entering into this Agreement, the Parties are not waiving any rights or obligations owed to third parties which they may have pursuant to applicable law.

30.0 Force Majeure

30.1 Neither Party shall be liable for any delay or failure to perform under this Agreement if such delay or failure is due to any contingency, excluding financial inability, beyond its reasonable control and which it could not reasonably have foreseen and provided against. The Party experiencing any delay or failure as a result of any such contingency shall:

30.1.1 provide prompt written notice thereof to the other Party; and

30.1.2 use commercially reasonable efforts to remedy the delay or failure in a manner which minimizes the disruption to the other Party.

31.0 General Provisions

31.1 In this Agreement, unless a contrary intention appears in context, or express provisions of this Agreement provide otherwise, (i) words importing the singular include the plural and vice versa, and words importing a particular gender include all genders, (ii) the word "including" means "including without limitation", (iii) where a period of time is specified, dated or calculated from a date or event, such period will be calculated excluding such

date or the date on which such event occurs, as the case may be, and (iv) titles are for convenience of reference and do not affect the interpretation of the Agreement. Any rule of construction to the effect that ambiguity is to be resolved against the drafting party shall not apply to the interpretation of this Agreement.

31.2 The Parties agree to execute such further documents as may reasonably be required to give effect to this Agreement.

31.3 The provisions of this Agreement are severable and if any part of this Agreement is found to be unenforceable, the remainder of the Agreement will not be affected and will remain valid and in effect.

31.4 The Participating Physician shall not assign this Agreement.

31.5 This Agreement may be amended only by agreement of the Parties in writing.

31.6 his Agreement, including those documents referenced in the recitals hereof and the Appendices attached hereto, represent the complete and exclusive, is the complete and exclusive statement of the agreement between the Parties regarding the subject matter hereof, superseding all information published anywhere and all other communications between the Parties relating to such subject matter, including any Subscription Form or other document previously signed by the Participating Physician.

31.7 This Agreement may be executed and delivered in counterparts and in original or facsimile or other electronic form, and all such counterparts together will constitute one and the same instrument.

31.8 This Agreement is binding upon and endures to the benefit of the Parties and his/her respective heirs, executors, administrators, successors and permitted assigns.

31.9 Sections 9, 10, 11, 12, 14, 20, 21, 26, 28, 29 and 31.9 survive this agreement.

AGREED AND EXECUTED by the Parties and effective as of the Effective Date.

THE PARTICIPATING PHYSICIAN:

_____
Print Name

_____
Signature

_____
Office Address

_____
City, Province, Postal Code

_____
Phone Number

_____
Email Address

NLHS:

_____
Print Name

_____
Signature

_____
Office Address

_____
City, Province, Postal Code

_____
Phone Number

_____
Email Address

Appendix "A": Electronic Medical Record Memorandum of Understanding, October 2015

Memorandum of Understanding ("MOU") re: Electronic Medical Records Program

This Agreement made effective the 30th day of October 2015 (the "Effective Date").

BETWEEN: **HER MAJESTY IN RIGHT OF NEWFOUNDLAND AND LABRADOR** as represented by the Minister of **Department of Health and Community Services ("HCS").**

AND: **NEWFOUNDLAND AND LABRADOR MEDICAL ASSOCIATION ("NLMA") as represented by the President of the NLMA.**

AND: **NEWFOUNDLAND AND LABRADOR CENTRE FOR HEALTH INFORMATION ("NLCHI") as represented by the Board Chair of NLCHI.**

WHEREAS HCS and the NLMA both desire to implement a sustainable Electronic Medical Record Program (the "EMR Program") for the purpose of improving collaboration and information sharing between physicians and other healthcare providers, improving the overall quality of care, enhancing the overall capability for patient safety within healthcare, providing the means for physicians to improve clinical efficiencies, and providing health information to inform future health planning and policy development;

AND WHEREAS the NLMA is the association representing the interests of participating physicians of Newfoundland and Labrador;

AND WHEREAS NLCHI is responsible for implementing and operating the Provincial components of the EMR solution and establishing and maintaining links to relevant Electronic Health Record (EHR) systems and information;

AND WHEREAS HCS is responsible for the capital cost of the EMR Project;

NOW THEREFORE THIS AGREEMENT WITNESSES that in consideration of the mutual covenants expressed, and as amended, the parties agree as follows:

Definitions

"Agreement" means this Agreement, including all Schedules hereto.

"Anonymized information" means information that does not identify a person and for which it is reasonably foreseeable in the circumstances that it could not be utilized, either alone or together with other information, to identify an individual (see *Personal Health Information Act*, ss.5(5)).

"Consensus" means general agreement, characterized by the absence of sustained opposition to substantial issues by any of the voting members of the EMR Management Committee and by a process that involves seeking to take into account the views of all voting members and to reconcile any conflicting arguments. Consensus does not require unanimity.

"EHR" means *electronic health record*, a secure and private lifetime record of an individual's key health history and care within the health system. The record is available electronically to authorized healthcare providers and the individual in support of high quality care.

"EMR" means *electronic medical record*, a secure, computer-based patient record system that provides a collection of patient information, including, but not limited to, medical history, conditions, medications, immunizations, and allergies. It is sometimes extended to include other functions, such as order entry for medications and tests. EMR is a part of the EHR.

"EMR Solution" means the technical component of the EMR Program. It includes provincially approved EMR hardware, software, and other related information technology products supplied by the approved vendor(s), as selected through the EMR Request for Proposal process.

"EMR Program" means the development and implementation of an EMR system(s) for participating physicians in Newfoundland and Labrador. The EMR Program includes the EMR Solution and its implementation and ongoing support. The parties to this Agreement may consent to the expansion of the EMR Program to other health professionals in the interest of supporting Primary Health Care and appropriate inclusion within the circle-of-care.

"Executive Committee" means the executive–level Committee responsible for providing overall guidance, management, and decision making on strategic issues related to the EMR Program. Membership is comprised of the Deputy Minister of HCS, Executive Director of the NLMA, and the President and Chief Executive Officer of NLCHI, or their designate(s).

"Management Committee" means the Committee responsible for providing ongoing advice, guidance and direction related to the ongoing management of the EMR Program.

"Minister" means the Minister of Health and Community Services.

"Participating Physician" means an individual physician who has signed the appropriate EMR Program enrolment documentation that confirms his/her agreement with the terms and conditions including those set out in this MOU.

"Personal Health Information" means personal health information as defined in the *Personal Health Information Act.*

"Personal Health Information Act" means the health-sector specific privacy law, proclaimed into force on April 1st, 2011, and as may be amended from time to time, that establishes rules that custodians of personal health information must follow when collecting, using and disclosing personal health information. *The Personal Health Information Act* also sets out the rights of each resident of Newfoundland and Labrador

regarding obtaining access to and exercising control of his/her personal health information. A copy of the *Personal Health Information Act* can be found at: http://assembly.nl.ca/Legislation/sr/statutes/p07-01.htm

"Program Director" means the person responsible for managing the EMR Program.

"Secondary Use" means the use of health information for purposes such as health system planning, management, quality control, public health monitoring, program evaluation, research, and teaching and education. Health information is often "de-identified" or "anonymized" before it is used for secondary purposes.

OBJECTIVE

The objective of this Agreement is to establish a framework that will govern the implementation and management of a provincial EMR Program in Newfoundland and Labrador.

ARTICLE 1: EMR Program

1.1 Description of the EMR Program

a) HCS, the NLMA, and NLCHI shall work together to create an EMR Program in Newfoundland and Labrador. This collaboration encompasses the management, funding, and approval of an EMR Program to ensure appropriate and cost-effective:
   i) implementation, adoption and use of EMRs in Participating Physicians' offices;
   ii) implementation and setup of the EMR Solution at NLCHI's offices or other designated data centre site(s);
   iii) upgrades and connections to EMRs to ensure interoperability with the appropriate healthcare systems available in Newfoundland and Labrador now and in the future;
   iv) achievement of increased clinical value for participating physicians and patients through the advanced use of EMRs;
   v) provision of information for health planning; and
   vi) support for Participating Physicians in their use of EMRs.

1.2 The Mandate of the EMR Program

a) The EMR Program will facilitate the adoption by Participating Physicians of an EMR system for their practices by providing EMR-specific support and advice including:
   i) EMR advice, training, and change management services for Participating Physicians and their staff;
   ii) advisory services regarding the purchase by Participating Physicians of suitable hardware and software packages as it relates to the EMR Solution;
   iii) advisory services for the implementation of secure, high speed networks for Participating Physicians' offices;
   iv) access by Participating Physicians to the EMR Solution; and

v) access by Participating Physicians to the full range of information within the EHR as the appropriate connections become available.

b) The EMR Program shall actively promote the use by Participating Physicians of EMRs as the principal method of record keeping for patient/clinical records in their offices.

c) Following vendor selection, the EMR Program will be implemented by the EMR Program Director and NLCHI.

1.3 Establishment of the EMR Program and Program Office

a) The EMR Program shall be governed by the Management Committee, as further described in Article 3.

b) The EMR Program will be managed by the Program Director, who will be selected by the EMR Management Committee in accordance with NLCHI human resource and employment policies. The Program Director will be accountable to the EMR Management Committee. One of the accountabilities of the Program Director will be to ensure the effective and efficient collaboration between the responsibilities of the EMR Program and the responsibilities of NLCHI.

c) The EMR Program Office will be accommodated within NLCHI's office space and will receive administrative and related services from NLCHI, including accommodations, furnishings, accounting, human resources, and information technology consistent with the standard of such services provided by NLCHI to its own personnel and adequate to effectively and efficiently meet the needs of the EMR Program. All EMR Program employees will adhere to all NLCHI policy and procedures.

d) EMR Program employees will be comprised of two groups: full time employees and shared employees.
   i) Full time employees will be hired by the Program Director and will report directly to the Program Director. These full time employees will have 100 percent of their workload dedicated to EMR Program work, as assigned by the Program Director.
      a. NLCHI's Human Resources staff will be responsible for running the job competition process for full time employees, in accordance with NLCHI HR policies and procedures.
      b. In addition to a representative from NLCHI's HR division and the Program Director, the HR selection board will include one member appointed by NLCHI who will provide advice to the Program Director.

   ii) Shared employees will perform tasks for both NLCHI and the EMR Program. The Program Director is responsible for coordinating with designated NLCHI management personnel regarding the oversight and management of shared employees.

e) The Program Director will be responsible for managing the operations of the EMR Program Office, including authorizing the expenditure of funds allocated for the programs and operations of the Office within a framework of financial administration and controllership provided by NLCHI.

f) The Program Director will respond to and facilitate audit requests made by the Management Committee.

ARTICLE 2 – Executive Committee

2.1 Composition of Executive Committee

The Executive Committee shall be comprised of the Deputy Minister of HCS, Executive Director of the NLMA, and the President and Chief Executive Officer of NLCHI, or their designate(s).

2.2 Responsibilities of the Executive Committee

The Executive Committee shall be responsible for the following:

a) Accepting reports from the EMR Management Committee and Program Director and generally monitoring the effectiveness of the EMR Program;

b) Adjudicating matters referred to it by the EMR Management Committee through consensus; and

c) Approving revisions to the EMR Management Committee's terms of reference, consistent with this Agreement.

ARTICLE 3: EMR Management Committee

3.1 EMR Management Committee Mandate

a) The parties agree to jointly govern the EMR Program through the establishment of the EMR Management Committee. The Management Committee shall be accountable through its reporting to the Executive Committee.

b) The Management Committee will report quarterly to the Executive Committee on the status and financial management of the EMR Program in a format to be determined by the Executive Committee.

3.2 EMR Management Committee Responsibilities

The primary responsibilities of the Management Committee include the following:

a) Overall responsibility for the success of the EMR Program, including the development of a comprehensive plan for the EMR Program (implementation and operations), creation and execution of a Program strategy, and aligning the strategic direction of the EMR Program with the overall goals of the HCS, the NLMA, and NLCHI;

b) Make and/or approve EMR Program policy decisions on a timely basis;

c) Oversee the effective management of the EMR Program, including the management of resources, risks, and issues;

d) Approve EMR Program enrollment criteria for Participating Physicians;

e) Ensure optimal alignment between the EMR Program and EHR systems maintained by NLCHI are considered;

f) Oversee effective EMR Program communication to stakeholders, including Participating Physicians;

g) Ensure that any program records of the Management Committee are managed in accordance with the *Management of Information Act*, the *Personal Health Information Act* and other legislation;

h) Direct and monitor the performance of the Program Director;

i) Review and monitor the relationship between NLCHI and the EMR Solution vendor;

j) Provide at a minimum, quarterly reports to the Executive Committee on the financial management and status of the EMR Program;

k) Create committees and working groups it deems necessary to assist in fulfilling the Management Committee's mandate; and

l) Request periodic audits of the operations of the EMR Program.

3.3 EMR Management Committee Composition and Administration

a) Voting Members
The Management Committee will be comprised of six voting members.
   i) Three members will be appointed by the Minister, at least one of whom will be a representative of NLCHI.
   ii) Three members will be appointed by the NLMA Board of Directors.

b) Term of Office
   i) Each member will be appointed for a term of two years, and may be reappointed.

c) Chair
   i) HCS and the NLMA shall each appoint a co-chair from the members of the Management Committee.

ii) Meetings will be chaired by each co-chair on an alternating basis.

iii) The co-chairs will jointly be responsible for the management of the Management Committee, including jointly developing agendas and minutes.

d) Non-Voting Members

i) In addition to the six voting members appointed under Article 3.3 (a), the Management Committee will also appoint non-voting members, to a maximum of four non-voting members.

ii) Representatives of two Regional Health Authorities will be appointed by HCS as non-voting members.

iii) The Management Committee may establish sub-committees.

e) Meeting Schedule

i) Meetings of the Management Committee will be held monthly, or as otherwise decided by the Management Committee.

ii) Management Committee members may be called upon to participate in telephone or online conferences between regularly scheduled meetings, or if input is sought on a particular issue or set of issues.

f) EMR Program Policies

i) The Management Committee may create EMR Program policies for the conduct of business, not inconsistent with this Agreement, respecting:

a. the holding and procedure of Management Committee meetings, including quorum;
b. the appointment of sub-committees and working groups and the duties and responsibilities of those sub-committees and working groups;
c. a code of ethics;
d. acceptable methods of meeting and participation by Management Committee members, including by telephone or other telecommunication devices;
e. voting by Management Committee members by mail or electronic means; and
f. in general, the administration of this Agreement and the Management Committee's obligations.

ii) An EMR Program policy may be made, amended, or repealed at a meeting of the Management Committee provided that thirty (30) calendar days' notice, in writing, are given to members of the Management Committee of the making, amendment or repeal of the policy and of the meeting.

iii) The Management Committee will adopt NLCHI policies, not inconsistent with this Agreement, respecting:

a. the payment of travel and other expenses of members of the Management Committee;
b. the employment and remuneration of staff and consultants pursuant to NLCHI consultant approval processes and NLCHI human resource and employment policies.

3.4 EMR Management Committee Decision-Making Process

a) All decisions of the Management Committee will be made by consensus.

b) Where a consensus is not possible on a specific decision, any member may propose, and such proposal will be carried by the EMR Management Committee, that the decision be deferred until the next meeting of the EMR Management Committee and be decided by way of a simple majority vote.

c) The co-chairs, or their designates, will administer all votes and communicate the outcome.

d) Matters for which a simple majority cannot be reached will be referred to the Executive Committee for resolution.

e) An analysis and explanation of the issues will be presented to the Executive Committee, along with the concerns of any opposing Management Committee members.

3.5 Additional Terms of Reference for EMR Management Committee

Additional Terms of Reference for the Management Committee, consistent with the mandate as specified in Article 3.1, must be approved by the Executive Committee.

ARTICLE 4: EMR Program Director

4.1 Responsibilities of the EMR Program Director

a) The business and affairs of the EMR Program shall be managed by a Program Director who is accountable for the provision of leadership, oversight and consultation for the development, implementation, management and administration of the Provincial EMR Program.

b) The Program Director will operate as a member of NLCHI's senior management team to ensure coordination and efficient collaboration between the EMR Program and other programs and activities of NLCHI;

c) The Program Director and personnel reporting exclusively to the Program Director will be permanent employees of NLCHI. They will adhere to NLCHI corporate policies regarding administration, finance, human resources and other related matters. For these purposes the Program Director will report to the NLCHI Vice-President of Clinical Information Programs.

d) For all other purposes, including the policy and strategic direction of the EMR Program; the Program Director will report to the EMR Management Committee.

e) The responsibilities of the Program Director shall include:

i) Governance
   a. Reporting to the Management Committee on the services, processes and outcomes of the EMR Program;
   b. Operate as a member of NLCHI's senior management team to ensure coordination and efficient collaboration between the EMR Program and other programs and activities of NLCHI;
   c. Supporting the Management Committee in fulfilling its mandate;

ii) Administrative/Process
   a. hiring and supervising full time personnel in consultation with NLCHI's human resources department and in accordance with NLCHI human resource and employment policies;
   b. managing the EMR Program within the approved budget;
   c. consulting with other jurisdictions on approaches to expanding the use of information technology by Participating Physicians;

iii) assisting the coordination and management of shared employees with NLCHI;

iv) preparing and submitting monthly progress reports to the Management Committee (in a format to be determined) demonstrating the work of the EMR Program

v) preparing monthly written expenditure reports and budget forecasts to be submitted to the Management Committee;

vi) preparing at a minimum, quarterly written reports to the Executive Committee (in a format to be determined) on the financial management and status of the EMR Program;

vii) participating in physician engagement by working cooperatively with stakeholders including the NLMA.

viii) facilitating the sharing of best practices and experiences among Participating Physicians and groups of Participating Physicians;

ix) managing the development of change management strategies and educational strategies to assist Participating Physicians in adopting EMR system(s) and other information technology solutions in their practices, including:
   a. managing organizational capacity on matters related to the general functionality of EMRs and related technology in relation to Participating Physician offices;
   b. managing in-practice EMR training, change management, and on-going practice support;
   c. managing the recruitment of and enrollment of Participating Physicians; and
   d. promoting the EMR Program.

x) Program Management
   a. working with NLCHI and the Regional Health Authorities to ensure a high level of integration between the EMR Solution and regional and provincial health information technology systems, including:
      i. the NL Medical Care Plan billing system;
      ii. laboratory results and diagnostic imaging;
      iii. electronic referral systems;
      iv. the Provincial pharmacy network;
      v. client registry; and

vi. other elements of health information technology as they are developed and implemented;

b. maintaining a registry of all Participating Physicians and recording individual Participating Physician progress on implementation of the EMR Solution;
c. participating in regular evaluation of the effectiveness of the EMR Program and the adoption by Participating Physicians of the EMR Solution, including analysis of the extent of Participating Physician usage;
d. providing overall EMR Program leadership as directed by the Management Committee and outlined in this Agreement;
e. reviewing the installation and configuration of the EMR Solution;
f. monitoring day-to-day EMR/EHR integration integrity, in consultation with NLCHI; and
g. monitoring the provision of Help Desk Services, in consultation with NLCHI.

xi) monitoring the management of EMR IT infrastructure and the storage and management of EMR data. If it is decided that the data will be hosted at a location outside of NLCHI's office, NLCHI will be responsible for coordinating the data hosting;

xii) promoting data standards, including security and privacy standards, in accordance with relevant legislation and NLCHI policies along with provincial and pan-Canadian principals and agreements;

xiii) managing EMR Program expansion plans and ensuring such measures meet the need of the Participating Physician community while remaining focused on improving patient care along with aligning with the overall priorities of HCS;

xiv) communicating with colleagues provincially and nationally to gather input into issues and decisions and, where appropriate, to share Management Committee decisions and rationale; and

xv) other duties as may be assigned by the Management Committee.

ARTICLE 5: EMR Implementation and Operation

5.1 EMR Implementation and Operation (Roles and Responsibilities)

The parties agree that, in the conduct of their separate roles and responsibilities, any plans or decisions that may have a material impact on EMR system availability or cause a material change in the functionality, cost or schedule of the EMR Program, will be the subject of consultation and decision-making at the Management Committee with sufficient time to discuss and analyze the impact of the plan or decision. This obligation does not include operational activities that have minor impacts on EMR system availability, recognizing that every reasonable effort will be made to anticipate and schedule these activities to avoid reductions in EMR system availability.

a) HCS will be responsible for the following:
   i) approving and allocating the EMR budget for the provincial components of the EMR Program;
   ii) promoting the EMR program; and
   iii) approving EMR Program expansion plans.

b) The NLMA will be responsible for the following:
   i) promoting the EMR program; and
   ii) reviewing EMR Program expansion while ensuring due consideration is given to potential impacts on the NL EHR, with respect to EMR system availability, Participating Physician services, support, functionality, or cost.

c) NLCHI (in coordination with the EMR Program Office) will be responsible for the following:
   i) managing EMR vendor relations;
   ii) setting up of the EMR Project Office for early stage project implementation;
   iii) ensuring day-to-day EMR/EHR integration integrity with provincial EHR systems (as they become available);
   iv) developing and promoting data standards, including security and privacy standards, in accordance with relevant legislation and NLCHI policies along with provincial and pan-Canadian principals and agreements; and
   v) reviewing EMR Program expansion while ensuring due consideration is given to potential impacts on the EHR, with respect to EHR system availability, Participating Physician services, support, functionality or cost.

d) NLCHI will provide support to the EMR Program Office for the following:
   i) support services as specified in section 1.3(c);
   ii) supporting installation, configuration, and upgrading of the EMR solution (in coordination with EMR vendor);
   iii) supporting the provision of EMR Help Desk Services;
   iv) supporting the provision of EMR training and change management support; and
   v) supporting the recruitment of and enrollment of Participating Physicians.

5.2 EMR Program Fees

a) Participating Physicians, as "end-users" of the EMR Solution, will be responsible for costs and scheduled fees as set out in Appendix A (EMR Program Fee Schedule). The end-user will be subject to late and/ or delinquent fee payment as set out by the EMR Management Committee.

b) In return for this EMR Program fee, Participating Physicians will receive the EMR software, services and support including as identified in this MOU, the EMR vendor contract, and the financial forecast as described in Appendix A, including integration with MCP and the EHR components described in Appendix B. The scheduling of integration projects will be determined by the Management Committee within the available budget.

c) The EMR Program Office shall collect Participating Physicians' fees from and on behalf of Participating Physicians. The EMR Program Office will manage the fee revenue within its approved budget.

d) Changes to the EMR Program Fee Schedule shall be determined by the EMR Management Committee.

5.3 EMR Solution Vendor

In the course of EMR Implementation and Operations, the parties to this agreement will ensure all contracts and agreements made between the EMR Solution vendor and HCS, and/or NLCHI will be disclosed in full to the Management Committee.

5.4 Personal Health Information

a) Participating Physicians remain the custodian of the personal health information within their own EMR instance, regardless of the physical or virtual location of the information.

b) Disclosure of information within the EMR to the EHR will be governed by the disclosure provisions of section 39 of the *Personal Health Information Act*.

c) The EMR vendor will operate as an information manager in accordance section 22 of the *Personal Health Information Act*.

d) The parties hereto agree that the protection of personal health information remains paramount throughout all stages of the EMR Program. Further agreements will be prepared outlining data protection and management in accordance with the the *Personal Health Information Act* and the parties hereby agree to enter into all required agreements. Participating Physicians will be asked to enter into an individual data sharing and protection agreement that is in accordance with the *Personal Health Information Act* and the terms of this Agreement.

5.5 Secondary Data Use

a) Secondary use of EMR data will occur in accordance with the *Personal Health Information Act* and *Health Research Ethics Authority Act* and *Centre for Health Information Act.*

b) Secondary use of EMR data will be subject to a separate Data Sharing Agreement between all parties set in this MOU.

5.6 Publication, Dissemination and Release of Information

a) The co-chairs of the Management Committee must pre-approve any public communication concerning the EMR Program.

b) The Management Committee may, from time to time, grant the Program Director the power to approve communication material.

c) The parties to this Agreement shall be given credit for supporting the EMR Program in all external and communication materials.

d) HCS will engage with NLMA/NLCHI communication officials when preparing communication materials.

ARTICLE 6 – Additional Agreements

6.1 The parties to this Agreement shall enter into any additional agreements required in order to meet the objectives and goals of the EMR Program.

It is contemplated that some of the required agreements will be entered into with one or more of the parties and Participating Physicians.

ARTICLE 7 – Additional Terms and Conditions

7.1 Termination of Agreement

This Agreement may be terminated by either HCS or the NLMA upon two (2) years' written notice to the other parties. The terminating party agrees to provide full assistance and cooperation respecting transition of EMR Program data as may be required by the other party and Participating Physicians. All parties bound by this Agreement agree to work together to ensure that obligations under all relevant legislation, policies with each party, and the bylaws, policies and guidelines of the College of Physicians and Surgeons of Newfoundland and Labrador are adhered to along with keeping a focus on patient safety and the delivery of quality care.

7.2 Term

The term of this Agreement shall commence on the Effective Date and this Agreement shall remain in effect unless terminated pursuant to 7.1.

7.3 Review

This Agreement shall be subject to review four (4) years from the Effective Date or a date agreed upon by all parties.

7.4 Amendment

This Agreement may be amended by a written agreement signed by all parties.

7.5 Governing Legislation

This Agreement shall be governed by the laws of Newfoundland and Labrador.

7.6 Counterparts

This Agreement may be executed in any number of counterparts, each of which will be considered an original of this Agreement, and which together will constitute one and the same instrument. No party will be bound to this Agreement unless and until all parties have executed a counterpart. A facsimile signature or an otherwise electronically reproduced signature of either party shall be deemed to be an original.

HER MAJESTY IN RIGHT OF NEWFOUNDLAND AND LABRADOR

Per: _____

Hon. Steve Kent,
Minister
Department of Health and Community Services

October 30/'15
Date

NEWFOUNDLAND AND LABRADOR MEDICAL ASSOCIATION

Per: _____

for

Dr. Jonathan Greenland,
President
Newfoundland and Labrador Medical Association

30 OCT 2015
Date

NEWFOUNDLAND AND LABRADOR CENTRE FOR HEALTH INFORMATION

Per: _____ for Ray Dillon

Mr. Ray Dillon,
Board Chair
Newfoundland and Labrador
Centre for Health Information

30/10/2015
Date

Appendix A

Estimated EMR Program Fee Schedule

As of the date of signing, the parties to this document understand the cost of providing an EMR Solution for 300 physicians has been estimated as per Table 1 below. These estimated costs are subject to change and any change(s) will be managed by the EMR Management Committee (reference point 2 below).

Table 1 - EMR PROGRAM IMPLEMENTATION COSTS

EMR PROGRAM IMPLEMENTATION COSTS FOUR YEAR PROJECT CAPITAL AND ANNUALIZED COST					
CAPITAL COSTS	**YEAR 1**	**YEAR 2**	**YEAR 3**	**YEAR 4**	**TOTAL CAPITAL**
Project Staff - EMR Program Office	$ 361,100	$ 455,600	$ 579,500	$ 678,100	$ 2,074,300
Project Staff - Shared Technical Support	$ 383,000	$ 307,400	$ 195,700	$ 166,600	$ 1,052,700
Supplies - Software and Software Licensing	$ 86,600	$ 337,300	$ 628,800	$ 942,900	$ 1,995,600
Professional Services - EHR Integration	$ 867,700	$ 767,700	$ 667,700	$ 667,700	$ 2,970,800
Professional Services - Project Implementation	$ 180,000	$ 345,000	$ 345,000	$ 405,000	$ 1,275,000
Networking and Telecommunications	$ 144,000	$ 144,000	$ 144,000	$ 144,000	$ 576,000
Travel and Other Administrative Expenses	$ 65,000	$ 80,100	$ 95,200	$ 110,300	$ 350,600
Project Contingency	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 1,200,000
CAPITAL COST PER YEAR	**$2,387,400**	**$2,737,100**	**$2,955,900**	**$3,414,600**	**$ 11,495,000**
LESS: POTENTIAL INFOWAY FUNDING	$ (190,400)	$ (557,600)	$ (612,000)	$ -	**$ (1,360,000)**
TOTAL CAPITAL COSTS (INCL. INFORWAY FUNDING)	**$2,197,000**	**$2,179,500**	**$2,343,900**	**$3,414,600**	**$ 10,135,000**

OPERATING COSTS	**ANNUALIZED OPERATING**
Salaries - EMR Program	$ 600,500
Salaries - Shared Technical Support	$ 161,300
Supplies - Software and Software Licensing	$ 1,048,400
Professional Services - Support	$ 478,000
Networking and Telecommunications	$ 144,000
Travel and Other Administrative Expenses	$ 110,400
OPERATING COSTS PER YEAR	**$ 2,542,600**

The parties to this Agreement futher agree that, within the project scope of providing an EMR Solution for 300 physicians:

1. HCS is responsible for:

   i) 100% of the capital cost of the EMR Program (up to $11,495,000) exclusive of the costs detailed in section 2. (i) below.

   ii) 70% of the annual operational cost of the EMR Program ($2,542,600).

2. Participating Physicians are responsible for monthly contributions no greater than $212.00 per month, which is estimated to be 30 percent of the annual estimated operational cost. Further to section 5.2(d), this monthly maximum is subject to adjustment by the Management Committee within the constraint that Participating Physicians' fees shall not be greater than 30 percent of annual operational cost. In addition, Participating Physicians are responsible for:

i) 100% of the following end-user costs required to access the EMR olution including:

a. computer system infrastructure and software (including, but not limited to, computer systems and peripherals, printers, scanners, network equipment, cabling, office automation software, anti-virus/malware software, and remote access) required to connect the Participating Physician's computer system and office/clinic network to the EMR Solution;

b. costs to connect, support, and maintain the Participating Physician's in-clinic computer equipment and network connection to the EMR Solution as per standards established by the EMR Program;

c. training and education-related costs that are not covered by the EMR Program, such as backfilling of staff to facilitate training and basic knowledge transfer to new clinic personnel.

Appendix B

EMR/EHR INTEGRATION
Domain Specific Potential

MCP	• Ability to create MCP bills • Allowing the ability to submit bills directly to MCP • Receive remittance advice from MCP
Client Registry	• Add Person Information • Delete Person Information • Update Person Information • Merge Patient Information • Query Message
Provider Registry	• Provider Details Query
Laboratory	• Blood Bank results • Chemistry results • Hematology results • Microbiology results • Pathology results
Medical Imaging	• Computed Tomography (CT) • General Radiology • Interventional • Magnetic Resonance Imaging (MRI) • Mammography • Nuclear Medicine • Radiographic Fluoroscopy • Ultrasound
Encounters (ADT)	• Emergency • Inpatient • Outpatient
Clinical Documents	• Discharge Summary • Over 200 additional documents (i.e. History and Physical, Barium Swallow report, Cardiology Physician letter, Operative report...)
Medication Profiles	• Community Pharmacies medication profiles

Appendix "B": Information Management Framework

eDOCSNL

Information Management Framework

A Policy of the EMR Management Committee

Effective until November 1, 2023

TABLE OF CONTENTS

Version Control - Updates and Additions

Date of Approval by EMR Management Committee	Changes, Updates or Addition	Communicated to the following stakeholders
October 30, 2020		**DHCS, NLMA, RHAs, NLCHI, Quality of Care (MUN)**
November 24, 2023	Renewed for one year.	

Executive Summary

In October 2015, a Memorandum of Understanding (MOU) between the Department of Health and Community Services (DHCS), the Newfoundland and Labrador Medical Association (NLMA) and the Newfoundland and Labrador Centre for Health Information (NLCHI) was signed to jointly govern, implement and operate a sustainable Electronic Medical Record (EMR) Program in Newfoundland and Labrador referred to as eDOCSNL.

The EMR Management Committee, the governing committee created through the MOU, provides strategic advice, guidance and direction on the management of eDOCSNL, including approvals related to Secondary Use of EMR Data, and the EMR Data elements that can be used for Primary and Secondary Uses. This Information Management Framework, a policy of the EMR Management Committee, provides this direction and is agreed by the Parties to be the Data Sharing Agreement required by Clause 5.5(b) of the MOU. The EMR Management Committee has approved the framework for three years, from the date of approval, with a required annual review by the EMR Management Committee. At the conclusion of three years, the Information Management Framework expires and the EMR Management Committee must re-approve the existing framework or develop a new one.

The purpose of this document is to provide direction to Custodians of EMR Data which is collected, used, disclosed, stored, and retained for patient care and Secondary Uses. The Information Management Framework describes the uses and disclosures of EMR Data, the request and approval processes required, and establishes principles to be followed by any Custodian or entity in Newfoundland and Labrador using EMR Data for patient care and Secondary Uses.

The type of approval required for use and disclosure of EMR Data will depend on the type of EMR Data being used or disclosed. For most uses and disclosures, separate approval by the EMR Management Committee will not be required (e.g., patient care and Secondary Uses approved in this Information Management Framework). In addition, mandatory disclosures required under legislation (e.g., *Medical Act*, *Prescription Monitoring Act*, etc.) will not be subject to EMR Management Committee approval. Secondary Uses, where separate approval from the EMR Management Committee is required, include uses and disclosures of EMR Data for Research and/or commercial purposes, and uses and disclosures by NLCHI that require identifiable individual physician information not previously approved in this Information Management Framework. However, if a fee-for-service physician consents to, or requests that, NLCHI, an RHA, or the Minister of Health and Community Services use their identifiable data for a specific purpose, EMR Management Committee approval will not be required.

The guidelines to be followed by any Custodian or non-Custodian in Newfoundland and Labrador using EMR Data for patient care and Secondary Use include:

- **EMR Data disclosures may only be done with a data sharing agreement that details the use and disclosure requirements of the recipient and references the eDOCSNL Information Management Framework.**

- **Each person or organization who uses EMR Data for Secondary Use must have policies and procedures in place that are compliant with the *Personal Health Information Act* and consistent with this Information Management Framework.**

- **Any Custodian, including Fee for Service Physicians, who uses personal health information for direct patient care and Secondary Uses must have policies and practices that clearly delineate the two roles under taken by the Custodian.**

- **An up to date list of all data elements used for Secondary Use will be maintained and published on the eDOCSNL website www.edocsnl.ca.**

- **Best efforts will be made to notify the EMR Management Committee in advance of the use, or if prior notification is impossible at the time of the use, of EMR Data for mandatory legislative requirements that monitor or evaluate individual patients, physicians or other healthcare providers that has not previously been documented in this Information Management Framework or policy of the EMR Management Committee. Where prior or simultaneous disclosure is impossible, NLCHI or the RHA shall notify the EMR Management Committee within two business days.**

- **Each Custodian using EMR Data for Secondary Uses that was collected by another Custodian must have a documented process for approving all uses and disclosures.**

- **Uses and disclosures of EMR Data for commercial or Research purposes or activities that involve identifiable-physician requires individual EMR Management Committee approval, unless previously approved in this Information Management Framework.**

1.0 INTRODUCTION

In October 2015, a Memorandum of Understanding (MOU) between the Department of Health and Community Services (DHCS), the Newfoundland and Labrador Medical Association (NLMA) and the Newfoundland and Labrador Centre for Health Information (NLCHI) was signed to jointly govern, implement and operate a sustainable Electronic Medical Record (EMR) Program in Newfoundland and Labrador referred to as eDOCSNL. The EMR Management Committee is responsible for ensuring the protection of personal health information throughout all stages of the EMR Program.

The mandate of eDOCSNL is to improve collaboration and information sharing between physicians and other health care providers; improve the overall quality of care; enhance the overall capability for patient safety within healthcare; provide a means for physicians to improve clinical efficiencies; and provide health information to inform future health planning and policy development.

The eDOCSNL program is comprised of two streams: a fee-for-service (FFS) physician stream and a regional health authority (RHA) primary health care stream with some FFS physician participation. Each FFS physician and RHA participating in eDOCSNL has entered into an agreement with NLCHI to participate in the EMR program, which includes provisions for the Secondary Uses of EMR Data. These agreements are the **EMR Physician Participation Agreement**, the **Fee for Service Physician Participation Agreement for Joining eDOCSNL through a Regional Health Authority Electronic Medical Record**, and the **Regional Health Authority eDOCSNL Participation Agreement**, collectively referred to as the ”Agreements”. These Agreements include the general terms and conditions for the sharing of the data with NLCHI, and for the FFS physicians on an RHA instance, with the applicable RHA.

The sharing of personal health information for direct patient care is done through functionality within the EMR or the two-way flow of information between the EMR and HEALTHe NL, the provincial electronic health record, of which NLCHI is the Custodian.

The sharing of personal health information for Secondary Uses is facilitated through a transfer of information from each eDOCSNL participant’s EMR Data storage at TELUS Health Solution, who is the participant’s Information Manager and Med Access vendor, to NLCHI’s data warehouse on a daily basis.

1.1 eDOCSNL Information Management Framework Ownership

The Information Management Framework is a policy of the EMR Management Committee. The EMR Management Committee has approved the framework for three years, from the date of approval, with a required annual review by the EMR Management Committee. At the conclusion of three years, the Information Management Framework expires and the EMR Management Committee must re-approve the existing framework or develop a new one.

All updates approved by the EMR Management Committee are recorded in the version table following the table of contents of this Information Management Framework.

1.2 Document Purpose

The purpose of this document is to provide direction to Custodians of EMR Data which is collected, used, disclosed, stored, and retained for patient care and Secondary Uses, as part of eDOCSNL.

The RHAs will implement policies and procedures consistent with the Information Management Framework in conjunction with the RHA EMR Committee. These policies and procedures will be reviewed by the EMR Management Committee. If the RHA does not adopt its own policies for the Secondary Use of EMR Data they will follow NLCHI's EMR Data policies and procedures. Once the RHAs have these policies and procedures reviewed by the EMR Management Committee the Secondary Uses outlined in this Information Management Framework are exempt from the approval processes noted in section 7.0, except for the disclosures of EMR Data for Research or commercial purposes. The RHAs will be required to obtain approval from the EMR Management Committee for disclosures for Research or commercial purposes.

NLCHI shall implement policies and procedures on the collection, use and disclosure of EMR Data that have been approved by the EMR Management Committee. These policies will be available on www.eDOCSNL.ca. Once NLCHI has these policies and procedure reviewed by the EMR Management Committee the Secondary Uses outlined in this Information Management Framework are exempt from the approval processes noted in section 7.0, except for uses requiring identifiable physician EMR Data and for disclosures of EMR Data for Research or commercial purposes. NLCHI will be required to obtain approval from the EMR Management Committee for uses requiring identifiable physician EMR data and for disclosures for Research or commercial purposes.

The FFS physician using a RHA EMR provides consent to the RHA to use or disclose EMR Data the physician has disclosed to the RHA for primary purposes also for Secondary Uses. The Fee for Service Physician Agreement for Participation in eDOCSNL through a Regional Health Authority Electronic Medical Record includes this consent.

NLCHI, the RHAs, and the DHCS have agreed and reaffirm their intent and commitment to only use and disclose EMR Data in accordance with legislation and the processes and procedures noted in this document, and that EMR Data will be used for physician-identifying activities only when other data sources cannot provide the necessary information and in accordance with this Information Management Framework.

In the event that a request for EMR Data is received from any person or organization that is inconsistent with the processes and procedures in this document, NLCHI or the RHA will advise the requestor of this inconsistency and will not disclose the data. If NLCHI or a RHA receives such a request and believes it is legally compelled to disclose the EMR Data, it will make reasonable effort to provide notice to the physicians affected and the NLMA 30 days prior to the fulfilment of the request, or at the earliest possible opportunity.

If NLCHI or the RHA uses or discloses EMR Data in a manner that is inconsistent with the Information Management Framework, they will make best efforts to notify the NLMA and the affected physicians prior to or, if prior notification is impossible, at the time of such disclosure, including a description of the information disclosed. Where prior or simultaneous disclosure is impossible, NLCHI or the RHA shall notify the affected physician and the NLMA within two business days. Should the physicians affected by the disclosure decide to exit the eDOCSNL program or the RHA instance as a result of this disclosure, they will do so in accordance with the Agreements. NLCHI and/or the RHA will facilitate the transition at no cost to the affected physicians.

1.3 Definitions

"Circle of Care" has the meaning defined in PHIA;

"Custodia*n*" has the meaning defined in PHIA;

"Collecting Party" means the party who collects personal health information directly from the patient or other authorized source;

"De-identified Data" is created when identifiers for individuals and health professionals are removed and replaced with a code. Depending on access to the code, it may be possible to re-identify specific individuals and health professionals (e.g., individuals are assigned a code and NLCHI retains a list that links the code with the particular individual's actual name so data can be re-linked if necessary.) Secondary users who have access to the code and the data will be considered to have identifiable information;

"EMR Data" as defined in the EMR Physicians Participation Agreement;

"Fee-for-Service Physician" means a physician who submits accounts and receives payment of fees for insured medical services in accordance with the MCP Payment Schedule under the Medical Care Plan, pursuant to the *Medical Care and Hospital Insurance Act,* SNL 2016, c M-5.01. In relation to this Information Management Framework, a Fee for Service Physician refers to a physician who has signed one of the Agreements;

"HEALTHe NL" has the meaning defined in the Fee for Service Physician Participation Agreement for Joining eDOCSNL through a Regional Health Authority Electronic Medical Record***;***

"Personal Health Information" has the meaning defined in PHIA;

"Primary Use" means the collection, use, and disclosure of personal health information for the care of the patient from, and about, whom the information is collected;

"Recipient Party" means the party who is receiving personal health information;

"Research" has the meaning defined in PHIA;

"RHA EMR Committee" has the meaning defined in the Fee for Service Physician Participation Agreement for Joining eDOCSNL through a Regional Health Authority Electronic Medical Record; and

"Secondary Use" has the meaning defined in the Memorandum of Understanding, October 2015.

2.0 RECIPIENT PARTIES

2.1 Newfoundland and Labrador Centre for Health Information

NLCHI is the Custodian of EMR Data disclosed to HEALTHe NL for patient care and, also, of the EMR Data disclosed to NLCHI for Secondary Uses and stored in the NLCHI Data Warehouse. Its mandate includes the provision of information to inform decisions to enhance the health and well-being of persons in the province by providing a comprehensive province-wide information system.

NLCHI fulfils its mandate in part through the Secondary Use of data. The Data and Information Services Department is engaged in four main activities to support health system decision-makers: development and adoption of health information standards; analytics and evaluation; responding to requests for data and information; and data and information management. This department supports Research through the disclosure of data.

2.2 Regional Health Authorities

In addition to collecting personal health information directly from patients, the RHAs are also recipients of EMR Data from FFS physicians who have joined eDOCSNL through an RHA EMR. The RHAs provide information/data to organizational leaders, physicians, staff, and other health system stakeholders to inform clinical and operational performance and support informed decision-making.

2.3 Researchers

Researchers, academic or commercial, may receive EMR Data from NLCHI, RHAs, or FFS physicians. It is anticipated that most Research requests will be received by NLCHI. Researchers are not Custodians under PHIA but some are employees of a Custodian, particularly the RHAs and the designated facilities and schools at Memorial University, and therefore, must follow the policies and procedures of that Custodian.

2.4 Canadian Institute for Health Information

The Canadian Institute for Health Information (CIHI) is an independent, not-for-profit organization that provides essential information on Canada's health system and the health of Canadians. CIHI provides comparable and actionable data and information that are used to accelerate improvements in health care, health system performance and population health. Any disclosure to CIHI of personal health information is authorized by PHIA and is conducted in accordance with the agreement between the Department of Health and Community Services (DHCS) and CIHI. Prior to disclosing EMR Data to CIHI, the agreement between the DHCS and CIHI will be amended to ensure the appropriate restrictions on the use and disclosure of identifiable EMR Data.

3.0 GOVERNANCE FRAMEWORK

3.1 Legislation

Use and disclosure of EMR Data will occur in accordance with the MOU, the Agreements, NLCHI and RHA policies and procedures, the Information Management Framework, and the following legislation:

a) *Personal Health Information Act* (PHIA);
b) *Centre for Health Information Act, 2018*;
c) *Health Research Ethics Authority Act*;
d) *Medical Act, 2011*;
e) *Transparency and Accountability Act*;
f) *Medical Care Act* and *Hospital Insurance Act;*
g) *Prescription Monitoring Act;*
h) *Patient Safety Act*;
i) *Public Health Protection and Promotion Act;* and
j) Other legislation where appropriate.

3.2 Governance Committees

3.2.1 EMR Management Committee

The EMR Management Committee, the governing committee created through the MOU, provides strategic advice, guidance and direction on the management of eDOCSNL, including approvals related to Secondary Use of EMR Data, and the EMR Data elements that can be used for primary and Secondary Uses. This Information Management Framework, a policy of the EMR Management Committee, provides this direction and is agreed by the Parties to be the Data Sharing Agreement required by Clause 5.5(b) of the MOU.

3.2.2 EMR Executive Committee

The EMR Executive Committee, comprised of the DHCS Deputy Minister, the Executive Director of the NLMA, the CEO of Eastern Health and the CEO of NLCHI, adjudicates matters referred to it by the EMR Management Committee and monitors the effectiveness of the eDOCSNL program.

3.2.3 EMR Data Governance Advisory Committee

The Data Governance Advisory Committee reports to the EMR Management Committee with a mandate to advise the EMR Management Committee on matters related to the collection, use, disclosure, storage, retention, and disposal of EMR Data. The specific responsibilities of the advisory committee are to make recommendations to the EMR Management Committee regarding:

- the Secondary Uses of EMR Data;
- the EMR Data elements to be disclosed to NLCHI for Secondary Uses; and
- the EMR Data elements to be disclosed to HEALTHe NL for patient care.

3.3 EMR Participation Agreements

Each FFS physician and RHA participating in eDOCSNL has signed one of the Agreements with NLCHI which provides them with a subscription to Med Access, an interface with HEALTHe NL and other systems authorized by NLCHI, and the support of the eDOCSNL program staff. These agreements also establish the general terms and conditions for the disclosure of EMR Data to NLCHI for Secondary Uses and to support patient care.

3.4 RHA EMR Committees

Each RHA has a RHA EMR Committee comprised of FFS physicians, RHA employees and agents, and NLCHI staff, which advises on issues related to the Custodianship of EMR Data, and for discussion on issues related to the use and management of the EMR instance, including the implementation, training, policies, performance and operation of the RHA EMR. These committees will provide advice to the RHAs on the Secondary Use of EMR Data consistent with this Framework.

3.5 Policies and Procedures

NLCHI and the RHAs who collect EMR Data from another Custodian shall have policies and procedures to ensure EMR Data is managed and used appropriately, effectively, and efficiently. Policies and procedures regarding the manner of collection, use, disclosure, storage, retention, transfer, copying, modification, and disposition of EMR Data is required in accordance with PHIA.

3.6 Data Sharing Agreements

All disclosures of EMR Data for Secondary Uses must involve the execution of a data sharing agreement between the disclosing and Collecting Parties. The Agreements and this Information Management Framework meet this requirement for Custodians participating in eDOCSNL and as required in the MOU.

4.0 EMR Data for Direct Patient Care

Each FFS physician and RHA joined eDOCSNL to improve direct patient care through collaboration and information sharing within the Circle of Care. PHIA establishes the rules for the collection, use and disclosure of this information. The eDOCSNL program has made available privacy and security resources for collecting Custodians, and in particular FFS physicians, that provides advice on the sharing of personal health information within a single EMR instance and between EMR instances.

Collecting Parties will collect personal health information from HEALTHe NL and store it in their EMR. This indirect collection for patient care is authorized by PHIA. Similarly, personal health information will be disclosed from the EMR to HEALTHe NL, pursuant to PHIA for the purposes of providing patient care.

One of the objectives of the eDOCSNL Program is to enhance the overall capability for patient safety. TELUS may be required to access EMR Data and provide to NLCHI, in accordance with the terms and conditions of the eDOCSNL participation agreements and Professional Service Agreement, when issues involving patient safety or other support services arise.

5.0 Secondary Use of EMR Data

The Secondary Use of EMR Data is an integral part of the eDOCSNL Program. This EMR Information Management Framework establishes the terms and conditions for disclosure of EMR Data by eDOCSNL participants to NLCHI to inform health planning and policy development and other Secondary Uses as noted in section 5.3. NLCHI will also link EMR Data with other data they are the Custodians of for Secondary Uses.

As noted in section 1.2, NLCHI shall implement policies and procedures on the collection, use and disclosure of EMR Data that have been approved by the EMR Management Committee. These policies will be available on www.eDOCSNL.ca. Once NLCHI has these policies and procedures reviewed by the EMR Management Committee the Secondary Uses outlined in this Information Management Framework are exempt from the approval processes noted in section 7.0, except for uses requiring identifiable physician EMR Data and for disclosures of EMR Data for Research or commercial purposes. In these instances, NLCHI will be required to obtain approval from the EMR Management Committee (See Table 1 in section 7.0 for details on approvals required for disclosure and use of EMR Data).

The RHAs may use EMR Data from the RHA's EMR instance for similar Secondary Uses consistent with this Information Management Framework and the approval process in section 7.0, where required. As noted in section 1.2, the RHAs will implement policies and procedures consistent with the Information Management Framework in conjunction with the RHA EMR Committee. These policies and procedures will be reviewed by the EMR Management Committee. If the RHA does not adopt its own policies for the Secondary Use of EMR Data they will follow NLCHI's EMR Data policies and procedures. Once the RHAs

have these policies and procedures reviewed by the EMR Management Committee the Secondary Uses outlined in this Information Management Framework are exempt from the approval processes noted in section 7.0, except for the disclosures of EMR Data for Research or commercial purposes. The RHAs will be required to obtain approval from the EMR Management Committee (See Table 1 in section 7.0 for details on approvals required for disclosure and use of EMR Data).

5.1 EMR Data Elements for Secondary Use

EMR Data elements that are used or disclosed for Secondary Uses by NLCHI must be approved by the EMR Management Committee, following recommendations from the Data Governance Advisory Committee. The EMR Data elements that will be considered by the EMR Management Committee include select data elements from the Pan-Canadian Primary Health Care Electronic Medical Record Content Standards developed by CIHI as well as other data elements identified by the Data Governance Advisory Committee, DHCS, NLCHI, and the RHAs. The list of data elements may change over time.

An up to date list of all data elements used for Secondary Uses will be maintained and published on the eDOCSNL website www.edocsnl.ca.

5.2 Preparing EMR Data for Secondary Use

EMR Data is transferred from TELUS's secure data centre to NLCHI's secure data environment. This secure environment allows for controls on role-based access, and the restricted access can be set at the data field level. Once received by NLCHI, EMR Data used for Secondary Use will be de-identified prior to use or disclosure in accordance with NLCHI's Data De-Identification and Re-Identification Procedure, attached in Appendix A). Identifiable data will only be used and disclosed in accordance with the uses approved under this Information Management Framework and in accordance with legislation.

The RHAs, physicians and others may access EMR Data extracts held by NLCHI provided such access is consistent with the uses approved under this Information Management Framework.

5.3 Secondary Use Activities

Secondary Use refers to the use of data for a purpose other than patient care. Health system planning and management; health policy development; public health surveillance; quality improvement; Research; and clinical practice and program management are considered Secondary Uses. In addition to PHIA, Secondary Use of EMR Data will occur in accordance the *Centre for Health Information Act, 2018* and other legislation, the MOU, the Agreements, NLCHI and RHA policies and procedures, and the Information Management Framework parameters established in section 7.0.

The examples in Appendix B which do not require specific approval from the Management Committee are not exhaustive; however, the Secondary Uses must be consistent with the nature and scope of this Information Management Framework, or they require specific approval by the EMR Management Committee.

The examples in Appendix C that require separate approval from the Management Committee are not exhaustive.

5.3.1 Health System Planning, Management, and Health Policy Development

EMR Data will be used to inform health system planning, management, and health policy development initiatives. These types of initiatives assess the health needs of a geographic area or population in an effort to determine how these needs can be met.

5.3.2 Public Health Surveillance

The EMR has the potential to improve the accuracy, completeness, and timeliness of public health surveillance and reporting. Information produced from EMR Data can assist in understanding disease transmission and determining disease-related risk factors. As a result, EMR Data will be used to inform public health surveillance initiatives.

5.3.3 Quality Improvement

EMR Data will be used to support quality improvement initiatives. These initiatives require information on patient populations, their health care needs, what services are available, and how patients are utilizing these services to measure and report on quality of care and patient outcomes.

5.3.4 Research

EMR Data represent a rich data source for Researchers. Requests to access EMR Data for Research purposes will be processed through NLCHI and RHA approval processes and will require approval from the EMR Management Committee.

5.3.5 Clinical Practice and Program Management

EMR Data will be used to inform clinical practice and program management.

5.3.6 Required by Legislation

EMR Data may be used to meet legislative requirements. Mandatory disclosures required under legislation (e.g., *Medical Act*, *Prescription Monitoring Act*, etc.) will not be subject to EMR Management Committee approval. Other mandatory disclosures, such as Information Network Disclosures and Registry Disclosures, will occur after consultation with the EMR Management Committee.

PHIA S.39(4)(c) allows for the mandatory disclosure of personal health information to or via an information network designated in the regulations. In addition, S.39(4)(d) allows for the mandatory disclosure of personal health information to a Custodian designated in the regulations who compiles or maintains a registry of personal health information for purposes of facilitating or improving the provision of health care or that relates to the storage or donation of body parts or bodily functions.

Eastern Health is the Custodian of the Cancer Care Registry and NLCHI is the Custodian of the Chronic Disease Registry. Both registries will require EMR Data for the purposes of facilitating or improving the provision of health care.

Best efforts will be made to notify the EMR Management Committee in advance of, or if prior notification is impossible at the time of, the use of EMR Data for mandatory legislative

requirements that monitor or evaluate individually-identifiable patients, physicians or other healthcare providers that has not previously been documented in this Information Management Framework. Where prior or simultaneous disclosure is impossible, NLCHI or the RHA shall notify the EMR Management Committee within two business days.

5.4 Restrictions on the use of EMR Data

Identifiers related to patients, health professionals, and others may be used when linking data sets. The data must be de-identified and any key that may potentially re-identify an individual is held securely by a designated official within NLCHI who does not have access to the coded data set. If identifiable EMR Data is required to meet legislative purposes noted in section 5.3.6, best efforts will be made to notify the EMR Management Committee in advance of, or if prior notification is impossible at the time of, the use or disclosure as outlined in section 7.0. Where prior or simultaneous disclosure is impossible, NLCHI or the RHA shall notify the EMR Management Committee within two business days.

6.0 REPORTING OF SECONDARY USE OF EMR DATA

NLCHI and the RHAs will report semi-annually to the EMR Management Committee on the Secondary Use of EMR Data in their custody. The EMR Management Committee has an approved standard reporting template for use by NLCHI and the RHA, included in Appendix D.

7.0 Approval Process

The type of approval required for use and disclosure of EMR Data will depend on the type of EMR Data being used and disclosed and the type of requestor. Table 1 presents the approvals required for the use and disclosure of EMR Data. For most uses and disclosures described in sections 4.0 and 5.0, further approval by the EMR Management Committee will not be required (e.g., patient care and certain Secondary Uses). Instances where approval from the EMR Management Committee is required include uses and disclosures of EMR Data for Research and/or commercial purposes, and uses and disclosures by NLCHI that require identifiable individual physician information. However, if a FFS physician consents to or requests that NLCHI, an RHA, or the Minister of Health and Community Services use their identifiable data for a specific purpose, EMR Management Committee approval will not be required.

Table 1: Approvals Required for Use and Disclosure of EMR Data

Type of EMR Data User	Type of Use and Disclosure	Approval Required
Health Care Professionals and Providers	Primary use within the Circle of Care (Direct Patient Care)	No approvals required; permitted in accordance with PHIA.
	Disclosures to HEALTHe NL to support patient care	EMR Management Committee will approve a list of data elements disclosed to HEALTHe NL from FFS physician's EMRs.
NLCHI and RHAs (when using De-identified EMR Data).	Health System Planning and Management	EMR Management Committee approval when NLCHI or the RHA does not have policies reviewed by the EMR Management Committee, except when the
	Health Policy Development	
	Public Health Surveillance	

	Quality Improvement	disclosure is mandatory and required under legislation. EMR Data will be used and disclosed in accordance with PHIA S. 34(c), (d), (j) and (m) and PHIA S. 39(1)(d), (e) and (h) and the *Centre for Health information Act* S. 4(1).
	Clinical Practice and Program Management	
NLCHI and RHAs (when using identifiable physician EMR Data). The RHAs are exempt if they have policies for Secondary Use that are consistent with this framework, including policies on the collection of physician consent, and that have been reviewed by the EMR Management Committee,.	Health System Planning and Management	Approval from the EMR Management Committee. EMR Data will be used and disclosed in accordance with PHIA S. 34(c), (d), (j) and (m) and PHIA S. 39(1)(d), (e) and (h) and the *Centre for Health information Act* S. 4(1).
	Health Policy Development	
	Public Health Surveillance	
	Quality Improvement	
	Clinical Practice and Program Management	
	Disclosures to HEALTHe NL to support patient care	EMR Management Committee will approve a list of data elements disclosed to HEALTHe NL from FFS physician's EMRs.
NLCHI and RHAs	Mandatory disclosures required under legislation (e.g., *Medical Act*, *Prescription Monitoring Act*, etc.).	No approvals required. Best efforts will be made to notify the EMR Management Committee in advance of, or if prior notification is impossible at the time of, the use or disclosure. Where prior or simultaneous disclosure is impossible, NLCHI or the RHA shall notify the EMR Management Committee within two business days.
Custodian designated in the PHIA regulations	Information Network Disclosures and Registry Disclosures	No approvals required since this type of disclosure is a mandatory disclosure under PHIA S.39(4)(c) and S.39(4)(d). DHCS will make best efforts to take the advice of the EMR Management Committee on the EMR Data elements to be disclosed.
Any User	Research	Approval from the EMR Management Committee is required.
Memorial University (when acting as an agent	Health System Planning	Approval from the EMR Management Committee is required.

of a Custodian and requiring identifiable physician EMR Data)		
Any User	Commercial	Approval from the EMR Management Committee is required.

Each Custodian using EMR Data for Secondary Uses that was collected by another Custodian must have a documented process for approving all uses and disclosures.

7.1 NLCHI Approval Process

Requests for EMR Data will be processed and reviewed by NLCHI's Secondary Uses Committee and in accordance with NLCHI's Secondary Uses Review and Approval procedure. Details of the NLCHI approval process are documented in Appendix E.

7.2 HREB Approval Process

All health Research being conducted in Newfoundland and Labrador must be reviewed and approved by the provincial Health Research Ethics Board (HREB). The HREB is established through legislation (the *Health Research Ethics Authority Act*) by the Health Research Ethics Authority (HREA). The HREA also has the ability to approve other research ethics bodies to review health research in the province. Currently, the HREB is the only REB that reviews Secondary Use of data for health research.

Most Secondary Use health Research is considered minimal risk Research. Where Research projects are considered to be of minimal risk, in accordance with the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2), the application may be sent for delegated review. The HREB chair will invite one or more current or past members of the HREB to provide delegated review for that application. The decision of this delegated review is provided to the HREB-Non Clinical Trial subcommittee at the next full board meeting.

7.3 RHA Approval Process

Requests for EMR Data for Research purposes carried out by, or on behalf of the RHA will be reviewed by the respective RHA Research Review Committee. These committees examine applications for Research that require the use of its facilities, staff time, health records or other data, and/or services and programs that effect its operations. The application is reviewed with attention to resource utilization and impact on the organization, issues of stewardship of biologic samples and protection of patient/employee privacy and confidentiality. All RHAs approved Research also requires HREB approval, the respective organizational approval, and approval from the EMR Management Committee prior to disclosing EMR Data for Research purposes to a third party.

7.4 EMR Management Committee Approval Process

Requests that will require approval from the EMR Management Committee include uses and disclosures for Research and/or commercial purposes, and uses and disclosures by NLCHI that require identifiable

individual physician information. However, if a FFS physician consents to NLCHI using their identifiable data for a specific purpose, EMR Management Committee approval will not be required.

The process of obtaining approval from the EMR Management Committee is as follows:

1) Requests for EMR Data that require approval from the EMR Management Committee will be processed and reviewed by NLCHI or the RHAs in accordance with these organization's policies and procedures.
2) Once a request has been processed by NLCHI or an RHA, and have obtained HREB approval where applicable, a summary of the application and recommendation for approval is then presented to the EMR Data Governance Advisory Committee.
3) The EMR Data Governance Advisory Committee will make a recommendation for approval; approval with conditions; or rejection to the EMR Management Committee.
4) The EMR Management Committee will provide review and provide a final decision. If a request is approved by the EMR Management Committee, the committee can decide to provide approval for additional requests that are similar in nature. This would apply to on-going initiatives that would require EMR Data elements and time periods for Secondary Use that are similar to the originally approved request.
5) Upon receipt of all required approvals, the requestor will enter into an agreement outlining the conditions of data access with NLCHI or an RHA, depending on which organization will be disclosing the data.

Uses and disclosures of EMR Data for commercial or Research purposes or activities that involve individually-identifiable physician information requires separate EMR Management Committee approval.

7.5 EMR Management Committee Appearance

An organization or person whose request for EMR Data is not approved by the Data Governance Advisory Committee may make a short presentation to the EMR Management Committee when the Committee considers the recommendation of the Data Governance Advisory Committee. A decision of the EMR Management Committee that is not unanimous may be appealed to the EMR Executive Committee.

8.0 CONCLUSIONS

This Information Management Framework provides direction to Custodians of EMR Data which is collected, used, disclosed, stored, and retained for patient care and Secondary Uses, as part of eDOCSNL. The EMR Management Committee is responsible for ensuring the protection of personal health information throughout all stages of the EMR program.

All physicians and RHAs can be assured that NLCHI and others who receive EMR Data from them are using it in accordance with PHIA and under the oversight of the EMR Management Committee. This Information Management Framework establishes rules to be followed by any Custodian or entity in Newfoundland and Labrador using EMR Data for Secondary Uses. These are:

- **EMR Data disclosures may only be done with a data sharing agreement that details the use and disclosure requirements of the recipient and references the eDOCSNL Information Management Framework.**

- **Each person or organization who uses EMR Data for Secondary Use must have policies and procedures in place that are compliant with the *Personal Health Information Act* and consistent with this Information Management Framework.**

- **Any Custodian, including Fee for Service Physicians, who uses personal health information for direct patient care and Secondary Uses must have policies and practices that clearly delineate the two roles under taken by the Custodian.**

- **An up to date list of all data elements used for Secondary Use will be maintained and published on the eDOCSNL website www.edocsnl.ca.**

- **Best efforts will be made to notify the EMR Management Committee in advance of, or if prior notification is impossible at the time of, the use of EMR Data for mandatory legislative requirements that monitor or evaluate individual patients, physicians or other healthcare providers that has not previously been documented in this Information Management Framework or policy of the EMR Management Committee. Where prior or simultaneous disclosure is impossible, NLCHI or the RHA shall notify the EMR Management Committee within two business days.**

- **Each Custodian using EMR Data for Secondary Uses that was collected by another Custodian must have a documented process for approving all uses and disclosures.**

- **Uses and disclosures of EMR Data for commercial or Research purposes or activities that involve identifiable-physician information requires Management Committee approval, unless previously approved in this Information Management Framework.**

Appendix A: NLCHI's Data De-identification and Re-identification Procedure

1. Background and Current Status

Through the recent Data Lab Project, a more robust process of de-identification and de-identified record linkage was created which utilizes a new and more effective privacy-protective patient ID (i.e., W_PAT_ID). Based on the provincial Client Registry unique identifier logic, the W_PAT_ID is generated and used within the data warehouse (DW) as well as the internal analytic environment (NIMS) at the Centre. For NIMS data holdings, the W_PAT_ID is applied via a Linkage Key which is a SAS file that is generated from the DW and stored for de-identified record linkage purposes in NIMS.

For most Secondary Uses of the Centre's data holdings[1], personal identifiers are not required. Rather, it is preferable to minimize exposure of such identifiers by having direct and indirect identifiers removed, to the extent possible, and replaced by a randomly assigned unique identifier that enables use and linkage of an individual's records across disparate datasets in a privacy-protective manner. All data holdings[1] managed by the Centre that contain personally identifiable or other sensitive information are stored securely in the Centre's Data Lab environment, and de-identified there for Secondary Use. Data holdings[1] that are used frequently and for multiple purposes are typically stored in the Data Warehouse environment; data that tends to be project- or use-specific is typically stored and managed in the NIMS environment. These environments are linked so that linkage of files in both environments is possible. The Centre's De-identification process involves two levels of de-identification, one for internal users on one for external users.

2. Level 1 De-identification

2.1 Data Warehouse (DW) De-identification (Level 1 De-identification)

All data holdings flowing into the DW are assessed and modeled to fit with the structure of the DW. All files with personal identifiers are mapped to the Master Patient table which holds all identifiers associated with a unique person in a single record. Access to identifiable information in the Master Patient table is based on assignment of a user to a specific user group and limited to only Centre staff who need access to this information to perform their work duties. All individuals in a group have access to the same data; assignment to a user group involves a process of application, assessment and approval. Identifiable information is visible only to those user groups with approved access.

2.2 NIMS De-identification (Level 1 De-identification)

Similarly, access to identifiable information managed in NIMs is based on user group assignment and limited to only Centre staff who need access to this information to perform their work duties. Only those with approved access can see identifiable information. All other access involves de-identified data holdings only. The new Linkage Key generated from the DW is updated weekly in the NIMS environment and applied to all files managed in the NIMS that have been flagged for de-identification. Using the new Linkage Key, an identifiable patient record is assigned a W_PAT_ID that is used to link patient records

[1] ***Data Holdings*** *include any databases and/or datasets acquired and/or created by the Centre for analytical, evaluation or research purposes. (Policy IM-05 "Information Management")*

across datasets, in place of the patient's health care number. The Linkage Key can accommodate instances where a patient has been issued multiple health care numbers and used variously across the spectrum of health care services in the province. All health care numbers associated with a patient (including those issued by other jurisdictions) are consolidated into a single W_PAT_ID, resulting in more effective linkage of patient records.

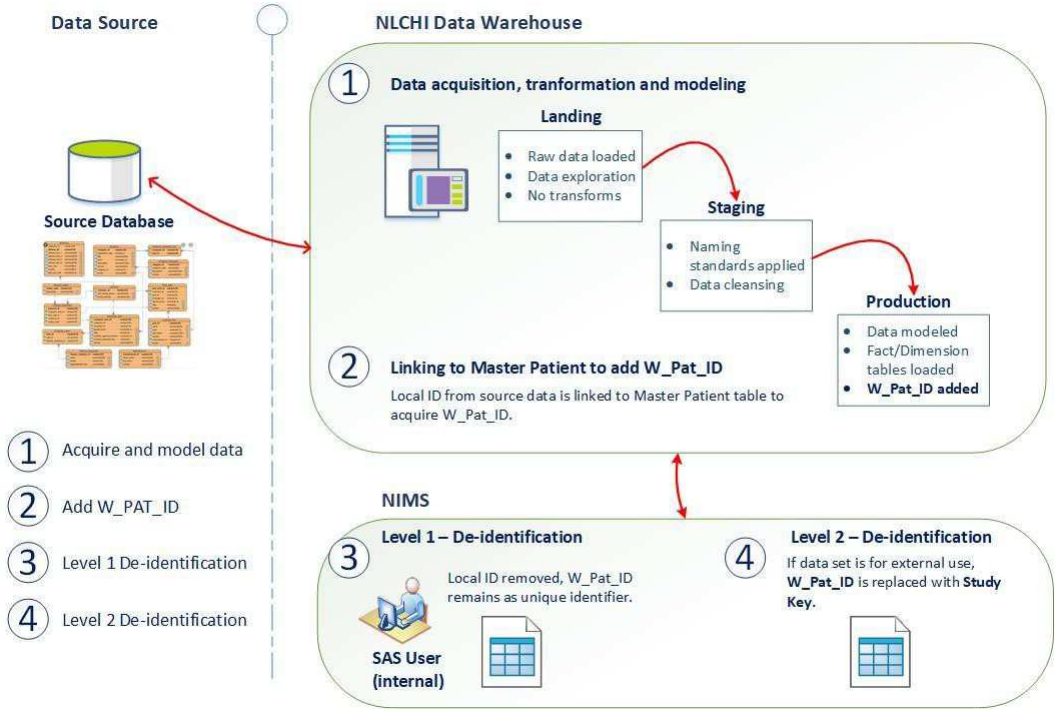
Following replacement of patients' health care numbers with W_PAT_ID in NIMS datasets, all direct identifiers (as prescribed by the Safe Harbor method and in consultation with dataset business owners), including health care numbers, are then stripped from the record. The result is a pseudonymized NIMS dataset that is linkable with other datasets stored in NIMS or the DW.

3. Level 2 De-identification

3.1 NIMS De-identification (Level 2 De-identification)

Datasets that are made available to external requestors have another layer of de-identification applied to a prepared data set before it is made available outside the Centre's internal DW and NIMS environments (i.e., the Research and Evaluation environment). For each dataset prepared for an external audience, the W_PAT_ID is removed and replaced with a new unique study key that is not used with any other dataset. As such, the dataset cannot be reasonably linked to any other existing dataset as there is no common identifier available across files.

Figure 1. Dataset acquisition and de-identification within DW and NIMS[2].



[2] Some data sets may come into NIMS directly in addition to DW data acquisition.

Appendix B: Examples of Secondary Use Activities that do not require Separate Approval

This Appendix lists examples of the approved uses and disclosures of EMR Data that do not require specific EMR Management Committee approval when the user has policies that have been reviewed by the EMR Management Committee.

1) Health System Planning, Management, and Health Policy Development

Examples of health system planning, management, and health policy development include but are not limited to:

Describing Patient Populations and Health Care Needs

To effectively plan, deliver, and manage health services, information about the patient population and the health status of the population is required. Examples of the type of information produced to support this type of activity includes the following:

- Demographic information such as the number of patients residing in a geographic area and their age structure;
- Immunization information;
- Types and incidence of chronic disease;
- Management of chronic disease (e.g., blood pressure testing, smoking cessation/healthy eating/physical activity advice, foot exams for individuals with diabetes, etc.), and;
- Cancer screening.

Describing Availability and Location of Health Care Services

For most patients, family physicians are the first point of contact for obtaining health care services. Therefore, an understanding of what health services are currently available is important to identify gaps in services available to patients. Examples of the type of information produced to support this type of activity includes the following:

- Number of patients who have a regular provider;
- The types of patients without a regular provider;
- Other characteristics that describe access to primary care services in communities and regions of the province, and among target populations;
- The locations services are provided, and
- Number of referrals to selected healthy living/self-management programs and services.

Describing Health Service Utilization

Patient's interactions with the health care system generates demographic, utilization and clinical information. Analyzing health service utilization data reveals important information that is used to inform individual care decisions, and broader health system planning, management, and health policy development. Current health service utilization patterns can also be used to predict future health service utilization. This information can be used to inform health system design and resource allocation. Examples of the type of information produced to support this type of activity includes the following:

- Number and frequency of physician visits;

- Number of repeat visits;
- Number of patients who do not keep their appointments;
- Cancellation rates, and;
- Number of patients seeing multiple providers.

Producing Information to Inform Potential Interventions

Information about patient populations, their health care needs, what services are available, and how patients are utilizing these services can be used to inform potential interventions. For example, this type of information could be used to determine whether new services, or a walk-in clinic are needed in a certain geographic area.

Evaluating and Monitoring Programs and Services

Once an intervention is implemented, evaluation and monitoring is required to determine if the health system change is meeting the needs of the patient population. Health service utilization and patient outcomes pre and post implementation of the intervention would need to be assessed. Examples of the type of information produced to support this type of activity includes the following:

- Patient populations;
- Patient health care needs;
- What services are available, and;
- How patients are utilizing these services to measure and report on health system performance.

2) Public Health Surveillance

Identifying and Reporting of Immunizations

EMR Data will be used to report the number of publicly funded vaccines that are administered by physicians.

3) Quality Improvement

Evaluate and Monitor Quality of Care and Patient Outcomes

Information required for monitoring quality of care and patient outcomes includes the following:

- Number of physician visits;
- Number of repeat visits;
- Number of patients that do not keep their appointments;
- Cancellation rates, and;
- Number of patients seeing multiple providers;
- Type of treatment provided for various conditions;
- Reduction in blood pressure in patients with hypertension, and;
- Wait times for health care services.

Data Quality Initiatives

EMR Data will also be used to support data quality and standardization processes related to datasets used and maintained by NLCHI and the RHAs.

Appendix C: Examples of Secondary Use Activities that Require Separate Approval or Consent

1) Health System Planning, Management, and Health Policy Development

Producing Information to Support the Family Practice Renewal Program when individual physician information is used

The Family Practice Renewal Program (FPRP) was established in late 2015, through a MOA between the NLMA and the Department of Health and Community Services. There are three core initiatives within the program:

- Family Practice Networks: These networks will provide a structure and mechanism through which physician groups will have the opportunity to address common practice needs, as well as local population health needs, in collaboration with their RHAs;
- Fee Code Program: This program is designed to achieve patient, physician, and health system benefits such as comprehensive care, collaboration with other providers, and improvements in patient access; and
- Practice Improvement Program: This program will provide physician practices with education and support for clinical and workflow issues.

NLCHI will be working with the FPRP to evaluate this initiative. Information will be produced to inform decisions related to program design, plans for sustainability, decisions regarding spread of innovations, programs and concepts that are working, and to demonstrate accountability for achieving intended outcomes. To complete this evaluation, with the approval of the FPRP Management Committee, NLCHI will link FPRP program data to EMR Data for analysis of program uptake and to assess other evaluation issues. Analysis and disclosure related to FPRP will, consistent with other Secondary Uses above, use De-Identified data and will not be used for monitoring or auditing the activity of individual physicians, except when related to the FPRP and with the physician's express consent.

2) Clinical Practice and Program Management

Physician Performance and Benchmarking

Choosing Wisely Newfoundland and Labrador (CWNL) launched in October 2016 and is coordinated by the Translational and Personalized Medicine Initiative (TPMI) at Memorial University. CWNL works in partnership with the RHAs, NLCHI, NLMA and the Patient Advisory Council (NL SUPPORT). CWNL also works in partnership with Choosing Wisely Canada in implementing their practice recommendations. CWNL will take various practice recommendations from Choosing Wisely Canada and implement change strategies which involve physician awareness and education on test ordering or prescribing patterns. To achieve this goal, CWNL will require the following identifiable physician information:

- Types of tests individual providers are ordering;
- Medications individual providers are prescribing, and;
- Frequency of test ordering and prescribing patterns.

Patient information will be de-identified, and providers will only have access to their own practice data. Identifiable physician data disclosed for these purposes will require EMR Management Committee approval.

NLCHI will also use EMR Data to provide physician dashboards. Patient data would be aggregated and various indicators would be included on these dashboards to provide individual physicians with an easy-to-interpret visual displays of their patient information. The ability to trend indicator results over time, and compare with peers and guidelines would also be available. Examples of the type of information needed to achieve this goal include the following:

- Individual physician's patient population;
- Patient health status;
- Test ordering, and;
- Prescribing practices.

The end user of physician dashboards is for the benefit of individual physicians. The data used to produce these dashboards is not available to any other user or organization, or for any other purpose or disclosure, unless specifically approved by the EMR Management Committee.

Meaningful Use

NLCHI will also use EMR Data to determine what components of the EMR are used by physicians as a group or by individual physicians with the physician's consent. EMR practice advisors will use this information to improve the meaningful use of the EMR by the physician. The end use of this information is for the benefit of individual physicians and practices. The information is not available to any other user or organization, or for any other purpose or disclosure, unless specifically approved by the Management Committee.

Clinical Decision Support Triggers

NLCHI will use EMR Data to create clinical decision support triggers for the purpose of supporting clinician decision making during the process of providing patient care. Examples of clinical decision support triggers include the following:

- Preventive care reminders (e.g., immunizations, cancer screening, etc.);
- Program referral eligibility (e.g., diabetes collaborative, remote patient monitoring, smoking cessation, etc.), and;
- Chronic disease management (e.g., blood glucose and blood pressure monitoring, etc.).

The end use of this information is for the benefit of individual physicians and practices. The information is not available to any other user or organization, or for any other purpose or disclosure, unless specifically approved by the Management Committee.

Appendix D: Template for Reporting Use and Disclosures of EMR Data

Type of Activity	Category of Secondary Use	Project Title	Type of EMR Data	EMR Management Committee Approval
Use	*Health System Planning*		*De-identified*	*Not Required*
Disclosure	*Research*		*De-identified*	*Approved*

Appendix E: NLCHI Approval Process

NLCHI's Secondary Uses Review and Approval procedure establishes requirements for the uses and disclosures of record-level data, including identifiable and De-identified Data, by the NLCHI. Requests to access record-level data are received by NLCHI's Information Request Coordinator (IRC). A consultation meeting is usually arranged where the requestor and various subject matter experts meet to discuss the details of the request.

Once all required documents are received (i.e., final application, HREB application and approval if required), the Secondary Uses Committee chair determines the type of review required, including where approval by the EMR Management Committee is required (i.e., full committee/expedited). Applications requiring full review are reviewed by the Secondary Uses Committee. Applications deemed appropriate for expedited review are reviewed only by the chair of the Secondary Uses Committee.

Following review of the application and supporting documents, the VP Data and Information Services is briefed on the application and a recommendation is made by the Secondary Uses Committee chair to NLCHI's VP responsible for privacy regarding application approval. If approved, an approval letter is provided to the requestor, signed by the VP responsible for privacy, and includes terms and conditions of use. The requestor is asked to sign to accept the terms and conditions and return a signed copy of the letter to NLCHI. Upon receipt of all required approvals, NLCHI and the requestor enter into a service agreement. This agreement refers to the terms and conditions of use specified in the approval letter and includes additional statements related to use of the data, data transfer, confidentiality and intellectual property associated with the data.

Appendix "C": Professional Services Agreement

Newfoundland & Labrador
Centre for
Health Information

Contract Number: PS-15-023

PROFESSIONAL SERVICES AGREEMENT

BETWEEN:

Newfoundland and Labrador Centre for Health Information
Located at 70 O'Leary Avenue, St. John's, NL, A1B 2C7
(the Centre)

-and-

TELUS Health Solutions GP
Herein represented by its managing partner
TELUS Health Solutions Inc
630 Rene-Levesque West, Montreal, Quebec, H3B 1S6, Canada
(the "Contractor")

Project: Electronic Medical Records

WHEREAS the Centre is desirous of receiving professional services for the project described in Schedule "B";

AND WHEREAS the Contractor hereunder is desirous of providing said EMR Services as defined herein;

AND WHEREAS the parties acknowledge that the Centre will be purchasing user subscriptions and thereafter be entering into agreements with individual medical clinics and/or individual physicians, including other health professionals, located in the Province of Newfoundland and Labrador (hereinafter referred to as "Authorized Users") for use of the EMR Services.

NOW THEREFORE the parties hereto agree as follows:

1.0 SERVICES

1.1 The Contractor agrees to provide the Centre with professional services as set out in Schedule "B" (Contractor Services) attached hereto (sometimes referred to as the "EMR Services"). For the purpose of this Agreement and for greater clarity, EMR Services means the Contractor's proprietary electronic medical records services and functionalities delivered to the Centre by the Contractor as a service as identified in the SOW herein as well as other associated services identified in the SOW. Any Statement of Work (SOW) referencing to this Agreement and signed

after the date of this Agreement is hereby acknowledged to be subject to the terms and conditions of this Agreement and the express terms contained in the particular SOW. In the event of a conflict between the terms and conditions of this Agreement and the terms and conditions of a SOW, the terms and conditions of this Agreement shall prevail.

1.2 Subject to the Centre purchasing the appropriate number of user subscriptions, the Contractor hereby grants the Centre a non-exclusive right to access the EMR Services and transfer such access rights to Authorized Users.

1.3 During the Initial Term or any Renewal Term the Centre shall have the irrevocable right to purchase additional access rights and transfer those rights to Authorized Users, all in accordance with the terms and conditions of this Agreement.

1.4 The Contractor shall provide the EMR Services using qualified resources and perform such services at all times in accordance and in full compliance with the statutes, laws, ordinances and regulations applicable to the Contractor in its provision of the EMR Services.

1.5 Within 10 days of delivery of any EMR Services, the Centre reserves the right to refuse any EMR Services which are not in accordance with the specifications of this Agreement and/or contained in any SOW and, without limiting the remedies available to the Centre , the Centre at its discretion may return such work for correction at the Contractor's own cost and expense or; withhold payment of moneys payable pursuant to this Agreement until such time as the Contractor provides such work which is on accordance with the specifications.

1.6 In this Agreement Clinic Data means "any clinical data or personal information that is created by the Authorized Users or received by the Authorized Users through the EMR Services from a third party and accessed through the EMR Services but excludes any anonymized aggregated data, statistics or information derived from Clinic Data that cannot be associated, directly or indirectly, with any individual patient, health professional or the Authorized User. The Contractor will only use the Clinic Data for the provision of the EMR Services and in compliance with the terms of this Agreement. The Contractor is strictly prohibited from selling or providing any Clinic Data to third parties without the Centre's and Authorized User's prior express consent. From time to time, the Contractor may create usage statistics and metrics derived from the use of the EMR Services by its users. Those usage statistics and metrics will only be used to support: (i) the development, support and improvement of the EMR Services and related Contractor's services; (ii) the promotion of the Contractor's services to other existing or potential customers in promotional material such as brochures, presentations and other similar materials. Under no circumstances will TELUS permit the usage statistics and metrics to identify patients, nor will it sell or provide the usage statistics and metrics to third parties, without the Centre's and Authorized User's prior express consent.

1.7 The Contractor shall use commercially reasonable efforts to assist the Centre or Authorized Users in the recovery of lost Clinic Data from the last available back-up preceding the loss, it being

understood however that Centre or Authorized Users shall not be entitled to recover damages from the Contractor related to the cost of re-entry of data or other physical recreation of any data not recovered from the Contractor's back-up.

1.8 The Centre and Authorized Users shall not: (i) permit or assist others, to use the EMR Services for any purpose other than that for which they are intended and designed; (ii) not alter, tamper with or attempt to repair the EMR Services; (iii) resell the EMR Services (except by the Centre to Authorized Users in compliance with the Agreement); (iv) use or provide access to any persons other than the Authorized Users; (v) use or access the EMR Services in order to provide service bureau facilities or to support the operations of anyone else other than the Centre and Authorized Users; (vi) reverse engineer, decompile, disassemble, re-engineer or otherwise create or permit, allow, or assist others to create the source code of any software associated with the EMR Services; (vii) use, or permit the use of the EMR Services in a contradiction to its associated documentation or in any otherwise abusive way; (viii) use or permit the use of the EMR Services for anything else than in connection with its provision of health care services.

1.9 The Centre agrees that the Contractor has no control over the stability and throughput speed of the Internet or the availability of the EMR Services on a continuous or uninterrupted basis, subject to the service levels set out in Schedule "D" (SLA). The Centre and Authorized Users shall be solely responsible for providing, maintaining and ensuring compatibility with the EMR Services, including securing Internet access connections. The Centre shall be solely responsible for all problems, conditions, delays, delivery failures and all other loss or damage arising from or relating to network connections or telecommunications links or caused by the Internet. The Contractor shall not be responsible for the corruption, damage, loss or mis-transmission of Clinic Data or for the security of Clinic Data during transmission via any telecommunications facilities.

1.10 The Centre will provide (and will cause the Authorized Users to provide) cooperation and assistance as may be reasonably necessary in order to enable the Contractor to provide the EMR Services.

1.11 In relation to the Authorized Users, the Centre undertakes that:

(a) the maximum number of Authorized Users shall not exceed the number of users subscriptions it has purchased from time to time;

(b) it will not allow or tolerate any user subscription to be used by more than one individual Authorized User unless it has been reassigned in its entirety to another individual Authorized User, in which case the prior Authorized Users shall no longer have any right to access or use the EMR Services; and

(c) it will provide the Contractor with a list of all Authorized Users on an annual basis and upon request.

1.13 The Centre will enter into a written agreement with each Authorized Users containing all relevant terms, conditions and restrictions contained herein, including without limitation Sections 1.6, 1.7,

1.8, 1.9, 1.10, 1.11, 1.14, 1.15, 1.18, 5.1, 9.4, 9.5, 14.1, 20 and a provision limiting the liability of the Centre and the Contractor to an amount not to exceed the fees paid by the Authorized User during the 12 month period preceding the date of notification of claim. As between the parties, the Centre is liable to the Contractor for all acts or omissions of Authorized Users, as if such acts or omissions were committed or omitted by the Centre itself.

1.14 The EMR Services allow the Centre and the Authorized Users to customize several aspects of the EMR Services, such as managing access rights and enabling/disabling functionalities. The Centre understands and agrees that it (and the Authorized Users) are solely responsible for such configurations, including without limitation the effects such configurations may have on the privacy of the Clinical Data or the liability of Authorized Users.

1.15 The Centre and Authorized Users are solely responsible for all equipment used in connection with the EMR Services. The Centre and Authorized Users are responsible for meeting the minimum hardware, Internet services and firewall requirements as outlined in the EMR Services documentation.

1.16 The Centre shall keep all usual and proper records relating to its obligations under, and compliance with the terms of this Agreement. The Contractor shall have the right to audit the Centre's systems, facilities, processes and records to the extent required to verify compliance with this Agreement. The Contractor shall ensure that such audits be conducted by the Contractor or its suppliers or their personnel under written confidentiality obligations no less stringent than those contained in the confidentiality provisions hereunder. Such audits shall take place, upon reasonable notice to the Centre, during normal business hours and in such a manner as not to interfere unreasonably with the Centre's operations. The audit shall be performed at the Contractor's sole expense; provided however, that if, as a result of such audit, it is determined that the Centre has materially breached the terms and conditions of this Agreement, then the Centre shall bear the reasonable cost of the Contractor's audit.

1.17 No more than once every two (2) years, the Centre shall have the right to conduct an inspection of the Contractor's facilities where the Clinic Data will be hosted for the sole purpose of assessing whether such facilities comply with the requirements set out herein. Before performing such inspection, the Parties will agree on an audit plan that will describe the scope, time and duration of the inspection, including what kind of reports or documentation can be produced by the inspectors following the inspection. The Centre understands that some portions of the facilities may not be accessible during such inspections in order to protect the confidentiality and security of the facilities as it pertains to other projects and clients. The Centre and the individuals participating to the inspection may be required to sign a confidentiality agreement supplied by the Contractor which may include security policies, procedures and requirements to be followed during and after the inspection. Such audits shall take place during normal business hours and in such a manner as not to interfere unreasonably with the Contractor's operations. Each Party shall bear its own costs as it pertains to such inspections.

1.18 The Centre shall procure the Contractor with the right to conduct an investigation and/or audit of all Authorized Users operations and records (but only to the extent that these relate to the EMR Services) during normal business hours and at the Contractor's reasonable expense. The Authorized Users will be required to cooperate fully with such investigations and/or audits, the scope, method, nature and duration of which shall be at the discretion of the Contractor, acting reasonably. The Contractor shall use reasonable efforts to minimize disruption to the Authorized User's business.

2.0 TERM

2.1 The parties agree that upon signing this Agreement shall commence on November 2nd, 2015 and terminate on November 2nd, 2018 (the Initial Term) unless terminated earlier in accordance with the provisions of sections 10 or 11 herein. This Agreement shall automatically renew for successive one year periods (each a "Renewal Term") unless either the Centre or Contractor notifies the other party by written notice at least thirty (30) days prior to the end of the Initial Term or any of the Renewal Terms, as the case may be, that it wishes to terminate this Agreement. The Initial Term and Renewal Term(s) if any, are collectively referred to as the "Term". Any renewal herein shall be made under the same terms and conditions unless agreed to otherwise in writing.

3.0 COMPENSATION

3.1 The Centre agrees to pay the Contractor the amount at such times as set forth in Schedule "C" attached hereto.

3.2 The Contractor will invoice the Centre for the applicable fees, taxes and any other applicable charges or fees. All invoices will be subject to net thirty (30) day payment terms.

3.3 User subscription payments by the Centre to the Contractor shall be due notwithstanding any payment dispute or difficulty between the Centre and Authorized Users.

3.4 Past due amounts shall bear interest at the rate of 2% per month, 26.8% per annum.

3.5 All fees paid hereunder are exclusive of any applicable sales, use, personal property or other taxes. In the event that a sales, use, excise, services tax or other tax (excluding taxes based on the Contractor's net income or assets) is assessed based on the access rights granted and/or services provided hereunder, the Centre shall be responsible for and pay the amount of any such tax. The Centre shall be responsible for paying all personal property, sales, or use taxes due on or with respect to any software or computer systems owned, licensed or leased by the Centre.

3.6 The Contractor shall have the option to increase the fees set out herein by an amount not to exceed the increase of the Canadian (All Items) Consumer Price Index in the twelve (12) months preceding the effective date of price increase. Any price increase shall be communicated to the Center in writing at least sixty (60) days before the effective date of the price increase and shall not have a retroactive effect unless expressly agreed to by the Center. Notwithstanding the foregoing, the Contractor shall not be permitted to exercise its rights under this paragraph during the first twelve (12) months following the Effective Date of the Agreement.

4.0 PATENT, TRADEMARK, TRADE SECRET AND COPYRIGHT INFRINGEMENT

4.1 Subject to paragraphs 4.2 below, the Contractor will defend and indemnify the Centre from and against any claims or actions against the Centre for actual infringement or misappropriation of third party Canadian copyrights, trade-marks, trade secrets and industrial design directly resulting from the Centre's or Authorized Users' legitimate use of the EMR Services.

4.2 Should the Centre's or Authorized Users' legitimate use of the EMR Services be restricted, encumbered, or enjoined by reason of any actual or alleged infringement or misappropriation covered by Section 4.1 above, the Contractor, at its sole discretion, and at no additional cost to the Centre shall (i) obtain for the Centre, on commercially reasonable terms, the right to continue to use the infringing EMR Services; (ii) modify the infringing EMR Services so as to render them non-infringing; or (iii) replace the infringing EMR Services with equally suitable, non-infringing software or third party software, which will be subject to the provisions of this Agreement. The obligations of the Contractor set forth in this section 4.2 will not apply if and to the extent that the infringement claim results from (a) a breach of this Agreement by the Clinic or an Authorized User or (b) unauthorized use of the EMR Services.

5.0 OWNERSHIP OF MATERIALS

5.1 The Contractor and its partners shall retain exclusive ownership of all right, title and interest (including any patents, copyrights, trademarks, service marks, trade dress, logos, technical information, know-how, trade secrets or confidential or proprietary information, or other intellectual property rights, whether currently existing or hereafter developed or acquired, and all applications, disclosures and registrations with respect thereto) in and to the EMR Services, the applications/software, associated services, the documentation, and all legally protectable elements, derivative works, modifications and enhancements thereto, whether or not developed in conjunction with Centre or an Authorized User, and whether or not developed by Centre, an Authorized User or any contractor, subcontractor or agent for the Contractor, the Centre or an Authorized User.

5.2 In the event the Centre or an Authorized User develops methodologies, processes, or any modifications to components other than the EMR Services that are for the sole purpose of the Centre's or Authorized Users use of the EMR Services (and therefore not part of the EMR Services)

then such methodologies, processes or modifications shall remain the property of the Centre or Authorizer Users as applicable to the extent such methodologies, processes or modifications are not covered by Section 5.1 above.

5.3 For greater clarity the Centre retains the right to use the data subject to the EMR Services for "Secondary Use" purposes meaning the use of health information for purposes such as health system planning, management, quality control, public health monitoring, program evaluation, research, and teaching and education. Such Secondary Use shall be consistent with the standards and practices of the Canadian Institute of Health Information. Without limiting the generality of Section 5.1 above, the Centre is solely responsible for obtaining any consents, permissions or authorizations (required by applicable laws or otherwise) from Authorized Users, their health professionals and patients, to carry out such Secondary Uses and agrees to indemnify the Contractor for any claims or damages associated thereto. For clarity, modifications to the EMR Services may be required depending on the nature of the Secondary Use the Centre wishes to carry out. Such changes will be managed in accordance with the change management procedure set out in Section 17 below.

6.0 CONFIDENTIALITY

6.1 Except as permitted hereunder, neither Party shall use the other Party's Confidential Information without the other Party's written consent or disclose the other Party's Confidential Information except: (A) to employees, contractors or consultants only if they have a need to know about it for purposes of this Agreement and subject to the confidentiality obligations herein, or (B) if required to comply with a court order or other government demand that has the force of law, in which case the Party shall seek the highest level of protection available and, when possible, give the other Party enough prior notice to provide a reasonable chance to seek a protective order.

6.2 "Confidential Information" means non-public information in any form that is designated as confidential, or a reasonable person knows or reasonably should understand to be confidential. The following types of information, however marked, are not Confidential Information: that which (i) at the time of disclosure is generally available to the public through no breach of this Agreement or other wrongful act by the receiving Party, (ii) has been received by the receiving Party from a third party without restriction on disclosure and without breach of agreement or other wrongful act by the receiving Party, (iii) is independently developed by the receiving Party without regard to the Confidential Information of the disclosing Party.

6.3 The Parties agree to the Additional Privacy Obligations set out in Exhibit E hereof, which forms part of this Agreement. The Contractor, the Centre and the Authorized Users are each responsible for complying with their respective obligations under applicable privacy laws. With respect to personal information transferred or otherwise made available to the Contractor by or on behalf of

the Centre or the Authorized, the Centre and the Authorized Users represent, warrant, covenant and agree that the Centre and the Authorized Users have the authority and/or have obtained all necessary consents required under applicable laws to enable the personal information to be transferred, disclosed, processed, copied, altered, stored, deleted, or otherwise used by the Contractor for the provision of the EMR Services and intended purposes identified in this Agreement.

6.4 Without prejudice to any other rights provided herein, upon termination of this agreement, each Party shall return to the other Party in its possession or control, or at receiving Party's option, destroy such Confidential Information, including any copies or reproductions thereof, with such destruction confirmed in writing. This provision does not apply to electronic copies made as part of the receiving Party's standard computer back up practice, subject to such electronic copies continuing to be subject to this Section 6.

6.5 The receiving Party shall deploy commercially reasonable efforts to promptly notify the disclosing Party of any material unauthorized disclosure of Confidential Information by the receiving Party, its associates, servants or agents.

6.6 Each Party shall (i) take reasonable steps to safeguard the other Party's Confidential Information, which steps shall be at least as protective as those the Party takes to protect it owns confidential information; and (ii) cooperate in any reasonable way to help the other Party regain control of the Confidential Information and prevent further unauthorized use or disclosure.

6.7 The provisions of this section shall continue to bind the Parties notwithstanding the expiration or termination of this Agreement.

7.0 INDEPENDENT CONTRACTOR AND STATUS

7.1 The Parties are operating as independent contractors, and nothing in this Agreement shall be construed as creating a partnership, franchise, joint venture, employer-employee or agency relationship.

7.2 The Contractor represents and warrants that it is a Canadian entity and that the Clinic Data shall be hosted in Canada at all times during the currency of this Agreement.

8.0 ASSIGNMENT AND SUBCONTRACTING

8.1 This Agreement is not assignable by either party without the prior written consent of the other. Notwithstanding the foregoing, the Contractor may assign this Agreement to one of its affiliates or to the purchaser of all or a portion of the business this Agreement relates to without the prior

authorization of the other Party. This Agreement will be binding on, and will enure to, the Parties and their respective successors and permitted assigns.

8.2 The Contractor may retain subcontractors in connection with this Agreement but remains solely liable to the Centre for acts or omissions of such subcontractors.

9.0 DISCLAIMER OF WARRANTIES LIABILITY AND INDEMNITY

9.1 The Contractor is liable to the Centre for all personal injury or property damage caused to the Centre, the Centre's employees or agents and Authorized Users as the result of the negligence or wrongful actions of the Contractor, its associates, servants or agents in the course of performing its obligations under this Agreement.

9.2 The Contractor agrees to indemnify and save harmless the Centre from all actions, claims, suits, demands, loss and damages resulting from the unauthorized disclosure of Confidential Information, injury to persons, or direct damage to tangible personal property caused by the gross negligence or wrongful actions of the Contractor, its associates, servants and agents in the course of performing its obligations under this Agreement.

9.3 Notwithstanding anything to the contrary stated in this Agreement, in no event shall the Contractor be liable to the Centre or any third party for a total and cumulative amount in excess of the fees paid by the Centre hereunder during the 12 month period preceding the date of notification of claim. In no event will the Contractor be liable to the Centre or to any other entity arising out of or related to this Agreement for any special, indirect, incidental or consequential damages, loss of data or profit or business interruption, arising out of or related to this Agreement, under any theory, whether or not foreseeable, whether or not advised of the possibility of such damage. The provisions of this Section shall apply regardless of the form of action, damage, claim, indemnity, liability, cost, expense, or loss, whether in contract, statute, tort or otherwise.

9.4 Except as expressly set forth herein, information or services accessed or provided in connection with this Agreement, including for greater clarity the data conversion services, are provided "as is" and "as available". Contractor disclaims all statutory representations, conditions and warranties, express or implied, including but not limited to any implied warranties of merchantability, accuracy, integrity, freedom, non-infringement or fitness for a particular purpose, or arising from course of performance or course of dealing, or that services or application will provide error free or uninterrupted functionalities. The Centre acknowledges and agrees that the Contractor has no responsibility of the Clinic Data (including without limitation, the content, accuracy or quality of the Centre's data) any errors or omissions in the Clinic Data data or any such data handled or transmitted using the EMR Services.

9.5 The Centre acknowledges that the professional obligation to provide health services to the patient is the sole responsibility of the Authorized Users. The Contractor does not directly or indirectly practice medicine or provide medical services or products and therefore assumes no liability whatsoever of any kind for the information and data accessed through the use of the EMR Services or for any diagnosis or treatment made in reliance thereon. The EMR Services should not be considered as a replacement or substitute for the standard practices, professional judgment, skill and expertise of the health professional using them, but as a computer aid for the health professional. The EMR Services are not intended to be used as a medical device. The absence of an alert for a specific situation or a combination of specific situations should not be considered as an assurance that the specific situation or combination of specific situations is without risk for any Authorized User or patient. Neither the Contractor nor its suppliers shall be held liable for actions of the Centre or Authorized Users that may cause damage or losses due to professional fault, failure to inform, negligence or any cause of action. The Centre shall ensure that the health professional and individuals authorized to use the EMR Services are informed of the limitations inherent in the use of the EMR Services.

9.6 For purposes of this Section, the term the Centre shall include its respective partners, directors, officers, employees, associates, representatives, agents and volunteers.

10.0 TERMINATION

10.1 The Centre may terminate this Agreement without cause by provision of 30 days notice, or earlier, if parties mutually agree in writing, such notice being provided in accordance with the provisions of section 18.

10.2 The Centre shall pay to the Contractor the amounts payable (as of the date of termination) in the applicable SOW as well as such amounts as are properly attributable to the work performed or costs or financial commitments incurred prior to the date of termination which cannot otherwise be avoided, including termination, transition and data extraction costs.

10.3 Subject to Section 12.1 below, the Centre shall have no obligation to pay the Contractor for any work performed after the Contractor has been directed to suspend or cease work under the particular SOW.

11.0 TERMINATION FOR CAUSE

11.1 If either party to this Agreement is in material breach of any of its obligations under this Agreement, the other party may give notice in writing of the breach to the defaulting party and request the latter to remedy it. If the party in breach fails to remedy the breach within thirty (30) days after the date of delivery of such written notice, then this Agreement may be terminated immediately by further written notice of termination given by the complaining party.

11.2 For clarity, the following situations shall be considered material breaches of this Agreement::

a) the Contractor is in material breach of Section 6 of this Agreement relating to the secrecy of Confidential information; or

b) the Contractor becomes insolvent or bankrupt or makes an assignment for the benefit of creditors, or a receiver is appointed of its business; or a voluntary or involuntary petition in bankruptcy is filed or proceedings for the re-organization or winding-up of the Contractor are instituted.

c) a Party attempts to assign or cede any interest in this in breach of Section 8.

11.3 The Centre shall pay to the Contractor the amounts payable (as of the date of termination) in the applicable SOW as well as such amounts as are properly attributable to the work performed or costs or financial commitments incurred prior to the date of termination which cannot otherwise be avoided, including termination, transition and data extraction costs.

11.4 The Contractor may immediately suspend or terminate operation of EMR Services or portions thereof if the Contractor reasonably believes that such suspension is necessary (i) to prevent unauthorized access or other threats to the privacy, security and integrity of the data; or (ii) as a result of any applicable law.

12.0 EFFECTS OF TERMINATION

12.1 Upon termination or expiry of this Agreement, the Centre shall collaborate with the Contractor to facilitate a smooth transition of the Authorized Users who want to continue to receive the EMR Services directly from the Contractor by assisting in the preparation and communication of a transition and re-contracting plan of a mutually agreed and reasonable duration. User subscription fees and other fees shall continue to be payable during the transition period. Upon termination of the transition period, the Centre and Authorized Users shall cease to use the EMR Services and permanently uninstall all instances of any software provided by the Contractor. Within a reasonable period of time from the end of the transition period, TELUS shall transfer or provide copies of the clinic data to the Centre or any other supplier or agent of the Centre as directed by the Centre. The Centre agrees that the Contractor will be compensated for the services completed and materials delivered in accordance with this Agreement up to the effective date of termination and if terminated for cause, including termination, transition and data extraction costs.

13.0 SAFETY AND SECURITY

13.1 The Contractor takes the protection and security of the Clinic Data seriously and has implemented reasonable physical and virtual industry-standard security measures and safeguards, including

those described in the SOW. From time to time, the Parties may agree in writing to implement specific safety and security policies that are relevant to the provision of the EMR Services.

14.0 FORCE MAJEURE

14.1 A party shall be excused from performance under this Agreement for any period to the extent that a party is prevented from performing any obligation as a result of causes beyond its reasonable control, including fire, flood, riot, strikes, labour disputes, freight embargoes, acts of God or of the public enemy, war, civil disturbances or terrorism act and without its negligence or willful misconduct. The delay to render EMR Services shall be extended for the same duration. However, if the force majeure continues for more than sixty (60) days, each party may terminate the contract without cost.

15.0 AMENDMENTS

15.1 No amendment, modifications or waiver of any term or provision of this Agreement shall be valid or binding unless it is in writing and duly executed by both parties and is then effective only in the specific instance and for the specific purpose for which it is given.

16.0 INTERPRETATION

16.1 Entire agreement and waiver. This Agreement (including the SOW) constitutes all of the agreements between the Contractor and the Centre pertaining to the subject-matter of it and supersedes all prior agreements, undertakings, negotiations and discussions, whether oral or written, of the parties to it and there are no warranties, representations or other agreements between the parties to it in connection with the subject-matter of it except as specifically set forth or referred to in this Agreement. No supplement, modifications, waiver or termination of this Agreement shall be binding unless executed in writing by the party hereto to be bound thereby. No waiver of any other provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions (whether or not similar) nor shall the waiver constitute a continuing waiver unless otherwise expressly provided.

16.2 Interpretation. In this Agreement, words importing the singular number include the plural and vice versa, words importing the masculine gender include the feminine and neuter genders; and words importing persons include individuals, sole proprietors, corporations, partnerships, trusts and unincorporated associations.

16.3 Applicable law. This Agreement shall be governed by and construed in accordance with the laws of the Province of Newfoundland and Labrador and the laws of Canada in force therein.

16.4 Invalidity of provision. The invalidity or unenforceability of any provision of this Agreement or any covenant in it shall not affect the validity or enforceability of any other provision or covenant in it and the invalid provision or covenant shall be deemed to be severable.

17.0 CHANGE REQUEST PROCESS

17.1 If the Contractor is of the opinion that some aspect of the EMR Services will fall outside the scope of this Agreement, or, the existing SOW requires an extension to complete the necessary deliverables, the Contractor shall immediately, upon noticing such scope deviation or potential scope deviation, notify the Centre to authorize the initiation of the Change Request process.

17.2 The Change Request form (template) provided by the Centre is included in Exhibit D.

17.3 If the Centre considers the EMR Services specified in the Change Request outside the scope of this Agreement, the Centre may:

a) decide not to have the tasks completed; or

b) request the Contractor to complete some or all of the tasks at a mutually agreed upon cost under separate contract.

17.4 The Parties recognize that the Centre may be interested, at some point in time, in revisiting the hosting model set out herein in favour of an alternative hosting model or other aspect or additional services that may be required as the project evolves. If such situation arise, the Parties shall meet and discuss the changes and impact it would involve, including on the EMR Services, the Agreement, the fees as well as other costs such new work may involve. To the extent the Parties reach an agreement about such new work, the Parties will document the changes in writing within appropriate amendments, contracts and/or statements of work, including through the process for additional services set out in Section 1.1 hereof.

18.0 NOTICES

18.1 Wherever in this Agreement notice is required or permitted to be given or served by either party to or on the other, the notice shall be sent via e-mail to the authorized designate for each respective signing authority. Notice personally served or sent by email shall be deemed received when actually delivered or transmitted, if delivery or transmission is on a business day. The contact information is listed below:

To the Centre

Authorized designate of the Centre
Mike Barron
President &Chief Executive Officer
Phone: (709) 752-6002
Email:mike.barron@nlchi.nl.ca

To the Contractor

Authorized designate of the Contractor
Ron Sparks
General Manager – Provider Solutions – Eastern Canada
Phone: (613) 683-1784
Email: ron.sparks@telus.ca

Contact for the Centre:

Tony Williams
Manager, Supply Chain Management
& Business Services
Phone: (709) 752-6032
Email: tony.williams@nlchi.nl.ca

19.0 ADMINISTRATION

19.1 Purchase order numbers must be included on every invoice. Invoices must be sent directly to accounts payable at accounts.payable@nlchi.nl.ca.

19.2 The successful contractor may be required to provide a Certificate of Conduct for the selected individuals.

19.3 The successful contractor should be in good standing with, and may be required to provide a letter from, the Workplace Health, Safety and Compensation Commission (WHSCC) prior to receiving any payments for work performed.

19.4 All travel and accommodations expenses will be in accordance with NL provincial policy (http://www.exec.gov.nl.ca/exec/pss/working_with_us/policies.html#4h). Expenses Template provided in Exhibit F (if applicable).

20.0 THIRD PARTY COMPONENTS

20.1 The Centre understands and agrees that the EMR Services may contain or rely on third party software and or data components from different vendors, including First DataBank, Cerner and Oracle Canada. The Centre acknowledges that such third party vendors are third party beneficiaries of this Agreement.

20.2 The Centre acknowledges that First DataBank has utilized reasonable care in collecting and reporting the information contained in the First DataBank products incorporated into the EMR

Services ("First DataBank Content") and has obtained such information from sources believed to be reliable. The Contractor and First DataBank, however, do not warrant the accuracy of codes, prices or other data contained in its products. Information reflecting prices is not a quotation or offer to sell or purchase. The clinical information in the First DataBank Content is intended as a supplement to, and not a substitute for, the knowledge, expertise, skill and judgment of physicians, pharmacists, or other healthcare professionals in patient care. The absence of a warning for a given drug or drug combination should not be construed to indicate that the drug or drug combination is safe, appropriate or effective in any given patient.

20.3 Without limiting the generality of section 9.5 above, the Contractor and First DataBank make no warranty or representation, express or implied, as to the accuracy of the data from which the information in the First DataBank Content are compiled, nor the compatibility of such First DataBank Content with third party hardware and systems and specifically disclaims the implied warranties of merchantability and fitness for a particular purpose. In no event shall First DataBank or the Contractor be liable to the Centre, an Authorized User or any third party for any consequential, indirect, incidental, reliance or special damages including but not limited to lost profits, even if First DataBank or the Contractor has been advised of the possibility of such damages.

20.4. The Centre acknowledges that the professional duty to the patient in providing healthcare services lies solely with the healthcare provider providing patient care services. The Centre and Authorized Users take full responsibility for the use of First DataBank Content in patient care and acknowledges that the use of such information in no way is intended to replace or substitute for professional judgment. First DataBank does not assume any responsibility for actions of the Centre or Authorized Users which may result in any liability or damages due to malpractice, failure to warn, negligence or any other basis

IN WITNESS WHEREOF the parties hereto have executed this Agreement as of the effective date.

Newfoundland & Labrador Centre for Health Information (the Centre)

Per: _____
Name: Mike Barron
Title: President & Chief Executive Officer

TELUS Health Solutions GP, herein represented by its managing partner TELUS Health Solutions Inc

Per: _____
Name: Michael Guerriere
Title: Vice President – Provider Solutions – TELUS Health

ACCEPTED AND AGREED as of this 2nd day of November, 2015.

EXHIBIT D – Change Control Template

Contract Change Control

Type of Change	
Resource	☐
Time	☐
Scope	☐
Financial	☐

Client
Project Number
Project Leader
Title of Change Control
Original Contract No / Name
Change Control Number
Change Request Number
Requested By
Date Issued

Description of Change Requested
Rationale
Project Impact
1. Effort / Quality
2. Scope / Schedule
3. Budget
4. Project Leadership Signoff

Title:
Name: Signature: _____

Title:
Name: Signature: _____

Supplier		Centre	
Approved ☐ Rejected ☐ Cancelled ☐		Approved ☐ Rejected ☐ Cancelled ☐	
Signing Officer (Print)		Signing Officer (Print)	
Signature		Signature	
Date		Date	

EXHIBIT E
ADDITIONAL PRIVACY REQUIREMENTS

The Newfoundland and Labrador Centre for Health Information (the "Centre") is entrusted with personal health information of individuals in the Province of Newfoundland and Labrador and maintains personal information on employees and contractors, as well as corporate Sensitive Information.

The Centre is obligated by legislation and ethical practices to maintain the strict confidentiality of all Sensitive Information in its custody and control, and to ensure that it is protected by physical, administrative and technical safeguards. These obligations apply to Sensitive Information in all formats, including oral, written and electronic formats; moreover, these safeguards must protect all manners of handling Sensitive Information, including collection, use, disclosure, access, storage, transfer, copying, modification and disposition.

All Suppliers, as well as employees, associates, servants and agents of Suppliers, are responsible for ensuring the confidentiality and protection of Sensitive Information they collect, encounter or create as part of their engagement with the Centre.

ARTICLE 1 – DEFINITIONS

(a) *"ATIPPA"* means the Newfoundland and Labrador *Access to Information and Protection of Privacy Act*, S.N.L 2002 c. A-1.1;

(b) *"PHIA"* means the Newfoundland and Labrador *Personal Health Information Act*, S.N.L 2008 c. P-7.01;

(c) *"CHIA"* means the Newfoundland and Labrador *Centre for Health Information Act*, S.N.L 2004 c. 5.1;

(d) "Centre" means the Newfoundland and Labrador Centre for Health Information;

(e) "Supplier" means the Contractor;

(f) "Personal Information" is defined as per *ATIPPA*;

(g) "Personal Health Information" is defined as per *PHIA*; and

(h) "Sensitive Information" means Personal Information and Personal Health Information collected, encountered, or created by the Supplier during the course of providing the Products, except that information which is determined by the Centre as not being "Sensitive Information".

ARTICLE 2 – PURPOSE OF AGREEMENT

2.1 The purpose of this Schedule is:

(a) To support the Centre's compliance with statutory and other obligations, such as those under *ATIPPA*, *PHIA*, *CHIA* and Centre policy, including Section 22(2) of *PHIA* where applicable; and

(b) To ensure that the Supplier is aware of and complies with its obligations regarding the confidentiality and protection of the Sensitive Information that result from the relationship established between the Supplier and the Centre via the Agreement.

ARTICLE 3 – CONFIDENTIALITY AND PROTECTION OF SENSITIVE INFORMATION

3.1 The Supplier warrants the following:

a) It understands that it must implement reasonable physical and virtual industry-standard security measures and safeguards to protect the confidentiality and protection of the Sensitive Information;

b) It will only handle the Sensitive Information for the purpose set out in the Agreement, or as the Centre authorizes;

c) It will remain aware of and ensure material compliance with the Supplier's policies/procedures and the applicable legislation such as ATIPPA, PHIA and CHIA, including through regular privacy training and awareness campaigns provided by the Supplier to its staff;

d)

e) If it has questions or concerns respecting the confidentiality or protection of the Sensitive Information, then it will address them with the Centre; and

f) It will ensure that all employees, associates, servants and agents of the Supplier that will handle the Sensitive Information have agreed to confidentiality obligations similar to the ones set out in the Agreement and in this Schedule.

g) Inspection and audit activities may be agreed to by the Parties to ensure adherence to items 3.1 a) to 3.1 (g any time throughout the duration of the Agreement.

ARTICLE 4 – SURVIVABILITY

3.1 This Schedule shall survive the termination of the Contract.

Schedule A – Project Background

The Centre, on behalf of the DoHCS, sought the services of interested organizations to provide a commercial off-the shelf (COTS) product and the associated professional and managed services to implement an electronic medical records solution.

The COTS product chosen by the Center is Med Access EMR, provided by the Contractor.

General Description
Med Access is a web-based, configurable Electronic Medical Record (EMR) that provides physicians with a solution that combines data centre infrastructure with clinical record and practice management tools.

1. General Attributes
The general attributes of the Med Access EMR can be described as follows:

- Presentation: The system provides a set of tools for capturing, searching, formatting and displaying patient data.
- Single Sign On: A single sign-on capability provides access to the entire application including practice management and clinical records.
- Access Control: The Med Access EMR provides the ability to limit and control access to patient specific data using specific parameters, including: user permissions, role permissions, type of information, specific patient masking and specific item masking.
- Data Provision: Different types of patient data can be stored within the database including: photographs, scanned images, recorded speech, and electronic documents.
- Consent Management: The Med Access EMR provides mechanisms allowing the user to record a patient's disclosure directives, including the withholding, withdrawal or revocation of consent to access information.
- Masking: In addition to recording a patient's disclosure directives the Med Access EMR provides functionality to:
    - Restrict access to all or part of a patient's chart ("masking");
    - Remove masking at the request of a patient;
    - Provide a status of "masked" only when requested patient data has been masked;
    - Temporarily override the mask ("break the glass") by specifying a time-period for the override and a reason; and
    - Audit all mask/unmask/override actions.
- Templates: Data entry templates and viewing templates can be generated and revised by users to complete charting and notes, billing, order sets or operational workflow.
- Attachments: Digital files may be attached to a patient chart.
- Correction: Data corrections and any annotation requested by a patient, received from another organization, or as determined by provider may be made.
- Synonyms: Users may define multiple synonyms (e.g. acronyms, abbreviations) for diagnoses and all coded elements.
- Measurement Conversion: Users may enter and display both metric and imperial measurement units.

- Transaction Matching: Incoming transactions (e.g. from patient/provider registries, provincial medication/labs databases) are automatically matched with a patient record based on specific fields including last name, first name, birth date and gender.
- Search Capability: Patients are searchable by last name (exact, partial or phonetic), first name (exact, partial or phonetic), Personal Health Number ("**PHN**"), user-defined registration numbers, chart number, full or partial date of birth, aliases, phone numbers and multiple other demographic fields in multiple combinations.
- Record Merger: Patient records may be merged. Each item in a chart can be individually evaluated and moved to another patient's chart.
- Record "Deletion": Users may logically delete patient records or any part thereof (e.g. a diagnosis, a consult request, an immunization) by flagging them as deleted.
- Audit: The access, creation or revision of patient information as well as other user actions is recorded in an audit trail.
- Order Reconciliation. Results or responses to order/request (e.g. lab, investigation, consultation, immunization, referral to a program), whether the provider is internal or external, can be reconciled to orders.
- Help: All system help is available online and is context-specific.
- Business Continuity Copy: The Med Access EMR provides a locally installed Business Continuity Copy (BCC) featuring predictive loading of patient charts from the main/ASP application. The BCC provides the following benefits:
    - Delivers read-only PDF copy of resource schedules and patient charts for offline use;
    - Downloads nightly to a desktop Windows based PC and maintains a rolling subset of days and scheduled patients;
    - Provides 128-bit encryption for the transmission and storage of all data;
    - Honors the masking / confidentiality settings from the main application;
    - Maintains synchronized usernames, passwords and BCC access permissions with the main application;
    - Has an audit trail that is fully integrated into the main application: all BCC and patient chart access attempts are logged and reported back to the main application, immediately if accessed while the main application is operational and automatically updated at the earliest opportunity if accessed during an application/network downtime.

2. Registration & Demographic Information

- Demographic Data: The Med Access EMR provides a single repository for demographic data.
- Unique Identifiers: In the creation a new patient chart, duplicate health numbers are identified and users cannot continue unless a unique health number is used.
- Registration Numbers: Validity checks are performed for registration numbers based on rules defined for each province.
- Relationship Data: A large number (36) of different types of relationships can be documented.
- Alerts: "Name Alerts" are presented when there are records of patients who have similar names.
- Import & Export: Where an interface with an external environment exists, demographic data from these other systems can be both uploaded and downloaded.

- Provider Identification: On the Demographics screen, a user may designate a Provider Group (in addition to Primary and Secondary Providers) who is responsible for the patient.

3. Billing

- Billing: Billing is supported for any task or non-visit encounter, including reminders, phone calls, follow-up, monitoring, etc.
- Diagnostic & Fee Codes: The Med Access EMR maintains a list of facilities and associated functional centres (e.g. Emergency, Clinic) to support billing code requirements.
- Hospital Visits: Users can bill for ongoing hospital care for individual patients, a billing clerk can search for the patient within the Med Access EMR and create an ad hoc bill for the hospital visit.
- Scheduler Integration: The Med Access EMR permits billing of a group encounter with multiple patients through the Scheduler day sheet.
- Outstanding Accounts: Med Access EMR provides an "Aged Receivables" report with 30/60/90+ day receivables.
- Rejected Accounts: Med Access EMR billing automatically reconciles patient claim information to allow users to resubmit rejected claims and print reconciliation reports.
- Third Party Billing: Third Party forms and invoices can be generated, displayed, printed and submitted.
- Out-of-Province Billing: Reciprocal billing is supported between provinces.
- Notifications: For periodic billing, notifications can be set as a recurring task.
- Business Arrangements: The Med Access EMR can manage one or more business arrangements for each provider in a practice and create billing templates to link different claim types with specific business arrangements.
- Fee Schedules: The Med Access EMR's "starter" database is loaded with the most current fee schedules and includes modifiers.
- Reports: Med Access EMR allows users to create routine billing reports within the Billing module, where users can set billing report criteria using filters to specify their query requirements.
- Help: Within the Med Access EMR billing module, there is application specific help concerning topics such as health service code lists, procedure lists, price lists, diagnostic codes, modifiers, facility/functional centre and explanatory codes.

4. Scheduling

- Integration: The Scheduler is integrated with the EMR and Billing components; appointment data and notes flow from the appointment booking and check-in process, through the visit note and EMR entries and into billing without requiring re-entry.
- Search: Users may search for available appointments based on provider, resource, day of week, time of day and/or appointment type.
- Appointments: Users can search and create appointments based on: first available care provider, or a specific care provider.
- Bookings: The "Bookings" tab displays a list of upcoming appointments for an individual patient. Users may display and print daily, weekly and/or monthly schedules for any provider.
- Recalls: Patient Follow up and Recall request can be automatically generated with a single action for a group of patients based on demographic or clinical criteria - including the last date for that particular type of recall (e.g. a specific immunization) and any patient-specific exclusions.

- Views: Appointment types, availability and over-bookings are colour-coded in the schedule for easy identification and can be customized to reduce the variety of appointment types.
- Visit Notes: Patient visit alerts and visit notes can be attached to an appointment at the time of booking (or later) to support care delivery at multiple times surrounding the patient encounter.
- "Doctor of the Day": The scheduler permits designating a provider as "doctor of the day" who may review and complete outstanding tasks that were initiated by other doctors.
- Waitlists: A patient may be assigned to any number of different waitlists for a clinic or for particular providers and/or service types within that clinic.
- Import & Export: The application allows export and import of scheduling records to another Physician Office System (EMR).
- "No Show" & Cancellations: Events with a "No show" and cancellation status can be transferred to billing in order to automatically generate corresponding bills.
- Reports: The Med Access EMR can provide "demand" oriented analytical reports: patients per provider, complexity, billings, unmet requests as well as "supply" reports for provider/resource availability and bottlenecks.
- History: A list of appointments can be viewed with a single click and filtered by past, future, cancelled, no-shows, etc.
- Audit: All accesses to patient records are logged in the audit trail - this includes access using the Scheduler.

5. Patient Care

- Order Sets: The Med Access EMR has order sets for a number of common conditions that can be modified by users. Order sets can include supporting information such as treatment guidelines, decision trees and links to evidence.
- Problems: Problem lists are maintained using discrete fields.
- Patient Data: A patient's history and a list of active follow-up reminders can be viewed when triaging a patient by viewing the patient summary at the point of care or triage.
- Charts: A patient chart is created in the Med Access EMR to document a triage request and the outcome of the process.
- Graphs: Users can specify particular sets of observations to be graphed and specify a limit to the number of data points on the graph.
- Notes: Clinical notes may be documented in a structured SOAP format.
- Templates: The user may document reason(s) for a visit and clinical notes in a problem oriented manner using a combination of templates and text as appropriate.
- Coding Support: Visit templates may be mapped to diagnostic codes. One or multiple diagnostic codes can be supported per assessment.
- Alerts & Flags: Alerts are displayed as distinctive icons with hover-over details when a patient record is opened at the point of care
- Allergies & Intolerances: The Med Access EMR provides interfaces to import and export allergies and intolerances as discrete fields in many formats, including COPD, TOPD.
- Labs: Users can:

- Click on a summary lab view to view the full lab report including updates or corrections;
- Click on individual vital signs, observations, and lab results to graph the history of that measurement;
- Hover over a summary observation or lab result and view a history of that observation or lab test; and
- Click on summarized, visits, meds, profile items, investigations, consults, immunizations, etc. to view details.

6. Immunization

- History: The available immunization history of a patient may be viewed and printed.
- Templates: Immunization templates may contain mandatory fields, including lot number and expiry date, which will be enforced by the Med Access EMR.
- Recalls: The Med Access EMR provides the capability to auto generate patient recalls and print labels and letters for recall events.
- Reports: The same population recall criteria used above for generating recalls or for monitoring completion of goals can be used for listing patient completion (or outstanding follow-ups) and for statistical reporting across a population or sub-population to show completion rates.

7. Diagnostic Tests

- Interface Integration: The Med Access EMR accepts and displays reports received electronically, by fax or by scanning.
- DI Orders: Users may order diagnostic imaging through order templates. All orders are captured in a discrete and optionally coded manner in the patient record so that orders can be searched, whether coded or not, and processed.
- Lab Orders: Users may order lab tests through user-definable order templates which may be set up to automatically show (on hover-over) recent results of the same tests permitting to physicians consider history to avoid duplication or otherwise refine their order.
- Lab Display: Lab test results are displayed in tabular form and indicate from which lab the results originated.
- Results Review: The Med Access EMR generates a review task to the ordering provider and any copied providers for inbound results (including labs, DI, text reports and other electronic or attached results).
- Corrected Results: Corrected results are managed in a manner consistent with medical documentation requirements such that initial lab records are not lost and permanently maintained in the EMR history.
- Sign-Off: The system supports electronic sign-off for lab tests as well as DI reports and/or images reviewed by the requesting physician or delegated user.
- Search: A summary of historical lab results is provided and can be filtered or searched based on tests, order groups and dates.
- Patients: Instructions and test/procedure information for patients may be printed for any order including diagnostic imaging.

8. Medications

- Prescriptions: The Med Access EMR provides support for prescription writing, including dosage, route, refills, repeats, and the flagging of duplicate prescriptions.

- Renewals: The Med Access EMR allows direct access, with a single click, to the patient summary and chart from the renewal request list to review relevant information including recent medical history, prescription patterns, prescription usage, allergies or alerts.
- Medications: The Med Access EMR maintains patient medication lists including prescribing and dispensing events.
- Dosage: The Med Access EMR calculates amount or total number of days (duration) for a prescription if requested in number of doses where appropriate/possible.
- Pharmacies: The Med Access EMR allows users to maintain a list of pharmacies and associated contact information.

9. Non-Visits

- Encounters: Any non-visit encounter with a patient (including phone calls) may be documented including date, time, type of encounter, person contacted, patient, reason, advice given, response, etc.
- Documentation: Clinical documentation may be captured during a non-visit encounter and may include textual notes, discrete observations, follow-up planning, and other items.
- Actions: Any action (including referrals, ordering labs, printing requisitions, prescribing medications, etc.) may be performed as a result of a non-visit encounter or other follow-up not linked to a visit.

10. Queries, Reports & Letters

- Report Generation: Standard and user-defined reports may be generated based on any internal data including bills, encounters, non-visit encounters and appointments (attended or not).
- Search: The search and reporting tools support Boolean search capabilities that can be used in combination across all areas of the record including demographics, profiles (medical/surgical history, conditions, risks, and preferences), tasks, visits, investigations, immunizations, observations and billing.
- Recall & Follow Up: Users can generate recall actions and alerts in patient records based on recall queries and may define the criteria for recall reports and follow-up lists.
- Groupings: The Med Access EMR allows the creation of user-defined cohorts by individual assignment to a group/study or by generating a criteria-based list and automatically assigning these patients to the group/study.
- Letters: Users can define a letter template and run a mail merge from any follow-up list or any other patient list using defined criteria to produce a letter addressed to each patient (or parent/guardian) in the list based on data stored in the Med Access EMR.
- Retention: Authorized users may flag information (data and pertinent metadata) for archiving, and specify a retention date or period.

11. Task Management

The system provides a task management area (My Tasks) where users can manage tasks and active items, such as: messages, personal "to-do's", active referrals, prescription renewals and active lab results. All listed care activities may be managed from "My Tasks". The EMR also permits creation and assignment of non-patient related tasks.

- Task Lists: Personal tasks (individual "to do's") may be managed based on status, priority and user-defined type/sub-categories. Task lists can be filtered based on status, priority and configurable categories.
- Dashboard: Users can customize the layout and format by controlling placement and sequence of various categories of items in various columns.

- Messaging: Messages among members of the care team are managed with features similar to email.
- Encounter Notes: Encounter notes marked for review can be listed on the user's dashboard.
- Alerts: System alerts associated with results are represented as tasks that can be forwarded to the responsible provider.
- Patients: All patient-specific tasks are automatically linked to and part of a patient record.

12. Referral Management

- Referrals: The Med Access EMR records all creation or amendment (changes or addendum reports) of referral requests and reports and allows users to document disclosure (who to, by, reason and authorization).
- Referral Completion: The Med Access EMR supports the import of consultant reports and discharge summaries in electronic formats such as: PDF, JPEG, and PNG image types with browser plug-ins for viewing.
- Templates: Users may create and modify templates for producing editable referral letters.
- Providers: A list of providers is stored in the Med Access EMR for completing referrals and is searchable by name, specialty, city, provider ID, billing number and gender.
- Letters: Consult/Referral request letters may be pre-populated with existing patient data in the patient record including demographics, medications, allergies, problem list, medical and surgical history, visit notes, labs, investigations, in-office measurements and prior consults and prior consults can be attached.

13. Care Planning & Goal Management

Users can create and modify Care Plans for patients. The Med Access EMR includes Care Planning and Goal Management capabilities that are integrated throughout the Med Access EMR. The Med Access EMR characterizes a "Care Plan" as a set of goals, suggested order sets, clinical reference links and patient handout materials corresponding to a particular condition.

- Goal Setting: users may set goals such as target value/range and frequency of measurement or intervention
- Frequency: List items, including preventative screening items, can be one-time or repeated using any frequency.
- Goal Management View: The Goal Management View displays items in order of items due and highlights "over-due" and "near-due".
- Completed & Deferred Items: Future health services list items are recycled (closed, if one-time) when a user-defined relevant test is received (e.g. mammography result) or when user designates them as "completed" or "deferred" (with reasons such as "patient declined", "patient advised", "patient states done elsewhere" or "not applicable
- Alerts: A user may optionally enable alerts to display whenever patient contact involves any uncompleted future health services list items. Using Practice Management features, user can optionally generate contact lists and follow-up letters based on "near-due" and "over-due" items.
- Notes: Notes may be added and maintained for any item on the goal (Care Plan) list. Notes can be ad hoc, or can use all features previously described for encounter notes including templates for documentation support, links to clinical guidance, patient handouts, calculations or rule-based reminders.

- Patients: The Care Plan can be printed in its entirety or in part - without specific goal values/results. The Med Access EMR also provides an on-screen view intended for sharing with a patient during the encounter.

14. Clinical Decision Support

The Med Access EMR integrates information from disparate parts of a patient chart and provides visual automated decision support alerts (e.g. "unmanaged", "pending" or "missed actions that need attending") and alert reminders.

- Tools: The Med Access EMR permits users to create customized displays, showing information comparisons, by selecting groups of information elements and preferred methods of combination.
- Alerts: Decision support alerts are generated from provided and user-defined rules based on various information in the patient chart, including: demographics, health problems, past medical history, surgical history, family history, social history, lab tests, medications and allergies, observations, user-defined fields and calculated values.
- Deactivation: Clinics may deactivate portions of the decision support system that are considered not relevant to that particular care setting.
- Import & Export: Users can export to an XML format, share by email (no patient info is included) and import Clinical Decision Support System ("CDSS") rules, documentation templates (including user-defined fields, calculations, reference links and patient handouts), graph templates, care plans (order sets and disease-specific goals) and reports/queries between users who are using the Med Access EMR.

Schedule B – Contractor Services (SOW)

1. Integration Services

The parties agree that the points of integration between the EMR and other provincial health systems are summarized in the table below.
The parties agree that the timing and roll-out of each interface will be mutually agreed upon as part of the project planning.
The parties agree that the level of effort for each interface (and therefore the cost) is based on the assumptions listed.

Interface(s)	Preliminary Service Description
MCP (Medical Care Plan)	The contractor commits to add functionality to the Med Access EMR as per the MCP interface specification document.
Client Registry HL7 V2 (indicated version(s) supported)	If the Center opts for the Client Registry HL7V2, the Contractor commits to developing the interoperability for the following messages: • A28 Add Person Information • A29 Delete Person Information • A31 Update Person Information • A34 Merge Patient Information • QRY Query Message
Client Registry HL7 V3 (indicated version(s) supported)	If the Center opts for the Client Registry HL7V3, the Contractor commits to developing the interoperability for the following messages: • PRPA_IN101002CA Person Information Revised□• PRPA_IN101004CA Resolve Duplicate Person Registrations • PRPA_IN101101CA Get Person Demographics Query • PRPA_IN101103CA Find Candidates Query • PRPA_IN101201CA Add Person Request • PRPA_IN101204CA Revise Person Request • PRPA_IN101105CA Find Associated Person Identifiers Query □HL7v2 Interface:
Provider/Location Registry HL7 V3 (indicated version(s) supported)	If the Center opts for the Provider Registry HL7V3, the Contractor commits to developing the interoperability for the following messages: • PRPM_IN306010CA Provider Details Query • PRLO_IN202010CA Location Summary Query
Drug Information System HL7 V3 (indicated version(s) supported)	If the Center opts for the DIS in HL7V3, the Contractor commits to developing the interoperability for the following messages: • REPC_IN000001CA Patient Adverse Reactions Query • REPC_IN000015CA Patient Allergy/Intolerance Query • PORX_IN060050CA Device Prescription Dispense Detail Query • PORX_IN060070CA Device Prescription Dispense Summary Query • PORX_IN060090CA Device Prescription Detail Query • PORX_IN060130CA Device Prescription Summary Query • REPC_IN000023CA Patient Medical Conditions Query • PORX_IN060350CA Medication Profile Detail Generic Query • PORX_IN060390CA Medication Profile Summary Query • COMT_IN300201CA Patient Note Query

Jurisdictional Lab Information System (JLIS) HL7 V2 (indicated version(s) supported)	If the Center opts for the JLIS in HL7V2, the Contractor commits to developing the interoperability for the following messages: • ORU^R01 Pathology Textual Reports • ORU^R01 Microbiology Textual Results (Includes sensitivity procedures) • ORU^R01 General Lab Numeric Results • ORU^R01 General Lab Timed Tests • ORU^R01 Blood Bank Results
Shared Health Record HL7 V2 (indicated version(s) supported)	If the Center opts for the Shared Health Record in HL7V2,, the Contractor commits to developing the interoperability for the following messages: Admissions/Encounters (HL7v2): • A01 ADMIT/VISIT NOTIFICATION • A02 TRANSFER A PATIENT • A03 DISCHARGE/END VISIT • A04 REGISTER A PATIENT • A05 PRE-ADMIT A PATIENT • A06 CHANGE AN OUTPATIENT TO AN INPATIENT • A07 CHANGE AN INPATIENT TO AN OUTPATIENT • A08 UPDATE PATIENT INFORMATION • A11 CANCEL ADMIT / VISIT NOTIFICATION • A12 CANCEL TRANSFER • A13 CANCEL DISCHARGE / END VISIT • A38 CANCEL PRE-ADMIT • A45 MOVE VISIT INFORMATION • A50 CHANGE VISIT NUMBER Diagnostic Imaging and Clinical Document Reports (HL7v2): • ORU^R01 Diagnostic Imaging Report (Contains ORC segment and accession # from PACS) • ORU^R01 Clinical Document Report (Includes Discharge Summaries)
Integrated Viewer	The contractor commits to add functionality to the Med Access EMR to incorporate the Centre's Integrated Viewer as part of the Med Access EMR workflow as per defined scope of work yet to be determined.

2. Hosting Services

The parties agree that the Contractor will initially host the Med Access EMR in its data centre located at

PRODUCTION SITE :
TELUS QIDC
190 rue des Négociants
Rimouski, Québec, Canada
G5L 7E4

DISASTER RECOVERY SITE:
TELUS KIDC
1458 Bunker Rd.
Kamloops, BC
V2C 0B5

As part of the hosting services, the Contractor will perform the following services:

2.1 Data Centre Installation Summary:

- Create customer database and operating environment from a standard image
- Perform Automated System Test
- Initiate and confirm backups
- Test fail-over processes
- Verify security and protection settings, obtaining signoff for clinical data readiness
- Confirm network connections and availability of external interfaces
- Document each step and all settings in the CRM system

2.2 Med Access EMR Application Configuration:

The Contractor provides application configuration or, in the case of user-definable configuration, instruction for configuration for items such as user privileges, calendar setup, billing accounts and business arrangements, user preferences, interface defaults, templates, etc.
Configuration steps include:

- *Staff / Practice Enrollment* form provides users information and permissions for EMR setup
- Complete the *EMR Configuration Checklist* to set up all user accounts, customizable settings and interfaces
- Document indicated settings in the CRM system
- Source of electronic physicians' patient demographics file identified and conversion planned
- If a custom data import is provided, confirm test import
- Install and configure the Business Continuity Copy (BCC) and provide *BCC User Guide*

2.3 Med Access EMR Backup Process

Med Access EMR data is replicated in real time to Three systems within the datacentre infrastructure. The First system is the Primary and Secondary Databases which can failover as required in the event of a problem with the Master. The Second system is Disaster Recovery, and the in the event of a complete loss of the Primary datacentre we can fail over to Disaster Recovery. The Recovery Time Objective is engineered to be within 24 hours. The Third system is our Copy system. This is a live copy

of the data. This system is used to perform nightly backups of all data. This system feeds our retention system which keeps multiple days, weeks, months and yearly copies of the data.

3. Application Support

The parties agree that as part of its hosting services, the Contractor will also provide application support to the Centre as well as to the Authorized Users. The Contractor will provide the Authorized Users the ability to contact support via toll-free telephone, email and via the EMR itself.

The TELUS Health Med Access team will provide Contractor Level Tier 1, 2 and 3 of support that covers all reasonable support requirements. The majority of a clinic's support needs will be resolved with the assistance of TELUS Health Med Access Support Analysts guiding clinic staff over the phone or through the secure EMR Messenger or email as users prefer. Remote access tools are available to demonstrate to customers the solution when procedural questions arise or when troubleshooting procedures require desktop access. For critical issues that render the software unavailable, a dedicated resource and an appropriate response team will be assigned. This team will have full access to the EMR hosted environment with sophisticated tools for diagnostics and resolution.

3.1 Centre Level 1 Support

The Centre Level 1 Support will act as first point of contact for Authorized Users. The Centre will be responsible to triage the issue and provide troubleshooting services related to systems managed by the Centre. If the issue experienced is directly related to the Med Access EMR and/or related hosted environment, the Centre will escalate the issue to the Contractor's Tier 1 support through an agreed upon escalation process to be determined prior to the Centre's initial subscriber going live with the Med Access EMR.

3.2 Contractor - Tier 1 Support

Contractor Tier 1 Support calls include those calls that can be resolved remotely or by walking the customer through necessary procedures to resolve the issue. These calls are resolved by Support Analysts. Tier 1 Support calls can customarily be resolved while the customer is on the phone, allowing for quick resolution and documentation of the issue within the CRM. All initial requests for support are handled by Support Analysts. Med Access Support Analysts receive comprehensive and continuous training to aim for a high rate of first call resolution.

Contractor Tier 1 Support will work directly with the Centre's Tier 1 team or Authorized Users under an agreed upon escalation and subscriber engagement process to be determined prior to the Centre's initial subscriber going live with the Med Access EMR.

3.3 Tier 2 Support

Tier 2 Support calls require more investigation and additional tools to assess the problem. These calls are handled by Senior Tier 2 Support Analysts. Customers are provided an action plan and timeline for the resolution of the call. Assistance is provided remotely, via EMR Messenger, email or over the phone with customers and utilizes remote access tools as needed. Tier 2 Support calls usually involve working to reproduce an error that has occurred and require more in-depth knowledge on both the application and hardware. Tier 2 Support investigations and findings are also logged within the CRM with detailed instructions of investigative steps taken to resolve the issue.
Senior Support Analysts become involved in customer issues when conventional trouble-shooting methods by Tier 1 Support Analyst have been exhausted with no resolution. Support Analysts have a

detailed and documented process of troubleshooting and investigating issues prior to them being escalated, with escalation occurring at any time a support analyst has no further course of action or if the investigation has not progressed and a solution is not anticipated with the remaining tools and skillset available.
Once these investigations are completed, it is the responsibility of the Support Analyst to fully document all trouble-shooting techniques and outcomes within the CRM and assign to a Tier 2 analyst. Support Analysts are also responsible to alert the customer that they are not able to resolve the call and it is being escalated.

3.4 Tier 3 Support

Tier 3 Support issues are complex issues that are unresolved by Tier 2 and require focused expertise such as development to assess the issue and investigate further. This can involve developing software fixes or the use of advanced diagnostic tools and methods to identify and resolve issues.

Role	Responsibilities
Contractor Tier 1 Support	• Registers and classifies received incidents and undertakes an immediate effort to resolve a client's inquiry as quickly as possible. • If no solution can be achieved, Tier 1 will document the call in the CRM and escalate the ticket to Tier 2. • Tier 1 Support also processes service requests and keeps clients informed about their case status as necessary.
Tier 2 Support	• Tier 2 Support takes over ticket which cannot be solved immediately by Tier 1. • If necessary, requests support from the Tier 3 • The aim is to restore a failed service as quickly as possible. • If no solution can be found, Tier 2 passes on the ticket Tier 3
Tier 3 Support	• Subject Matter Experts. • Its services are requested by Tier 2 if required for solving an Incident or call. • The aim is to restore a failed service as quickly as possible.

4. Release Management

4.1 Definitions

Update patches: means patches, fixes, modifications, error corrections or minor releases providing enhanced functionality but does not add major new features to the Med Access EMR.

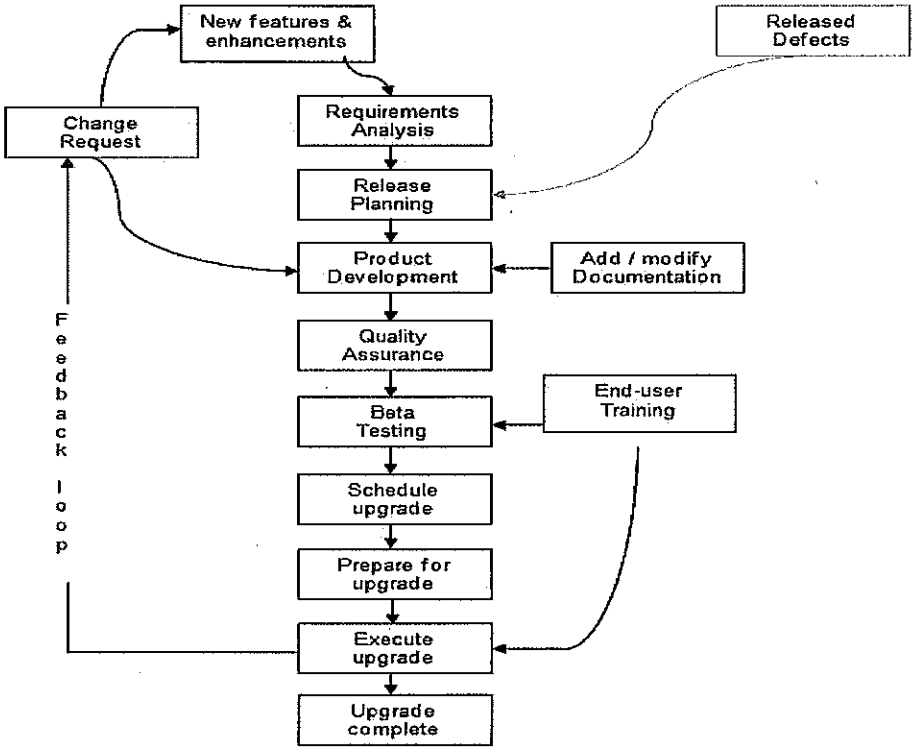
Upgrades: means a software release that adds major new features to the Med Access EMR and replaces an installed version of a product with a newer version of the same product.

Beta Release: means a software release that is to be made available to a limited subset of users in order to be tested to ensure conformance and quality. It is not made available to the general user base. Once deemed

acceptable for general use, both the Contractor and Centre will sign off to move the release to the General Release phase.

General Release: means that the software release containing an update patch or upgrade has been approved and signed off by the Contractor and Centre to be deployed to the general subscription base.

4.2 Release Process Overview



4.3 Feature Request Management

Suggested improvements to the Med Access EMR or EMR Services are logged in the Customer Relationship Management (CRM) system and flagged as 'Feature Requests'. Customer feedback is received by the Customer Experience (Help Desk) group in their day-to-day communications with our customers. Customer feedback is also received by our Sales and Marketing, Implementation and Education Services Teams in their activities with customers, along with feedback received during User Group meetings. These team members forward this feedback to the Customer Experience group, also to be logged in the Contractor's CRM and flagged as "Feature Requests."

All Feature Requests are grouped by the specific component of the Med Access EMR to which they apply and are presented to interdepartmental teams who review all requests. All feature requests of a specific component are analyzed with regards to the intended workflow and the improvements that would be realized by the customer are measured – the input from the customer is key in the

consideration. Based on this analysis, feature requests are reviewed and prioritized for development, i.e., to be developed immediately or in the next release or to be added to a 'wish list' for future re-review and consideration.

Customers receive updates at each review point of their feature request as well as final notification when their feature is approaching release.

4.4 Fix and Issue Management

Issues are to be logged into the CRM for investigation, escalation and fix by customers and internally by analysts and resources within each department. All issues are reviewed and triaged through the support process and prioritized appropriately. Non urgent fixes are scheduled for the next Service Pack or major release, depending on priority and impact assessment. Timelines are provided to customers reporting issues to ensure workarounds are provided and notification of the fix release is given.

Software Update Service

As part of the software update service, the Contractor will supply to the Centre and Authorized Users:

a) corrections for problems in the Med Access EMR that the Contractor diagnoses as defects in a currently supported version of the Med Access EMR;
b) Updates, including minor new releases of the Med Access EMR that Contractor elects to make available to its general client base, and improvements required allowing the Med Access EMR to operate in conformance with new versions or releases of operating systems, so long as such improvements are technically feasible. In some cases, the Centre or Authorized User may be required to upgrade its hardware or third-party software in order to take advantage of available updates. The Centre and Authorized Users is responsible for costs associated with such hardware and third-party software upgrades. The Contractor reserves the right to charge a fee at its then standard service charge rates for services outside the scope of this Agreement;
c) any known problem resolutions relating to the Med Access EMR as such resolutions become available to the Centre or Authorized Users; however, the Contractor may charge a fee for such service at its then standard service charge rates if the service is required due to:
    I. failure due to Centre or Authorized User errors or misuses;
    II. unauthorized modification of the Med Access EMR by the Centre or Authorized User.

4.5 Major and Minor Releases

The Contractor's application management begins in partnership with product management and architecture at the specification and design phases, and closely manages, monitors, and reports from the development, build and configuration, quality assurance and deployment readiness cycles. Although it can vary, the Med Access EMR typically aligns to two major releases per year that provide new feature functionality, as well as a maintenance component as well (depending on drivers).

4.6 Quality Assurance

The Contractor'S Quality Assurance team works closely with development and support to ensure testing meets the requirements of the product fixes and enhancements as well as covers the usage patterns of customers Releases go through a risk probability and impact analysis before being approved.

Quality Assurance also includes:

- Verification of resolved issues.

- Full system Regression Testing
- Beta testing and User acceptance testing
- Full testing in environments replicating provincial and jurisdictional considerations

4.6. General Release

The Contractor will inform both the Centre and Authorized Users of upgrades and fixes, and receive notice when General Release is achieved, and notice when the Med Access EMR is scheduled for upgrade (with opportunity to respond and discuss the upgrade with Support).The notification is made by EMR Messenger, Fax, and in the case of upgrade scheduling, also by phone. Customers also receive a reminder call and EMR Messenger notification the day prior to the EMR upgrade, and they receive a follow up call the day after to ensure the clinic is functioning normally and that all questions and issues have been reported to the Support Team. Full release notes and release highlights are made available to customers through EMR Messenger as well as in online Help for access to all release information and full details of fixes and enhancements.

The GR product is scheduled for release following a ramp-up process of limited release to clinics, building to full volume of release per week. During this phase customer feedback is monitored to ensure acceptance of the version.

5. Training and Implementation Services

The parties agree that the Contractor will provide its standard, curriculum-based training to Authorized Users as well as identified Center staff.
The main on-site training events are as follows:

- Training 1, about 1-2 weeks pre-live
- Training 2, immediately before live (includes live-days coaching)
- Training 3, about 30 days post-live

Every clinic's implementation includes core training services that are delivered on-site to provide first-hand interaction between instructor and learners. Through a combination of instructor-led workshops and hands-on exercises, this format ensures validation of concepts learned and permits topical integration with Process Redesign and Change Management services. To maximize flexibility, many training services are also available through remotely-led eLearning methods such as webinars and interactive teleconferences with shared computer sessions. In addition, some topics are available in self-paced modules as interactive web-based tutorials, self-assessment tools, and video tutorials. However, for our core training services, we deliver onsite and in person to ensure that effective change management and process consulting are provided along with our training.

Formalized methods are used to deliver and evaluate training. All training is:

- Curriculum-based
- Preceded by a learner needs assessment
- Based on the user roles
- Has identified learning objectives and outcomes which are shared with learners
- Includes pre-training exercises for foundational learning in advance of formal training

- Includes learner evaluations which are used to improve trainer, method and curriculum effectiveness on a continuous basis
- Integrated with change management support

Outcome evaluation – Regardless of format, the curriculum and expected learning outcomes are shared with learners in advance. Confirmation of concepts and skills is obtained through hands-on exercises and signed-off checklists outlining materials covered and training evaluations.

5.1 Pre-implementation Training

Pre-implementation Training begins at the implementation kickoff meeting when customers are given self-paced learning exercises and access to their EMR environment. These can be done from anywhere an internet connection is available and clients are strongly encouraged to begin the learning process as quickly as possible.

This early access, and remote verification by the Project Manager that they are using the system, ensures customers are well-prepared for learning in their formal training sessions.

Two onsite training sessions are conducted as a combination of instructor-led learning and hands-on exercises. Training 1 is provided about 1-2 weeks before live. Training 2 is provided in the last day or two before live.

5.2 Live and Post-Live Training

In addition to Go-Live Support, the Contractor includes an additional onsite encounter about 30 days post-live to conduct a Post-Live Review, document any outstanding implementation issues, provide immediate training on observable opportunities for workflow improvement, and deliver the 3rd onsite training.

TELUS Health Implementation Training Program

TELUS Health implementation training service focuses on key elements including;

- Preparing TELUS Health Super Users in clinics to support their team after our training team leaves
- Understand individual clinical workflows and identify upcoming process changes they need to communicate
- Deliver clinic specific role based training
- Support from a CompTIA CTT+ Learning Specialist on go-live day to help with those first day hurdles

At the time of the project kick-off, the Contractor's CCT+ Learning Specialist will begin working with Authorized Users to complete a clinic needs assessment. This will help define the workflows that are needed and any configurable content specific changes that would be required. Following this activity, the Contractor will provide the Authorized User with a detailed agenda and learning plan for the team. The elements of training described will fit within the agenda and is customized to the schedule of the Authorized User . The classroom sessions are geared to have an optimal learner-instructor ratio with 10 seats.

5.3 TELUS Health Training program

In the *Leading team through change and toward improved health outcomes* session, the Contractor helps the Authorized User understand, recognize and support the components of change management that will help increase the level of EMR adoption. The Contractor will work through the session using specific key strategies to guide the Authorized User through the Change Management principles. As a take away, the Contractor will provide you with materials that will support you in the Change Management meetings that the Authorized User will have following the completion of this session.

Leading teams through change and toward improved health outcomes	Number of Groups	Total Hrs.
Clinic Leaders	1	**2**

The CompTIA CTT+ Learning Specialist will work with key decisions makers from the medical and administration end-user groups to conduct a Clinic Needs Assessment and advisory session. This information will be used to determine the clinic specific training plan, understand the specific workflows and training needs of the various end user groups, and understand some of the system preferences and business rules the clinic will adopt.

Clinic needs assessment (CNA) and advisory session	Number of Groups	Total Hrs.
1 focus groups; 1 GP, 1 Billing, 1 Admin, 1 Super User	4	**4**

Time estimates for the System Configuration and Preference setting session in this plan may vary once the level of end user proficiency and the user requirement for Go-Live day is understood. The Contractor recommends training in groups based on the common workflows of the end user group. Results of the clinic needs assessment and advisory session will help determine the final breakdown of end user groups.

System configuration and preference setting	Number of Groups	Total Hrs.
Super User and focus groups	1	**8**

The training provided as part of the User Adoption program is completed on-site and groups are limited to a maximum of 10 participants to maximize learner-instructor interaction

TELUS Health - *core curriculum*	Number of Groups	Total Hrs.
Super Users*	1	**23**

** See Appendix for additional detail breakdown of core modules*

Following the completion of the core curriculum, the TELUS Health EMR CompTIA CTT+ certified Learning Specialist will provide support to the learning participant through the production delivery of the TELUS Health User Adoption program.

	Number of Sites	Total Hrs.
Learning Specialist II	X	**X * 4 = hrs**

Total Hours: 37

Please note: The level of effort outlined above is an estimate and may change as more specific project information is gathered. The training approach assumes the a focus groups made up of client end users identified as Super Users from the various roles within the clinic team. The Super Users will attend most of the sessions related to their end user group and will receive additional one-on-one time with the trainer to answer specific questions.

5.4 TELUS Health Course Content by Clinical Role

Clinical Role	Estimated Time (Hrs.)	Standard Course Content		
Front Office	7-9	Basic Navigation Working with the Patient file Working with Appointments Using the Patient File	Working with Letters & Referrals Working with Messaging Entering test reports, scanning & faxing	
Physicians	12-14	Basic Navigation Working with the Patient file Working with Appointments Using the Patient File	Progress Notes Working with Templates, Forms Prescriptions, Immunizations & Treatments Working with Letters & Referrals	Working with Messages Labs Entering test reports, scanning & faxing Searches& Reminders
Super Users	22-24	Basic Navigation Working with the Patient file Working with Appointments Using the Patient File	Working with Template, Forms Prescriptions, Immunizations & Treatments Working with Letters & Referrals Labs	Entering test reports, scanning & faxing Searches& Reminders Claims Submission Reports Remittance Advice & A/R
Billing Staff	8-10	Basic Navigation Working with the Patient file Working with Appointments	Working with Billing Working with Messages Claims Submission Reports	Remittance Advice & A/R

- (a) The Authorized User will agree to have at least one person take full responsibility for coordinating the training and to communicate with the Contractor on issues with respect to training.
- (b) The Contractor reserves the right to provide group training.
- (c) The Contractor reserves the right, with the consent of the Authorized User, to deliver some of the training remotely.
- (d) The Contractor reserves the right to provide group training sessions on concurrent days when the Authorized User site is more than 100 km from St. John's, NL.
- (e) Whenever possible, training and travel will be held during normal business hours, however, if the Authorized User requests that training and travel be provided outside normal business hours, the Contractor will, subject to availability of personnel, provide such training and travel. Outside business hours service charge rates will be charged for training and for travel outside of normal business hours at the service charge rates in effect at the time of the request.

6. ADDITIONAL SERVICES

The Contractor will provide the following services, but reserves the right to charge a fee in accordance with its then standard service charge rates. Services include but are not limited to the following:

a. training of a new staff member;

b. additional training may apply if training sessions need to be repeated as a result of trainee absences during scheduled training program or training session cancellations without 24 hours notice

c. the Contractor will provide training for future Authorized Users in accordance with the Contractor' standard service charge rates for training and for travel in effect at the time is provided

d. If Authorized User requests the Contractor to provide additional services, the Contractor will provide such services subject to availability of personnel at the Contractor' standard service charge rates in effect at the time of the request and, if applicable, rates for travel.

e. transfer of data to another instance;

f. assistance with problems caused by third party software or equipment purchased elsewhere (except as required by the Contractor for the operation of the Med Access EMR) or the installation of such hardware or software;

g. repairs outside the scope of the software upgrade service; and

h. support, provision and/or installation of other third-party software.

Schedule C – Fee Schedule

The initial fees as listed in the table below are fixed price. The total initial fees are $993,950.00. The total annual recurring charges are $166,250.00. Annual and monthly recurring charges will be subject to ANNUAL INCREASE clause as listed in Section 3.6 of the EMR Professional Services Agreement.

1. NLCHI agrees to pay TELUS Health, upon being invoiced, based on the following milestones:

Interface(s)	Service Description	Initial Fees	Annual Recurring Fees	Payment Schedule
MCP (Medical Care Plan)	The contractor commits to add functionality to the Med Access EMR as per the MCP interface specification document.	No Charge	No Charge	
Client Registry * HL7 V3 (indicated version(s) supported)	If the Center opts for the Client Registry HL7V3, the Contractor commits to developing the interoperability for the following messages: • PRPA_IN101002CA Person Information Revised□• PRPA_IN101004CA Resolve Duplicate Person Registrations • PRPA_IN101101CA Get Person Demographics Query • PRPA_IN101103CA Find Candidates Query • PRPA_IN101201CA Add Person Request • PRPA_IN101204CA Revise Person Request • PRPA_IN101105CA Find Associated Person Identifiers Query □HL7v2 Interface:	$191,750.00	$29,250.00	50% upon project kickoff 50% upon delivery of completed Interface
Provider/Location Registry * HL7 V3 (indicated version(s) supported)	If the Center opts for the Provider Registry HL7V3, the Contractor commits to developing the interoperability for the following messages: • PRPM_IN306010CA Provider Details Query • PRLO_IN202010CA Location Summary Query	$ 115,100.00	$ 17,600.00	50% upon project kickoff 50% upon delivery of completed Interface
Drug Information System * HL7 V3 (indicated version(s) supported)	If the Center opts for the DIS in HL7V3, the Contractor commits to developing the interoperability for the following messages: • REPC_IN000001CA Patient Adverse Reactions Query • REPC_IN000015CA Patient Allergy/Intolerance Query • PORX_IN060050CA Device Prescription Dispense Detail Query • PORX_IN060070CA Device Prescription Dispense Summary Query • PORX_IN060090CA Device Prescription Detail Query • PORX_IN060130CA Device Prescription Summary Query • REPC_IN000023CA Patient Medical Conditions Query	$230,100.00	$35,100.00	50% upon project kickoff 50% upon delivery of completed Interface

	• PORX_IN060350CA Medication Profile Detail Generic Query • PORX_IN060390CA Medication Profile Summary Query • COMT_IN300201CA Patient Note Query			
Jurisdictional Lab Information System (JLIS) HL7 V2 (indicated version(s) supported)	If the Center opts for the JLIS in HL7V2, the Contractor commits to developing the interoperability for the following messages: • ORU^R01 Pathology Textual Reports • ORU^R01 Microbiology Textual Results (Includes sensitivity procedures) • ORU^R01 General Lab Numeric Results • ORU^R01 General Lab Timed Tests • ORU^R01 Blood Bank Results	No Charge	No Charge	
Shared Health Record HL7 V2 (indicated version(s) supported)	If the Center opts for the Shared Health Record in HL7V2,, the Contractor commits to developing the interoperability for the following messages: Admissions/Encounters (HL7v2): • A01 ADMIT/VISIT NOTIFICATION • A02 TRANSFER A PATIENT • A03 DISCHARGE/END VISIT • A04 REGISTER A PATIENT • A05 PRE-ADMIT A PATIENT • A06 CHANGE AN OUTPATIENT TO AN INPATIENT • A07 CHANGE AN INPATIENT TO AN OUTPATIENT • A08 UPDATE PATIENT INFORMATION • A11 CANCEL ADMIT / VISIT NOTIFICATION • A12 CANCEL TRANSFER • A13 CANCEL DISCHARGE / END VISIT • A38 CANCEL PRE-ADMIT • A45 MOVE VISIT INFORMATION • A50 CHANGE VISIT NUMBER Diagnostic Imaging and Clinical Document Reports (HL7v2): • ORU^R01 Diagnostic Imaging Report (Contains ORC segment and accession # from PACS) • ORU^R01 Clinical Document Report (Includes Discharge Summaries)	$ 307,000.00	$ 46,800.00	50% upon project kickoff 50% upon delivery of completed Interface
Integrated Viewer	The contractor commits to add functionality to the Med Access EMR to incorporate the Centre's Integrated Viewer as part of the Med Access EMR workflow as per defined scope of work yet to be determined.	$ 75,000.00	$ 18,750.00	50% upon project kickoff 50% upon delivery of completed Interface
Real-Time Web Services	The contractor commits to add functionality to the Med Access EMR to incorporate the Real-Time Web Service pertaining to the Jurisdictional Lab information system as per defined scope of work yet to be determined.	$ 75,000.00	$ 18,750.00	50% upon project kickoff 50% upon delivery of completed Interface

* The Contractor assumes HL7V3 will be used for Client Registry, Provider Registry and DIS.

Implementation and Training		
Per MD and/or NP – Includes the following services: • Project Management • Clinic Readiness Assessment • Pre-Implementation Training • Implementation • Day 1, 2 & 3 Training • Post-Implementation Training	$4000	Invoiced and paid monthly based on number of MD/NP implemented and trained in the preceding month
User subscription fees		
Per MD and/or NP	$199 per month	Invoiced and paid monthly based on number of MD/NP implemented and trained in the preceding month
Per Allied Health Professional	$145 per month	Invoiced and paid monthly based on number of MD/NP implemented and trained in the preceding month
Site Support fees		
		Invoiced and paid monthly based on number of users implemented and trained in the preceding month

Clinic Size	Site Support Fee per Site
1-2 Doctor Clinics	$199.99
3-5 Doctor Clinics	$299.99
6-10 Doctor Clinics	$399.99
11 or more Doctor Clinics	$499.99
Walk-in Clinics	$199.00

Application Hosting		
Production Environment	Included in user subscription fee	
Disaster Recovery	Included in user subscription fee	

Environment		
Training Environment	$199/month/user + site of 149.99/month/environment	Invoiced and paid monthly
Testing Environment	$199/month/user + site of 149.99/month/environment	Invoiced and paid monthly
Data Conversion		
Data Conversion/Migration (based on 50 Physicians)	$75,000.00 ($1,500/doc X 50 docs)	Invoiced and paid monthly based on number of conversion performed in each month.

2. SERVICE CHARGE RATES

Assistance with services outside the scope of this agreement can be arranged and shall be charged to the Center in accordance with Contractor's standard service fees.

Schedule D – Service Level Agreements

1 Objective

This Schedule defines the service levels for the services to be provided by the Contractor to NLCHI. This Schedule is subject to a Normalization Period. The EMR Normalization Period will start at the go-live date for 30 days.

During this period the Contractor will use reasonable commercial efforts to meet the service levels.

1.1 Definitions

Centre Level 1 Service Desk	Means the Centre Level 1 Service Desk provided by NLCHI or its designated representatives that will respond to calls from their end users and that will be responsible for notifying the TELUS Service Desk of an Incident or Service Inquiry related to the Services.
Contractor Service Desk	Means the Service Desk staffed by the Contractor that will respond to the NLCHI Service Desks, assign a severity level to NLCHI's Incidents and Service Inquiries and that will be responsible for call tracking, notification and escalation available to NLCHI in accordance with this Schedule.
Contractor – Tier 1	Means that the Contractor Service Desk will provide the first point of contact to the Centre Level 1 Service Desk for the management of Incident Recovery and Service Inquiries related to the EMR Services.
Normalization Period	Means the period ranging from the first day of the full implementation of the EMR Services for each Authorized User implementation (once the Authorized User is utilizing the services) extending thirty days (30)

2 Service Levels

2.1 Application Availability

The EMR Solution will be available **99.9%** of the time on a monthly basis, averaged over each month and over all Authorized Users.

Are excluded from the above calculation:

Regular maintenance windows;

Emergency maintenance occurring during regular maintenance windows; and

Any circumstances beyond the Contractor's control, including without limitation, interruption or failure of telecommunication or digital transmission links, delays or failures due to an internet service provider, hostile network attacks, force majeure, network congestion and third party software/hardware.

Items in Section 3.4 below.

EMR solution availability	**Minimum Monthly Availability**
Electronic Medical Record (EMR)	99.90%

EMR solution availability is defined as the ability to retrieve existing records, update or alter existing records and create new records. EMR solution availability is measured within the perimeter of the EMR hosting facility. Uptime will be determined on an average monthly availability as an aggregate of the entire Authorized User base.

2.2 Remedies

The level of remedies to be applied will focus on EMR solution availability because of the importance of the Electronic Medical Record (EMR). In the event there is a period where there are occurrences then NLCHI shall be entitled to enforce one of its remedies as it applies to an occurrence during such periods.

Escalation	**Remedy**
First Occurrence "**First Occurrence**" means the first month in which the Contractor fails to meet the minimum monthly EMR Solution availability.	TELUS Health – Provider Group (EMR) – director of operations, or equivalent, shall meet with the NLCHI Service Manager within ten (10) business days of such failure to review the problem(s) and provide a detailed plan designed to insure that such service achieves or exceeds the minimum monthly EMR Solution availability.
Second Occurrence "**Second Occurrence**" means a second month in a four month period which the Contractor fails to meet the minimum monthly EMR Solution availability.	TELUS Health – General Manager – Provider (Eastern Canada), or equivalent, shall meet with the Executive of NLCHI within ten (10) business days of such failure to review the problem(s) and provide a detailed plan designed to insure that such service achieves or exceeds the minimum monthly EMR Solution availability. The Contractor shall credit to NLCHI an amount equivalent to 10% of the monthly support fee for the second month it missed the availability target.
Third Occurrence "**Third Occurrence**" means a third month in a 6 month period which the Contractor fails to meet the minimum monthly EMR Solution availability.	TELUS Health – Vice President – Provider Group, or equivalent, shall meet with the Executive of NLCHI within ten (10) business days of such failure to review the problem(s) and provide a detailed plan designed to insure that such service achieves or exceeds the minimum monthly EMR Solution availability. The Contractor shall credit to NLCHI an amount equivalent to 12.5% of the monthly support fee for the third month it missed the availability target.
Fourth Occurrence "**Four Occurrence**" means a fourth month in any twelve (12) month	At NLCHI's option, TELUS shall either (a) credit to NLCHI an amount equivalent to 15% of the monthly support fees for the fourth month it missed the availability target, or (b) NLCHI shall

Escalation	Remedy
period which the Contractor fails to meet the minimum monthly EMR Solution availability.	be entitled to terminate this Agreement up thirty (30) days written notice. In the event that NLCHI does not provide written notice to terminate the Agreement then NLCHI will have been deemed to have selected option (a). In the event written notice to terminate is given to TELUS by NLCHI, then notwithstanding such written notice TELUS shall continue to be obligated to comply with its transition responsibilities as required in section 12.1 of the agreement.

2.3 Hours of Operation

Contractor Service Desk Support Service. A toll-free line is available for Service Desk support Monday through Friday from 8:00 a.m. to 5:00 p.m. (NST), except statutory holidays. Support for P1 critical issues (defined as "Access to the EMR is unavailable from all workstations within the clinic, no workaround available") is available 24/7.

2.4 Scheduled and Unscheduled Maintenance

A) Regular maintenance windows

Regular maintenance windows are reserved for software maintenance and upgrades. EMR Services will be unavailable during this time. Regular maintenance window are as follow: 1) every day of the week from 01:00 to 03:00 NST 2) once a week, starting on Saturday at 23:00 NST and ending on Sunday at 05:00 NST, 3) twice a year for a period of 8 hours outside of regular business hours at a time that the Contractor will communicate to the Center in advance.

B) Emergency maintenance window

Emergency updates will be deployed as necessary to perform any maintenance that the Contractor, acting reasonably, deems should not wait for the next regular maintenance window (e.g., to deploy a fix to a priority 1 defect). When an emergency update is to be applied, the Center will be notified as soon as possible in advance.

Emergency Maintenance

When emergency maintenance is required, the Contractor will provide the greatest possible amount of lead-time and will arrange for a solution that minimizes the impact on the Authorized Users.

Maintenance Notification:

The Contractor will communicate any scheduled changes to Center at least 5 business days prior to implementation of the change.

3. Operations Activities

3.1 Customer Support Centre

TELUS EMR support services levels during regular business hours	
Support coverage	Service Desk Support Service. A toll-free line is available for Service Desk support Monday through Friday from 8:00 a.m. to 5:00 p.m. (NST), except statutory holidays. Support for P1 critical issues (defined as "Access to the EMR is unavailable from all workstations within the clinic, no workaround available") is available 24/7.
Tier 1 help desk services - first response to call	80% of calls answered within 60 seconds

Tier 1 help desk services - first response to e-mail	80% of e-mails answered within 24 hours
First call resolution	70% of tickets closed by support on first call without escalation

TELUS EMR support services levels after regular business hours	
Support coverage	Service Desk Support Service. A toll-free line is available for Service Desk support Monday through Friday from 8:00 a.m. to 5:00 p.m. (NST), except statutory holidays. Support for P1 critical issues (defined as "Access to the EMR is unavailable from all workstations within the clinic, no workaround available") is available 24/7.
Tier 1 help desk services - first response to call	80% of calls answered within 10 minutes
Tier 1 help desk services - first response to e-mail	80% of e-mails answered by next business day.

3.2 Service Desk Contact Information

The TELUS Service Desk can be reached with a toll free number, accessible throughout North America.

Phone Numbers: TBD
E-mail addresses: TBD

3.3 Incident Classification

When calling for technical assistance, NLCHI must be prepared to supply the Service Desk with:

- ✓ Name and phone number of caller;
- ✓ Clinic Name;
- ✓ Detailed description of the call.

Both NLCHI and TELUS are responsible for informing each other of all changes to their internal application or environment that may affect the services.

The TELUS Service Desk representative responding to a call classifies the call by assigning an initial priority in a call ticketing system.

The TELUS Service Desk takes ownership of an incident/inquiry until recovery and is supported by a number of subsequent levels of support. They take care of inquiries/incidents related to the administrative, operations or technical areas.

Call classification shall be in accordance with the guidelines set below:

> *Where issues require application changes (e.g. to replace a workaround) the issue will be deemed to be resolved once the change has been logged and scheduled for deployment in the next service release of the application. To ensure system stability and conformance, all application changes, including emergency patches must follow the release management process .*

Priority	Resolution time <= 1 Hour	Resolution time <= 4 Hours	Resolution time <= 1 Business Day	Resolution Time <= 10 Business Days
P1	60%	75%	95%	NA
P2	NA	60%	90%	NA
P3	NA	NA	NA	*50% <= 3 business days; 90% <= 10 business days
P4	NA	NA	NA	*70% <= 10 business days

*The Parties acknowledge that, given the non-critical nature of those defects, those metrics are targets the Parties will strive to meet but do not give rise to monetary compensation, penalties or other contractual or legal remedies if not met from time to time.

Note: Resolution times are based upon system availability as defined in section 2.1 of this schedule.

The following table (Chart C) describes in detail the meaning of the severities, and provides some examples of issues and their priority categorization.

Chart C

Problem Priority Assignment	Resolution Time	Additional Explanations /Examples
Priority 1 – Urgent: Service is unavailable, patient data is at risk. Indicates a total inability to use an application system or a component of an application system, resulting in a critical impact on client operation where; o Resolution cannot be achieved by failover to secondary data centre or hardware/service clustering is not effective in resolving the issue; o And the problem affects the entire organization, location, or department; o And there is no work-around or manual process available; o Or patient data is at risk of being contaminated or compromised. Goal is to make the service accessible and usable by clients and reduce priority of the issue.	<=1 hour, 60% of occurrences <=4 hours, 75% of occurrences <=1 business day, 95% of occurrences	e.g. Restarting virtual server instance; Database / transaction rollback. e.g. Recovering / Restoring a particular server from backup following hardware service. e.g. Complete restoration of software environment from backups.
Priority 2 – High: application does not function correctly and affects a particular user of the system. Indicates a total inability to use an application or computer system, or a component of an application or computer system, resulting in a critical impact on a single client where; The problem affects a key individual whose job function is critical to the organization; and there is no work-around or manual process available	<=4 hours, 60% of occurrences <=1 business day, 90% of occurrences	e.g. billing submission not working, but other use of the service is available. e.g. User cannot import lab results into EMR, other users are working. The Contractor's support specialists will work to restore these critical functions, or provide workarounds that permit the issue to be downgraded in priority level.

Priority 3 – Medium: support issues surrounding the use of the service that has minor impact on the operation of a practice or user. Computer outage affecting a single client, where the problem affects an individual who has not been identified as having a job function that is critical to the organization or a user within the organization and indicates an ability to use the application system without functions that are not critical to overall operations. A work-around may or may not be available.	*50 % <= 3 business days, 90% <= 10 business days	This represents the bulk of support requests handled by the Contractor's support desk. Common issues tend to involve troubleshooting third party hardware and software elements.
Priority 4 – Low: Support issues surrounding functionality that does not have significant impact on the operation of a practice or user. Computer outage or request affecting a single client, where: There is minor impairment. There is no work-around necessary.	*70% <= 10 business days.	Common support requests at this priority level are related to functional issues/training issues and have little to no impact on service delivery.

*The Parties acknowledge that, given the non-critical nature of those defects, those metrics are targets the Parties will strive to meet but do not give rise to monetary compensation, penalties or other contractual or legal remedies if not met from time to time.

3.4 Service Level Exclusions:

The Contractor shall not be held responsible to uphold service levels if the any of the following conditions applies:

- Center's managed dependent systems are down or experiencing performance issues;
- Application defects requiring the development of an update patch or software release will not be measured against the resolution time SLA's outlined in Schedule D and must adhere to the Contractor's software release management process.
- Internet connectivity is down or performing below the ISP's standard;
- Acts or omissions of telecommunications carriers or other service providers that are outside of the Contractor's control;
- If the Authorized User's site is experiencing a power outage;
- Excused downtime: Excuse downtime will be anytime the Med Access EMR is unavailable during the scheduled maintenance windows agreed upon or with prior notification to the Authorized Users and the Centre;
- Failure of the Centre or Authorized Users to perform their obligations under this Agreement;
- The negligence of the Centre or Authorized Users;
- Changes to the EMR Services that were not authorized by the Contractor;
- Problems with hardware or third party software purchased by the Authorized User which are not certified by the Contractor as compatible with the Med Access EMR.
- Contractor exercises its right to audit the Authorized Users, if such exercise directly hinders or interferes with the Authorized Users ability to access and use the Med Access EMR.

- "No Trouble Found" events; Authorized User or Center reported problems that cannot be duplicated or verified.
- Regularly scheduled disaster recovery activities.
- 3rd party interfaces not included as part of the projects under this Agreement
- Clinic hardware technical issues and any possible viruses or malware infection affecting the performance and access to the Med Access EMR.

4. Incident Reporting

In the event of a P1 - Urgent incident, the Contractor shall prepare and submit a report for each incident.

The Contractor shall use reasonable commercial efforts to submit within 2 business days following incident recovery, including the following information:

- Detailed synopsis of events from inception to recovery;
- Chronology of events;
- Root cause analysis *
- Follow up actions to mitigate against recurrence;
- Ancillary details will also be included, such as ticket number and duration of the incident.

* If the root cause is not found within the timeframe, an updated incident report can be provided within 48 hours of root cause discovery. It is expected that NLCHI assign necessary resources to work with the Contractor during the incident recovery for the NLCHI applications and subsequent root cause analysis.

5. Service Level Reporting

The Contractor will prepare monthly service summary reports for NLCHI to provide information on performance as well as operation metrics.

The content of the report will be mutually agreed between NLCHI and the Contractor. These reports will be made available to NLCHI by the 10th business day of the following month.

6. Performance Reporting

The Parties acknowledge the importance of performance and latency as it relates to the Med Access EMR. Following the execution of the Agreement, the Parties shall work together to establish a framework by which important performance and latency baseline metrics can be identified, scoped and measured. The Parties acknowledge the importance of clearly identifying the various types of interaction against which performance can be measured as well as extraneous factors that can affect performance. The Parties will evidence the results of such exercise in a written amendment to this Schedule D agreed to by both Parties.

Centre for Health Information

Contract #: PS-15-023

RENEWAL AMENDMENT

This Renewal Amendment is entered into TELUS Health Solutions Inc. (**"Contractor"**) and the Newfoundland and Labrador Centre for Health Information (**"Centre"**) for the amendment and renewal of the Professional Services Agreement between the Parties entered into as of November 2nd 2015 (the **"Agreement"**).

WHEREAS the Parties wish to renew and extend the Agreement for the Solution to continue to be available to Newfoundland and Labrador health professionals.

1. The Term of the Agreement is extended until December 31st 2022 (the **"Extended Term"**). Upon the expiry of the Extended Term, the Agreement shall automatically renew at the same terms and conditions for successive thirty (30) days (each one a **"Renewal Term"**) periods unless either Party notifies the other Party by written notice at least thirty (30) days prior to the end of the Extended Term or Renewal Term, as the case may be, that it wishes to terminate this Agreement. The Initial Term, Renewal Terms and Extended Term are collectively referred to as the "Term".

2. Schedule A (Project Background) of the Agreement is deleted and replaced by the attached Schedule A.

3. Schedule B (Contractor Services) of the Agreement is deleted and replaced by the attached Schedule B.

4. Schedule C (Fee Schedule) of the Agreement is deleted and replaced by the attached Schedule C.

5. Schedule D (Service Level Agreements) of the Agreement is deleted and replaced by the attached Schedule D.

6. Schedule E (Governance) attached to this Amendment is added to the Agreement as Schedule E.

7. Section 1.7 of the Agreement is deleted and replaced by the following:

   The Contractor shall use commercially reasonable efforts to assist the Centre or Authorized Users in the recovery of lost Clinic Data from the last available back-up preceding the loss, it being understood however that Centre or Authorized Users shall not be entitled to recover damages from the Contractor related to the cost of re-entry of data or other physical recreation of any data not recovered from the Contractor's back-up, unless such loss is caused by the Contractor's gross negligence.

8. The last sentence of Section 1.9 is deleted and replaced by the following:

The Contractor shall not be responsible for the corruption, damage, loss or mis-transmission of Clinic Data or for the security of Clinic Data during transmission via telecommunication facilities outside of Contractor's Data Centre Facilities (identified in Schedule B).

9. The following sentence is added at the end of Section 1.13:

The Centre shall provide to the Contractor a copy of the written agreement (as amended from time to time) with the Authorized Users.

10. The following sentence is added at the end of Section 1.16:

Before performing an audit, the Contractor shall disclose or identify the basis or purpose of the audit.

11. Last sentence of Section 3.2 is deleted and replaced by the following:

All invoices shall be subject to net sixty (60) day payment terms.

12. Section 3.6 is deleted and replaced by the following:

The Contractor shall have the option to increase the fees set out herein by an amount not to exceed the increase of the Canadian (All Items) Consumer Price Index in the twelve (12) months preceding the effective date of price increase. Any price increase shall be communicated to the Center in writing before March 31 of each year and at least one-hundred-and-twenty (120) days before the effective date of the price increase and shall not have a retroactive effect unless expressly agreed to by the Center.

13. Section 5.2 is deleted and replaced by the following:

In the event the Center or an authorized user develops methodologies, processes or any modification to components other than the EMR services that are for the purpose of the Center's or authorized users use of the EMR services (and therefore not part of the EMR services), then such processes, methodologies or modifications shall remain the property of the Center or Authorized users as applicable to the extent such methodologies, processes or modifications are not covered by section 5.1 above and are not to be used, copied or distributed without written permission from the Center. Notwithstanding any of the foregoing, any third party materials adapted for use by the Center or its authorized users in the EMR environment are for the use of the Center and its authorized users only and are not to be used, copied, modified or distributed by the Contractor without written permission from the Center and the applicable third party. Any third party materials adapted for use in the EMR environment shall remain the property of the applicable third party.

14. Section 1(h) of Exhibit E is deleted and replaced by the following:

(h) "Sensitive Information" means Personal Information and Personal Health Information (including aggregated or de-identified information derived therefrom) collected,

encountered, or created by the Contractor during the course of providing the Products, except information which is determined by the Centre as not being "Sensitive Information".

15. All terms and conditions that have not expressly been amended or modified by this Amendment remain in full force and effect. Without limiting the generality of the preceding sentence, Centre acknowledges and agrees that the Contractor's compliance with the *Newfoundland's Personal Health Information Act,* SNL 2008 c.P-7.01 is achieved through the Information Management Statement executed by the Contractor on May 17th 2017 (attached as Schedule F hereof) and that the Contractor shall not be required to enter into direct agreements with Authorized Users in connection with the Agreement as currently structured. The Contractor acknowledges and agrees that Information Management Statement remains valid and binding as part of the renewal of this Agreement.

16. This Amendment comes into force when executed by both Parties (the "**Amendment Effective Date**").

17. This Agreement shall be governed by and construed in accordance with the laws of the Province of Newfoundland and Labrador and the laws of Canada in force therein.

IN WITNESS WHEREOF the parties hereto have executed this Amendment as of the Amendment Effective Date.

Newfoundland & Labrador Centre for Health Information

Per: _____

Name: Stephen Clark
Title: President & CEO

Date: 2019-10-04 2019

TELUS Health Solutions Inc.

Per: _____

Name: Ohad Arazi
Title: Vice President – Provider Solutions – TELUS Health

Date: Oct 11 2019

SCHEDULE A – Project Background

Schedule A – Project Background

The Centre, on behalf of the DoHCS, sought the services of interested organizations to provide a commercial off-the shelf (COTS) product and the associated professional and managed services to implement an electronic medical records solution.

The COTS product chosen by the Center is Med Access EMR, provided by the Contractor.

General Description

Med Access is a web-based, configurable Electronic Medical Record (EMR) that provides physicians with a solution that combines data centre infrastructure with clinical record and practice management tools.

1. General Attributes

The general attributes of the Med Access EMR can be described as follows:

- Presentation: The system provides a set of tools for capturing, searching, formatting and displaying patient data.
- Single Sign On: A single sign-on capability provides access to the entire application including practice management and clinical records.
- Access Control: The Med Access EMR provides the ability to limit and control access to patient specific data using specific parameters, including: user permissions, role permissions, type of information, specific patient masking and specific item masking.
- Data Provision: Different types of patient data can be stored within the database including: photographs, scanned images, recorded speech, and electronic documents.
- Consent Management: The Med Access EMR provides mechanisms allowing the user to record a patient's disclosure directives, including the withholding, withdrawal or revocation of consent to access information.
- Masking: In addition to recording a patient's disclosure directives the Med Access EMR provides functionality to:
    - Restrict access to all or part of a patient's chart ("masking");
    - Remove masking at the request of a patient;
    - Provide a status of "masked" only when requested patient data has been masked;
    - Temporarily override the mask ("break the glass") by specifying a time-period for the override and a reason; and
    - Audit all mask/unmask/override actions.
- Templates: Data entry templates and viewing templates can be generated and revised by users to complete charting and notes, billing, order sets or operational workflow.
- Attachments: Digital files may be attached to a patient chart.
- Correction: Data corrections and any annotation requested by a patient, received from another organization, or as determined by provider may be made.
- Synonyms: Users may define multiple synonyms (e.g. acronyms, abbreviations) for diagnoses and all coded elements.
- Measurement Conversion: Users may enter and display both metric and imperial measurement units.

- Transaction Matching: Incoming transactions (e.g. from patient/provider registries, provincial medication/labs databases) are automatically matched with a patient record based on specific fields including last name, first name, birth date and gender.
- Search Capability: Patients are searchable by last name (exact, partial or phonetic), first name (exact, partial or phonetic), Personal Health Number ("**PHN**"), user-defined registration numbers, chart number, full or partial date of birth, aliases, phone numbers and multiple other demographic fields in multiple combinations.
- Record Merger: Patient records may be merged. Each item in a chart can be individually evaluated and moved to another patient's chart.
- Record "Deletion": Users may logically delete patient records or any part thereof (e.g. a diagnosis, a consult request, an immunization) by flagging them as deleted.
- Audit: The access, creation or revision of patient information as well as other user actions is recorded in an audit trail.
- Order Reconciliation. Results or responses to order/request (e.g. lab, investigation, consultation, immunization, referral to a program), whether the provider is internal or external, can be reconciled to orders.
- Help: All system help is available online and is context-specific.
- Business Continuity Copy: The Med Access EMR provides a locally installed Business Continuity Copy (BCC) featuring predictive loading of patient charts from the main/ASP application. The BCC provides the following benefits:
    - Delivers read-only PDF copy of resource schedules and patient charts for offline use;
    - Downloads nightly to a desktop Windows based PC and maintains a rolling subset of days and scheduled patients;
    - Provides 128-bit encryption for the transmission and storage of all data;
    - Honors the masking / confidentiality settings from the main application;
    - Maintains synchronized usernames, passwords and BCC access permissions with the main application;
    - Has an audit trail that is fully integrated into the main application: all BCC and patient chart access attempts are logged and reported back to the main application, immediately if accessed while the main application is operational and automatically updated at the earliest opportunity if accessed during an application/network downtime.

2. Registration & Demographic Information

- Demographic Data: The Med Access EMR provides a single repository for demographic data.
- Unique Identifiers: In the creation of a new patient chart, duplicate health numbers are identified and users cannot continue unless a unique health number is used.
- Registration Numbers: Validity checks are performed for registration numbers based on rules defined for each province.
- Relationship Data: A large number (36) of different types of relationships can be documented.
- Alerts: "Name Alerts" are presented when there are records of patients who have similar names.
- Import & Export: Where an interface with an external environment exists, demographic data from these other systems can be both uploaded and downloaded.

- Provider Identification: On the Demographics screen, a user may designate a Provider Group (in addition to Primary and Secondary Providers) who is responsible for the patient.

3. Billing

- Billing: Billing is supported for any task or non-visit encounter, including reminders, phone calls, follow-up, monitoring, etc.
- Diagnostic & Fee Codes: The Med Access EMR maintains a list of facilities and associated functional centres (e.g. Emergency, Clinic) to support billing code requirements.
- Hospital Visits: Users can bill for ongoing hospital care for individual patients, a billing clerk can search for the patient within the Med Access EMR and create an ad hoc bill for the hospital visit.
- Scheduler Integration: The Med Access EMR permits billing of a group encounter with multiple patients through the Scheduler day sheet.
- Outstanding Accounts: Med Access EMR provides an "Aged Receivables" report with 30/60/90+ day receivables.
- Rejected Accounts: Med Access EMR billing automatically reconciles patient claim information to allow users to resubmit rejected claims and print reconciliation reports.
- Third Party Billing: Third Party forms and invoices can be generated, displayed, printed and submitted.
- Out-of-Province Billing: Reciprocal billing is supported between provinces.
- Notifications: For periodic billing, notifications can be set as a recurring task.
- Business Arrangements: The Med Access EMR can manage one or more business arrangements for each provider in a practice and create billing templates to link different claim types with specific business arrangements.
- Fee Schedules: The Med Access EMR's "starter" database is loaded with the most current fee schedules and includes modifiers.
- Reports: Med Access EMR allows users to create routine billing reports within the Billing module, where users can set billing report criteria using filters to specify their query requirements.
- Help: Within the Med Access EMR billing module, there is application specific help concerning topics such as health service code lists, procedure lists, price lists, diagnostic codes, modifiers, facility/functional centre and explanatory codes.

4. Scheduling

- Integration: The Scheduler is integrated with the EMR and Billing components; appointment data and notes flow from the appointment booking and check-in process, through the visit note and EMR entries and into billing without requiring re-entry.
- Search: Users may search for available appointments based on provider, resource, day of week, time of day and/or appointment type.
- Appointments: Users can search and create appointments based on: first available care provider, or a specific care provider.
- Bookings: The "Bookings" tab displays a list of upcoming appointments for an individual patient. Users may display and print daily, weekly and/or monthly schedules for any provider.
- Recalls: Patient Follow up and Recall requests can be automatically generated with a single action for a group of patients based on demographic or clinical criteria - including the last date for that particular type of recall (e.g. a specific immunization) and any patient-specific exclusions.

- Views: Appointment types, availability and over-bookings are color-coded in the schedule for easy identification and can be customized to reduce the variety of appointment types.
- Visit Notes: Patient visit alerts and visit notes can be attached to an appointment at the time of booking (or later) to support care delivery at multiple times surrounding the patient encounter.
- "Doctor of the Day": The scheduler permits designating a provider as "doctor of the day" who may review and complete outstanding tasks that were initiated by other doctors.
- Waitlists: A patient may be assigned to any number of different waitlists for a clinic or for particular providers and/or service types within that clinic.
- Import & Export: The application allows export and import of scheduling records to another Physician Office System (EMR).
- "No Show" & Cancellations: Events with a "No show" and cancellation status can be transferred to billing in order to automatically generate corresponding bills.
- Reports: The Med Access EMR can provide "demand" oriented analytical reports: patients per provider, complexity, billings, unmet requests as well as "supply" reports for provider/resource availability and bottlenecks.
- History: A list of appointments can be viewed with a single click and filtered by past, future, cancelled, no-shows, etc.
- Audit: All accesses to patient records are logged in the audit trail - this includes access using the Scheduler.

5. Patient Care

- Order Sets: The Med Access EMR has order sets for a number of common conditions that can be modified by users. Order sets can include supporting information such as treatment guidelines, decision trees and links to evidence.
- Problems: Problem lists are maintained using discrete fields.
- Patient Data: A patient's history and a list of active follow-up reminders can be viewed when triaging a patient by viewing the patient summary at the point of care or triage.
- Charts: A patient chart is created in the Med Access EMR to document a triage request and the outcome of the process.
- Graphs: Users can specify particular sets of observations to be graphed and specify a limit to the number of data points on the graph.
- Notes: Clinical notes may be documented in a structured SOAP format.
- Templates: The user may document the reason(s) for a visit and clinical notes in a problem oriented manner using a combination of templates and text as appropriate.
- Coding Support: Visit templates may be mapped to diagnostic codes. One or multiple diagnostic codes can be supported per assessment.
- Alerts & Flags: Alerts are displayed as distinctive icons with hover-over details when a patient record is opened at the point of care
- Allergies & Intolerances: The Med Access EMR provides interfaces to import and export allergies and intolerances as discrete fields in many formats, including COPD, TOPD.
- Labs: Users can:

- Click on a summary lab view to view the full lab report including updates or corrections;
- Click on individual vital signs, observations, and lab results to graph the history of that measurement;
- Hover over a summary observation or lab result and view a history of that observation or lab test; and
- Click on summarized, visits, meds, profile items, investigations, consults, immunizations, etc. to view details.

6. Immunization

- History: The available immunization history of a patient may be viewed and printed.
- Templates: Immunization templates may contain mandatory fields, including lot number and expiry date, which will be enforced by the Med Access EMR.
- Recalls: The Med Access EMR provides the capability to auto generate patient recalls and print labels and letters for recall events.
- Reports: The same population recall criteria used above for generating recalls or for monitoring completion of goals can be used for listing patient completion (or outstanding follow-ups) and for statistical reporting across a population or sub-population to show completion rates.

7. Diagnostic Tests

- Interface Integration: The Med Access EMR accepts and displays reports received electronically, by fax or by scanning.
- DI Orders: Users may order diagnostic imaging through order templates. All orders are captured in a discrete and optionally coded manner in the patient record so that orders can be searched, whether coded or not, and processed.
- Lab Orders: Users may order lab tests through user-definable order templates which may be set up to automatically show (on hover-over) recent results of the same tests permitting to physicians consider history to avoid duplication or otherwise refine their order.
- Lab Display: Lab test results are displayed in tabular form and indicate from which lab the results originated.
- Results Review: The Med Access EMR generates a review task to the ordering provider and any copied providers for inbound results (including labs, DI, text reports and other electronic or attached results).
- Corrected Results: Corrected results are managed in a manner consistent with medical documentation requirements such that initial lab records are not lost and permanently maintained in the EMR history.
- Sign-Off: The system supports electronic sign-off for lab tests as well as DI reports and/or images reviewed by the requesting physician or delegated user.
- Search: A summary of historical lab results is provided and can be filtered or searched based on tests, order groups and dates.
- Patients: Instructions and test/procedure information for patients may be printed for any order including diagnostic imaging.

8. Medications

- Prescriptions: The Med Access EMR provides support for prescription writing, including dosage, route, refills, repeats, and the flagging of duplicate prescriptions.

- Renewals: The Med Access EMR allows direct access, with a single click, to the patient summary and chart from the renewal request list to review relevant information including recent medical history, prescription patterns, prescription usage, allergies or alerts.
- Medications: The Med Access EMR maintains patient medication lists including prescribing and dispensing events.
- Dosage: The Med Access EMR calculates amount or total number of days (duration) for a prescription if requested in number of doses where appropriate/possible.
- Pharmacies: The Med Access EMR allows users to maintain a list of pharmacies and associated contact information.

9. Non-Visits

- Encounters: Any non-visit encounter with a patient (including phone calls) may be documented including date, time, type of encounter, person contacted, patient, reason, advice given, response, etc.
- Documentation: Clinical documentation may be captured during a non-visit encounter and may include textual notes, discrete observations, follow-up planning, and other items.
- Actions: Any action (including referrals, ordering labs, printing requisitions, prescribing medications, etc.) may be performed as a result of a non-visit encounter or other follow-up not linked to a visit.

10. Queries, Reports & Letters

- Report Generation: Standard and user-defined reports may be generated based on any internal data including bills, encounters, non-visit encounters and appointments (attended or not).
- Search: The search and reporting tools support Boolean search capabilities that can be used in combination across all areas of the record including demographics, profiles (medical/surgical history, conditions, risks, and preferences), tasks, visits, investigations, immunizations, observations and billing.
- Recall & Follow Up: Users can generate recall actions and alerts in patient records based on recall queries and may define the criteria for recall reports and follow-up lists.
- Groupings: The Med Access EMR allows the creation of user-defined cohorts by individual assignment to a group/study or by generating a criteria-based list and automatically assigning these patients to the group/study.
- Letters: Users can define a letter template and run a mail merge from any follow-up list or any other patient list using defined criteria to produce a letter addressed to each patient (or parent/guardian) in the list based on data stored in the Med Access EMR.
- Retention: Authorized users may flag information (data and pertinent metadata) for archiving, and specify a retention date or period.

11. Task Management

The system provides a task management area (My Tasks) where users can manage tasks and active items, such as: messages, personal "to-do's", active referrals, prescription renewals and active lab results. All listed care activities may be managed from "My Tasks". The EMR also permits creation and assignment of non-patient related tasks.

- Task Lists: Personal tasks (individual "to do's") may be managed based on status, priority and user-defined type/sub-categories. Task lists can be filtered based on status, priority and configurable categories.

- Dashboard: Users can customize the layout and format by controlling placement and sequence of various categories of items in various columns.
- Messaging: Messages among members of the care team are managed with features similar to email.
- Encounter Notes: Encounter notes marked for review can be listed on the user's dashboard.
- Alerts: System alerts associated with results are represented as tasks that can be forwarded to the responsible provider.
- Patients: All patient-specific tasks are automatically linked to and part of a patient record.

12. Referral Management

- Referrals: The Med Access EMR records all creation or amendment (changes or addendum reports) of referral requests and reports and allows users to document disclosure (who to, by, reason and authorization).
- Referral Completion: The Med Access EMR supports the import of consultant reports and discharge summaries in electronic formats such as: PDF, JPEG, and PNG image types with browser plug-ins for viewing.
- Templates: Users may create and modify templates for producing editable referral letters.
- Providers: A list of providers is stored in the Med Access EMR for completing referrals and is searchable by name, specialty, city, provider ID, billing number and gender.
- Letters: Consult/Referral request letters may be pre-populated with existing patient data in the patient record including demographics, medications, allergies, problem list, medical and surgical history, visit notes, labs, investigations, in-office measurements and prior consults and prior consults can be attached.

13. Care Planning & Goal Management

Users can create and modify Care Plans for patients. The Med Access EMR includes Care Planning and Goal Management capabilities that are integrated throughout the Med Access EMR. The Med Access EMR characterizes a "Care Plan" as a set of goals, suggested order sets, clinical reference links and patient handout materials corresponding to a particular condition.

- Goal Setting: users may set goals such as target value/range and frequency of measurement or intervention
- Frequency: List items, including preventative screening items, can be one-time or repeated using any frequency.
- Goal Management View: The Goal Management View displays items in order of items due and highlights "over-due" and "near-due".
- Completed & Deferred Items: Future health services list items are recycled (closed, if one-time) when a user-defined relevant test is received (e.g. mammography result) or when user designates them as "completed" or "deferred" (with reasons such as "patient declined", "patient advised", "patient states done elsewhere" or "not applicable
- Alerts: A user may optionally enable alerts to display whenever patient contact involves any uncompleted future health services list items. Using Practice Management features, user can optionally generate contact lists and follow-up letters based on "near-due" and "over-due" items.
- Notes: Notes may be added and maintained for any item on the goal (Care Plan) list. Notes can be ad hoc, or can use all features previously described for encounter notes including templates for

documentation support, links to clinical guidance, patient handouts, calculations or rule-based reminders.

- Patients: The Care Plan can be printed in its entirety or in part - without specific goal values/results. The Med Access EMR also provides an on-screen view intended for sharing with a patient during the encounter.
- System Updater: Care Plan Content can be provided by NLCHI to the Med Access Clinical Content team for review. If approved by Quality Assurance a Standardized 'System' Care Plan can be deployed to all users on the current release version of the EMR.

14. Clinical Decision Support

The Med Access EMR integrates information from disparate parts of a patient chart and provides visual automated decision support alerts (e.g. "unmanaged", "pending" or "missed actions that need attending") and alert reminders.

- Tools: The Med Access EMR permits users to create customized displays, showing information comparisons, by selecting groups of information elements and preferred methods of combination.
- Alerts: Decision support alerts are generated from provided and user-defined rules based on various information in the patient chart, including: demographics, health problems, past medical history, surgical history, family history, social history, lab tests, medications and allergies, observations, user-defined fields and calculated values.
- Deactivation: Clinics may deactivate portions of the decision support system that are considered not relevant to that particular care setting.
- Import & Export: Users can export to an XML format, share by email (no patient info is included) and import Clinical Decision Support System ("CDSS") rules, documentation templates (including user-defined fields, calculations, reference links and patient handouts), graph templates, care plans (order sets and disease-specific goals) and reports/queries between users who are using the Med Access EMR.

15. Med Access Business Requirements for the PrescribeIT Solution

This functionality will be available to Med Access users when Canada Health Infoway makes the PrescribeIT solution available in Newfoundland. The following describes the PrescribeIT Solution available in Med Access EMR.

- Create prescription (Directed and Deferred):
  - The prescriber can send a new prescription to a target pharmacy.
  - The prescriber can send a renewal prescription to a target pharmacy.
  - The prescriber can send a new or renewal prescription to the PrescribeIT Solution with no target pharmacy to be queried by a pharmacy at a later time.
- Renew prescription Request / Response:
  - The prescriber can receive a renewal request from a pharmacy.
  - The prescriber can receive the resend of a renewal request with updates from the pharmacy.
  - The prescriber can send back responses to renewal requests, including; an "Accept" response, an "Accept with Changes" response, and a "Deny" response.
- Provider Registry Queries:

- The prescriber can lookup pharmacies in the centralized registry to support the prescription and clinician communication processes.

- Cancel Prescription Request/Response:
  - The prescriber can send a cancel request to a pharmacy for a prescription.
  - The prescriber can receive back, and accept or reject, responses sent back from the pharmacy.
- Prescription Dispense Notification:
  - The prescriber can receive back "dispense" and "dispense cancel" notifications, which include details of what was dispensed.
- Clinical Communication:
  - The prescriber can send and receive secure messaging with pharmacies.
- Two-Factor Authentication:
  - The EMR can support two-factor authentication.
- Incorporate Terminology Subsets:
  - The EMR can support the sending and receiving of coded terminologies within the messages.
- Jurisdictional Formulary:
  - As agreed upon between NLCHI and Canada Health Infoway, the prescriber can be configured to query the PrescribeIT Solution to see coverage and cost information for the drug being prescribed, from the Provincial Public Formulary (e.g. ODB, AB Blue Cross), as well as retrieve a URL to allow prescribers to access formulary pages for that drug.
- Privacy and Security:
  - To use the PrescribeIT Solution, prescribers will need to register and verify their credentials.
    - Only prescribers and the clinic at which they are registered are valid for the PrescribeIT Solution to prescribe.
    - The clinic and the prescriber must be enabled to use the PrescribeIT Solution to prescribe in the EMR
    - Non-prescribers are not allowed to use the PrescribeIT Solution to prescribe.
  - Upon registration and activation, any prescriber will have to ensure that their EMR supports 2-factor authentication.
  - Any message sent from the EMR must be sent directly to the PrescribeIT Solution.
  - Users must be able to limit access to parts of the system based on groups and access authority.
  - Medications that are prescribed through the PrescribeIT Solution cannot be reprinted or faxed as a valid prescription. The printout will indicate that the prescription is not valid.
- Audit and Logging:
  - Every event of a message sent to the pharmacy from the EMR is stored in a logging / audit file.
  - Every event of a message received from a pharmacy is stored in a logging / audit file.
  - The EMR will update audit / transaction logs based upon the type of message being sent.
  - The EMR will update individual medications based upon triggers: for example, if the message is faxed to the pharmacy by the PrescribeIT Solution, then the medication on the EMR is updated to say that it was sent electronically, but that it was ultimately delivered by fax.

16. Newfoundland Specific Functionality

- MCP Billing Integration: Users can submit MCP billing and receive remittance advice through direct integration to the MCP SFTP as per specifications under change control CC11 signed on September 7, 2017. This functionality has been in place since v5.3 of Med Access.
- MCP Billing Audit Report: NL Med Access users have access to a billing audit report and be able to print for follow-up and reconciliation purposes. This functionality has been in place since v5.3 of Med Access. The details of the report requirements are listed under change order CC07 signed August 2, 2017.
- Client Registry Integration (HL7 V3): The Client Registry Integration developed as per specifications as per initial contract. This integration enables Med Access user to search patients in the provincial patient registry, add patients, and synchronize patient information between the EMR and Client Registry in the event of a change to ensure the unique patient demographic record contains the most recent demographic information being referenced by all provincial systems integrated with the provincial Client Registry System. The Client Registry was delivered in v4.9 of Med Access.

  Furthermore, additional functionality was added to allow the import of patients from the client registry without 'breaking the glass' when consent based charting is activated. This functionality was added under change control CC09 signed on August 10, 2017.
- Patient Merge/Unmerge when offline: This functionality is an EMR queuing system to store changes/merges/unmerged messages locally and send them to the EHR once the EMR is brought back on-line. This limits the risk by allowing a patient profile to be synchronized. This functionality was developed under change control CC03 signed on January 24, 2017.
- Provider/Location Registry Integration (HL7 V3): The Provider/Location Registry Integration developed as per specifications in schedule C of the initial contract allowing the Med Access user to query/search the provider registry to render and display provider details and location summary.
- Jurisdictional Lab Information System: This integration to the Jurisdictional Lab Information System sends laboratory reports to the EMR as they become available. Once in the EMR, a task is created for the appropriate ordering or cc'd provider to review. Further enhancement has been added to ignore expiry date of MCP (i.e. PHN) identifier when matching reports. This functionality was developed under change control CC17 signed on December 18, 2017 as was delivered in v5.4 of Med Access.
- Preliminary Microbiology Results: This enhanced functionality was added to allow providers to view preliminary microbiology results and be labelled accordingly in Med Access. This functionality was added under change control signed and dated May 30, 2017.
- Shared Health Record System, Phase 1: This Phase 1 integration to the NL Shared Health Record System sends Diagnostic Imaging Reports and Clinical Document Reports to the EMR as they become available. Once in the EMR, a needs review task is created for the appropriate ordering or cc'd provider.
- Reports with Z Status: An enhancement was added in the processing of lab and report messaging containing a Z status should not be displayed and marked as unavailable. This enhancement was developed under change order CC16 signed December 18, 2017.
- Critical Lab Filter: An enhancement was added to added further report filtering capabilities to filter in isolation or grouping abnormal labs and critical labs. Also added an icon for users to easily identify critical labs from a task list. This functionality was developed under change control CC20 signed on July 20, 2018.

- Health eNL Viewer Single Sign On: This integration allows single-sign on into to the Health eNL Viewer from the EMR and recalls the patient in context to access EHR and DIS information not contained in the EMR. This functionality was delivered January 2017.
- Provider Types 'Role' Setup: Enhancement has been added to include Nurse Practitioners, Pharmacists, Dentists and Optometrists as available 'Provider' role options when setting up these users. This enhancement and role definition has been added under change control CC04, signed January 16, 2017.
- Soft Token 2 Factor Authentication: 2 Factor Authentication Enhancement was developed and incorporated as part of provincial requirement. The solution developed included integration to soft token technology. This functionality was developed under change control CC02 signed on June 28, 2016.

SCHEDULE B – Contractor Services

Schedule B – Contractor Services

Definitions:

Service Packs: means patches, fixes, modifications, error corrections or minor releases providing enhanced functionality but does not add major new features to the Med Access EMR.

Upgrades: means a software release that adds major new features to the Med Access EMR and replaces an installed version of a product with a newer version of the same product.

Beta Release: means a software release that is to be made available to a very limited subset of users in order to be tested to ensure conformance and quality. Production test and demo environments are updated with the beta release. Only clients that have signed up for the Beta Program will be upgraded with the beta release during the beta cycle.

Limited Production Rollout (LPR): means a software release that is considered our General Availability (GA) release candidate that is made available to a subset of users in order to confirm ready for GA.

General Availability (GA) Release: means that the software release containing an update patch or upgrade has been approved to be deployed to all customers in the general subscription base.

1. Integration Services

The parties agree that the points of integration between the EMR and other provincial health systems are summarized in the table below.

The parties agree that the timing and roll-out of each interface will be mutually agreed upon as part of the project planning.

The parties agree that the level of effort for each interface (and therefore the cost) is based on the assumptions listed.

Completed Interfaces:

Interface(s)	Preliminary Service Description
MCP (Medical Care Plan)	The contractor commits to add functionality to the Med Access EMR as per the MCP interface specification document.
Client Registry HL7 V2 (indicated version(s) supported)	If the Center opts for the Client Registry HL7V2, the Contractor commits to developing the interoperability for the following messages: • A28 Add Person Information • A29 Delete Person Information • A31 Update Person Information • A34 Merge Patient Information • QRY Query Message

Client Registry HL7 V3 (indicated version(s) supported)	If the Center opts for the Client Registry HL7V3, the Contractor commits to developing the interoperability for the following messages: - PRPA_IN101002CA Person Information Revised - PRPA_IN101004CA Resolve Duplicate Person Registrations - PRPA_IN101101CA Get Person Demographics Query - PRPA_IN101103CA Find Candidates Query - PRPA_IN101201CA Add Person Request - PRPA_IN101204CA Revise Person Request - PRPA_IN101105CA Find Associated Person Identifiers Query HL7v2 Interface:
Provider/Location Registry HL7 V3 (indicated version(s) supported)	If the Center opts for the Provider Registry HL7V3, the Contractor commits to developing the interoperability for the following messages: - PRPM_IN306010CA Provider Details Query - PRLO_IN202010CA Location Summary Query
Jurisdictional Lab Information System (JLIS) HL7 V2 (indicated version(s) supported)	If the Center opts for the JLIS in HL7V2, the Contractor commits to developing the interoperability for the following messages: - ORU^R01 Pathology Textual Reports - ORU^R01 Microbiology Textual Results (Includes sensitivity procedures) - ORU^R01 General Lab Numeric Results - ORU^R01 General Lab Timed Tests - ORU^R01 Blood Bank Results
Integrated Viewer	The contractor commits to add functionality to the Med Access EMR to incorporate the Centre's Integrated Viewer as part of the Med Access EMR workflow as per defined scope of work yet to be determined.

Interfaces to be completed:

Drug Information System HL7 V3 (indicated version(s) supported)	If the Center opts for the DIS in HL7V3, the Contractor commits to developing the interoperability for the following messages: - REPC_IN000001CA Patient Adverse Reactions Query - REPC_IN000015CA Patient Allergy/Intolerance Query - PORX_IN060050CA Device Prescription Dispense Detail Query - PORX_IN060070CA Device Prescription Dispense Summary Query - PORX_IN060090CA Device Prescription Detail Query - PORX_IN060130CA Device Prescription Summary Query - REPC_IN000023CA Patient Medical Conditions Query - PORX_IN060350CA Medication Profile Detail Generic Query - PORX_IN060390CA Medication Profile Summary Query - COMT_IN300201CA Patient Note Query
Shared Health Record HL7 V2 (indicated version(s) supported)	If the Center opts for the Shared Health Record in HL7V2,, the Contractor commits to developing the interoperability for the following messages: Admissions/Encounters (HL7v2): - A01 ADMIT/VISIT NOTIFICATION - A02 TRANSFER A PATIENT

	• A03 DISCHARGE/END VISIT • A04 REGISTER A PATIENT • A05 PRE-ADMIT A PATIENT • A06 CHANGE AN OUTPATIENT TO AN INPATIENT • A07 CHANGE AN INPATIENT TO AN OUTPATIENT • A08 UPDATE PATIENT INFORMATION • A11 CANCEL ADMIT / VISIT NOTIFICATION • A12 CANCEL TRANSFER • A13 CANCEL DISCHARGE / END VISIT • A38 CANCEL PRE-ADMIT • A45 MOVE VISIT INFORMATION • A50 CHANGE VISIT NUMBER Diagnostic Imaging and Clinical Document Reports (HL7v2): • ORU^R01 Diagnostic Imaging Report (Contains ORC segment and accession # from PACS) • ORU^R01 Clinical Document Report (Includes Discharge Summaries)

2. Hosting Services

The parties agree that the Contractor will initially host the Med Access EMR in its data centre located at:

PRODUCTION SITE :
TELUS QIDC
190 rue des Négociants
Rimouski, Québec, Canada
G5L 7E4

DISASTER RECOVERY SITE:
TELUS KIDC
1458 Bunker Rd.
Kamloops, BC
V2C 0B5

As part of the hosting services, the Contractor will perform the following services:

2.1 Data Centre Installation Summary:

- Create customer database and operating environment from a standard image
- Perform Automated System Test
- Initiate and confirm backups
- Test fail-over processes
- Verify security and protection settings, obtaining signoff for clinical data readiness
- Confirm network connections and availability of external interfaces
- Document each step and all settings in the Customer Relationship Management system (CRM), Salesforce.com

2.2 Med Access EMR Application Configuration:

The Contractor provides application configuration or, in the case of user-definable configuration, instruction for configuration for items such as user privileges, calendar setup, billing accounts and business arrangements, user preferences, interface defaults, templates, etc.

Configuration steps include:

- *Staff / Practice Enrollment* form provides users information and permissions for EMR setup

- Complete the *EMR Configuration Checklist* to set up all user accounts, customizable settings and interfaces
- Document indicated settings in the CRM system
- Source of electronic physicians' patient demographics file identified and conversion planned
- If a custom data import is provided, confirm test import
- Install and configure the Business Continuity Copy (BCC) and provide *BCC User Guide*

2.3 Med Access EMR Backup Process

Med Access EMR data is replicated in real time to three systems within the data center infrastructure. The First system is the Primary and Secondary Databases which can failover as required in the event of a problem with the Primary. The Second system is Disaster Recovery, and in the event of a complete loss of the Primary data center we can fail over to Disaster Recovery. The Recovery Time Objective is engineered to be within 24 hours. The Third system is our Copy system. This is a live copy of the data. This system is used to perform nightly backups of all data. This system feeds our retention system which keeps multiple days, weeks, months and yearly copies of the data. This data is tested once a year as well as the Disaster Recovery. A maintenance window is used to cut over a PROD environment for select clinics for testing.

3. Application Support

The parties agree that as part of its hosting services, the Contractor will also provide application support to the Centre as well as to the Authorized Users. The Contractor will provide the Authorized Users the ability to contact the TELUS Service Desk (CE Assure) via toll-free telephone, email and via the EMR Messenger or Community Portal. This will be the primary method of logging a support request.

The TELUS Health Med Access team will provide Contractor Level Tier 1, 2 and 3 of support that covers software support requirements relating to the functionality and usability of Med Access. The majority of a clinic's support needs will be resolved with the assistance of TELUS Health Med Access Support Analysts guiding clinic staff over the phone or through the secure EMR Messenger or email as users prefer. Remote access tools are available to demonstrate to customers the solution when procedural questions arise or when troubleshooting procedures require desktop access. For critical issues that render the software unavailable, a dedicated resource and an appropriate response team will be assigned. This team will have full access to the EMR hosted environment with sophisticated tools for diagnostics and resolution.

Role	Responsibilities
Contractor Tier 1 Support	• Registers and classifies received incidents and undertakes an immediate effort to resolve a client's inquiry as quickly as possible. • If no solution can be achieved, Tier 1 will document the call in the CRM and escalate the ticket to Tier 2. • Tier 1 Support also processes service requests and keeps clients informed about their case status as necessary.
Tier 2 Support	• Tier 2 Support takes over ticket which cannot be solved immediately by Tier 1. • If necessary, requests support from the Tier 3 • The aim is to restore a failed service as quickly as possible. • If no solution can be found, Tier 2 passes on the ticket Tier 3

Tier 3 Support	• Subject Matter Experts. • Its services are requested by Tier 2 if required for solving an Incident or call. • The aim is to restore a failed service as quickly as possible.

Regional Health Authority (RHA) EMR Instances can be complex with numerous configuration options implemented from the RHA. This is separate from a Fee For Service (FFS) EMR Instance. For all RHA EMR Instances, a dedicated contact list of Subject Matter Experts (SME's) will be provided to TELUS from the Centre. TELUS Service Desk (CE Assure) software will note to contact via email or phone call the appropriate RHA SME prior to making configuration changes in the RHA Instance, and document approvals in the ticketing system. This is to ensure standardization remains in place and to minimize the chance of causing additional issues while troubleshooting the call.

Incident Management and associated responsibilities are further outlined in Schedule D – Service Level Agreements Section 8 – Incident Management

3.1 Centre Level 1 Support

The Centre Level 1 Support will provide a second level of support for incidents related to or involving the NLCHI infrastructure using the escalation process documented in Schedule D – Service Level Agreements Section 8 – Incident Management. The Centre will be responsible to triage the issue and provide troubleshooting service related to the systems not managed by TELUS Med Access

3.2 Contractor Tier 1 Support

All initial investigations (support calls) will be managed by the TELUS Med Access Service Desk Support (CE Assure) team. This will include calls that can be resolved remotely or by walking the customer through necessary procedures to resolve the issue. These calls are resolved by Support Analysts. Service Desk Support calls can customarily be resolved while the customer is on the phone, allowing for quick resolution and documentation of the issue within the CRM. All initial requests for support are handled by Med Access Service Desk Support Analysts. Med Access Service Desk Support Analysts receive comprehensive and continuous training to ensure for a high rate of first call resolution.

TELUS Service Desk Support will work directly with the Centre's Tier 1 Support team or Authorized Users using the escalation process documented in Schedule D, section 7 Escalation Management.

3.3 Tier 2 Support

Tier 2 Support calls require more investigation and additional tools to assess the problem. These calls are handled by Senior Tier 2 Support Analysts. Customers are provided an action plan and timeline for the resolution of the call. Assistance is provided remotely, via EMR Messenger, email or over the phone with customers and utilizes remote access tools as needed. Tier 2 Support calls usually involve working to reproduce an error that has occurred and require more in-depth knowledge on both the application and hardware. Tier 2 Support investigations and findings are also logged within the CRM with detailed instructions of investigative steps taken to resolve the issue.

Senior Support Analysts become involved in customer issues when conventional trouble-shooting methods by Tier 1 Support Analyst have been exhausted with no resolution. Support Analysts have a detailed and documented process of troubleshooting and investigating issues prior to them being escalated, with escalation occurring at any time a support analyst has no further course of action or if the investigation has not progressed and a solution is not anticipated with the remaining tools and skill set available.

Once these investigations are completed, it is the responsibility of the Support Analyst to fully document all trouble-shooting techniques and outcomes within the CRM and assign to a Tier 2 analyst. Support Analysts are also responsible to alert the customer that they are not able to resolve the call and it is being escalated.

3.4 Tier 3 Support

Tier 3 Support issues are complex issues that are unresolved by Tier 2 and require focused expertise such as development to assess the issue and investigate further. This can involve developing software fixes or the use of advanced diagnostic tools and methods to identify and resolve issues.

4. Release Management

4.1 Med Access Gated Release Process

This section describes the Med Access Gated Release process which encompasses every aspect of product delivery from initial planning to lessons learned and includes:

- Established gate checklists that indicate what items are required to move to the next stage of the process.
- Roles and responsibilities for each team for each gate.
- Tools for monitoring four key aspects of the release:
    - Quality
    - Schedule
    - Scope
    - Operational readiness
- A method to capture, track and manage release related risk.
- Communication tools to inform the organization of:
    - Gate outcomes
    - Changes to release plans
    - General availability announcements
    - Release meeting updates
    - Risk and Action updates

Planning Gate (Gate 1)	**Overview:** The Product Manager will collect feedback on scope and presents the outcome in the Release Gate 1 – Planning session. This is presented to the stakeholders and the Voting Committee will vote on whether to proceed to the next phase. The outcome of the vote will be distributed to internal stakeholders. **Roles and Responsibilities:** • Product Manager: collect feedback from customer facing groups and rationalize it against the product roadmap and organization priorities to formulate a scope and present the scope to the stakeholder group. Present the THPS Gate 1 – Planning – presentation. • Development Manager – provides high level estimates as input to the gate 1 release planning • Release Manager – helps to facilitate the Gate 1 session and distributes the Gate Outcome Communication to all stakeholders • Representative – Regional Team: provide feedback on desired scope from a Regional Team's perspective. The regional team will bring forward asks from external stakeholders. • Representative – Customer Experience (CE): provide feedback on desired scope from a Regional Team's perspective • Voting Committee: provide vote on moving to the next phase **Deliverables:** • Release GATE 1 – Planning Presentation • GATE Outcome Communication

Commitment Gate (Gate 2)	**Overview:** The Release Manager will facilitate the creation and presentation of the Release Gate 2 – Commitment Presentation which will have the committed scope that can be accomplished in the timeline presented according to the resources available. The presentation will be socialized ahead of the presentation to ensure all teams have had an opportunity to provide feedback. A draft scorecard (an Agile SDLC tool to assess and score release scope and development efforts) will be created to capture the metrics to measure the release by in the Retrospective Gate. The Voting Committee will vote on whether to move on to the next phase. The vote outcome will be communicated to all internal stakeholders. **Roles and Responsibilities:** • Release Manager – facilitates the creation and socialization of a detailed project plan to ensure quality, schedule, scope, budget and operational readiness are achievable prior to the commitment gate. Work with Product Manager, Development Manager and QA Manager to set release score card. In addition, distribute the Gate Outcome Communication to all stakeholders • Development Manager: Refine estimates and develop a resource plan to ensure scope can be delivered with the expected level of quality within the release timeframe. Work with release manager to identify and mitigate risks. Present development plan during GATE 2 – Commitment session. • All teams: provide feedback on committed scope • Voting Committee: provide vote on moving to the next phase **Deliverables:** • Release Gate 2 – Commitment Presentation • Detailed project plan • GATE Outcome Communication • Release Scorecard

Beta Gate (Gate 3)	**Overview:** The Release Manager will facilitate the creation and presentation of the Release Gate 3 – Beta Presentation which summarizes the results of the Development phase. This will include any changes that occurred between the Commitment Gate and the Beta Gate. This will include changes in scope and schedule. The presentation will also include the results of testing, any outstanding issues and the list of clients to which the release will be deployed. The voting committee will vote on whether to proceed with deploying the release to the limited set of customers. The vote outcome will be communicated to all internal stakeholders. **Roles and Responsibilities:** • Release Manager – facilitates the creation and socialization of the beta gate presentation and hosts the Beta Gate session. In addition, distributes the Gate Outcome Communication to all internal stakeholders • Business Analyst/Product Manager/Quality Assurance Manager: present the Release GATE 3 Beta Presentation including changes between the Commitment Gate and the Beta Gate, testing results and outstanding issues. • The Beta Lead will supply the list of Beta clients that will receive the release • Voting Committee: provide vote on moving to the next phase based on all information presented. If vote is yes, the build moves into the beta phase. **Deliverables:** • Release Gate 3 – Beta Presentation • Gate Outcome Communication

Limited Production Rollout (LPR) Gate (Gate 4)	**Overview:** The Release Manager will facilitate the creation and presentation of the Release Gate 4 – LPR Presentation to the stakeholders. The presentation will include any changes since the Beta Gate, timelines, the list of Limited Production Rollout clients along with specifics on the deployment timing, results of the Beta phase and the quality summary of any work done during the Beta phase. The voting committee will vote on whether to proceed with deploying the release to the expanded set of customers. The vote outcome will be communicated to all internal stakeholders. **Roles and Responsibilities:** • Release Manager – facilitates the creation and socialization of the LPR gate presentation and hosts the LPR Gate session. In addition, distributes the Gate Outcome Communication to all internal stakeholders • Business Analyst or Product Manager: present the Release GATE 4 LPR Presentation including changes between the Beta Gate and the Limited Production Rollout (LPR) Gate, quality summary of any work done and any outstanding issues. • The Beta Lead will supply the list of LPR clients that will receive the release along with the issues and feedback from Beta clients • Voting Committee: provide vote on moving to the next phase **Deliverables:** • Release Gate 4 – LPR Presentation • Gate Outcome Communication

General Availability (GA) Gate (Gate 5)	**Overview:** The Release Manager will facilitate the creation and presentation of the Release Gate 5 – General Availability (GA) Presentation to the stakeholders. The presentation will outline any changes between the LPR Gate and the GA Gate, the overall release timelines, a quality summary of any work done in the LPR phase, any outstanding issues and the results of the LPR phase. The voting committee will vote on whether to proceed with deploying the release to all customers. The vote outcome will be communicated to all internal stakeholders. **Roles and Responsibilities:** • Release Manager – facilitates the creation and socialization of the GA gate presentation and hosts the GA Gate session. In addition, distributes the Gate Outcome Communication to all internal stakeholders • Business Analyst or Product Manager: present the Release GATE 5 GA Presentation including changes between the LPR Gate and the General Availability Gate, quality summary of any work done, any outstanding issues and results of the LPR phase. • Voting Committee: provide vote on moving to the next phase **Deliverables:** • Release Gate 5 – GA Presentation • Gate Outcome Communication

Retrospective (Gate 6)	**Overview:** The results of the release are examined with the release team in the After Action Review (AAR). Feedback will be gathered from the team ahead of the AAR through an internal release survey and an email asking to provide feedback. The AAR will identify improvement and sustainment areas. These will feed the Action Plan in the Release Gate 6 - Retro – Presentation. **Roles and Responsibilities:** • Process Improvement Consultant: send the internal release survey to the appropriate stakeholders. Coordinate content for the AAR and the TPS Gate 6 – Retro – Presentation. Facilitate the AAR. Also generate the Med Access Release Scorecard. Present the TPS Gate 6 – Retro – Presentation to stakeholders. Send the Retrospective Summary Report to stakeholders • Release Team: provide feedback during the AAR on the outcomes of the release **Deliverables:** • Release Gate 6 – Retro – Presentation • Med Access Release Scorecard Results • Retrospective Summary Report

Gate Outcomes

Gate approval meetings can end in one of the following three (3) results:

- GO: all TELUS Heath team members holding a voting seat have given a full go with no conditions and the release will move to the next phase.
- Conditional GO: one or more of the TELUS Heath team members holding a voting seat have attached conditions to the GO. All conditions will be assigned a timeline and followed up on during the course of the next phase.
- NO GO: one or more TELUS Heath team members holding a voting seat determined that release in current state is not fit to progress to the next phase. A subsequent Gate meeting will be held (for the same Gate) after corrective action is taken.

Gate 1, 2 and 5 voting consists of Director level votes which include: Client Experience (aka Support), Product Management, Data Migration, Development, Operations, Regional-West, Regional-East.

Gate 4 and 5 voting consists of manager level votes which include: Client Experience (aka Support), Product Management, Data Migration, Development, Operations, Regional-West, Regional-East.

4.2 Feature Request Management

Suggested improvements to the Med Access EMR or EMR Services are logged in the Customer Relationship Management (CRM) system as an 'Idea'. Customer feedback is received by the Customer Experience (Help Desk) group in their day-to-day communications with our customers. Customer feedback is also received by our Sales and Marketing, Implementation and Education Services Teams in their activities with customers, along with feedback received during User Group meetings. These team members forward this feedback to the Customer Experience group, also to be logged in the Contractor's CRM as an "Idea".

All Feature Requests are grouped by the specific component of the Med Access EMR to which they apply and are reviewed on a regular basis by Product Management. All feature requests of a specific component are analyzed with regards to the intended workflow and the improvements that would be realized by the customer are measured – the input from the customer is key in the consideration. Based on this analysis, feature requests are reviewed and prioritized for development, i.e., to be developed in the next release or to be added to a 'wish list' for future re-review and consideration. Customers can get updates on their feature request by checking in the CRM community portal. Alerts in the EMR will indicate the submission has been updated.

4.3 Fix and Issue Management

Issues are to be logged into the CRM for investigation, escalation and fix by customers and internally by analysts and resources within each department. All issues are reviewed and triaged through the support process and prioritized appropriately. All urgent fixes are addressed based on SLAs. Non urgent fixes are scheduled as appropriate in future Service Packs or major releases, depending on priority and impact assessment. Where appropriate, CE (Support) will provide a workaround within the CRM ticket and the customer will be notified.

4.3.1 Software Update Service

As part of the software update service, the Contractor will supply to the Centre and Authorized Users:

- Corrections for problems in the Med Access EMR that the Contractor diagnoses as defects (unintended behavior in a specific feature) in a currently supported version of the Med Access EMR;
- Updates, including minor new releases of the Med Access EMR that Contractor elects to make available to its general client base, and improvements required allowing the Med Access EMR to operate in conformance with new versions or releases of operating systems, so long as such improvements are technically feasible. In some cases, the Centre or Authorized User may be required to upgrade its hardware or third-party software in order to take advantage of available updates. The Centre and Authorized Users is responsible for costs associated with such hardware

and third-party software upgrades. While system-level changes are infrequent due to the web-based nature of Med Access, changes to minimum system requirements will be made known upon Gate 1 planning for the subsequent release. The Contractor reserves the right to charge a fee at its then standard service charge rates for services outside the scope of this Agreement;

- Any known problem resolutions in Med Access that become available to the Centre or Authorized Users, the Contractor may charge a fee for such service (at the current professional services rate) if the service is required due to:
  - Failure due to Centre or Authorized User errors or misuses;
  - Unauthorized modification of the Med Access EMR by the Centre or Authorized User.

4.3.2 Material Changes to NLCHI Solution by Contractor

- The Contractor will identify major changes (whether current or anticipated) affecting this Agreement during quarterly meetings. Additionally, before making any material changes to the EMR Services (which includes changes that affect interoperability with existing systems or infrastructure or technology platform changes, but does not include otherwise routine Upgrades), the Contractor will give reasonable prior written Notice thereof to NLCHI (which Notice shall not, in any event, be less than 30 days), and provide NLCHI the opportunity to review and comment on such changes. Contractor will consider NLCHI's reasonable comments and feedback as part of the integration of such material changes.

4.4 Major and Minor Releases

The Contractor's application management begins in partnership with product management and architecture at the specification and design phases, and closely manages, monitors, and reports from the development, build and configuration, quality assurance and deployment readiness cycles. Although it can vary, the Med Access EMR typically aligns to three major releases per year that provide new feature functionality, as well as a maintenance component as well (depending on drivers).

4.5 Quality Assurance

The Contractor's Quality Assurance team works closely with development and support to ensure testing meets the requirements of the product fixes and enhancements as well as covers the usage patterns of customers Releases go through a risk probability and impact analysis before being approved.

Quality Assurance includes multiple phases for each release and are explained below – some of the test types can occur in parallel during feature development – e.g. Unit Testing, Exploratory testing and Performance testing. The Quality Assurance process is subject to change.

The testing types selected to be performed for each release can differ – a major product release may cover most of the testing types covered below whereas a minor product release or Service Pack release may not necessarily go through the full testing life cycle. The types of testing performed for each feature will be documented within the Feature Test Plan. The automated tests (Unit, Service & UI) are run against each release candidate build to verify stability of key functionality. These activities include:

- All known unreleased P1 items are verified and accepted.

- All known (new) P2 items are verified and accepted.
- Confirms product meets performance requirements (performance before and after change are consistent).
- Before going to Beta, LPR and GA, the smoke test has been run with no newly introduced issues requiring resolution prior to release being discovered

Legend: Verification (Blue) Validation (Green)

Test Type	Definition	Responsibility
Unit Testing	Testing individual components (classes) developed. Unit tests are created and executed after a unit of code is developed and will exercise a requirement or a group of requirements. Unit test cases are added to the unit test suite (based on province) which is run each time a CI build is generated from Jenkins.	Development
Exploratory Testing	Performed during sprints and design validation to test edge cases. Exploratory testing will serve as augmented functional testing for the feature under test. Exploratory tests can also be performed during other phases to test for unexpected errors in workflows. Exploratory tests are ad-hoc and require no formal documentation to be maintained.	QA
Functional Testing	Testing feature requirements on integrated builds within sprints. QA Analysts will create functional test cases in Zephyr that trace back to feature requirements and execute these test cases within the sprints. A subset of test cases from the previous sprint should be executed as a regression test at the start of a sprint to confirm merge with master changes hasn't impacted feature requirements completed for the last sprint. Test cases, Test results and traceability matrix will be tracked in the Test Management tool	QA

Integration Testing	Testing user workflows for a development complete feature on a release candidate build. The goal of integration testing is to confirm that the completed feature will function as expected with other features in the product when merged together. The last sprint for the feature is typically reserved for integration testing. Integration testing is performed by QA Analysts after the feature has been merged to master and/or a release candidate branch.	QA
Conformance	Conformance required by provincial regulatory organizations will also constitute as validation for a given feature. Conformance activities include: setting up test environments as requested by provincial organizations, rehearsing all test cases located in the Conformance requirement documents and providing the conformance team with a demo to prove conformance for the feature.	Product Mgmt. QA
Beta	Testing business workflows for new features in beta builds in a Production like test environment or a true Production environment at beta sites. Beta will also serve as User Acceptance testing for the project. Beta sites will be provided with R&D support to triage and resolve issues as they arise. Issues will be logged in the Defect Management tool and tracked. Weekly status reports will be submitted to the internal stakeholders indicating progress of beta reported issues.	Beta Users QA

Regression Testing	Conducted to ensure that new functionality does not break existing functionality. The intent of the regression suite covers intended use of the product as outlined in the Requirements SOP. The automated unit/regression test suites, re-run of high priority integration test cases for the features in scope and betas running beta builds in their Production environment will be used to ensure that new builds have not introduced regression issues. QA will also execute a risk based regression cycle to confirm stability of release. The risk based regression cycle will include tests from the full regression suite which are deemed to have an impact by code changes for the release.	Beta Users QA
Non-Functional Testing (i.e. Performance, Security)	Non-functional test types may be included if there are explicit requirements for the feature. The goal of non-functional testing is to ensure that new features meet the performance, security, localization requirements internally and as required by provincial regulations. Non-functional testing will be performed by the Development and QA teams and results will be published to Product Owners and QA primes for review.	Development QA

If a client dataset is required for testing, in accordance with our client data policy and to protect the privacy of our clients and their patients, QA team members take utmost care when requesting, restoring client data servers on QA DBs and using datasets for testing. QA team members are required to follow the client dataset checklist before restoring any data onto the QA servers.

4.6 Beta

The Contractor will make available the beta release for testing within the Centre's EMR test environment the first week of beta. The Centre will have the opportunity to test and provide feedback to the beta lead within the beta cycle. Feedback should be provided within two weeks of upgrading the test environment as we have the resources available to address this feedback during beta. All feedback should be logged through the Community Portal to ensure adequate tracking of feedback. Feedback should include replication steps, results and expected results. Feedback should be provided as discovered to allow as much time as possible to

investigate issues uncovered during testing.

The Contractor will provide beta dates after the Release Gate 2 to allow sufficient time for the Centre to prepare for testing during the beta cycle. The Centre will make every reasonable effort to adjust their schedules to allow for testing during the first two weeks of beta.

Clients who have accepted to be part of our Beta Program will be upgraded during Beta phases to ensure adequate feedback on the release before GA.

To qualify to participate in the Beta Program the client site is assessed to determine if they are a good fit for the program. A number of factors are considered when assessing the candidate. Below is a list of some of the criteria that we consider when evaluating a possible beta clinic:

- Clinic size - prefer sites that have 5 MDs or less
- Clinic is interested in providing feedback and has time to do so
- Clinic staff has a positive attitude and are willing to learn and try new workflows
- Clinic staff is able to calmly deal with possible defects or interruptions to workflows and are willing to use creative workarounds during beta
- Time and eagerness to report defects and walk-through steps to reproduce the issue
- Someone at the clinic has intermediate technological understanding

The Contractor will identify a minimum of 6 potential beta candidates who agree to the above. Prior to beta period the contractor will make all reasonable efforts to engage the proposed sites until at least 2 live sites have agreed to participate in testing. The Contractor will then inform NLCHI of which sites have agreed to participate in the beta program.

The contractor agrees to provide detailed release notes for each major release to the NLCHI testing team at least 2 weeks prior to beta to provide NLCHI with sufficient time to develop test script within NLCHI's testing environments. This should not be dependent on the end user logging in to review a release note in the Instance Help File and will be a detailed report provided to the Centre.

In addition, the Contractor agrees to provide detailed release notes on all of the following:

- MPL Releases
- Integration Engine updates
- Service Packs

These release notes will also include:

- NLCHI Requested change requests addressed in the release
- Elaboration as to whether a change put in for a specific region could have impacts in other jurisdictions
- New features and/or enhancements
- Changes being released to resolve a recorded Incident

- Of sufficient detail to highlight the original issue, explain what has been provided for the resolution to that issue as to help inform how to recreate and test the issue. This will only apply to NLCHI submitted defects.

- Change Requests initiated by NLCHI will follow a technical response review process, giving TELUS and the Centre an opportunity to ensure both parties understand the change being requested and what will be delivered as a solution

The contractor will provide annually to the Center a gateway map for the coming year showing release dates for major releases, the corresponding Beta window and decision gates. This will be done at least three months in advance of any release that appears on the map.

The contractor will use the existing 'train the trainer' approach to ensure that resource is educated on the new features that are included in the release. This is typically carried out during the beta kickoff. The Centre can request a training video be created depending on the severity of the change being released.

4.7 General Release

The Contractor will inform both the Centre and Authorized Users of upgrades and fixes, and receive notice when General Release is achieved, and notice when the Med Access EMR is scheduled for upgrade (with opportunity to respond and discuss the upgrade with Support).This notification is made by EMR Messenger.Customers also receive a reminder EMR Messenger notification the day prior to the EMR upgrade, Full release notes and release highlights are made available to customers through EMR Messenger as well as in online Help for access to all release information and full details of fixes and enhancements.

The GR product is scheduled for release following a ramp-up process of limited release to clinics, building to full volume of release per week. During this phase customer feedback is monitored to ensure acceptance of the version.

5. Training and Implementation Services

5.1 Implementation Milestones

The parties agree that the Contractor will provide its standard, curriculum-based training to Authorized Users as well as identified Center staff. TELUS Health will deliver implementation services in partnership with eDOCS NL Practice Advisors. The following table outlines the various contracting and implementation milestones and roles and responsibilities of each partner.

Milestones from Expression of Interest to Implementation	Roles and Responsibilities
Milestone 0:	

Clinic signals interest in the NL EMR Program by completing and submitting an Expression of Interest to eDOCS NL	• TELUS Health Account Manager and eDOCS NL Practice Advisors promote the EMR program to help generate applications to the program.
Expression of Interest Received by eDOCS NL	• eDocs NL Practice Advisors contacts the clinic to set up a meeting to discuss NL EMR Program and encourages the clinic/providers to get a demo. • eDocs NL forwards the client contact details to the TELUS Health Account Manager to schedule a demo.
Demo of Med Access EMR	• TELUS Health Account Manager to schedule and deliver the demo.
Provider(s) makes decision to proceed	• eDOCS NL Practice Advisor schedules a second meeting to initiate the 'Clinic Needs Assessment' and provides a Program Application Form.
Provider(s) completes Program Application Form and sends to eDOCS NL.	• eDOCS NL processes application form and send an order request to the TELUS Health Account Manager. • eDOCS NL sends Participation Agreement to each Provider. • TELUS Health Account Manager completes the order.
Provide(s) send in their signed Participation Agreement.	• eDOCS NL returns the signed order to the TELUS Health Account Manager.
Milestone 1:	
TELUS Health receives signed order from eDOCS NL	• TELUS Health processes the order and creates an implementation project
Milestone 2:	
Project gets assigned to TELUS Health Project Manager	• The eDOCS NL Practice Advisor sends a copy of the Clinic needs assessment they've initiated with the clinic to the Project Manager to provide the context around the project. • TELUS Health Project Manager orders the clinic EMR site to be built by TELUS Data Centre Operations. If EMR site already exists, no immediate action is required.
Client Project kick off call scheduled	• TELUS Health Project Manager contacts the clinic lead or provider to schedule a project kick off call to review the details of the project and set project expectations. The kick off meeting participants are:

	○ Clinic Lead, Providers and/or staff ○ TELUS Health Project Manager ○ eDOCS NL Practice Advisor • The following members are encouraged to participate when possible: ○ TELUS Health Learning Specialist ○ TELUS Health PSE ○ TELUS Health Data Analyst • During the Kick Off Call, the TELUS Health Project Manager will gather the following: ○ Collect information to complete the clinic needs assessment, ○ Review Data Migration Process and timelines where applicable. ○ Determine tentative implementation dates and inform the clinic of the requirement to confirm implementation availability dates for: ■ TELUS training needs assessment ■ Data review if applicable ■ Day 1 Training, ■ Day 2 Training, ■ Go Live Support Day ■ Day 3 Post-Implementation Training.
TELUS Health Project Manager communicates tentative dates and coordinates possible implementation timelines with eDOCS NL.	• Prior to the clinic confirming implementation dates, the TELUS Health Project Manager will communicate the preferred clinic timelines with eDOCS NL to seek Practice Advisor availability to support the implementation. • eDOCS NL Practice advisors accepts or proposes alternative date options. • TELUS Health Project Manager confirms eDOCS NL Practice Advisor availability and proposed timelines to the clinic.
Clinic confirms and commits to implementation dates	• Clinic confirms Day 1 Training, Day 2 Training, Go Live Support and Day 3 Training dates by email to the TELUS Health Project Manager.

	• TELUS Health Project Manager documents the dates. • TELUS Health Learning Specialist provides the clinic with pre-training exercises at the time of the TELUS training needs assessment.
TELUS Health Project Manager Schedules the implementation activities	• TELUS Health Project Manager assigns a TELUS Health Learning Specialist to the project • TELUS Health Learning Specialist to the project schedules a meeting with the clinic to gather learning needs and site configuration requirements. • TELUS Health Learning Specialist set up basic configurations in EMR instance for the site. • TELUS Health Learning Specialist sends pre-training exercises to the clinic lead and/or providers
Pre-Training Site Configurations	• eDOCS NL Practice Advisors make all reasonable efforts to setup 2 Factor Authentication access for each user prior to the training. If, for any reason, this is not possible, it will be completed on site during day 1 and/or 2 training at the most convenient opportunity agreed upon by the Practice Advisor and Learning Specialist • TELUS and NLCHI agree to work on a process to ensure clear roles and responsibilities between TELUS and eDOCS NL Practice Advisors including potential to add a pre-deployment meeting. • TELUS Health Learning Specialist configures site in preparation for Day 1 Training.
Day 1 Training	• TELUS Health Learning Specialist typically delivers training to clinic admin staff • eDOCS NL Practice Advisor is present to support clinic in their learning while TELUS Health Learning Specialist leads the training. Practice Advisor may lead specific aspects of the training, as requested by the Learning Specialist • TELUS Health Learning Specialist finalizes the configurations, including setting up

	the various integration components and billing. • Clinic is closed to patients.
Day 2 Training (Day following Day1 Training)	• TELUS Health Learning Specialist typically delivers training to providers and clinical support staff. • eDOCS NL Practice Advisor is present to support clinic and /or providers in their learning while TELUS Health Learning Specialist leads the training. Practice Advisor may lead specific aspects of the training, as requested by the Learning Specialist • Clinic is closed to patients.
Milestone 3:	
Go Live Support day (Day following Day 2 Training)	• TELUS Health Learning Specialist and eDOCS NL Practice Advisor are on-site while the clinic is seeing patients with the EMR for the first time to provide first day support in a collaborative fashion, with roles and responsibilities as laid out in pre-deployment activities and in accordance with the knowledge and expertise of both. This is the day that the clinic is declared as live. • Clinic signs statement of completion for Day 1, Day 2 and Go Live Support.
Invoicing	• TELUS Health Project Manager authorizes the project to be invoiced with the 'Go Live' date as the effective date.
Milestone 4:	
Day 3 Training	• TELUS Health Learning Specialist is on-site to answer questions accumulated since starting using Med Access. Day 3 is also used to further access the EMR workflow and make recommendations and provide further EMR training as needed. • The day 3 Training curriculum will be developed in collaboration with the eDOCSNL program and will continue to include a Q&A session in the morning. eDOCSNL is interested in advancing Mature Use and Clinical Value and may specify to the Learning Specialist areas of training that the program would like

	covered during day 3 training. This may involve training to NL-specific content that will be shared prior to the Day 3 training. • eDOCS NL Practice Advisor can be present to support clinic and /or providers in their learning while TELUS Health Learning Specialist leads the training. Practice Advisor may lead specific aspects of the training, as requested by the Learning Specialist Day 3 training to be delivered within 60 days of go live date. • Clinic is closed to patients. • Clinic signs statement of completion for Day 3 Training.
Milestone 5:	
Project completed	• TELUS Health Project Manager marks the implementation project as completed.

5.3 Project Management and Pre-implementation Training

Upon receiving a signed order, an implementation project will be created and assigned to a TELUS Health Project Manager. The Project Manager's responsibilities is to gather the details of the project and ensure the project milestones are met. The project typically starts with a schedule kickoff meeting to review the project plan at a high level, gather the site details and complete the clinic readiness assessment that was initiated by the eDOCS NL Practice Advisors. A tentative implementation schedule and dates are set to deliver, Day 1, Day 2, Go Live and Day 3 Post implementation Training. During this call, customers are advised that a self-paced learning exercises and access to their EMR environment will be provided to the providers in advance of the Day 1 Training. These can be done from anywhere an internet connection is available and clients are strongly encouraged to begin the learning process as quickly as possible. Access to tracking the completion of these pre-deployment learning exercises will be provided to the eDOCSNL Practice Advisor assigned to the deployment.

This early access, and remote verification by the Project Manager that they are using the system, ensures customers are well-prepared for learning in their formal training sessions. The Practice Advisor may use this information to reinforce adoption and change management advice and/or activities prior to the deployment.

The TELUS Health Project Manager remains the main point of contact to ensure the coordination of the implementation activities. Once there is alignment and the site is ready to proceed with the implementation, the project manager will confirm the booking of the Day 1, Day 2, Go Live Support **and** Day 3 as agreed by the clinic and/or affected providers. Clinics and/or Providers must confirm these dates in writing and make the necessary accommodations in their schedules prior to the implementation roll out. The clinic understands that all implementation milestones are to be completed within 60 days of the 'Go Live Support Day'.

5.4 Live and Post-Live Training:

The main on-site training events are as follows:

- Day 1 Training, immediately before live - admin staff
- Day 2 Training, immediately before live - providers and clinical support staff
- Go Live Support
- Day 3 Post-Implementation Training, within 60 days post-live

Every clinic's implementation includes core training services that are delivered on-site to provide first-hand interaction between instructors and learners. Through a combination of instructor-led workshops and hands-on exercises, this format ensures validation of concepts learned and permits topical integration with Process Redesign and Change Management services. To maximize flexibility, many training services are also available through remotely-led eLearning methods such as webinars and interactive teleconferences with shared computer sessions. In addition, some topics are available in self-paced modules as interactive web-based tutorials, self-assessment tools, and video tutorials. However, for our core training services, we deliver onsite and in person to ensure that effective change management and process consulting are provided along with our training.

Formalized methods are used to deliver and evaluate training. All training is:

- Curriculum-based
- Preceded by a learner needs assessment
- Based on the user roles
- Has identified learning objectives and outcomes which are shared with learners
- Includes pre-training exercises for foundational learning in advance of formal training
- Integrated with change management support

Outcome evaluation – Regardless of format, the curriculum and expected learning outcomes are shared with learners in advance. Confirmation of concepts and skills is obtained through hands-on exercises and signed-off checklists outlining materials covered.

In addition to Go-Live Support, the Contractor includes an additional onsite encounter about 30-60 days post-live to conduct a Post-Live Review, document any outstanding implementation issues, provide immediate training on observable opportunities for workflow improvement, and deliver the 3rd onsite training.

5.5 TELUS Health Training program

TELUS Health Implementation Training Program

TELUS Health implementation training service focuses on key elements including;

- Preparing TELUS Health Super Users in clinics to support their team after our training team leaves
- Understand individual clinical workflows and identify upcoming process changes they need to communicate
- Deliver clinic specific role based training

- Support from a Learning Specialist on go-live day to help with those first day hurdles

At the time of the project kick-off, the Contractor's Learning Specialist will begin working with Authorized Users to complete a clinic needs assessment. This will help define the workflows that are needed and any configurable content specific changes that would be required. Following this activity, the Contractor will provide the Authorized User with a detailed agenda and learning plan for the team. The elements of training described will fit within the agenda and is customized to the schedule of the Authorized User. The classroom sessions are geared to have an 8:1 learner-instructor ratio.

In the *Leading team through change and toward improved health outcomes* session, the Contractor helps the Authorized User understand, recognize and support the components of change management that will help increase the level of EMR adoption. The Contractor will work through the session using specific key strategies to guide the Authorized User through the Change Management principles. Application aids and how to guides are made available to users in the Help files of Med Access and the Med Access Community Portal.

The Learning Specialist will work with key decision makers from the medical and administration end-user groups to conduct a Clinic Needs Assessment and advisory session. This information will be used to determine the clinic specific training plan, understand the specific workflows and training needs of the various end user groups, and understand some of the system preferences and business rules the clinic will adopt.

Clinic needs assessment (CNA) and advisory session	Number of Groups	Total Hrs.
1 focus groups; 1 GP, 1 Billing, 1 Admin, 1 Super User	1	1

Time estimates for the System Configuration and Preference setting session in this plan may vary once the level of end user proficiency and the user requirement for Go-Live day is understood. The Contractor recommends training in groups based on the common workflows of the end user group. Results of the clinic needs assessment and advisory session will help determine the final breakdown of end user groups.

Following the completion of the core curriculum, the TELUS Health EMR Learning Specialist will provide support to the learning participant through the production delivery of the TELUS Health User Adoption program.

	Total Hrs.
Learning Specialist II	**X * 4 = hrs**

Please note: The level of effort outlined above is an estimate and may change as more specific project information is gathered. The training approach assumes a subset of peer leaders of various roles and responsibilities within the clinic will be identified as Super Users. The Super Users will attend most of the sessions related to their end user group and will receive additional one-on-one time with the trainer to answer specific questions.

5.5 TELUS Health Course Content by Clinical Role

Clinical Role	Estimated Time (Hrs.)	Standard Course Content		
Front Office	7.5	Basic Navigation Working with the Patient file Working with Appointments Using the Patient File	Working with Letters & Referrals Working with Messaging Entering test reports, scanning & faxing	Billing if required
Physicians	7.5	Basic Navigation Working with the Patient file Working with Appointments Using the Patient File	Progress Notes Working with Templates, Forms Prescriptions, Immunizations & Treatments Working with Letters & Referrals	Working with Messages Labs Entering test reports, scanning & faxing Searches & Reminders Billing if required

A. The Authorized User will agree to have at least one person take full responsibility for coordinating the training and to communicate with the Contractor on issues with respect to training.
B. The Contractor reserves the right to provide group training.
C. The Contractor reserves the right, with the consent of the Authorized User, to deliver some of the training remotely.
D. The Contractor reserves the right to provide group training sessions on concurrent days when the Authorized User site is more than 100 km from St. John's International Airport (YYT) or Deer Lake Regional Airport (YDF)
E. Whenever possible, training and travel will be held during normal business hours, however, if the Authorized User requests that training and travel be provided outside normal business hours, the Contractor will, subject to availability of personnel, provide such training and travel. Outside business hours service charge rates will be charged for training and for travel outside of normal business hours at the service charge rates in accordance to the fee schedule of this contract.

6. ADDITIONAL SERVICES

The Contractor will provide the following services, but reserves the right to charge a fee in accordance with its standard service charge rates as listed in the Fee Schedule. Services include but are not limited to the following:

A. training of a new staff member;

B. additional training may apply if training sessions need to be repeated as a result of trainee absences during scheduled training program or training session cancellations without 24 hours' notice

C. the Contractor will provide training for future Authorized Users in accordance with the Contractor' standard service charge rates for training and for travel in effect at the time is provided

D. If Authorized User requests the Contractor to provide additional services, the Contractor will provide such services subject to availability of personnel at the Contractor' standard service charge rates in effect at the time of the request and, if applicable, rates for travel.

E. transfer of data to another instance;

F. assistance with problems caused by third party software or equipment purchased elsewhere (except as required by the Contractor for the operation of the Med Access EMR) or the installation of such hardware or software;

G. repairs outside the scope of the software upgrade service.

H. support, provision and/or installation of other third-party software;

I. super user training

SCHEDULE C – Pricing

Schedule C – Fee Schedule

The initial fees for the remaining integration projects as listed in Table 1 below are fixed price. The total initial fees are $383,600. The current total annual recurring fee for live integrations is $58,500. Annual and monthly recurring charges listed in Table 1, 2, and 3 below will be subject to ANNUAL INCREASE clause as listed in Section 3.6 of the EMR Professional Services Agreement.

Table 1: Integration Projects to be developed: NLCHI agrees to pay TELUS Health, upon being invoiced, based on the following milestones:

Interface(s)	Service Description	Initial Fees	Annual Recurring Fees	Payment Schedule
Drug Information System * HL7 V3 (indicated version(s) supported)	If the Center opts for the DIS in HL7V3, the Contractor commits to developing interoperability for the following messages: • REPC_IN000001CA Patient Adverse Reactions Query • REPC_IN000015CA Patient Allergy/Intolerance Query • PORX_IN060050CA Device Prescription Dispense Detail Query • PORX_IN060070CA Device Prescription Dispense Summary Query • PORX_IN060090CA Device Prescription Detail Query • PORX_IN060130CA Device Prescription Summary Query • REPC_IN000023CA Patient Medical Conditions Query • PORX_IN060350CA Medication Profile Detail Generic Query • PORX_IN060390CA Medication Profile Summary Query • COMT_IN300201CA Patient Note Query	$230,100.00	$35,100.00	50% upon project kickoff 50% upon delivery of completed Interface
Shared Health Record - Phase 2 (Admission, Discharge and Transfer Documents) HL7 V2 (indicated version(s) supported)	If the Center opts for the Shared Health Record in HL7V2,, the Contractor commits to developing interoperability for the following messages: Admissions/Encounters (HL7v2): • A01 ADMIT/VISIT NOTIFICATION • A02 TRANSFER A PATIENT • A03 DISCHARGE/END VISIT • A04 REGISTER A PATIENT • A05 PRE-ADMIT A PATIENT • A06 CHANGE AN OUTPATIENT TO AN INPATIENT • A07 CHANGE AN INPATIENT TO AN OUTPATIENT • A08 UPDATE PATIENT INFORMATION • A11 CANCEL ADMIT / VISIT NOTIFICATION • A12 CANCEL TRANSFER • A13 CANCEL DISCHARGE / END VISIT • A38 CANCEL PRE-ADMIT • A45 MOVE VISIT INFORMATION • A50 CHANGE VISIT NUMBER	$ 153,500.00	$ 23,400.00	50% upon project kickoff 50% upon delivery of completed Interface

* The Contractor assumes HL7V3 will be used for Client Registry, Provider Registry and DIS.

Table 2: Integration delivered and live: NLCHI agrees to pay TELUS Health the annual recurring maintenance associated to each active integration.

Interface(s)	Annual Recurring Fees
MCP (Medical Care Plan)	No Charge
Client Registry HL7 V3 (indicated version(s) supported)	$29,250.00
Provider/Location Registry HL7 V3 (indicated version(s) supported)	$17,600.00
Jurisdictional Lab Information System (JLIS) HL7 V2 (indicated version(s) supported)	No Charge
Shared Health Record - Phase 1 (DI reports and Clinical Documents Reports) HL7 V2 (indicated version(s) supported)	$23,400.00
Integrated Health eNL Viewer	$18,750.00

Table 3: Fee Schedule for implementation fees, User Subscriptions and Professional Services

	Implementation and Training eDDES NL Program and Eastern Health	Pricing - One Time	Conditions
1	New to Med Access Providers Per *Provider – Includes the following services: • Project Management • Clinic Readiness Assessment • Pre-Implementation Training • Implementation • Day 1, 2 , 'Go Live' & Day 3 Training • Post-Implementation Training within 60 days of go live.	• $4,000 per provider • Additional $1,200/LS day when class size exceeds 7 admin staff, which will result in another training day added or another LS designated to be on site; Additional LS day(s) when class size exceed 7 admin staff will at the discretion of TELUS.	• Training Fee per provider includes training for 7 staff to 1 provider. • Invoiced at 'Go Live' date. • Day 3 to be scheduled as part of implementation planning, (i.e. prior to Day 1 training). • If the provider(s) cancels or opt(s) out of the day 3 training, TELUS Health will issue a credit of $500 for each provider who **did not** receive Day 3 training. Applicable credits will apply after the 60 calendar days following the provider's 'Go Live' date. Future Day 3 request will be subject to further training ~~Day 3~~ fees listed in line 5 of this fee schedule. • Credits will be applied to NLCHI's account and will not be accrued.
2	New Instances (Sites) with Previously Trained Providers – Includes the following services: • Project Management • Clinic Readiness Assessment • Pre-Implementation Training • Implementation • Staff training • Post-Implementation Training within 60 days of go live.	• $3000 implementation fee • Implementation fee includes training of up to 7 staff • Additional $1200 per additional LS day for class sizes of larger than 7 admin staff which will result in extra day of training or another LS engaged on site; Additional LS days when class size exceeds 7 will be at the discretion of TELUS	• The implementation fee of $3000 represents site configuration and build, project management fees, clinical readiness fees and training and go live support for staff • Providers have the option to participate in training for $1200 a day, as per the standard extra training fees in line 5 • Day 3 is not included or required in this scenario, if it is requested it will follow the fees for extra training in line 5 Previously trained providers: • If a previously trained Med Access Provider joins a new group and will take part in the implementation and training for the new site, a fee of $1500 will apply for each previously trained provider being implemented at this site. • This fee covers the provider integration and billing setup in the new group instance and ability to take part in the training for that new site. • If a previously trained provider opts out of Day 3 training, no credit will be issued. Invoiced at 'Go Live' date of the site

3	New Locations within an existing instance with new providers – Includes the following services: • Project Management • Clinic Readiness Assessment • Pre-Implementation Training • Implementation • Day 1, 2 & 3 Training • Post-Implementation Training within 60 days of go live.	• Follows framework established in line item 1 in this table • $4,000 per provider • Additional $1,200/LS day when class size exceeds 7 admin staff, which will result in another training day added or another LS designated to be on site; Additional LS day(s) when class size exceed 7 admin staff will at the discretion of TELUS.	• If a previously trained Med Access Provider joins a new group and will take part in the implementation and training for the new site, a fee of $1500 will apply for each previously trained provider being implemented at this site. • This fee covers the provider integration and billing setup in the new group instance and ability to take part in the training for that new site.
4	New Location within an existing instance with Previously Trained Providers – Includes the following services: • Project Management • Clinic Readiness Assessment • Pre-Implementation Training • Implementation • Staff training • Post-Implementation Training within 60 days of go live.	• Follows framework established in line item 2 in this table • $3000 implementation fee • Implementation fee includes training for up to 7 staff • Additional $1200 per additional LS day for class sizes of larger than 7 admin staff which will result in extra day of training or another LS engaged on site; Additional LS days when class size exceeds 7 will be at the discretion of TELUS	
5	Existing Med Access Site - Provider Add Fee	• $500 • If training is required, minimum 1 day training onsite at $1200/day	• Applicable to <u>previously trained</u> provider(s) moving to another site already implemented on Med Access and <u>does not</u> require additional training. • This fee covers the provider integration and billing setup in the new group instance. • Invoiced once provider is activated on the site.

6	Site Implementation Fee (including new site/location within an existing instance with no providers scenario) – Includes the following services: • Project Management • Clinic Readiness Assessment • Pre-Implementation Training • Implementation • Staff training	• Base site training fee $3000, includes up to 7 staff • Additional $1200 per additional LS day for class sizes of larger than 7 staff which will result in extra day of training or another LS engaged on site; Additional LS days when class size exceeds 7 will be at the discretion of TELUS	• In the absence of **New to Med Access** Providers listed in the authorized users list for the site being implemented, TELUS Health will consider the Site as a provider for the purpose of establishing implementation fees with a limit of 5 staff to 1 provider clinic staff (for the purpose of subscription fees). • Invoiced at 'Go Live' date of the site.
5	Extra Training Sessions	• $600 Half Day per Session up to a maximum class size of 7 users (not available for Day 3 training). • $1,200 Full Day per session up to a maximum class size of 7 users • Extra $600/$1200 when class size exceeds 7 which will result in either another training day or another LS engaged on site	• Applicable to previously trained providers. • Providers who have not completed day 3 training are not eligible for extra training sessions until day 3 is complete • Invoiced once training delivered.
6	Locum / Resident Training	• $600 Half Day per Locum, Resident or Medical Student • No charge locum setup fee.	• Invoiced once training delivered. • Resident / Locum Training not intended to be delivered during new site implementations. • Locum / Resident Training does not replace training and implementation fees required for newly subscribed *Providers. • A credit of $600 will apply towards implementation fees listed in line 1 of this fee schedule if and when the locum or resident implements Med Access in their practice as a *Provider. This credit only applies for the locum and/or resident that received locum / resident training provided by TELUS Health. Eligible locums and/or resident names must be listed on an eDOCS NL signed locum / resident training signed order. The order number should be referenced when requesting the credit. • Locums and Residents who have not received and paid Locum / Resident training are not entitled to any credits. • Implementation credit is not portable outside of Newfoundland and Labrador. • Provider being replaced by locum is responsible to setup locum as per Med Access Help files.
7	Super User Training	• $15,000.00	• Max class size of 8 Users. • Intended for RHA and eDOCS NL or larger sites.

	User subscription fees - Standard eDOCs NL Program	Pricing per month	Conditions
8	Per *Provider - Non Mobile	• $199 per month	• Invoiced and paid monthly based on number of *Providers implemented and trained in the preceding month.
9	Per *Provider - Mobile License	• $250 per month	• Invoiced and paid monthly based on number of *Providers implemented and trained in the preceding month.
10	Per Allied Health Professional	• $145 per month	• Invoiced and paid monthly based on number of **AHP implemented and trained in the preceding month
11	Per Support and Admin Staff.	• First **5** staff included at no extra charge for each provider. • $80 per month per additional staff subscriptions exceeding 5:1 ratio.	• New pricing will be applied to all clinics (existing contracts and new contracts) on a go forward basis • Providers and AHP do not count as clinic staff.
12	Locums, Residents or Medical Students	• No charge subscription fee	
	Site Support Monthly Fees	**Pricing per Month**	**Conditions**
13	Site Support Fee	Site Size: • 1-2 Doctor Clinics: $199.99 • 3-5 Doctor Clinics: $299.99 • 6-10 Doctor Clinics: $399.99 • 11 or more Doctor Clinics: $499.99 • Walk-in Clinics: $199.00	• Invoiced and paid monthly based on number of users implemented and trained in the preceding month • Site Support Fee not applicable for sites listed under. Fee included in Block User subscriptions fees.
	RHA User Subscriptions	**Pricing**	**Conditions**
15	Initial Block of 100 User Subscriptions per RHA - Includes Admin Staff, Clinical Support Staff and AHP	• $30,000.00 - One Time Fee • $5,000.00 per month recurring	• Applicable to RHA instances • Invoiced at 'Go Live' date.
16	Subsequent Block of 100 User Subscriptions per RHA - Includes Admin Staff, Clinical Support Staff and AHP	• $15,500.00 - One Time Fee • $3,500.00 per month recurring	• Applicable to RHA Instances • Invoiced once threshold is exceeded.
17	Initial Block of 50 User subscriptions per RHA	• $15,000.00 – One Time Fee • $2,500.00 per month recurring	• Applicable to RHA instances with 50 users or less • Invoiced at 'Go Live' date.
	Subsequent Block of 50 User subscriptions per RHA	• $15,000.00 – One Time Fee • $2,500.00 per month recurring	• Applicable to RHA instances with 50-99 users • Invoiced at 'Go Live" date
18	Locums, Residents or Medical Students	• No charge subscription fee	
	Application Hosting	**Pricing per month**	**Conditions**
19	Production Environment	• Included in user subscription fee	
20	Disaster Recovery Environment	• Included in user subscription fee	
21	Training Environment	• $199/month/user + site of 149.99/month/environment	• Invoiced and paid monthly

22	Testing Environment	• $199/month/user + site of 149.99/month/environment	• Invoiced and paid monthly
	Professional Services	Pricing	Conditions
24	Data Extract to PDF	• $1,500 per provider	• Ad Hoc Service request for physician requesting eDOCs NL for an Extract of their Charts to PDF • eDOCS NL to provide signed request with data instructions
25	Data Extract for Migration	• $1,500 per provider	• Data extraction out of Med Access only as per current Med Access extract standards. • Invoiced one extract completed.
26	Data Import for Migration	• $1,500 per provider	• Data Import into Med Access only as per current Med Access import standards. • Invoiced once import completed. • Fee is exempt for PS Suite and Wolf conversions. • Invoiced at go live date.
27	Training outside standard business hours (8-5pm) and/or weekends.	• $225/h	• Based on trainer availability. • TELUS Health reserves the right to refuse the provision of training outside standard business hours.
28	Clinical Content	• $150/h	• Providers and/or sites who require clinical content development outside the standard template library offering of Med Access will be subject to $150/h for custom clinical content development. • For larger projects and requests, TELUS Health Clinical Content development team will review the level of effort and cost.
29	Custom Forms and Templates	• $150/h	• Providers and/or sites who require custom form development or custom template development outside of 5 custom forms and 5 custom templates per new clinic go-live and outside the standard template library offering of Med Access will be subject to $150/hour for custom forms and custom template development. • For larger projects and requests, TELUS Health Clinical Content development team will review the level of effort and cost.
	Other	Pricing	Conditions
30	Ad Hoc Administrative Reports	• As listed on change order	• Invoicing reporting provided prior to this renewal will remain unchanged and will continue to be provided at no extra charge. • Monthly RHA users list report provided at no extra charge. • Further invoicing reporting requirements will need to be

			reviewed through a change order and assessed based on feasibility and level of effort. One time fees and monthly recurring fees may apply and will be agreed upon through the change order signing.
31	Trainer Travel, Meal and Accommodation Expenses	• Reimbursed as per provincial expense schedule for travel, meals and accommodations.	• TELUS to submit expense reports and receipts. HST to be itemized for each expense on the expense report. • Travel within 100km of Deer Lake and Corner Brook Airport. Gander airport excluded since TELUS Health does not have a local representative in Gander.

* Provider is defined as a Physician, Nurse Practitioner, Optometrist, Dentist and/or other healthcare practitioner that see their own patients, not under the direction of another provider and prescribes medications and/or bills for service. These definitions are part of the Provider Types listed in change order CC04 signed on January 16, 2017.

In the event where a pharmacist, nurse or other practitioner's role expands to review and order labs or other investigations and/or has the authority to prescribe medications, that practitioner's role will be considered a provider under this agreement. Locums, Residents and Medical Students are excluded from this definition.

**Allied Health Professional is defined as a health professional that requires a license from an accredited governing body in order to practice. Licensed Practical Nurses and Nurses (registered or otherwise) are considered clinic support staff and are excluded from this definition. Nurse Practitioners are excluded from this definition and are included in the Provider definition above.

4. SERVICE CHARGE RATES

Assistance with services outside the scope of this agreement can be arranged and shall be charged to the Center in accordance with Contractor's standard service fees. The Parties may also add additional third party products (e.g. MedDialog/eFax, TELUS PHR, HealthMyself etc.) to this Agreement through amendment.

SCHEDULE D – SLA

Schedule D – Service Level Agreements

1 Objective

This Schedule defines the service levels for the services to be provided by the Contractor to NLCHI. This Schedule is subject to a Normalization Period. The EMR Normalization Period will start at the go-live date for 30 days.

During this period, the Contractor will use reasonable commercial efforts to meet the service levels.

1.1 Definitions

Centre Level 1 Service Desk	Means the Centre Level 1 Service Desk, provided by NLCHI or its designated representatives, that will respond to calls from the TELUS Service Desk service related to the systems managed by the Centre and that will be responsible for notifying the TELUS Service Desk of an incident or Service Inquiry related to the Services.
Contractor Service Desk	Means the Service Desk staffed by the Contractor that will respond to the NLCHI Service Desks, assign a severity level to NLCHI's Incidents and Service Inquiries and that will be responsible for call tracking, notification and escalation available to NLCHI in accordance with this Schedule.
Contractor – Tier 1	Means that the Contractor Service Desk will provide the first point of contact to the Centre Level 1 Service Desk for the management of Incident Recovery and Service Inquiries related to the EMR Services.
Normalization Period	Means the period ranging from the first day of the full implementation of the EMR Services for each Authorized User implementation (once the Authorized User is utilizing the services) extending thirty days (30)
Statutory Holidays	Good Friday, Victoria Day / National Patriots' Day, Canada Day, Labour Day Monday, Thanksgiving Day Monday, Remembrance Day, Christmas Day, Boxing Day, New Year's Day.

2 Service Levels

2.1 Application Availability

The EMR Solution will be available **99.9%** of the time on a monthly basis, averaged over each month and over all Authorized Users.

EMR solution availability	**Minimum Monthly Availability**
Electronic Medical Record (EMR)	99.90%

EMR solution availability is defined as the ability to retrieve existing records, update or alter existing records and create new records. EMR solution availability is measured within the perimeter of the EMR hosting facility. Uptime will be determined on an average monthly availability as an aggregate of the entire Authorized User base.

2.2 Client Registry Integration Availability

The Client Registry Integration will be available 99.9% of the time (as per the EMR availability) on a monthly basis, averaged over each month and over all Authorized Users.

Client Registry Integration availability is defined as the bi-directional synchronization connection with Med Access.

2.3 Results Integration Availability

The Results Integration Interface will be available 99.9% of the time on a monthly basis, averaged over each month and over all Authorized Users.

Results Integration Interface availability is defined as the # of messages sent from the provincial lab system as compared to # of messages received in Med Access.

2.4 HEALTHe NL Integration Availability

The HEALTHe NL Integration will be available 99.9% of the time (as per the EMR availability) on a monthly basis, averaged over each month and over all Authorized Users.

HEALTHe NL Integration availability is defined as the single sign-on link from Med Access to HEALTHe NL.

2.5 Provider Registry Integration Availability

The Provider Registry Integration will be available 99.9% of the time (as per the EMR) on a monthly basis, averaged over each month and over all Authorized Users.

Provider Registry Integration availability is defined as the ability to query the registry from Med Access.

2.6 MCP Integration Availability

The MCP Integration will be available 99.9% of the time (as per the EMR) on a monthly basis, averaged over each month and over all Authorized Users.

MCP Integration availability is defined as the implemented functionality as outlined in the MCP interface specification.

2.7 Data Quality

Data Quality, also referred to as Software Quality, refers to the correct processing of the data within the EMR application, protecting the integrity of the data at all times. Patient safety is the primary focus of the Centre and the EMR application needs to provide a quality of service pertaining to clinical information accuracy.

Incidents detected or reported as possible Data Quality issues will be referred to at NLCHI as "E-Health Safety Occurrences" and will be reported to the Deputy Minister of the Department of Health and Community Services. The management of such incidents must follow the Incident Management and Escalation Process outlined in this document. These issues include, but are not limited to:

- Missing results – clinical information missing from patient charts
- Delayed results (greater than 24 hours – (after being delivered to the TELUS integration engine)
- Results appearing on the incorrect patient's chart
- Missing or suppressed/deleted tasks
- Demographic mix-ups or overlay issues – demographic information appearing on the wrong patient's chart
- Clinical misrepresentation of results (*"inaccuracy of result content"*)
- System fails to produce appropriate alerts for clinical results
- Draft reports are not updated by incoming final reports

2.8 Exclusions

Are excluded all service levels set out in this Schedule:

- Regular maintenance windows; these are referenced in section 2.10.1 below
- Emergency maintenance occurring during regular maintenance windows; and
- Any circumstances beyond the Contractor's control, including without limitation, interruption or failure of telecommunication or digital transmission links, delays or failures due to an internet service provider, hostile network attacks, force majeure, network congestion and third party services/software/hardware. Improper or insufficient planning for an EMR Deployment is not considered an exclusion.
- Items in Section 3.4 below.

2.9 Remedies

The level of remedies to be applied will focus on EMR solution availability because of the importance of the Electronic Medical Record (EMR). In the event there is a period where there are occurrences then NLCHI shall be entitled to enforce one of its remedies as it applies to an occurrence during such periods.

Escalation	Remedy
First Occurrence **"First Occurrence"** means the first month in which the Contractor fails to meet the minimum monthly EMR Solution availability, considering the immediately	TELUS Health – Provider Group (EMR) – director of operations, or equivalent, shall meet with the NLCHI Service Manager within ten (10) business days of such failure to review the problem(s) and provide a detailed plan designed to insure that such service achieves or exceeds the minimum monthly EMR Solution availability.

preceding 12 months as a reference point.	
Second Occurrence **"Second Occurrence"** means a second month in the immediately preceding 12 month period which the Contractor fails to meet the minimum monthly EMR Solution availability.	TELUS Health – General Manager – Provider (Eastern Canada), or equivalent, shall meet with the Executive of NLCHI within ten (10) business days of such failure to review the problem(s) and provide a detailed plan designed to insure that such service achieves or exceeds the minimum monthly EMR Solution availability. The Contractor shall credit to NLCHI an amount equivalent to 10% of the monthly support and subscription fees for the second month it missed the availability target.
Third Occurrence **"Third Occurrence"** means a third month in the immediately preceding 12 month period which the Contractor fails to meet the minimum monthly EMR Solution availability.	TELUS Health – Vice President – Provider Group, or equivalent, shall meet with the Executive of NLCHI within ten (10) business days of such failure to review the problem(s) and provide a detailed plan designed to insure that such service achieves or exceeds the minimum monthly EMR Solution availability. The Contractor shall credit to NLCHI an amount equivalent to 12.5% of the monthly support and subscription fees for the third month it missed the availability target.
Fourth Occurrence **"Four Occurrence"** means a fourth month in the immediately preceding 12 month which the Contractor fails to meet the minimum monthly EMR Solution availability.	At NLCHI's option, TELUS shall either (a) credit to NLCHI an amount equivalent to 15% of the monthly support and subscription fees for the fourth month it missed the availability target, and TELUS Health – Vice President – Provider Group, or equivalent, shall meet with the Executive of NLCHI within ten (10) business days of such failure to review the problem(s) and provide a detailed plan designed to insure that such service achieves or exceeds the minimum monthly EMR Solution availability, or (b) NLCHI shall be entitled to terminate this Agreement up thirty (30) days written notice. In the event that NLCHI does not provide written notice to terminate the Agreement then NLCHI will have been deemed to have selected option (a). In the event written notice to terminate is given to TELUS by NLCHI, then notwithstanding such written notice TELUS shall continue to be obligated to comply with its transition responsibilities as required in the agreement.

Data Quality Remedies

Data quality issues within the EMR are equally as important as availability, and can affect the trust and confidence in the solution as a whole. In the event there is a period where there are occurrences then NLCHI shall be entitled to enforce one of its remedies as it applies to an occurrence during such periods.

For each data quality incident, (as defined in Section 2.7 above), the Parties will agree on whether the data quality incident is considered a major data quality incident. To evaluate whether a given incident qualifies as a major incident, the Parties will take into account the number of affected patients, the number of affected health professionals, the potential harm that could have resulted from the data quality incident and the actual harm (if any) that came from the data quality incident.

If the Parties qualify the data quality incident as being a major data quality incident, NLCHI shall have the option of either (a) claiming a $100,000 penalty from TELUS as final compensation for the occurrence of the incident, or (b) rely on any other remedy NLCHI may have by law, contract or otherwise. In the event that NLCHI does not claim the credit in writing within thirty (30) days of the mutual qualification of the incident as major, then NLCHI will have been deemed to have selected option (b).

The Parties agree that the total and cumulative penalty fund for data quality penalties is set at $500,000 for data incidents occurring between the execution of the Renewal Amendment and December 31, 2022.

2.10 Hours of Operation

Contractor Service Desk Support Service. A toll-free line is available for Service Desk support Monday through Friday from 8:00 a.m. to 5:00 p.m. (NST), except statutory holidays. Support for P1 critical issues (defined as "Access to the EMR is unavailable from all workstations within the clinic, no workaround available") is available 24/7.

2.10. 1 Scheduled and Unscheduled Maintenance

A) Regular maintenance windows

Regular maintenance windows are reserved for software maintenance and upgrades. EMR Services will be unavailable during this time. Regular maintenance window are as follow: 1) every day of the week from 01:00 to 03:00 NST 2) once a week, starting on Saturday at 23:00 NST and ending on Sunday at 05:00 NST, 3) twice a year for a period of 8 hours outside of regular business hours at a time that the Contractor will communicate to the Center in advance.

B) Emergency maintenance window

Emergency updates will be deployed as necessary to perform any maintenance that the Contractor, acting reasonably, deems should not wait for the next regular maintenance window (e.g., to deploy a fix to a priority 1 defect). When an emergency update is to be applied, the Center will be notified as soon as possible in advance.

Emergency Maintenance

When emergency maintenance is required, the Contractor will provide the greatest possible amount of lead-time and will arrange for a solution that minimizes the impact on the Authorized Users.

Maintenance Notification:

The Contractor will communicate any scheduled changes to Center at least five (5) business days prior to implementation of the change.

3. Operations Activities

3.1 Customer Support Centre

TELUS EMR support services levels during regular business hours	
Support coverage	Service Desk Support Service. A toll-free line is available for Service Desk support Monday through Friday from 8:00 a.m. to 5:00 p.m. (NST), except statutory holidays. Support for P1 critical issues (defined as "Access to the EMR is unavailable from all workstations within the clinic, no workaround available") is available 24/7.
Tier 1 help desk services - first response to call	80% of calls answered within 60 seconds
Tier 1 help desk services - first response to e-mail	80% of e-mails answered within 24 hours
First call resolution	70% of tickets closed by support on first call without escalation

TELUS EMR support services levels after regular business hours	
Support coverage	Service Desk Support Service. A toll-free line is available for Service Desk support Monday through Friday from 8:00 a.m. to 5:00 p.m. (NST), except statutory holidays. Support for P1 critical issues (defined as "Access to the EMR is unavailable from all workstations within the clinic, no workaround available") is available 24/7.
Tier 1 help desk services - first response to call	80% of calls answered within 10 minutes
Tier 1 help desk services - first response to e-mail	80% of e-mails answered by next business day.

3.2 Service Desk Contact Information:

The TELUS Service Desk (CE Assure) can be reached with the following North America accessible toll free number and or email address:

- 1-888-781-5553
- MedAccessSupport@telus.com

Users are to contact TELUS Service Desk (CE Assure).

The NLCHI Tier 1 Support can be reached with the following North America accessible toll free number and or email address:

- 1-877-752-6006
- service@nlchi.nl.ca

3.2 Incident Classification

When calling for technical assistance, NLCHI must be prepared to supply the Service Desk with:

- ✔ Name and phone number of caller;
- ✔ Clinic Name;
- ✔ Detailed description of the call.

Both NLCHI and TELUS are responsible for informing each other of all changes to their internal application or environment that may affect the services.

The TELUS Service Desk representative responding to a call classifies the call by assigning an initial priority in a call ticketing system.

The TELUS Service Desk takes ownership of an incident/inquiry until recovery and is supported by a number of subsequent levels of support. They take care of inquiries/incidents related to the administrative, operations or technical areas.

Call classification shall be in accordance with the guidelines set below:

Where issues require application changes (e.g. to replace a workaround) the issue will be deemed to be resolved once the change has been logged and successfully deployed in the next service release of the application. To ensure system stability and conformance, all application changes, including emergency patches must follow the release management process.

Priority	Resolution time <= 1 Hour	Resolution time <= 4 Hours	Resolution time <= 1 Business Day	Resolution Time <= 10 Business Days
P1	60%	75%	95%	NA
P2	NA	60%	90%	NA
P3	NA	NA	NA	*50% <= 3 business days; 90% <= 10 business days
P4	NA	NA	NA	*70% <= 10 business days

*The Parties acknowledge that, given the non-critical nature of those defects, those metrics are targets the Parties will strive to meet but do not give rise to monetary compensation, penalties or other contractual or legal remedies if not met from time to time.

Note: Resolution times above are based upon **system availability** as defined in section 2.1 of this schedule and do not apply to data quality incidents. The nature and severity of the data quality incident will determine the resolution time.

The following table (Chart C) describes in detail the meaning of each severity level, and provides some examples of issues and their priority categorization. Data quality incidents will be qualified and managed in accordance with the prioritization matrix set out in Section 8.3 below.

Chart C

Problem Priority Assignment	Resolution Time	Additional Explanations /Examples
Priority 1 – Urgent: Service is unavailable, Indicates a total inability to use an application system or a component of an application system, resulting in a critical impact on client operation where; • Resolution cannot be achieved by failover to secondary data centre or hardware/service clustering is not effective in resolving the issue; • And the problem affects the entire organization, location, or department; • And there is no work-around or manual process available;	<=1 hour, 60% of occurrences <=4 hours, 75% of occurrences <=1 business day, 95% of occurrences	e.g. Restarting virtual server instance; Database / transaction rollback. e.g. Recovering / Restoring a particular server from backup following hardware service. e.g. Complete restoration of software environment from backups.

Priority 2 – High: application does not function correctly and affects a particular user of the system. Indicates a total inability to use an application or computer system, or a component of an application or computer system, resulting in a critical impact on a single client where; The problem affects a key individual whose job function is critical to the organization; and there is no work-around or manual process available	<=4 hours, 60% of occurrences <=1 business day, 90% of occurrences	e.g. billing submission not working, but other use of the service is available. e.g. User cannot import lab results into EMR, other users are working. The Contractor's support specialists will work to restore these critical functions, or provide workarounds that permit the issue to be downgraded in priority level.
Priority 3 – Medium: support issues surrounding the use of the service that has minor impact on the operation of a practice or user. Computer outage affecting a single client, where the problem affects an individual who has not been identified as having a job function that is critical to the organization or a user within the organization and indicates an ability to use the application system without functions that are not critical to overall operations. A work-around may or may not be available.	*50 % <= 3 business days, 90% <= 10 business days	This represents the bulk of support requests handled by the Contractor's support desk. Common issues tend to involve troubleshooting third party hardware and software elements.
Priority 4 – Low: Support issues surrounding functionality that does not have significant impact on the operation of a practice or user. Computer outage or request affecting a single client, where: There is minor impairment. There is no work-around necessary.	*70% <= 10 business days.	Common support requests at this priority level are related to functional issues/training issues and have little to no impact on service delivery.

*The Parties acknowledge that, given the non-critical nature of those defects, those metrics are targets the Parties will strive to meet but do not give rise to monetary compensation, penalties or other contractual or legal remedies if not met from time to time.

3.4 Service Level Exclusions:

The Contractor shall not be held responsible to uphold service levels if any of the following conditions applies:

- Center's managed dependent systems are down or experiencing performance issues;

- Application defects requiring the development of an update patch or software release will not be measured against the resolution time SLA's outlined in Schedule D and must adhere to the Contractor's software release management process.
- Internet connectivity is down or performing below the ISP's standard;
- Acts or omissions of telecommunications carriers or other service providers that are outside of the Contractor's control;
- If the Authorized User's site is experiencing a power outage;
- Excused downtime: Excuse downtime will be anytime the Med Access EMR is unavailable during the scheduled maintenance windows agreed upon and with prior notification to the Authorized Users and the Centre;
- Failure of the Centre or Authorized Users to perform their obligations under this Agreement;
- The negligence of the Centre or Authorized Users;
- Changes to the EMR Services that were not authorized by the Contractor;
- Problems with hardware or third party software purchased by the Authorized User which are not certified by the Contractor as compatible with the Med Access EMR.
- Contractor exercises its right to audit the Authorized Users, if such exercise directly hinders or interferes with the Authorized Users ability to access and use the Med Access EMR.
- "No Trouble Found" events; Authorized User or Center reported problems that cannot be duplicated or verified.
- Regularly scheduled disaster recovery activities.
- 3rd party interfaces not included as part of the projects under this Agreement
- Clinic hardware technical issues and any possible viruses or malware infection affecting the performance and access to the Med Access EMR.
- User acts or commissions, including as it pertains to the accuracy or completeness of the data they input
- Improper or insufficient planning of an EMR Deployment **is not** considered an exception

4. Incident Reporting

In the event of a P1 - Urgent incident, the Contractor shall prepare and submit a report for each incident.

The Contractor shall use reasonable commercial efforts to submit within 2 business days following incident recovery, including the following information:

- Detailed synopsis of events from inception to recovery;
- Chronology of events;
- Root cause analysis *,
- Number of patient records potentially affected by the incident
- Instances affected by the incident
- Extent of communication that has taken place between vendor and end user
- Follow up actions to mitigate against recurrence;
- Ancillary details will also be included, such as ticket number and duration of the incident.

* If the root cause is not found within the timeframe, an updated incident report can be provided within 48 hours of root cause discovery. It is expected that NLCHI assign necessary resources to work with the Contractor during the incident recovery for the NLCHI applications and subsequent root cause analysis.

5. Service Level Reporting

The Contractor will prepare monthly service summary reports for NLCHI to provide information on performance as well as operation metrics.

The content of the report will be mutually agreed between NLCHI and the Contractor. These reports will be made available to NLCHI by the 10th business day of the following month.

6. Performance Reporting

The Parties acknowledge the importance of performance and latency as it relates to the Med Access EMR. Following the execution of the Agreement, the Parties shall work together to establish a framework by which important performance and latency baseline metrics can be identified, scoped and measured. The Parties acknowledge the importance of clearly identifying the various types of interaction against which performance can be measured as well as extraneous factors that can affect performance. The Parties will evidence the results of such exercise in a written amendment to this Schedule D agreed to by both Parties.

7. Escalation Management

The TELUS Command Centre (TCC) team supports the management, communication and resolution of high severity/priority (P1) Incidents that impact TELUS customers.
The TELUS Service Desk manages resolution within the first 30 minutes of Priority 1 incident. At 30 minutes, Service Desk engages TELUS Command Centre (TCC) escalation procedure (first 30 minutes):

1. Potential Severity 1 situation is identified by the Service Desk and they report the Incident to the TCC Incident Manager. In parallel, the Service Desk notifies the Development / Resolver teams to ensure engagement has commenced. The TCC Incident Manager will notify NLCHI HelpDesk of the issue and provide relevant information as outlined in Section 8.2 of this document.

2. The TCC Incident Manager notifies TCC Operations Manager for awareness and ensures the recovery process is progressing with appropriate resources engaged.

3. In the case of off hours support, the TCC Incident Manager is responsible to ensure on-call support team primes are engaged within 30 minutes (Production Control, Application, Network, Systems, Storage, DBA, etc.)

4. Severity 1 is validated and declared by TCC Incident Manager via Technical & Director Prime Escalation. Executive Escalation Bridge and ESR Process convened if Incident has not been resolved.

5. Incident continues to be managed by the Incident Management and Problem Management Team and Resolver Groups as per established processes until resolution.

6. Internal Incident Notifications are sent out every 30 minutes.

7.1 Executive Escalation Bridge / Executive Summary Reporting (ESR) Process

1. Severity 1 is declared by either TCC Operations Manager or Technical & Director Primes.
2. TCC Operations Manager takes ownership of ESR and notifies Technical & Director Prime Escalation Checkpoint distribution immediately to schedule a meeting ASAP (max. 30 min).
    - Director level attendance required.
    - VPs from some impacted areas commonly join as well.
3. Initial Executive Summary Reporting (ESR) Communication is sent out within 30 min. after the **start** of ESR event. Updates are sent every 30 minutes until incident resolved.
4. Technical & Director Prime Escalation Checkpoint convened by TCC Operations Manager to decide on the need for an Executive Escalation meeting and prepare a communication plan.
5. Executive Escalation meeting scheduled and invitations sent by TCC as decided on the Technical & Director Prime Escalation Checkpoint
6. Executive Escalation meeting is facilitated by TCC Operations Manager
7. Further ESR's are sent until resolution. Frequency determined on Executive Escalation meeting, Technical & Director Prime Escalation Checkpoint or by TCC Operations Manager
8. On-going calls scheduled as determined on Executive Escalation meeting

8. Incident Management

TELUS' Incident Management processes is based ITIL best practices and considers guiding principles of management and resolution of incidents. The Incident Management Process also supports the resolution of Service Requests and Problems.

8.1 Detecting the Incident

TELUS uses a number of platforms, services, resources, and tools to report, monitor, and detect Incidents should any arise. These include:

1. A Service Desk that allows support staff from connecting end point systems to report an Incident (technical, something not working as designed, etc.) or Service Requests (a question, how to do something, or advice) through the phone via a 1-800 number, email or web case via a customer portal. In each instance, a case is opened in Salesforce.

2. A Command Center that provides 24x7 service monitoring capable of generating automated cases for Incidents detected on TELUS infrastructure and applications. The Command Center is alerted in real time of the case creation to ensure prompt initiation of incident management processes.

3. Customer Service Managers who work directly with stakeholders to capture and report on Incidents that stakeholders may have experienced, encountered or have been notified of with TELUS applications or services.

4. Quality Assurance team members who report Incidents encountered during testing and limited production releases that may be present in Production systems.

8.2 Logging the Incident

Incidents and Service Requests reported are tracked using a combination of tools depending on the detection channel. All customer initialed queries, whether they be Incidents or Service Requests are logged in Salesforce. Salesforce allows our teams to maintain a full view of the actions, both current and historical, on the case and provides visibility of the status to the customer.

Responsibility for Incidents may be assigned to Development teams leveraging Salesforce functionality should the Service Desk agent be unable to resolve during the first point of contact. We then leverage a standard tool, JIRA, to manage Incidents and Problems. All updates are then echoed back into Salesforce to allow customers to have a real time view of the status.

All relevant information relating to the nature of the Incident/Problem is logged so that a full historical record is maintained. At a minimum, the following Incident details are entered during the logging and any changes are tagged with timestamps and User Id's.

- Unique Identifier
- Ticket (Case) Status
- Submitter Name & contact details
- Ticket (Case) Classification & Priority
- Description & Additional Info
- Assigned to
- Status Update
- Solution Details
- Start & End Date
- Closure Code

NLCHI is responsible for logging ALL incidents that originate from The Centre as a case through the TELUS Med Access Help Desk via phone call (1-888-781-5553), email (MedAccessSupport@telus.com) or TELUS portal.

The clinic staff is responsible for logging ALL incidents that originate from the clinic as a case through the TELUS Med Access Help Desk via phone call (1-888-781-5553), email (MedAccessSupport@telus.com) or TELUS portal.

TELUS will

- Provide weekly and monthly reports on Incidents and Problems.
- Provide Super User access to select NLCHI staff for NLCHI sites as well as provincial sites.
- With access stated above, enable NLCHI staff to update cases.
- Investigate the ability to Generate an automated email notification (to designated individuals) that a case has been updated. If this is not possible in the short-term, have the agent use the contact information (email/phone) on the ticket to reach out with the update. This is to ensure that updates or requests for information are not missed.

8.3 Categorizing the Incident

TELUS categorizes Incidents by the potential severity and impact to customers. The following four (4) priority definitions are used when classifying incidents:

Incident Priority Matrix

Urgency	Impact: 1 – High	Impact: 2 – Medium	Impact: 3- Low
1 – High (URGENT)	**P1** **High Urgency:** • Blocking use of a portion of the application (no workaround) **High Impact** • Actions done often by Many end-users **OR one of the following cases** • Reliability - EMR or THX service completely down • Significant performance issues (greatly hampering clinic function) • Suspected data incident (e.g. data integrity, missing data such as lab results or faxes) • Patient Safety/Privacy concern and any issues that may cause patient harm • End-users unable to get paid, cannot create or approve bills and/or submission/remittance process is not working	**P2** **High Urgency:** • Blocking use of a portion of the application (no workaround) **Medium Impact** • Actions done often by a Moderate number of end-users **OR one of the following cases** • Reliability - EMR or THX service impacted, with a workaround • Impacting performance issues (missing internal performance SLAs) • End-users unable to determine payment (payment refusal, bills not being updated by remittance)	**P3** **High Urgency:** • Blocking use of a portion of the application (no workaround) **Low Impact** • Actions rarely done by a Small number of end-users **OR one of the following cases** • Impacting THX adoption and/or THX customer satisfaction • End-users are unable to perform payment reporting, or patient eligibility checking.
2 – Medium (HIGH)	**P2** **Medium Urgency** • Impairing the clinic's functionality, but mitigated with a workaround **High Impact** • Actions done often by Many end-users **OR one of the following cases** • Reliability - EMR or THX service impacted, with a workaround • Impacting performance issues (missing internal performance SLAs) • End-users are unable to determine payment (payment refusal, bills not being updated by remittance)	**P3** **Medium Urgency** • Impairing the clinic's functionality, but mitigated with a workaround **Medium Impact** • Actions done often by a Moderate number of end-users **OR one of the following cases** • Impacting THX adoption and/or THX customer satisfaction • End-users are unable to perform payment reporting or patient eligibility checking	**P4** **Medium Urgency** • Impairing the clinic's functionality, but mitigated with a workaround **Low Impact** • Actions rarely done by a Small number of end-users
3 – Low (MEDIUM)	**P3** **Low Urgency** • No Impact to clinic's functionality. Workaround irrelevant **High Impact** • Actions done often by Many end-users **OR one of the following cases** • Impacting THX adoption and/or THX customer satisfaction • End-users are unable to perform payment reporting or patient eligibility checking	**P4** **Low Urgency** • No Impact to clinic's functionality. Workaround irrelevant **Medium Impact** • Actions done often by a Moderate number of end-users	**P4** **Low Urgency** • No Impact to clinic's functionality. Workaround irrelevant **Low Impact** • Actions rarely done by a Small number of end-users

8.4 TELUS Health Escalating Incidents to NLCHI:

After initial Incident investigation, if it is deemed to be an issue that NLCHI supports, TELUS will escalate to Centre Tier 1 Service Desk via the contact information. The Incident will then be assigned to the appropriate team to be resolved. Once resolved, NLCHI will contact the TELUS Service Desk (CE Assure) with a resolution.

In the case of P1 incidents involving data quality the initial point of contact for such incidents will be the eDOCSNL Program Manager or designate who will then manage the distribution of the information pertaining to the incident within NLCHI.

Both TELUS and NLCHI are responsible for informing each other of all outages to their internal application or environment that may affect services. Med Access end-users will contact TELUS Health Service Desk (CE Assure) for support of their EMR solution. If the issue is found to be with an interface or service managed by NLCHI, the following process will be followed.

When escalating incidents to NLCHI, TELUS will provide the following information to ensure both NLCHI and TELUS Ticket Management Systems are updated:

- Account Name
- Account Contact information (Full Name, email, contact number)
- TELUS Customer Number
- Med Access CRM ticket/case number
- Description of Incident

Cases will be escalated using one of the following methods:

NLCHI Help Desk Email (Primary)	NLCHI Tier 1 Support (Secondary)
service@nlchi.nl.ca	1-877-752-6006

8.5 Incident Management Review

- TELUS and NLCHI will participate in a bi-weekly incident management review meeting to review open/active case/problem/Jira incidents for NLCHI created items as well as a cursory review of the tickets submitted provincially.
- TELUS will bring the latest update of all open/active case/problem/Jira incidents as it relates to its current status within the incident lifecycle for NLCHI created items.
  I.e. *Current status update ("Problem" - w/ level 2 support, "Jira" - w/development) and the current status within its respective working group).*

- NLCHI will provide TELUS with a bi-weekly report for incidents open and being tracked by the NLCHI service desk 2 days before the bi-weekly meeting to allow its working groups to provide adequate incident support.

- TELUS and NLCHI will take away updates/requests as it relates to the incidents included in the bi-weekly report and ensure appropriate action is taken.

8.6 NLCHI Providing Resolution/Update to TELUS Service Desk (CE Assure):

When providing resolutions to TELUS Service Desk (CE Assure) team for incidents being managed/resolved by NLCHI, NLCHI will provide the following information to ensure both NLCHI and TELUS Ticket Management Systems are updated:

- Account Name
- Account Contact information (Full Name, email, contact number)
- TELUS Customer Number
- Med Access CRM ticket/case number
- Description of Resolution

Resolutions shall be provided by NLCHI to TELUS using one of the following methods:

TELUS Service Desk (CE Assure) Email (Primary)	TELUS Service Desk (CE Assure) (Secondary)
MedAccessSupport@telus.com	1-888-781-5553

- Both TELUS and NLCHI are responsible for documentation and communication of incident resolution.
    - TELUS must notify NLCHI of incident resolution by contacting the NLCHI Service Desk via Phone call (1-877-752-6006) or email (service@nlchi.nl.ca) and record the resolution details in the associated incident record in their ticketing solution.
    - NLCHI must notify TELUS of Incident resolution by contacting the TELUS Med Access Help Desk via Phone call (1-888-781-5553), email (MedAccessSupport@telus.com) or TELUS portal. (Specific access to be implemented - see above)

- If requested, the group responsible for resolution will provide a "Post Incident Report" which includes: ***Incident Description; Root Cause; Scope of Incident; Steps Taken to Resolve; Timeline of events; Improvement Opportunities.***

8.6 NLCHI Outage/Incident Notification

NLCHI will notify TELUS, via email (primary) or phone (secondary), of any ongoing Incidents or outages that have an impact to end users. Notification shall be provided as soon as NLCHI has determined that an Interface or service is not available or the issue affects a large number of end users.

Notification will include the following information:

- A description of the issue
- Impact to the customers
- Any workarounds
- Communicate a timeframe (ETA) when the situation or issue is expected to be resolved

TELUS Service Desk (CE Assure) Email (Primary)	TELUS Service Desk (CE Assure) (Secondary)
MedAccessSupport@telus.com	1-888-781-5553

TELUS will then communicate these notifications to their end users via the following methods:

- MedAccess Community Portal or EMR Messenger and/or
- Emergency IVR Messaging

Once the issue has been resolved, NLCHI shall notify TELUS at one of the contacts listed above that service has been restored.

8.7 TELUS EMR Outage/Incident Notification

TELUS will notify NLCHI via email (primary) or phone (secondary) of any ongoing P1 incidents or outages that have an impact to end users. Notification shall be provided promptly after TELUS has confirmed a P1 or outage that affects all end users.

Notification will include the following information:

- A description of the issue
- Impact to the customers
- Any workarounds
- Communicate a timeframe (ETA) when the situation or issue is expected to be resolved

NLCHI Help Desk Email (Primary)	NLCHI Tier 1 Support) (Secondary)
service@nlchi.nl.ca	1-877-752-6006

TELUS will then communicate these notifications to their end users via the following methods:

- Med Access Community Portal or EMR Messenger and/or
- Emergency IVR Messaging

Once the issue has been resolved, TELUS shall notify NLCHI at one of the contacts listed above that service has been restored. Data quality incidents will not be reported to NL end users until a joint communication strategy has been developed between Telus and eDOCSNL.

8.8 EMR Software Error Reporting

Unfortunately, this level of reporting is not available. This is a preventative maintenance service which identifies National trends and if great enough, creates a ticket with L1 support for investigation.

8.9 NL EMR Instance Support

The Centre is requesting their staff have access to clinic sites in the province with a limited version of the Contractor's capability. This would assist in providing operation support, incident investigation and auditing/reporting.

The Contractor commit to launching a project to evaluate the options for this level of access with the Centre.

9. Med Access Continuous Improvement Plan

TELUS recognizes the importance of continuing to constantly improving stability and reliability of the system. With our client and user base expanding in new provinces, new markets and various clinical environments, the use cases vary greatly today from what it was when Med Access was first released in market.

As a result, TELUS Health is committing to an extensive review of the current application architecture and product management processes. Through this review, TELUS will identify areas of improvement and will commit to making the necessary investments to realize those improvements.

TELUS Health has identified three core areas of focus for improvement; Technical Design Improvements, Architecture Improvements, Incident Prioritization Classification Improvements, and Incident Management Improvements:

9.1 Technical Design Improvements:

In our technical design review, we identified the following areas of focus and action items:

Area of Focus	Action Items
Set up validation checks throughout the integration process to help detect any issues with failed messages and incomplete data	• Set up automated nightly process to check that number of messages marked as delivered by the NL Integration Engine are equal to the number of messages received by the TELUS Integration Engine • Manually run weekly data consistency check to validate all results in the messages received have been processed properly by the EMR • In the 5.8 release automate the manual weekly data consistency check that validates the messages received have been processed properly by the EMR. • Augment the data consistency checks to increase validation of chart data
Examine Integration Engine usage and replace with commercial product	• Look to use the technology and architecture implemented for data extractions to replace the custom built Med Access Integration Engine with a commercial product • TELUS and NLCHI will formalize a joint project to QA the transition to the new integration engine.

9.2 Architectural Design Improvements:

In our Architectural Design Improvements, we identified the following areas of focus and action items:

Area of Focus	Action Items
Refactor session state information	• Limiting the exposure of multiple threads accessing session state information (i.e. Session Patient) at the same time to remove the risk of cross-over data.

Implement Scientist feature	• Integrating an external plugin to Med Access that allows running two code paths in the same build to lower risk and more systematic refactoring of critical code.
Improved database and backend efficiency	• Upgrading the version of our backend database technology to bring more efficiencies to the backup process as well as performance improvements for the application.
Application Clustering	• Allows a single instance to have multiple application servers to improve availability as well as performance for larger instances.

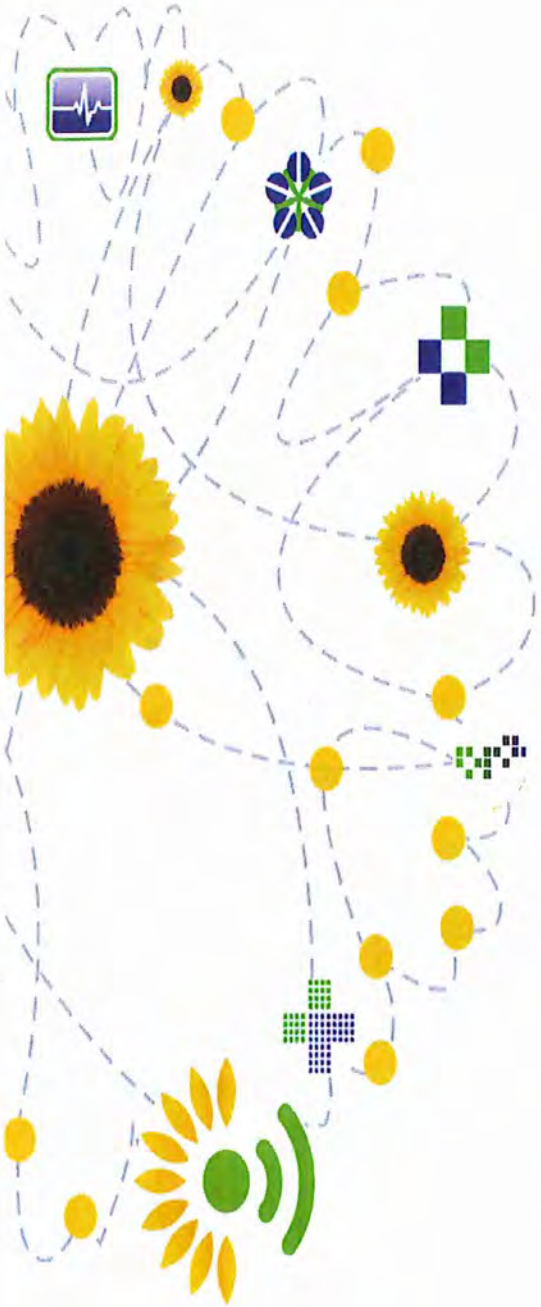
9.3 Incident Management Improvements:

In our Incident Management Improvements, we identified the following areas of focus and action items:

Area of Focus	Action Items
Appropriate prioritization of an issue from Priority 1 to Priority 4	• Cases involving data loss, missing results and session threading are now assigned a P1 priority prompting risk assessment and appropriate escalation within TELUS and with customers. • Med Access tickets are now reviewed daily to confirm priorities
Risk assessment and management of an issue	• Weekly Med Access Risk Management meetings began in mid-February 2019
P1/P2 Incident Management	• P1 issues are escalated to TELUS Incident Management Response Team for management of all aspects of the issue – technical, customer, communications and risk management

P1/P2 Scope and Impact Investigations	• Ability to replicate environments real-time or through backs up to perform the required investigative queries without interruptions or limitations.

SCHEDULE E – Governance



NLCHI and TELUS EMR Governance Model

TELUS | HEALTH®

Weekly Operational Meeting – Tuesday

Attendees:

- TELUS Program and Technical Account Manager
- NLCHI eDOCS Program Leadership

Purpose:

- Review High-Level Program Status.
- Address escalations as required
- Review service pack testing

Agenda:

- Program Update:
  - Existing Initiatives (Med Dialog, Health Myself, Clinical Content, Data Extract...)
  - New Initiatives
  - Changes/Updates
- Support:
  - Escalations

TELUS | HEALTH™

Newfoundland & Labrador Centre for Health Information

Weekly Implementation Meeting– Wednesday

Attendees:

- TELUS Project Management & Sales
- NLCHI eDOCS Project Management & Sales

Purpose:

- Discuss implementation schedule, orders, escalations, and manage stakeholders expectations.
- Identify opportunities & challenges to be raised with NLCH and TELUS Technical Account Manager

Agenda:

- Review Orders, EOI
- Review Implementation Schedule
- Escalations

TELUS | HEALTH™

Newfoundland & Labrador Centre for Health Information

Monthly Product Meeting

Attendees:

- TELUS Product Team
- NLCHI Technical Team

Purpose

- Med Access Product Update
- Integration Engine Update
- Provincial Usability (RHA, Upgrades, etc)

Agenda:

- Traffic Monitoring Update:
  - Count Review
  - Quality of Service
- Product Update:
  - Release Dates
  - Beta Update
  - Development Initiatives (Integration Engine...etc)
  - Change Requests
  - Feature Enhancements
  - Fixed problems

TELUS | HEALTH™

Newfoundland & Labrador Centre for Health Information

Bi-Weekly Support Meeting

Attendees:

- TELUS Technical Account Manager
- NLCHI Support Team

Purpose/Goals:

- Monitoring and reviewing service delivery and support issues

Agenda:

- Review NLCHI Created Tickets
- Development Update on Problem Tickets
- Escalations

TELUS | HEALTH™

Newfoundland & Labrador Centre for Health Information

Quarterly Joint Executive Committee

Attendees:

- TELUS Executive & Management
- NLCHI Executive & Management

Purpose:

- Ensure that the business goals and objectives govern the plans and actions for service delivery.
- Ensure that any changes in strategy of either parties that might affect the scope and delivery of the services is clearly communicated and documented
- Ensure a supportive governance model is in place

Agenda:

- Strategy/Partnership going forward
- Review of Enterprise and EMR SLA's
- Progress against contract and projects
- Escalations as required.

TELUS | HEALTH™

Newfoundland & Labrador Centre for Health Information

SCHEDULE F – May 17, 2017 Letter

Appendix C

to Physician Participation Agreement

INFORMATION MANAGEMENT STATEMENT

TELUS Health Solutions Inc ("TELUS") has been retained by the Newfoundland and Labrador Centre for Health Information ("NLCHI") under the Professional Services Agreement entered into as of November 2nd 2015 between TELUS and NLCHI (the "PSA") to enable NLCHI to licence TELUS' Med Access electronic medical records solution. The PSA contains provisions allowing NLCHI to provide such licenses to participating physicians pursuant to a Physician Participation Agreement entered into between NLCHI and the Participating Physician.

Services provided by TELUS under the PSA include: (i) processing, retrieving, storing or disposing of personal health information, or (ii) providing information management or information technology services, as those concepts are defined in Newfoundland's Personal Health Information Act, SNL 2008 c.P-7.01 ("PHIA").

To satisfy the requirements of Section 22 of PHIA, TELUS has undertaken the following obligations in the PSA, namely:

1. To implement reasonable industry-standard measures and safeguards to protect the personal health information against unauthorized access, use, disclosure, disposition, loss or modification in accordance with PHIA and its regulations (ref. PHIA s.22(2));

2. Not to use the personal health information for another purpose except than for the purposes set out in the PSA (ref. PHIA s. 22(3));

3. To comply with PHIA and its regulations as well as with the PSA (ref. PHIA s. 22(4));

4. To ensure that every Telus employee or person acting on its behalf to access the personal health information has agreed in writing to comply with PHIA and other restrictions imposed on TELUS under the PSA (ref. PHIA s. 22(5)).

For clarity, this document does not create a contractual or legal relationship between TELUS and the Participating Physician or any other third party, it being understood that TELUS remains bound by the obligations it has under the PHIA and the PSA.

Appendix C

to Physician Participation Agreement

TELUS Health Solutions Inc.
By: Ron Sparks
General Manager – EMR Eastern Canada

REVIEWED BY THE PARTICIPATING PHYSICIAN ON _____ [date]

Name: _____

Appendix "D": eDOCSNL Privacy and Security Resources

https://edocsnl.ca/privacy-and-security/

Appendix "E": EMR Vendor Information Management Statement

Appendix C

to Physician Participation Agreement

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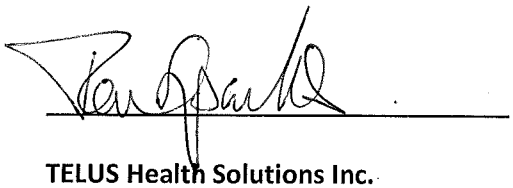
to Physician Participation Agreement



TELUS Health Solutions Inc.
By: Ron Sparks
General Manager – EMR Eastern Canada

REVIEWED BY THE PARTICIPATING PHYSICIAN ON _____ [date]

Name: _____