

This document sets out provisions with respect to Fixed Network products and/or services provided by Rogers Communications Canada Inc. (“**Rogers**”) pursuant to a Rogers for Business Agreement (the “**Agreement**”). The applicable terms set forth below form an integral part the Agreement. Capitalized terms used but not defined herein shall have the meanings ascribed to them in the Agreement.

By clicking on the links below, you will be redirected to the terms that are relevant for each named product and/or service.

[Rogers Business Internet Pro](#)

[Rogers Dedicated Internet](#)

[Managed Network Services](#)

[SIP Services](#)

[Optical Wavelength](#)

[LTE Fixed Wireless Access](#)

Rogers Business Internet Pro

The following terms pertain specifically to Rogers Business Internet Pro Services, which provide high speed access and connection to the Internet utilizing the Rogers cable network, where possible, or other top-tier communications providers in areas not served by the Rogers Network. In the event of a network outage, the Rogers Business Internet Pro Services will switch over to LTE backup to ensure that your Services remain available. The Services also include a network level, cloud-based malware defence. The malware defence is not a firewall and you remain responsible for all device-level security.

The Business Internet Pro Services have the following features:

1.1 Connection Service Types: The Business Internet Pro Services are provided in the following Connection Service Types, which include the features listed in Table 1 below. The Customer's Connection Service Type for the Business Internet Pro Services is set out in the Agreement.

Table 1 – Connection Service Types

	Rogers Business Internet Pro 30u	Rogers Business Internet Pro 150u	Rogers Business Internet Pro 500u	Rogers Business Internet Pro Gigabit
Modem/CPE Configurations	Up To 30 Mbps download / 5 Mbps upload	Up To 150 Mbps download / 20 Mbps upload	Up To 500 Mbps download / 20 Mbps upload	Up To 1000 Mbps download / 50 Mbps upload
Provisioned IP's	1 dynamic	1 dynamic	1 dynamic	1 dynamic

1.2 Modem Rental. The Monthly Recurring Charges set out in the Agreement include a separate line item for the monthly rental charges of one modem per circuit. The rented modem(s) constitute Rogers Equipment, as defined in the Agreement.

1.3 LTE Router. The Monthly Recurring Charges set out in the Agreement includes a separate line item for the monthly rental charges of one router per circuit. The rented modem(s) constitute Rogers Equipment, as defined in the Agreement.

1.4 Billing: Rogers provides a consolidated monthly billing to Customer that consists of a billing summary showing the last month's charge, last payment, current charge, charges added to the current bill, taxes and a total. A detailed bill is attached, showing new Sites and charges in the current month as well as a listing of all sites receiving Services. Included in this report is the name and installation address, period of charges and total cost per Site. The invoice is dated at a fixed time each month and pro-rated for partial months of service.

Product Terms and Conditions

1. Termination Fees. If the Customer terminates the Business Internet Pro Services for any reason other than for cause as permitted under the Agreement, or if Rogers terminates the Business Internet Pro Services for cause as permitted under the Agreement, the Customer shall pay to Rogers, as liquidated damages and not as a penalty, a termination fee which is an amount that is equal to the sum of:
 - (a) fifty percent (50%) of the average monthly charges for the terminated Service(s) (as determined over the previous three months) multiplied by the number of months remaining in the Service Term from the effective date of termination;
 - (b) any cost which Rogers must continue to pay to third parties for the remainder of the applicable Service Term as a result of the early termination of the applicable Services that exceeds the amount set out in (a) above, and

- (c) a lump sum representing the amortized remainder of any waived or discounted installation or one-time charges associated with the terminated Service(s) in consideration of the Customer's commitment to the Service Term for such Services.

Where the Customer terminates the Services prior to the expiration of the applicable Service Term, the Customer must either return all Rogers Equipment associated with the Services to Rogers, or pay Rogers for the fair market value of such Rogers Equipment.

Such termination liability shall be payable on the effective date of any and all terminations.

2. **Invoicing.** Monthly recurring charges for Business Internet Pro Services are invoiced monthly, in advance on the first of each month. Charges for Business Internet Pro Services will commence as of the Service Effective Date. In the first month, the charges will be pro-rated for the number of days in the month after the Service Effective Date. Rogers will, by way of invoice or otherwise, notify the Customer of the Service Effective Date.
3. **Payment Terms.** You must pay invoices within 30 days of the date of our invoice. Late payment charges are set out on your invoice, and are subject to change without notice.
4. **Additional Charges.** The following circumstances may give rise to additional charges to be paid by the Customer in respect of the Services:
 - **Missed Appointments:** Customer must be at the Site at the agreed upon date and time for access to the location by the installation technician. If the installation technician arrives at the Site and there is no access, a missed appointment fee of \$100.00 will be charged.
 - **Cancellations/Postponements:** A \$100.00 cancel-before-start fee will be charged for orders or install appointments cancelled or postponed within two (2) Business Days prior to the scheduled installation date.
 - **Failure to Provide LOA:** If an installation is not possible owing to Customer's failure to provide a signed Letter of Authority (LOA), as described below, prior to the installation time for a particular Site, the \$100 cancel-before-start fee will apply.
 - **Additional Wiring Cost:** If Rogers accepts an order for installation that requires wiring and other installation costs that exceed Rogers' then-current capital investment threshold amount ("**CITA**") (which as at the Service Effective Date is \$1,500) at any particular Site, Rogers will notify Customer of the estimated cost differential – ie: the estimated differential amount above the CITA. If Customer wishes to proceed, in addition to the standard installation and other fees set out in the Agreement, Customer shall pay Rogers that portion of actual out-of-pocket costs that exceed the then current CITA.
 - **Other ISP Charges:** Any other third party ISP charges will be passed through at cost to Customer by Rogers.
 - **Additional Work.** Work requested by Customer and performed by Rogers or its sub-contractors that is outside the scope of the Services as described in these terms will be billed to Customer at Rogers' then current time and material rates. Work requested and performed outside of Rogers' Business Hours will be subject to an additional charge, to be quoted upon request.
5. **Hardware.** All hardware purchased from Rogers is covered by the hardware manufacturer's original warranty. Upon request, the Rogers sales team will provide the Customer with up-to-date warranty information for the hardware. The risk of loss or damage to any materials or hardware shall pass to the Customer upon receipt at the Customer's premises, notwithstanding that title to all materials and hardware purchased outright shall pass to the Customer only upon final payment, where applicable.
6. **Modem/Router Configuration.** The modems/routers and other hardware devices are configured to provide the maximum modem capabilities between the Site's demarcation point and the Rogers Network. Actual speeds may vary with Internet/network traffic, server or other factors.
7. **Other Router Requirements.** For the Service to work the Customer agrees to keep the LTE device connected to the Rogers modem at all times. You will not be given access to the any administrative elements of the Service for self-administration; administration of the device and its setting will be done by Rogers only

8. **Availability of LTE.** If the LTE signal at the Customer site is insufficient to support the LTE backup, Rogers will replace the Services with Rogers standard Business Internet Services.
9. **Supported Configurations.** The Business Internet Pro Services are designed to function optimally with the Rogers provided Equipment.
10. **Service Orders.** Customer may: (i) order Services for new or existing Sites; and (ii) order changes, additions to, or deactivations of previous Product orders at existing Sites; in each case by presenting a signed Agreement specifying the Services to be ordered, changed, added to or deactivated, as the case may be. Rogers may accept or reject any such orders.
11. **Letter of Authority.** For each Site not owned by the Customer, prior to the scheduled Services installation date, the Customer is responsible for securing a letter of authority (“**LOA**”) from the Site’s owner/landlord in the form and content that Rogers reasonably requires authorizing Rogers to install the Services and associated Rogers Equipment at the Site.
12. **Changes to Services.** The Business Internet Pro Services to be provided on the Service Effective Date are described herein, however, they may be slightly changed from time to time. The particulars of Services may vary from Site to Site depending on the location of the Site. Rogers may discontinue or amend Services from time to time. If Rogers discontinues or amends any Business Internet Services offering, it will provide an alternate Business Internet Pro Service consistent with the commercial connection services generally offered by Rogers to other commercial customers. If an ISP discontinues or amends any ISP Service offerings provided by Rogers hereunder and if it makes alternate services comparable to those initially provided by Rogers hereunder available at similar price points, Rogers may source and provide such alternative services to the Customer.
13. **ISP Services.** Rogers will provide a current list of those ISPs from which Rogers sources Business Internet Pro Services outside the Rogers Network on request by the Customer. Where Customer orders, and Rogers sources, Business Internet Pro Services from any ISP, the particulars of the service may vary from Site to Site and the monthly recurring charges and non-recurring charges for such ISP Services will be set out in the relevant Agreement.
14. **WARRANTY. EXCEPT WHERE OTHERWISE REQUIRED BY APPLICABLE LAW, THE BUSINESS INTERNET PRO SERVICES ARE PROVIDED “AS IS” AND “AS AVAILABLE” WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND. WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, NEITHER ROGERS, NOR ANY ISP WARRANTS THE PERFORMANCE, AVAILABILITY, UNINTERRUPTED USE OF OR OPERATION OF THE INTERNET, ANY CONNECTION TO THE INTERNET, THE PRODUCTS, ROGERS NETWORK OR ISP’S INTERNET FACILITIES, ROGERS EQUIPMENT, OR ANY FEATURE OF THE FOREGOING.**

FURTHER, NEITHER ROGERS NOR ANY ISP WARRANTS THAT ANY DATA OR FILES SENT BY OR TO CUSTOMER OR ANY CUSTOMER END-USER (WHETHER BY E-MAIL OR OTHERWISE) WILL BE TRANSMITTED, TRANSMITTED IN UNCORRUPTED FORM, OR TRANSMITTED WITHIN A REASONABLE PERIOD OF TIME.

Definitions

The following definitions are used in conjunction with Rogers Business Internet Pro Services. Any capitalized terms not defined below are defined in the Agreement.

1. **Business Day** – means Monday to Friday inclusive, excluding statutory holidays observed in the Province of Ontario.
2. **Business Hours** – means 8:00am to 5:00pm local time on a Business Day.
3. **Rogers Network** – means the Rogers core IP network and Rogers-owned cable plant.

4. CPE – means Customer Premise Equipment. CPEs are routers or modems deployed at the Customer Site to provide connectivity to Business Internet Pro Services. CPEs represent the edge of the Customer Site's local area network and are not part of the Business Internet Pro Services local access or network.
5. ISP - means a third party Internet service provider from whom Rogers sources ISP Services for provision to Customer in areas outside the Rogers Network.
6. ISP Services - means the Business Internet Pro Services provided by Rogers to a Customer through an ISP's network.
7. Scheduled Maintenance. Scheduled Maintenance means any maintenance activities performed on the Rogers network to which Customer's facilities are connected. Such activities are typically performed during the standard maintenance window on Mondays to Fridays, 00:01 and 6:00 am local time.
8. Site - means a geographic location where one or more of the Customer's Services is delivered.

Rogers Dedicated Internet

The following terms pertain specifically to Rogers Dedicated Internet Services supplied by Rogers to you. Rogers Dedicated Internet Services offer scalable, high-speed Internet connectivity solutions for Canadian businesses and support Internet connectivity with speeds ranging up to 10,000Mbps. Rogers Dedicated Internet Services are available across Canada, servicing your location(s) with highly reliable Ethernet Internet access. Rogers Dedicated Internet Services have the following features:

1. **Service Reliability and Performance.** Rogers Dedicated Internet provide the Customer with reliable, high performance Internet connectivity. The Services are:
 - built on Rogers' Tier I, high availability IP network, with over 100 major POPs nationwide, or on the IP network of one of Rogers' Tier I carrier peers;
 - supported on the Rogers' network by responsive and knowledgeable network professionals, with a Business Customer Care support centre available 7x24, 365 days a year; and
 - backed by industry-leading service availability and MTTR (mean time to repair) Service Level Agreements (SLAs).

The network architecture overview of Rogers Dedicated Internet is set out in Diagram 1, below.

2. **Network Access.** Rogers Dedicated Internet are highly scalable, with incremental bandwidth speeds up to 10,000Mbps. Rogers Dedicated Internet support a variety of network access technologies, including:
 - Ethernet Access (ET1 (single or bonded), E10, E100, GigE and 10GigE)
 - Ethernet over Cable (various speeds)
 - DSL Access
 - Fixed Wireless Access

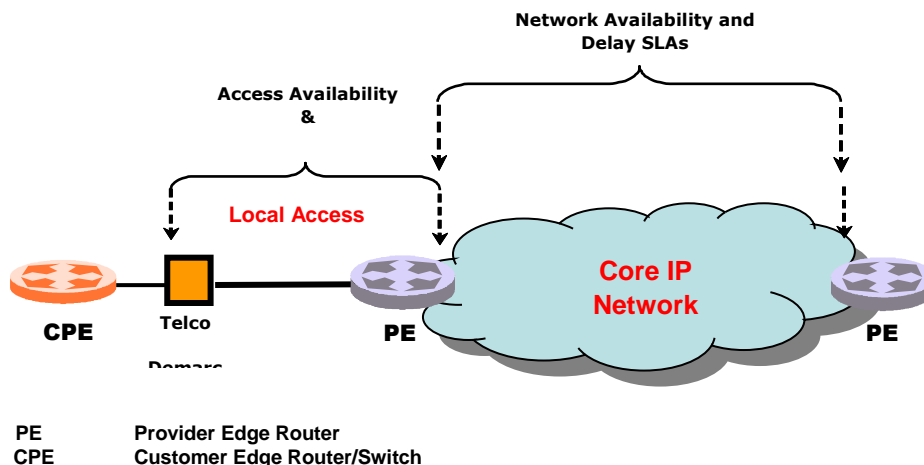


Diagram 1 – Architecture Overview

3. **Dedicated Internet Services.** Rogers Dedicated Internet Services provide you with the ability to sustain bandwidth up to the committed bandwidth rate throughout the month, without incurring additional usage-based overage charges. The committed bandwidth rate can be set up to the maximum port speed of the Rogers Dedicated Internet.

3.1.1 Dedicated Internet Features

- Interconnected with 200+ unique IP networks.

- Geographic backbone redundancy with millions of directly connected subscribers.
- Service speeds ranging from 1.5Mbps to 10,000Mbps.

Product Terms and Conditions

1. **Termination Fees.** If you terminate the Rogers Dedicated Internet for any reason other than for cause as permitted under the Agreement, or if Rogers terminates the Rogers Dedicated Internet for cause as permitted under the Agreement, the Customer shall pay to Rogers, as liquidated damages and not as a penalty, a termination fee which is an amount which is equal to the sum of:
 - (a) fifty percent (50%) of the average monthly charges for the terminated Service(s) (as determined over the previous three months) multiplied by the number of months remaining in the Service Term from the effective date of termination;
 - (b) any cost which Rogers must continue to pay to third parties for the remainder of the applicable Service Term as a result of the early termination of the applicable Services that exceeds the amount set out in (a) above, and
 - (c) a lump sum representing the amortized remainder of any waived or discounted installation or one-time charges associated with the terminated Service(s) in consideration of the Customer's commitment to the Service Term for such Services.

Where the Customer terminates the Services prior to the expiration of the applicable Service Term, the Customer must either return all Rogers Equipment associated with the Services to Rogers, or pay Rogers for the fair market value of such Rogers Equipment.

2. **Invoicing.** Monthly recurring charges for Rogers Dedicated Internet are invoiced monthly, in advance on the first of each month, with overage charges invoiced monthly in arrears. Charges for Rogers Dedicated Internet will commence as of the Service Effective Date. In the first month the charges will be prorated for the number of days in the month after the Service Effective Date. Rogers will, by way of invoice or otherwise, notify the Customer of the Service Effective Date. Service level credits will be applied to Customer's invoice within two billing cycles after Rogers' approval of a Customer's request.
3. **Payment Terms.** You must pay invoices within 30 days of the date of our invoice. Late payment charges are set out on your invoice, and are subject to change without notice.
4. **Additional Work.** Work requested by Customer and performed by Rogers or its sub-contractors that is outside the scope of the Services as described in these terms will be billed to you at Rogers' then current time and material rates as agreed with Customer. Work requested and performed outside of Rogers' Business Hours will be subject to an additional charge, to be quoted upon request.
5. **Transition of Access.** Any access facility to the Services that are subcontracted by Rogers to a third party may, at any time, be replaced by a Rogers-provided access facility. In such case, in order to facilitate the transition and avoid service disruption to the greatest extent possible, Customer must reasonably cooperate with Rogers, which includes allowing Rogers' access to Customer's premises and facilities as per Rogers' schedule for the performance of Rogers' transition activities.
6. **Configuration and Installation Warranty**
 - (a) Where Rogers configured and installed the CE, Rogers warrants that it will correct operational, performance, or security deficiencies related to the CE's configuration or installation, free of charge, for a period of sixty (60) days following the Service Effective Date. If Rogers is providing fault management services for the CE as part of the Rogers Dedicated Internet, Rogers warrants that it will correct operational, performance, or security deficiencies related to the CE's configuration or installation, free of charge, for the duration of the Service Term of such fault management services.

- (b) This warranty only extends to the original CE configuration and installations provided by Rogers or its sub-contractor(s), or revised CE configuration and installations that have been completed as part of Rogers change management.
- (c) This warranty does not apply, and Rogers cannot be held liable for losses or damage incurred by the Customer, as a result of Acceptable Downtime, in addition to the following:
- Hardware, operating system, and application failures or security breaches on LAN components, WAN components, servers or workstations that are not managed by Rogers;
 - Failures or security breaches caused by the improper installation of CE not installed by Rogers or its Contractor; and
 - Failure by the Customer to apply required security patches, fixes or upgrades when indicated by Rogers.
- (d) Rogers and its Contractors shall not be liable for loss of, or loss of use of, the Customer's information or data, or any part thereof. Any liability arising in the provision of Rogers Dedicated Internet Services shall be subject to the Liability provision in the Agreement.
7. **Hardware.** All hardware purchased from Rogers is covered by the hardware manufacturer's original warranty. Upon request, the Rogers sales team will provide the Customer with up-to-date warranty information for the hardware. The risk of loss or damage to any materials or hardware shall pass to the Customer upon receipt at the Customer's premises (provided such materials or hardware are delivered free from damage, and in compliance with all specifications) , notwithstanding that title to all materials and hardware purchased outright shall pass to the Customer only upon final payment, where applicable.
8. **Hardware Maintenance.** Where applicable, fees for hardware maintenance are charged annually and payable at the time of Services activation and each annual anniversary thereafter. Such maintenance Services, unless terminated by the Customer in writing at least sixty (60) days prior to the annual anniversary of the Service Term, shall be automatically renewed on an annual basis until expiration of the Service Term for the associated Services. Where hardware maintenance Services are provided by the hardware manufacturer or another third party, certain additional terms and conditions may apply.
9. **Enterprise Web Portal Reporting.** The Rogers Enterprise Web Portal (EWP) provides a fast and convenient way to provide the Customer with traffic summary reports via web site access. The Customer can display its usage in graphical format or download the data in CSV format. The reports are available on a daily, weekly and monthly basis. The daily report displays inbound and outbound traffic in five (5) minute intervals. The EWP database is backed-up at regular intervals however, in the event the EWP database must be restored from back-up, information collected by the EWP database after the time of the most recent back-up may be lost. Rogers makes no representations or warranties regarding the availability or functionality of the EWP, which is provided on an as-is basis to the Customer.
10. **eBilling Portal.** Rogers provides the Customer with a fast and convenient way to access its invoices and account information through a new tab on the Rogers Enterprise Web Portal. eBilling supports Rogers' commitment to reduce the environmental impact of its billing methods. The eBilling Portal provides the Customer with the ability to view current and historical invoices, review current and historical payments, and run custom billing reports. All data stored on the eBilling Portal related to actual charges billed to the Customer will be retained for a minimum period of seven (7) years. In the event of a discrepancy between the data on the Customer's invoice and the eBilling Portal, the data on the Customer's invoice will govern.

Product Service Level Agreement (“SLA”)

1. **Policy.** If you experience performance of the Rogers Dedicated Internet that does not meet the applicable metrics set out in this SLA, then Rogers will issue the Customer a Service Credit. All defined terms are set out below or in the Agreement.

2. Access Availability and MTTR Commitments

Access Availability and MTTR commitments are included with all formats of Rogers Dedicated Internet.

2.1 Access Availability Commitment

- 2.1.1 Access Availability Commitment. Rogers will provide the Customer with an Access Availability performance commitment from the network access that connects a Customer Site to the IP network. Network access encompasses all elements from, and including, the PE router to the designated Rogers or third party demarc on the Customer Site. Customer Premise Equipment (CPE) is not considered as part of the network access. Access Availability commitments are determined by the type of access into a particular Customer Site.
- 2.1.2 Access Availability Credit. If Rogers has failed to meet the applicable Access Availability commitment for a particular Site in any given billing month, the Customer must contact their Rogers sales representative and apply for credit within fifteen (15) Business Days starting from the fifteenth (15th) day of the following billing month. Upon confirmation by Rogers that the Access Availability commitment was not met, Rogers will issue a Service Credit to the Customer. The Service Credit will equal the applicable amount from Table 1 for the monthly recurring charges for the affected accesses in the applicable month.

TABLE 1: Committed Access Availability by Access Type

Canadian Sites		
Access Type	Monthly Access Availability	Service Credit
Ethernet Access (E10, E100 and E1000, E10000)	> 99.9%	10% of the monthly recurring Rogers Dedicated Internet access charges for the specific Customer Site.
Ethernet Access (E-T1 and bonded E-T1)	> 99.7%	10% of the monthly recurring Rogers Dedicated Internet access charges for the specific Customer Site.
Ethernet over Cable Access	> 99.5%	10% of the monthly recurring Rogers Dedicated Internet access charges for the specific Customer Site.
DSL Access	n/a	n/a
Fixed Wireless Access	n/a	n/a

2.2 Mean Time to Repair (MTTR) Commitment

- 2.2.1 MTTR Commitment. Rogers will provide the Customer with a Mean Time to Repair (MTTR) performance credit when the network access that connects a Customer Site to the IP network is Out of Service. Network access encompasses all elements from, and including, the PE router to the designated Rogers or third party demarc on the Customer Site. Customer Premise Equipment (CPE) is not considered as part of the network access. MTTR commitments are based on the location of and the access type deployed on the Customer's Site. MTTR commitments only apply to Customer locations that are within fifty (50) km or thirty (30) miles of a Rogers' network point-of-presence (POP).
- 2.2.2 MTTR Credit. If Rogers has failed to meet the applicable MTTR Commitment for a particular Site in any given billing month, the Customer must contact their Rogers sales representative and apply for credit within fifteen (15) Business Days starting from the fifteenth (15th) day of the following billing month. Upon confirmation by Rogers that the MTTR commitment was not met, Rogers will issue a credit to the Customer. The credit will equal the applicable amount from Table 2 for the monthly recurring charges for the affected accesses in the applicable month.

TABLE 2: Committed Mean Time to Repair by Access Type

Canadian Sites		
Access Type	Monthly MTTR	Service Credit
Ethernet Access (E10, E100 and E1000, E10000)	< 4 h	10% of the monthly recurring Rogers Internet Service charges for the specific Customer Site.
Ethernet Access (E-T1 and bonded E-T1)	< 4 h	10% of the monthly recurring Rogers Internet Service charges for the specific Customer Site.
Ethernet over Cable Access	< 48 h	10% of the monthly recurring Rogers Internet Service charges for the specific Customer Site.
DSL Access	<48 h	10% of the monthly recurring Rogers Internet Service charges for the specific Customer Site.
Fixed Wireless Access	n/a	n/a

3. **Network Performance Commitment.** Network Performance commitment is an SLA that validates the reliability of the Rogers Core Network.

4. **Network Availability.**

- (a) **Network Availability Commitment.** If Network Availability does not meet or exceed the applicable percentage set out in Table 3 in a given month for reasons other than Acceptable Downtime, then Rogers will provide a service credit to the Customer.
- (b) **Network Availability Validation.** Customer must request each month's measurements from its Rogers sales representative by the fifteenth (15th) day of the following month. Rogers network performance reports will be used to determine Network Availability metrics and credits.
- (c) **Network Availability Credit.** If Customer believes that Rogers has failed to meet the committed Network Availability percentage set out in Table 3 in a given month, the Customer must contact its Rogers sales representative and apply for credit within fifteen (15) business days of the Network Availability metrics being posted for the specific month. Upon Rogers' verification that the actual Network Availability in the specific month was less than the committed Network Availability for reasons other than Acceptable Downtime, Rogers will issue a Service Credit as specified in Table 3.

TABLE 3: Network Performance Commitment

Committed Network Availability	Service Credit
Greater than or equal to 99.999%	10% of the monthly recurring Rogers Dedicated Internet charges for the affected Customer Site(s).

Definitions

The following definitions are used in relation to Rogers Dedicated Internet Services. Any capitalized terms not defined below are defined in the Agreement.

Acceptable Downtime. In calculating whether or not Rogers has met the commitments in any specific month lack of availability owing to downtime for any of the reasons set out below will not be factored into the SLA calculations:

- Customer delays including, but not limited to: (i) acts or omissions by the Customer, its agents or vendors; (ii) inaccurate, incomplete or changes to previously accepted orders; (iii) unavailable and/or faulty Customer premises, unavailable and/or faulty Customer premise equipment (CPE) and/or facilities necessary to install the Services; or, (iv) extension of access circuit demarcation point by Customer without Rogers approval;
- during an event of Force Majeure, as described in the Agreement;
- Customer's failure to materially comply with its obligations as defined in the Agreement, including failure to pay valid past-due amounts; order suspensions due to Customer's credit worthiness;
- during Scheduled Maintenance;
- troubles resolved as "No Trouble Found";
- outages of less than 60 seconds in duration;
- performance degradation caused by the over-subscription of a fibre-served access port;
- time attributed to Customer's delay in responding to Rogers requests for assistance to repair an outage;
- the failure of any Customer owned and maintained equipment on the Customer's premise, beyond the local telephone companies' demarcation device or smart-jack;
- hardware, operating system, and application failures or security breaches on LAN components, WAN components, servers, or workstations that were not configured by Rogers;
- failures or security breaches caused by improper use, improper care, or damage to devices by the Customer's employees or a third party;
- failures or security breaches caused by the movement of hardware by the Customer or a third party, electrical and power irregularities, or abnormal use;
- failures or security breaches, where a device's configuration, IOS/Software, or hardware has been modified by the Customer or a third party;
- failures or security breaches caused by undocumented hardware, IOS/Software, or other manufacturer deficiency; or
- failures or security breaches caused by hardware, IOS/Software, or other deficiencies, that were documented by the manufacturer following the implementation of the service by Rogers.

Access Availability – means the percentage of time in a given month that a specific Customer access was available to pass traffic. Access Availability metrics are measured solely against Out of Service conditions on access elements. Access encompasses all elements from (and including) the PE router to the designated Rogers or third party provider demarc on the Customer Site. CPEs are not designated to be part of the access. Access Availability metrics are based solely on Out of Service statistics collected by the Rogers Trouble Reporting System (TRS).

Access Availability is calculated as follows:

Total amount of time in a specific calendar month (in minutes), minus the total amount of validated Out of Service time (in minutes) during the specific month as measured by Rogers and Rogers trouble tickets (not including maintenance and planned outages), divided by the total amount of time in a specific calendar month (in minutes), and multiplied by hundred (100) (for the percentage).

Business Day – means Monday to Friday inclusive, excluding statutory holidays observed in the Province of Ontario.

Business Hours – means 8:00am to 5:00pm local time on a Business Day.

Canadian Site – A Site within the borders of Canada.

Core Network – means the Rogers core IP network. This includes all network infrastructure between, and including the Provider Edge (PE) routers.

Core Network Measurements – Each Network Node has an associated source probe that sends test packets to destination probes associated with each PE router, for the purpose of measuring Core Network metrics. One-way test packets are sent across the network from source probes to destination probes at randomized fifteen (15)

minute intervals (i.e., a total of four (4) measurements per hour, per source-destination probe pair). Network delay, packet loss, and jitter metrics are derived from the accumulated test packets sent during a specific calendar month.

CPE – means Customer Premise Equipment. CPEs are routers or switches deployed at the Customer Site to provide connectivity to Rogers Dedicated Internet. CPEs represent the edge of the Customer Site's local area network and are not part of the Rogers Dedicated Internet local access or network.

International Site – A Site outside of the borders of Canada.

Mean Time to Repair (MTTR) – means the average length of time it took to repair a particular Customer access during a specific month. MTTR metrics are measured solely against Out of Service conditions on access elements. Access encompasses all elements from (and including) the PE router to the designated Telco demarc on the Customer Site. CPEs are not designated to be part of the access. MTTR metrics are based solely on Out of Service statistics collected by the Rogers Trouble Reporting System (TRS).

MTTR is calculated as follows:

Total amount of validated Out of Service time (in minutes) during a specific calendar month as measured by Rogers and Rogers trouble tickets (not including maintenance and planned outages), divided by the total number of outage incidents on a particular Customer access during a specific calendar month, and divided by sixty (60) (for hours).

Network Availability – means the percentage of time during a specific calendar month, that the Core Rogers Network was available to pass traffic. Network Availability is based on ticket information from the Rogers Trouble Reporting System:

Rogers continuously monitors each Network Node for availability. If an Out of Service condition is detected on a specific Network Node, the Core Network will be deemed to be unavailable for the length of the outage. Network Availability is calculated as the total number of minutes that the Core Network was unavailable during a specific month, divided by the total number of minutes in the specific month, multiplied by hundred (100) (for the percentage).

Network Node – means the primary nodes on the Core IP Network with dual redundant P routers.

No Trouble Found – means Rogers Customer reports a problem that cannot be duplicated by Rogers, after reasonable efforts to do so. For example, a Customer reports an Out of Service condition, but Rogers sees its service up and active with no evidence of a recent outage.

Out of Service - When a specific Customer access is unable to transmit or receive data, an "Out of Service" condition will be recorded for the specific Customer access in the Rogers Trouble Reporting System. Out of Service conditions can either be declared automatically by the Rogers Managed Network Service monitoring system, or manually by a Rogers technician. If a Customer does not subscribe to Rogers Managed Network Service monitoring, the Customer will assume responsibility for notifying Rogers of any outages. Following Customer notification, a Rogers technician will validate the outage and will manually declare an Out of Service condition in the Rogers Trouble Reporting System.

Scheduled Maintenance. Scheduled Maintenance means any maintenance activities performed on the Rogers network to which Customer's facilities are connected provided that Customer shall be given at least ten (10) days' advance notice of such maintenance activities. Such activities are typically performed during the standard maintenance window on Mondays to Fridays, 00:01 and 6:00 am local time.

Site - means a geographic location where one or more of the Customer's Services is delivered.

Managed Network Services

The following terms pertain specifically to Managed Network Services supplied by Rogers to you. You should note that the following Managed Network Services (MNS) are only available for Canadian Sites. Managed Network Services are divided into those that are included as part of the basic Services at no additional charge, and those that are available to you as optional, and where selected by you, the applicable additional charges for such optional Managed Network Services will be set out in the Agreement.

1. The following Managed Network Services are **included** in the standard Service offering (when CE router is purchased for a one-time charge or rented to the Customer by Rogers as part of the monthly recurring charges):

1.1 **CE Router Design, Configuration, and Implementation**

- (a) Rogers will design the CE router configuration. The CE router design will be consistent with the overall network design and may include some or all of the following elements:
 - Hardware configuration including necessary parts and modules.
 - IOS/Software versions.
 - Network access, routing, and IP addressing schemes.
 - Security parameters and policies.
 - Design testing.
- (b) Rogers will configure the CE router, ship the CE router to the Customer Site, and turn-up the CE router as part of the scheduled implementation.
 - Lead times for implementation at a particular Customer Site are dependent on Site location, hardware availability, and network access type. The Rogers sales team will provide the Customer with an implementation plan at the beginning of a project, upon request.
 - Certain pieces of hardware may be subject to manufacturing limitations or supply shortages. Where there are unforeseen limitations or shortages on hardware supplied by Rogers, and where it is financially viable, Rogers will make reasonable efforts to source the hardware from alternative suppliers. Rogers will notify the Customer of changes to the Implementation Plan.
 - Project change requests must be approved by Rogers and the Customer, and will be documented in a revised Implementation Plan. All change requests must be submitted in writing to the Rogers sales team.

1.2 Monitoring and Notification. Rogers will monitor a designated CE router interface to detect out-of-service conditions. The Service Level Agreement associated with such monitoring and notification is set out below.

1.3 Fault Management. Rogers will manage the restoration of the Customer's affected Services following an outage. The following Fault Management features are included in the standard Internet Services offering:

- (a) **Service Repairs.** Rogers will proactively manage and coordinate the repair of Services purchased through Rogers. This includes the dispatch of technicians, as required.
 - Mean Time to Repair (MTTR) for affected Services is topology dependent, as set out in the SLA applicable to such Services.
 - The Customer will be responsible for providing building access to on-site technicians for access circuit repairs.

The Customer will be responsible for managing and coordinating the repair of services that were not purchased through Rogers.

- (b) Service Restoration. Rogers will restore Services once all local access, network, and hardware repairs have been completed.
 - (c) Right of Cancellation/Suspension. Rogers shall have the right to unilaterally suspend or cancel Fault Management on managed CE routers where the managed CE router experiences outages or requires maintenance due to any of the following situations, which the Customer refuses to correct:
 - Documented IOS/Software bugs, defects, or vulnerabilities,
 - Damaged or faulty hardware, or
 - Other Customer systems, equipment, or applications.
2. The following Managed Network Services are **optional** and available for purchase by the Customer in conjunction with Services (when CE router is Customer owned, or purchased for a one-time charge or rented by Rogers as part of the monthly recurring charges). Specific monthly and non-recurring charges applicable to such optional Managed Network Services will be quoted by Rogers upon your request and where selected by you, will be set out in the Agreement.

There are three optional MNS feature packages available:

2.1 MNS Proactive Monitoring: Offers a basic Customer site monitoring package. Rogers will monitor the site availability status and provide CE performance monitoring for the identified Customer device, and have an alert message sent to the identified Customer contact in the event of a Services-affecting outage or if a device threshold is exceeded. The MNS Proactive Monitoring feature allows the Customer to outsource the monitoring of Services, while maintaining control over its operation, security, and management.

2.2 MNS Performance Plus: A comprehensive monitoring, reporting and asset management package that includes all of the features of MNS Proactive Monitoring, plus network performance reporting. The MNS Performance Plus Service also includes secure asset management features such as configuration capture/compare and SSH device access. MNS Performance Plus gives the Customer access to sophisticated monitoring, notification, reporting and security tools. It allows for Customer managed scenarios.

2.3 MNS Full Management (includes Change Management):

- **Full Management** allows the Customer to fully outsource the day-to-day management of its Services to Rogers. Rogers' MNS Full Management package combines the monitoring and alerting features of MNS Proactive Monitoring, the robust reporting and secure asset management features of MNS Performance Plus, along with full Fault Management.
- **Change Management** is included in the MNS Full Management feature package. This includes complete management of network configuration changes, as requested by the Customer or required by the CE equipment manufacturer.

The features of Rogers' Full Management optional feature package are as follows:

2.3.1 Fault Management. In addition to the Fault Management included in Rogers' standard Services (described in Section 1 above), with the Customer's purchase of Full Management, Rogers will also provide comprehensive end-to-end Fault Management. This includes:

- Complete end-to-end problem isolation, problem identification, and problem resolution on either primary or back up service;
- Proactive isolation and repair of Services supplied by Rogers;
- Centralized coordination and management of service repairs, including: dispatch of on-site technicians, trouble-ticket tracking, proactive Customer notification and status reporting;

- Centralized coordination and management of hardware repairs (only available to Customer that has purchased hardware maintenance through Rogers and has a valid hardware vendor maintenance contracts). Restoral timelines are dependent on the hardware vendor maintenance contract terms;
- Restoration of CE configurations following network, access, and hardware repairs;
- Restoration of Services following network, access, and hardware repairs; and
- CE router configuration changes or IOS/Software upgrades or updates will be made by Rogers.

2.3.2 **CE Router Management.** To ensure the integrity of the CE router configurations for restoration purposes, Rogers will assume responsibility for the configuration of the Customer's CE router. Fault Management of a Customer's CE router is contingent upon the following conditions:

- Rogers must configure, or approve the configuration of, the CE router.
- Rogers will password-protect all CE router configurations. Only Rogers will have access to the CE router to implement configuration changes.

2.3.3 **Fault Isolation.** Rogers will employ the following procedure when isolating faults. Each step will be completed fully before proceeding to the subsequent steps.

- Analyze and isolate faults on Rogers' network components.
- Analyze and isolate faults on network components supplied by other ILECs and CLECs.
- Analyze and isolate faults on network accesses supplied by other ILECs and CLECs.

The Customer may be asked by Rogers to provide basic technical information to assist with Fault Isolation. Basic technical information may include visual inspections of CE router to ascertain light indicator status, physical cable connectivity, switch positions, and power availability.

Where there are hardware or services that were not purchased through Rogers, the Customer will be responsible for managing and coordinating fault isolation with the applicable vendors. Rogers will work with the Customer and/or the Customer's other vendors to fully isolate the problem.

2.3.4 **Hardware Maintenance.** Where hardware maintenance was purchased through Rogers, Rogers will proactively manage and coordinate the repair of on-site hardware. This includes the dispatch of on-site technicians, as required.

- MTTRs for hardware that require technician dispatch are subject to geographical restrictions and the terms and conditions of the hardware vendor maintenance contract.
- The Customer will be responsible for providing building access to on-site technicians for hardware repairs.
- The Customer may be asked by Rogers to provide basic technical information prior to the release of any on-site technicians. Basic technical information may include visual inspections of CE routers to ascertain light indicator status, physical cable connectivity, switch positions, and power availability.

Where the Customer has not purchased hardware maintenance for the CE router from Rogers, the Customer will be responsible for managing and coordinating the repair of hardware.

2.4 **Change Management.** Rogers will manage the design and implementation of network configuration changes, and the application of IOS/Software upgrades and patches on the CE router.

Change Management includes complete management of network configuration changes, as requested by the Customer or required by the CE equipment manufacturer. Rogers Change Management feature provides management of CE configuration changes, CE IOS/Software upgrades. Managed CEs include firewalls, switches, routers, or multi-purpose CEs. With Change Management, Rogers will respond to any Customer change request within one (1) business day, at which time Rogers and the Customer will review the change request and schedule a maintenance window for the applicable configuration change. Change Management is only available for devices that are covered by Rogers Full Management feature package. Rogers Change Management provides unlimited single changes (subject to Rogers' reasonable requirements).

- When requiring Change Management, the Customer must email their Change Management request to e2etechs@endtoend.com and copy their Rogers sales representative.

3. **Managed Network Service (MNS) SLA.**

Rogers' Managed Network Services includes an SLA for monitoring and notification. If you subscribe to Rogers' monitoring and notification as part of their Services, you will be eligible for the Monitoring and Notification SLA set out below. Customer should note that the following Managed Network Services are only available for Canadian Sites. For the availability of Managed Network Services for International Sites, Customer should contact their Rogers account representative.

3.1 **Managed Network Services Monitoring and Notification SLA**

- 3.1.1 The designated interface will be polled at five (5) minute intervals. If the designated interface fails to respond, the CE router will be polled again in two (2) minutes. If the CE router does not respond to the second poll, an Out of Service condition will be declared.
- 3.1.2 Rogers commits to notify the Customer within fifteen (15) minutes of the initial detection of an Out of Service condition, via automated email to designated Customer contacts. Additional Customer notifications via telephone will be made by Rogers within thirty (30) minutes of the initial detection of an Out of Service condition. This commitment is contingent upon the Customer maintaining up-to-date contact information with its Rogers account team.
- 3.1.3 If Rogers fails to send the Customer a notification to the current Customer-provided email address within fifteen (15) minutes of the initial detection of an Out of Service condition for reasons other than Acceptable Downtime, the Customer will be entitled to a Service Credit. If the Customer believes that Rogers has failed to meet its Proactive Outage Notification commitment for reasons other than Acceptable Downtime, the Customer must contact its Rogers sales representative and apply for credit within fifteen (15) business days starting from the fifteenth (15th) day of the following billing month. Upon Rogers verification that it took longer than fifteen (15) minutes to notify the then current Customer-provided email address for reasons other than Acceptable Downtime, Rogers will issue a Service Credit to the Customer equal to ten (10%) percent of the monthly recurring charge for the impacted Services for the affected Customer Site(s).

SIP Services

The following terms pertain specifically to SIP Services supplied by Rogers to you. Rogers' SIP Services are digital voice services, including both access and applications. The SIP Services use an IP circuit to deliver voice services to your Site. Where access to SIP Services is purchased from Rogers, these SIP Trunking Services do not use the public Internet, but rather run over Rogers' core IP network. Rogers SIP Services have the following components:

1. **SIP Trunking Services.** SIP Trunking Services are dedicated IP access circuit(s) routed across Rogers' Canada-wide fibre optic network in order to bypass public Internet congestion. They leverage the existing redundancy, diversity and rerouting capabilities of the Customer's IP network for enterprise-grade voice clarity and the heightened security. SIP Trunking Services from Rogers provide enterprise-grade voice quality, flexibility and business continuity. SIP Trunking Services allow the Customer to scale rapidly to support call volumes.
2. **SIP Session.** SIP Services are provided to the Customer in units known as sessions. Each SIP Session is the IP equivalent of a PRI voice channel, and represents a unique but virtual connection between the Customer's location and the Public Switched Telephone Network (PSTN), transported over an IP circuit. Rogers' SIP Services allow the Customer to purchase the number of SIP Sessions they require to meet their voice calling needs. The number of SIP Sessions purchased determines the amount of IP bandwidth required to support the SIP Services. The Customer may decrease or increase the number of SIP Sessions that they purchase from Rogers over the course of the Service Term for SIP Services, but a decrease below any minimum number of SIP Sessions set out in the Agreement may result in an early termination charge, and an increase in the number of SIP Sessions may require that the Customer purchase additional IP bandwidth.
3. **Direct Inward Dial (DID) Numbers.** The Customer purchases DID numbers that are assigned to a communications gateway to allow PSTN callers to directly reach Customer users with SIP Services. The gateway connects the PSTN to the IP network, routing and translating calls between the two networks. The Customer may decrease or increase the number of DID Numbers that they purchase from Rogers over the course of the Service Term for SIP Services, but a decrease below any minimum number of DID Numbers set out in the Agreement may result in an early termination charge, and an increase in the number of DID Numbers may require that the Customer purchase additional SIP Sessions.
4. **SIP Failover.** With the purchase of SIP Failover, the Customer and Rogers configure the Customer's SIP Services to redirect DID Numbers to ring to an alternate termination point in the event of a failure of one or more of the Customer's IP access circuits.
5. **SIP Overflow.** With the purchase of SIP Overflow, the Customer and Rogers configure the Customer's SIP Services to redirect DID numbers to ring to an alternate termination point in the event that the primary termination point is fully utilized.
6. **SIP Redirect.** With the purchase of SIP Redirect, the Customer and Rogers configure the Customer's SIP Services to redirect DID Numbers to ring to an alternate termination point based on certain pre-defined parameters, such as time of day, origination point of incoming call, etc.
7. **SIP Load Balancing.** With the purchase of SIP Load Balancing, the Customer and Rogers configure the Customer's SIP Services to distribute the volume of incoming traffic volume equally across multiple IP access circuits, to maximize the utilization of bandwidth.
8. **Long Distance Services**
 - (a) Rogers' long distance services provide outbound long distance telecommunications that can be combined with SIP Services.
 - (b) Rogers' long distance services per minute charges are established based on the Customer's anticipated long distance traffic volumes, as set out in the Agreement. Where the Customer does not transmit the

anticipated long distance traffic volumes for two (2) or more consecutive months, Rogers reserves the right to adjust the Customer's per minute charges for long distance services on a going forward basis to the per minute charges tier that most closely represents the Customer's actual long distance traffic volumes.

- (c) Per minute rates for international long distance services are standard Rogers international rates, unless otherwise stated in the Agreement.
- (d) Rates for the Customer's long distance services are subject to maintaining monthly traffic distribution where:
 - (i) no more than 5% of total minutes originate from or terminate to numbering plan areas (NPAs) 306/709, 819, 867, 705, 807, 418i or any derivations of these NPAs if they were to split at a future date; and
 - (ii) no more than 2% of continental US traffic originate from or terminate to Alaska and/or Hawaii. In the event of any excess of the foregoing traffic distribution restrictions, the Parties agree that such excess traffic shall be charged at a rate of \$.25 per minute.
- (e) In the event of resale of long distance services by the Customer without consent, Rogers reserves the right to charge a premium of \$.25 per minute on all mobile, cellular, digital and/or PCS and other non-geographic based terminations terminating internationally.
- (f) Customer has a choice to obtain from Rogers different call detail reports which display Customer's detailed call information on their long distance and/or toll free service(s). In the event of any discrepancies between such report and Rogers' invoice, information on the invoice prevails.
- (g) In case of discrepancies between any online billing summary and the Customer's invoice(s), the charges on the Customer's invoice(s) prevail. Rogers is not liable for damages, including any loss of benefits, lost savings or other incidental or consequential damages to the Customer or any other party arising from the use, misuse or inability to use the online billing portal, whether or not Rogers or its authorized representative has been advised of the possibility of such damages.

9. **Toll Free Services**

- (a) Rogers' toll free services allow the Customer to receive and be billed for incoming calls from designated Canadian, U.S. and international country codes. Toll free services offer termination of calls via SIP Trunking Services. A number of enhanced routing and call processing features can also be provided by Rogers upon Customer's request.
- (b) Rogers' toll free services per minute charges are established based on the Customer's anticipated toll free traffic volumes, as set out in the Agreement. Where the Customer does not transmit the anticipated toll free traffic volumes for two (2) or more consecutive months, Rogers reserves the right to adjust the Customer's per minute charges for toll free services on a going forward basis to the per minute charges tier that most closely represents the Customer's actual toll free traffic volumes.
- (c) Per minute rates for international toll free services are standard Rogers international rates, unless otherwise stated in the Agreement.
- (d) Customer requests for specific toll free numbers will be accommodated free of charge subject to number availability. Rogers will have no liability whatsoever for its failure or inability to obtain a requested number for any reason. Customers may be listed in published telephone directories of telephone companies at the rates specified in those carriers' tariffs.
- (e) International Toll Free Services (Universal International Freephone Numbering (UIFN) or International Toll Free (ITF)) can be quoted by Rogers upon request. These Toll Free Services allow the Customer to receive and be billed for incoming calls from one or many international destinations. A complete list of participating and available countries may be obtained by the Customer through its Rogers representative. Rogers does not establish rules and conditions pertaining to International Toll Free service and therefore cannot be responsible for any unilateral actions taken by foreign administrations.

- 10. **Billing Increments.** International long distance and toll free calls will be billed in six (6) second increments, subject to a thirty (30) second minimum. North American long distance and toll free services will be billed in one (1) second increments, subject to a thirty (30) second minimum.

11. **All-in-One SIP Bundle.** The All-in-One SIP Bundle from Rogers combines a wide range of voice communication features with the flexibility of IP. The Customer can keep its legacy PBX and all the standard services and features it provides, plus better redundancy and failover while maintaining the framework of a PRI. The All-in-One SIP Bundle includes 23 channels and a media gateway that converts voice media from SIP to traditional PRI for legacy PBX compatibility.
12. **Network Access.** Rogers SIP Services are supported by Rogers' own reliable fibre accesses and accesses provided to Rogers from a variety of third party carriers across Canada. Ethernet access support service speeds up to 1 Gbps. Service speeds up to 10 Gbps can be supported by fibre based access subject to a full site survey prior to order.
13. **Diversity.** Rogers supports a number of ways to provide physical diversity to a Customer Site. All diversity requests are subject to a full site survey prior to order. Following completion of the survey, Rogers will inform the Customer of the proposed diversity option(s) that are available. Pricing will be provided at this time.
 - Access Diversity. Rogers supports access diversity by establishing a secondary diverse access between the Customer Site and the Rogers POP. The Customer can switch traffic from the primary access to the diverse access or can run traffic on both access simultaneously. This provides the Customer with a level of access resilience for the Services that run over the access.
 - Route Diversity. Route diversity is when Rogers provides two similar access technologies which travel on geo-diverse paths to the Rogers POP.
 - POP Diversity. POP diversity is when Rogers provides two similar access technologies which travel on geo-diverse paths that do not cross, and terminate at two different Rogers POPs.
14. **Demarcation Point.** The access demarcation is an end point of the Rogers network that interfaces with the Customer's internal network. Demarcation interface is a port facing the Customer internal network on a router/switch/modem (depending on access technology) provided by Rogers or Rogers' partner.
15. **Interface.** The following table lists the options for access interfaces. Note: Access interface is dependent on technology and availability.

Table 1: Ethernet Interfaces

Name	Physical	Speed	Standard
E10	RJ-45	10Mb/s	10Base-T
E100	RJ-45	100Mb/s	100Base-T
E1000	RJ-45	1000Mb/s	1000Base-T
E100	SFP	100Mb/s	100Base-FX
GE	SFP	1000Mb/s	1000Base-FX
10GE	SFP+/XFP	100000Mb/s	10GBase-X

The default network access provided by Rogers includes one (1) physical port per Customer Site. Additional ports are available when multiple Services are added to a single network access. Additional charges may apply and will be quoted upon request.

Product Terms and Conditions

1. **Termination Fees.** If the Customer terminates the SIP Services for any reason other than for cause as permitted under the Agreement, or if Rogers terminates the SIP Services for cause as permitted under the Agreement, the Customer shall pay to Rogers, as liquidated damages and not as a penalty, an amount which is equal to the sum of:
 - (i) fifty percent (50%) of the average monthly charges for the terminated Service(s) (as determined over the previous three months) multiplied by the number of months remaining in the Service Term from the effective date of termination;

- (ii) any cost which Rogers must continue to pay to third parties for the remainder of the applicable Service Term as a result of the early termination of the applicable Services that exceeds the amount set out in (i) above; and
- (iii) a lump sum representing the amortized remainder of any waived or discounted installation or one-time charges associated with the terminated Service(s) in consideration of the Customer's commitment to the Service Term for such Services.

Where the Customer terminates the Services prior to the expiration of the applicable Service Term, the Customer must either return all Rogers Equipment associated with the Services to Rogers, or pay Rogers for the fair market value of such Rogers Equipment.

Such termination liability shall be payable on the effective date of any and all terminations.

2. **Charges.**

- (a) The SIP Services require a dedicated IP circuit at each Customer Site where the SIP Services will be delivered. SIP Services will be provided at the per SIP session rate set out in the Agreement, with a minimum of five (5) SIP sessions and one (1) DID being required for activation.
- (b) Upon delivery of the SIP Services to the Customer by Rogers, the Customer will have a maximum of ten (10) days to perform interoperability testing, after which ten (10) days Rogers will commence billing for the SIP Services.
- (c) SIP Services are billed on a monthly basis. Monthly charges will be prorated for the first partial month of service.
- (d) Where the Customer requests the move, add, change, or disconnect of new or existing SIP Services, Rogers will charge a move-add-change-disconnect (MACD) charge to the Customer.

3. **Payment Terms.** You must pay invoices within 30 days of the date of our invoice. Late payment charges are set out on your invoice, and are subject to change without notice.

4. **Additional Work.** Work requested by Customer and performed by Rogers or its sub-contractors that is outside the scope of the Services as described in these terms will be billed to Customer at Rogers' then current time and material rates. Work requested and performed outside of Rogers' Business Hours will be subject to an additional charge, to be quoted upon request.

5. **Transition of Access.** Any access facility to the Services that are subcontracted by Rogers to a third party may, at any time, be replaced by a Rogers-provided access facility. In such case, in order to facilitate the transition and avoid service disruption to the greatest extent possible, Customer must reasonably cooperate with Rogers, which includes allowing Rogers' access to Customer's premises and facilities as per Rogers' schedule for the performance of Rogers' transition activities.

6. **Timing of Calls.** Per minute charges are based on call duration measured in accordance with the foregoing increments, with any partial cent amounts rounded to six (6) decimal places on a per call basis. Fractions of an increment will be billed as an entire increment. The timing of calls will begin upon Rogers' receipt of answer supervision (where available) and will terminate when Rogers' switching equipment receives either a signal from the local telephone company that the calling party or the called party has disconnected the telephone, or an equivalent signal. For all SIP Services, call timing (or duration) will be determined conclusively by Rogers' network system.

7. **Unauthorized Charges.** The Customer must immediately notify Rogers by calling Rogers Customer Care in the event that the SIP Services are used in an unauthorized manner. Customer will be responsible to pay Rogers for all charges up to the time the Customer notifies Rogers Customer Care of the breach. The Customer also agrees to treat as confidential and non-transferable all access codes and/or passwords that Rogers may provide to the Customer for use with the SIP Services.

8. **Non-Mobile Use Only.** The Customer expressly acknowledges and agrees that the SIP Services are not intended to be used for non-geographic (ie. mobile) purposes. Any mobile usage of the SIP Services at a location other than the Customer's Site is strictly prohibited by this Agreement, and the Customer releases Rogers of all liability arising therefrom.

9. **Calling Features.** The SIP Services do not support 0+ or operator assisted calling (including, without limitation, collect calls, third party billing calls, 900 or calling card calls). The SIP Services may not support 3-

1-1, 5-1-1 and/or other n11 calling (other than certain specified dialing such as 9-1-1 and 7-1-1, which are provided for elsewhere in these terms) in one or more (or all) service areas.

10. **Emergency 9-1-1 Service.** The emergency 9-1-1 fee charged by the Customer's municipality may be billed each month as part of Rogers' monthly charge for SIP Services, or may be billed directly by the municipality.

11. **9-1-1 Limitations and Customer Responsibilities**

9-1-1 Service: Because of the unique nature of calls over SIP Services, emergency calls to 9-1-1 may be handled differently than traditional wireless or wireline voice service. The following provisions describe the differences and limitations of 9-1-1 emergency calls, and you hereby acknowledge and understand the differences between traditional 9-1-1 service and SIP Services with respect to 9-1-1 calls placed to emergency services from your account as described below.

- (a) Upon activation of SIP Trunking services, the Customer is required to provide the full address for each of the office locations where the SIP Trunking services will be used (the Customer's "9-1-1 Emergency Address"). The Customer may only register one (1) 9-1-1 Emergency Address per location and it must be a location in Canada. If the Customer fails to comply with this requirement or false, inaccurate or incomplete location information is provided by the Customer, Rogers has the right to restrict the Customer from any current and/or future ability to access SIP Trunking service. During any such restriction Rogers will still allow the Customer to place a 9-1-1 call.
- (b) When a Customer places a 9-1-1 emergency call, the SIP Services will route the 9-1-1 call through a third-party specialized call centre that handles emergency calls. The emergency call centre will verbally confirm the location the subscriber is calling from then route the call to the Public Safety Answering Point ("PSAP"). If the location cannot be verbally confirmed, the 9-1-1 call-taker will then route the call to the Public Safety Answering Point ("PSAP") corresponding to the Registered Location on the Customer's account for that particular subscriber. The Customer subscriber must not disconnect the 9-1-1 emergency call until told to do so by the dispatcher, as the dispatcher may not have the subscriber's number or contact information. If the Customer subscriber is inadvertently disconnected, they must call back immediately. The Customer subscriber should also be prepared to provide a call-back number to the 9-1-1 operator.
- (c) The Customer is responsible for providing, maintaining and updating true, accurate, current and complete 9-1-1 Emergency Address and other information to Rogers. When the Customer registers the 9-1-1 Emergency Address, it will be validated for accuracy through a Canada Post and PSAP validation service. If the Customer does not correctly identify the actual location where their subscribers are located, or if the account information has recently changed or has otherwise not been updated, 9-1-1 calls may be misdirected to an incorrect emergency response site. Therefore, in the event of an emergency, it is important for the subscriber to immediately inform the 9-1-1 operator of the location they are calling from (or the location of the emergency, if different). If the subscriber is unable to speak, the dispatcher will rely on the registered address that was provided by the Customer upon activation. For technical reasons, including network congestion, it is possible that a 9-1-1 emergency call will produce a busy signal or will take longer to connect when compared with traditional 9-1-1 calls while using SIP Services.
- (d) For technical reasons, the functionality of 9-1-1 SIP Services emergency calls may cease or be curtailed in various circumstances, including but not limited to: failure of service or the service access device – if the Customer's system access equipment fails or is not configured correctly, or if the Customer's SIP Services are not functioning correctly for any reason, including power outages, Rogers SIP Services outage, suspension or disconnection of the Services due to billing issues, network or Internet congestion, or network or Internet outage in the event of a power, network or Internet outage; the Customer may need to reset or reconfigure system access equipment before being able to use the SIP Services, including for 9-1-1 emergency calls; and changing locations – if the Customer moves its system access equipment to a location other than that described in its account information or otherwise on record with Rogers.
- (e) If the Customer is not comfortable with the limitations of 9-1-1 emergency calls, Rogers recommends that the Customer not purchase SIP Services, or consider an alternate means for accessing traditional 9-1-1 emergency services. Rogers recommends that the Customer keep an alternative phone service handy to increase the reliability of access to emergency services during any service interruption.
- (f) The Customer is responsible for notifying, and agrees to notify, any user or potential users of the Customer's SIP Services of the nature and limitations of 9-1-1 emergency calls on the SIP Services as described herein. Rogers and its service providers disclaim all responsibility for the conduct of PSAPs and all other third parties involved in the provision of emergency response services. Rogers and its service providers do not have any control over PSAPs and are therefore not responsible for whether they answer 9-1-1 calls made using the SIP

Services, how they answer these calls, or how they handle these calls. Rogers and its service providers rely on third parties to assist in the provision of 9-1-1 services, and disclaim any and all liability for acts or omissions by third parties in the provision of 9-1-1 services. Neither Rogers, nor its service providers, officers nor employees may be held liable for any claim, damage, or loss (including, without limitation, attorneys' fees) by, or on behalf of, the Customer or any third-party user of Rogers' 9-1-1 dialing capability.

- (g) The Customer waives all claims or causes of action against Rogers and its service providers, directors, officers, employees, subsidiaries and assigns, arising from or relating to Rogers' provision of 9-1-1 services unless the claims or causes of action arise from their gross negligence, recklessness, or willful misconduct.
12. **Directory Listing.** A basic directory listing is defined as a Primary Straight Line listing or Primary Straight Line Listing plus one. It consists of company name, designation (if applicable), address, and TN. The Customer's telephone number(s) will be published in the:
- White page listing for the area
 - 411 database for directory assistance
 - Yellow pages for business listings
- In the case of errors or omissions in the directory listings, whether or not the error or omission is with regard to telephone numbers, Rogers' liability with regard to such errors or omissions is limited to a refund or credit of any charges associated with the listings in question for the period during which the error or omission occurred. The Customer must request such credit from Rogers within ninety (90) days of the publication of the directory listings.
13. **Long Distance Services not under contract.** Where Rogers becomes the Customer's voice access carrier, but not the Customer's long distance carrier, Rogers may provide long distance services to the Customer prior to activation by the Customer's long distance carrier to ensure continued availability of long distance service. Direct dialed long distance calls will be rated at Rogers' then-current month-to-month rates. The Customer agrees that it will be responsible for all long distance charges incurred during this interim period.
14. **Service Interruption.** With respect to SIP Trunking Services, the Customer acknowledges that long distance, toll free and local services (including, without limitation, emergency 9-1-1 service) may be temporarily unavailable during the porting of the Customer's telephone number(s) from the Customer's previous local telephone company's network to Rogers' network (where applicable), and agrees that Rogers is not liable for any such suspension of service nor for any loss or damages that may result.
15. **Unsolicited Messages.** The SIP Services may not be used to send unsolicited, bulk or commercial messages or for any other unsolicited communications. This includes, without limitation, using automatic dialing and announcing devices to or otherwise make unsolicited voice or facsimile calls and bulk mailing of commercial advertising, informational announcements, charity requests, petitions for signatures and political or religious messages. The transmission of unsolicited calls using the SIP Services for the transmission of unsolicited calls, broadcasting or transmitting unsolicited facsimile advertisements is regulated by the Canadian Radio-Television and Telecommunications Commission. In the event of a breach of this provision, Rogers may terminate the SIP Services for Improper Use.
16. **Telephone Numbers**
- (a) Rogers cannot guarantee the availability of a telephone number prior to the activation of the applicable telephone number. Rogers is not liable for any claims, actions, demands, loss or damages resulting from the advertisement, publication, distribution or other use of a telephone number prior to, or following, the activation of the telephone number.
- (b) Rogers reserves the right to change telephone numbers assigned to SIP Services customers if such change is required by the Canadian Numbering Administrator, which governs the allocation of telephone numbers in Canada. Rogers agrees to provide reasonable notice of any such required change in telephone numbers except where circumstances beyond Rogers' reasonable control prohibit or preclude Rogers from being able to provide a reasonable period of notice.

Product Service Levels

1. **Policy.** The Customer's SIP Services' performance should meet the applicable metrics set out in the service levels below.

2. **Access Availability and MTTR Commitments.**

Access Availability and MTTR commitments are included with all formats of Rogers SIP Services.

2.1. **Access Availability Commitment**

2.1.1. **Access Availability Commitment.** Rogers will provide the Customer with an Access Availability performance commitment from the network access that connects a Customer Site to the PE router at the edge of the Rogers Core Network. Network access encompasses all elements from, and including, the PE router to the designated Rogers or third party demarc on the Customer Site. Customer Premise Equipment (CPE) is not considered as part of the network access. Access Availability commitments are determined by the type of access into a particular Customer Site.

2.1.2. **Access Availability Credit.** If Rogers has failed to meet the applicable Access Availability commitment for a particular Site in any given billing month, the Customer must contact their Rogers sales representative and apply for credit within fifteen (15) Business Days starting from the fifteenth (15th) day of the following billing month. Upon confirmation by Rogers that the Access Availability commitment was not met, Rogers will issue a Service Credit to the Customer. The Service Credit will equal the applicable amount from Table 1 for the monthly recurring charges for the affected accesses in the applicable month.

TABLE 1: Committed Access Availability by Access Type

Access Type	Monthly Access Availability	Service Credit
Ethernet Access (E10, E100 GE, 10GE)	> 99.9%	10% of the monthly recurring Rogers Ethernet access charges for the specific Customer Site.

2.2. **Mean Time to Repair (MTTR) Commitment**

2.2.1 **MTTR Commitment.** Rogers will provide the Customer with a Mean Time to Repair (MTTR) performance credit when the network access that connects a Customer Site to the PE router at the end of the Rogers Core Network is Out of Service. Network access encompasses all elements from, and including, the PE router to the designated Rogers or third party demarc on the Customer Site. Customer Premise Equipment (CPE) is not considered as part of the network access. MTTR commitments are based on the location of and the access type deployed on the Customer's Site. MTTR commitments only apply to Customer locations that are within fifty (50) km or thirty (30) miles of a Rogers' network point-of-presence (POP).

2.2.2 **MTTR Credit.** If Rogers has failed to meet the applicable MTTR Commitment for a particular Site in any given billing month, the Customer must contact their Rogers sales representative and apply for credit within fifteen (15) Business Days starting from the fifteenth (15th) day of the following billing month. Upon confirmation by Rogers that the MTTR commitment was not met, Rogers will issue a credit to the Customer. The credit will equal the applicable amount from Table 2 for the monthly recurring charges for the affected accesses in the applicable month.

TABLE 2: Committed Mean Time to Repair by Access Type

Access Type	Monthly MTTR	Service Credit
Ethernet Access	< 4 h	10% of the monthly recurring Rogers Ethernet access charges for the specific Customer Site.

3. **Network Availability SLA.** Network Availability is an SLA that validates the reliability of the SIP Services on the Rogers Core Network. The Network Availability is available to the Customer as part of their SIP Services.
- a. **Network Availability Commitment.** If Network Availability does not meet or exceed the applicable percentage set out in Table 1 in a given month for reasons other than Acceptable Downtime, then Rogers will provide a Service Credit to the Customer.
 - b. **Network Availability Validation.** Customer must request each month’s measurements from its Rogers sales representative by the fifteenth (15th) day of the following month. Rogers network performance reports will be used to determine Network Availability metrics and credits.
 - c. **Network Availability Credit.** If Customer believes that Rogers has failed to meet the committed Network Availability percentage set out in Table 1, the Customer must contact its Rogers sales representative and apply for a Service Credit. Upon Rogers’ verification that the actual Network Availability in the specific month was less than the committed Network Availability for reasons other than Acceptable Downtime, Rogers will issue a Service Credit as specified in Table 1.

TABLE 1: Network Availability Commitment

Committed Network Availability	Service Credit
Greater than or equal to 99.99%	10% of the monthly recurring SIP Services charges for the affected SIP Session(s).

4. **SLA Terms and Conditions**

- a. **Monthly Service Credit.** The combined cumulative total of all Service Credits issued for a specific calendar month for SIP Services will not exceed the total monthly recurring charges for a Customer’s affected SIP Services invoiced during such specific calendar month.

Definitions

The following definitions are used in relation to SIP Services. Any capitalized terms not defined below are defined in the Agreement.

Acceptable Downtime. In calculating whether or not Rogers has met the commitments in any specific month lack of availability owing to downtime for any of the reasons set out below will not be factored into the SLA calculations:

- Customer delays including, but not limited to: (i) acts or omissions by the Customer, its agents or vendors; (ii) inaccurate, incomplete or changes to previously accepted orders; (iii) unavailable and/or faulty Customer premises, unavailable and/or faulty Customer premise equipment (CPE) and/or facilities necessary to install the Services; or, (iv) extension of access circuit demarcation point by Customer without Rogers approval;
- during an event of Force Majeure, as described in the Agreement;
- Customer’s failure to materially comply with its obligations as defined in the Agreement, including failure to pay valid past-due amounts; order suspensions due to Customer’s credit worthiness;
- during Scheduled Maintenance;
- troubles resolved as “No Trouble Found”;
- outages of less than 60 seconds in duration;
- time attributed to Customer’s delay in responding to Rogers requests for assistance to repair an outage;
- the failure of any Customer owned and maintained equipment on the Customer’s premise, beyond the local telephone companies demarcation device or smart-jack;
- hardware, operating system, and application failures or security breaches on LAN components, WAN components, servers, or workstations that were not configured by Rogers;
- failures or security breaches caused by improper use, improper care, or damage to devices by the Customer’s employees or a third party;

- failures or security breaches caused by the movement of hardware by the Customer or a third party, electrical and power irregularities, or abnormal use;
- failures or security breaches, where a device's configuration, IOS/Software, or hardware has been modified by the Customer or a third party;
- failures or security breaches caused by undocumented hardware, IOS/Software, or other manufacturer deficiency; or
- failures or security breaches caused by hardware, IOS/Software, or other deficiencies, that were documented by the manufacturer following the implementation of the service by Rogers.

Business Day – means Monday to Friday inclusive, excluding statutory holidays observed in the Province of Ontario.

Business Hours – means 8:00am to 5:00pm local time on a Business Day.

Core Network – means the Rogers core IP network. This includes all network infrastructure between the Provider Edge (PE) routers.

Core Network Measurements – Each Network Node has an associated source probe that sends test packets to destination probes associated with each PE router, for the purpose of measuring Core Network metrics. One-way test packets are sent across the network from source probes to destination probes at randomized fifteen (15) minute intervals (i.e., a total of four (4) measurements per hour, per source-destination probe pair). Network delay, packet loss, and jitter metrics are derived from the accumulated test packets sent during a specific calendar month.

Network Availability – means the percentage of time during a specific calendar month, that the Core Network was available to pass traffic. Network Availability is based on ticket information from the Rogers Trouble Reporting System:

Rogers continuously monitors each Network Node for availability. If an Out of Service condition is detected on a specific Network Node, the Core Network will be deemed to be unavailable for the length of the outage. Network Availability is calculated as the total number of minutes that the Core Network was unavailable during a specific month, divided by the total number of minutes in the specific month, multiplied by hundred (100) (for the percentage).

Network Node – means the primary nodes on the Core IP Network with dual redundant P routers.

No Trouble Found – means Rogers Customer reports a problem that cannot be duplicated by Rogers, after reasonable efforts to do so. For example, a Customer reports an Out of Service condition, but Rogers sees its service up and active with no evidence of a recent outage.

Out of Service - When a specific Customer access is unable to transmit or receive data, an “Out of Service” condition will be recorded for the specific Customer access in the Rogers Trouble Reporting System. Out of Service conditions can either be declared automatically by the Rogers Managed Network Service monitoring system, or manually by a Rogers’ technician. If a Customer does not subscribe to Rogers Managed Network Service monitoring, the Customer will assume responsibility for notifying Rogers of any outages. Following Customer notification, a Rogers’ technician will validate the outage and will manually declare an Out of Service condition in the Rogers Trouble Reporting System.

Scheduled Maintenance - means any maintenance activities performed on the Rogers network to which Customer's facilities are connected provided that Customer shall be given at least ten (10) days' advance notice of such maintenance activities. Such activities are typically performed during the standard maintenance window on Mondays to Fridays, 00:01 and 6:00 am local time.

Site - means a geographic location where one or more of the Customer's Services is delivered.

Optical Wavelength

These terms pertain specifically to Optical Wavelength supplied by Rogers to you. Optical Wavelength is a private line service that is delivered over an optical based network using Wavelength Division Multiplexor (WDM) technology. Optical Wavelength is a dedicated two-way circuit which carries full capacity services at the subscribed bandwidth. The traffic of Optical Wavelength originates at your demarcation point “A” and terminates at your demarcation point “Z”. Diagram 1 below illustrates an overview of the Optical Wavelength Services architecture.

Optical Wavelength produces a scalable service at up to 100% line rate with low, constant and predictable latency performance. Optical Wavelength Services are only offered in a point to point configuration. However, if protection is desired, Optical Wavelength Services can be configured across two diverse routes around the Rogers’ network to ultimately achieve high survivability. The Rogers Customer Care support centre monitors each Optical Wavelength 24x7, 365 days a year. Alarming and performance monitoring on each Optical Wavelength is transparent and non-intrusive. Optical Wavelength Services have the following features:

1. Service Architecture

1.1 Service Delivery. Optical Wavelength Services are delivered over an architecture comprising of demarcation, access network, network access point and network core. Diagram 1 below illustrates the service delivery architecture. The Customer connects the signal to the demarcation point. From there, Rogers will transport the signal over the access network and connect to a Network Access Point (NAP). The signal is configured over the best available route on the Rogers Core Network, as determined by Rogers Engineering, to obtain optimal performance. The signal is then delivered to the demarcation point at the Customer’s “Z” location.

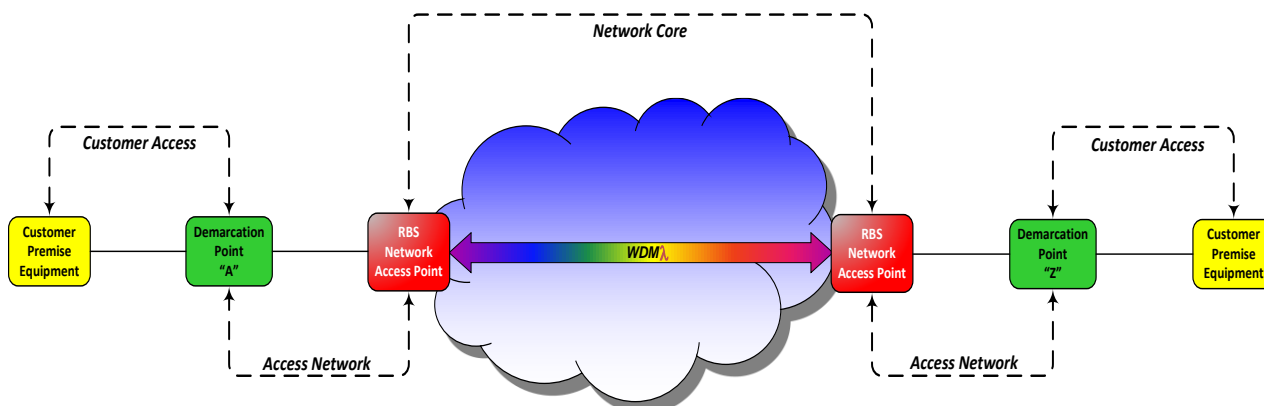


Diagram 1 – Service Delivery Architecture

1.2 Customer Premise Equipment. The Customer Premises Equipment (CPE) is network equipment physically located on the Customer premise and beyond the service demarcation point. Unless otherwise stated in the Agreement, the CPE equipment is fully owned and operated by the Customer. The CPE will enable the Customer to access the Optical Wavelength Services.

1.2.1 Customer Premise Requirements. The Customer must provide Rogers personnel access to the service demarcation point for the purposes of fault restoration. The Customer’s location must provide the following environmental characteristics in order to support the Optical Wavelength Services:

- Grounded and conditioned 120 V AC Power with 15 A receptacles with no static, spikes or noises
- 48DC power (where applicable)
- Three Rack Units (RU) on 19 inch rack to facilitate media convertor and fibre patch panel equipment
- A network environment suited for telecommunications equipment, which supports heating, cooling and ventilation and which keeps the area surrounding the demarcation point at a temperature no less than sixty five degrees Fahrenheit (65F) and no more than eighty five degrees Fahrenheit

(85F), with humidity at no greater than 50 % and the air filtered by a suitable telecommunications air filtration system.

- Adequate room lighting.
- Reasonable security measures to prevent unauthorized access to the demarcation point and to allow for the authorized 24x7 emergency and standard access by Rogers personnel for maintenance and restoration.

1.3 **Customer Access.** The Customer must make arrangements and purchases their in-building fibre access to the Customer side of the service demarcation point directly from the in-building access provider. The in-building access method can include inter building riser fibre or room to room patch cabling. The Customer and in-building access provider together have the total responsibility for the engineering, planning, installation, performance and maintenance of the Customer in-building access fibre. For optimal service, it is recommended the Customer in-building fibre access meet or exceed ITU G.652 specifications with loss characteristics of 1 dB per patch and 0.05 dB per splice. Rogers can arrange for the Customer in-building fibre access arrangements at an additional cost, to be quoted upon Customer's request.

1.4 **Demarcation.** The service demarcation is the end point of the Rogers network where the Customer will connect to the Optical Wavelength Services. The demarcation point will be a fibre patch panel with SC bulkhead fibre connectors located in the "meet me room" or the Customer's premise. The service demarcation point will be agreed to mutually by both parties. The fibre patch panel demarcation point will permit easy Customer connection with the ability to create manual loopback testing to demonstrate circuit quality. The demarcation point shall not be more than seven (7) meters from the point of entry into the Customer's premise. If the demarcation point is greater than seven (7) meters, additional installation charges will apply. Optical Wavelength circuits will be tested to ensure that they are operating in accordance with their Service Level Agreement.

Any exceptions to the proposed demarcation point must be identified in writing by the Customer and approved by Rogers.

1.5 **Access Network.** The Access Network is a network component which interconnects the demarcation point to a Rogers' Primary Hub, providing last mile connectivity where Optical Wavelength Services demarcation point is not a Rogers Network Access Point. The Access Network could include media convertors, inter-building riser fibre, patch cabling, or dark fibre. Rogers' Access Network fibre is compliant to ITU G.652 specifications. The preferred Access Network for service delivery is over Rogers' owned fibre infrastructure and is described as ON-NET. Services delivered into OFF-NET buildings may be sub-contracted to a third party carrier.

1.6 **Network Access Point.** A Rogers Network Access Point is a site or location that houses active equipment that is part of the Rogers Core Network. Optical Wavelength Services will be configured onto the Rogers Core Network at this location. Such locations will have diverse building optical path entrances, uninterrupted DC power source, and or a diesel generator backup.

1.7 **Rogers Core Network.** The Rogers Core Network is the aggregate of all DWDM network elements. Optical Wavelength Services will be configured between the most optimal available route over the Rogers Network Core to achieve minimum latency.

1.7.1 **Standards Compliance.** The Rogers Core Network hardware and management systems are compliant to the following telecom industry organization standards:

- The following Telcordia standards are supported: GR-253-CORE, GR-474-CORE, GR-499-CORE, GR-1089-CORE, GR-820-CORE, GR-2918-CORE.
- The following ITU-T standards are supported: G.664, G.692, G.709, G.825, G.826, G. 957, G.959.1, G.8021, and ITU-T 100-GHz- spacing, C-band channels.
- The following Request for Comments (RFC) standards are supported: 4209, 2766.

2. **Customer Interface**

2.1 **Service Interfaces.** The Optical Wavelength Services support standard protocols before transport over the Rogers Core Network.

- 2.2 Optical Characteristics. All Optical Wavelength Services will be delivered to the Customer using standard optical specifications supporting the required service interfaces,
- 2.3 Attenuation. Each Optical Wavelength is delivered with appropriate optical characteristics connected to the Customer Premises Equipment. To ensure optimum performance of the link, the optical signal, in both directions, will be attenuated to desired specifications recommended by Rogers' equipment vendor and Customer's equipment vendor. Attenuation of the optical signal required at the Customer Premise Equipment beyond the demarcation point will be provided by the Customer.

3. Quality and Service Assurance

- 3.1 Circuit Test and Turn Up. Optical Wavelength is subject to an acceptance test plan before the Optical Wavelength Services are handed over to the Customer. Test results for Optical Wavelength will be saved, provided to the Customer if requested, and recorded with the as-built documentation. All test parameters must pass with a 100% success rate and meet all applicable Rogers Service Level Agreements.

Each Optical Wavelength will be subject to a RFC2544 test. If required, a circuit can also be subject to Bit Error Rate (BER) testing, but additional fees may apply. Optical transmit and receive values will be recorded in dB as well as any attenuation used to optimize the Customer signal. The date, time, location, duration, circuit identifier and overall test summary status will be recorded in the report. The test report will cover the RFC2544 test parameters seen in Table 1, below.

Parameter	Units	Pass Threshold
Throughput	Mbps	100%
Latency	µs	Circuit Specific

Table 1 – Optical Wave Test Parameters

- 3.2 Service Surveillance. The Network Operations Centre (NOC) monitors each Optical Wavelength 24x7, 365 days a year. Within the NOC are highly qualified engineers and technicians maintaining the network to the latest engineered specifications. The Rogers' NOC serves as the single point of contact for all events that occur on the network. Alarming and performance monitoring on each Optical Wavelength is transparent and non-intrusive.
- 3.3 Change Management. Rogers enforces a Change Management Policy to enable beneficial changes to the network infrastructure with minimal disruption to Services. The change management process defines when changes can be made and ensures sufficient notification is made to the Customer. Risk assessments are determined and categorized into overall impact levels. Each impact level is assigned a time slot during the week to perform the maintenance procedure. Customers will be given advanced email notification from the Rogers NOC in accordance with the terms of the Agreement. Each change management procedure is subject to multiple authorization levels before they are executed to ensure effectiveness.
- 3.4 Fault Management. The NOC will recognize, isolate, log faults and restore Services in the network. A situation may arise when the Optical Wavelength may experience degradation or outage. When calling in the outage, the Customer should provide an accurate description of the trouble with circuit identification to the NOC. It is essential that the Customer be able to provide physical access to their demarcation point to Rogers at the time of trouble should Rogers be the provider of the Customer's Access Network. Rogers will perform diagnostic testing and physical loopback testing to determine the root cause of the outage.

Product Terms and Conditions

- 1. Termination Fees. If the Customer terminates the Optical Wavelength Services for any reason other than for cause as permitted under the Agreement, or if Rogers terminates the Optical Wavelength Services for cause as permitted under the Agreement, the Customer shall pay to Rogers, as liquidated damages and not as a penalty, a termination fee which is an amount which is equal to the sum of:
 - (a) fifty percent (50%) of the average monthly charges for the terminated Service(s) (as determined over the previous three months) multiplied by the number of months remaining in the Service Term from the effective date of termination;

- (b) any cost which Rogers must continue to pay to third parties for the remainder of the applicable Service Term as a result of the early termination of the applicable Services that exceeds the amount set out in (a) above, and
- (c) a lump sum representing the amortized remainder of any waived or discounted installation or one-time charges associated with the terminated Service(s) in consideration of the Customer's commitment to the Service Term for such Services.

Where the Customer terminates the Services prior to the expiration of the applicable Service Term, the Customer must either return all Rogers Equipment associated with the Services to Rogers, or pay Rogers for the fair market value of such Rogers Equipment.

Such termination liability shall be payable on the effective date of any and all terminations.

- 2. **Invoicing.** Monthly recurring charges for Optical Wavelength Services are invoiced monthly in advance on the first of each month. Charges for MPLS Services will commence as of the Service Effective Date. In the first month the charges will be prorated for the number of days in the month after the Service Effective Date. Rogers will, by way of invoice or otherwise, notify the Customer of the Service Effective Date. Service level credits will be applied to Customer's invoice within two billing cycles after Rogers' approval of a Customer's request.
- 3. **Additional Work.** Work requested by Customer and performed by Rogers or its sub-contractors that is outside the scope of the Services as described in these terms will be billed to Customer at Rogers' then current time and material rates. Work requested and performed outside of Rogers' Business Hours will be subject to an additional charge, to be quoted upon request.
- 4. **Hardware.** All hardware purchased from Rogers is covered by the hardware manufacturer's original warranty. Upon request, the Rogers sales team will provide the Customer with up-to-date warranty information for the hardware. The risk of loss or damage to any materials or hardware shall pass to the Customer upon receipt at the Customer's premises, notwithstanding that title to all materials and hardware purchased outright shall pass to the Customer only upon final payment, where applicable.
- 5. **Hardware Maintenance.** Where applicable, fees hardware maintenance are charged annually and payable at the time of Services activation and each annual anniversary thereafter. Such maintenance Services, unless terminated by the Customer in writing at least sixty (60) days prior to the annual anniversary of the Service Term, shall be automatically renewed on an annual basis until expiration of the Service Term for the associated Services. Where hardware maintenance Services are provided by the hardware manufacturer or another third party, certain additional terms and conditions may apply.

Product Service Level Agreement ("SLA")

Optical Wavelength Services include a series of SLAs that validate the reliability of the Rogers Core Network, and personnel, in delivering the Optical Wavelength Services. The Service Availability (Access and Core), MTTR, Latency, Bandwidth, and Packet Loss SLAs are available to the Customer as part of the basic Optical Wavelength Services offering.

- 1. **Policy.** If the Customer experiences performance that does not meet the applicable metrics set out in the following SLAs, then Rogers will issue the Customer a service credit in accordance with the terms of the applicable SLA. All defined terms are set out below.
- 2. **Service Availability and MTTR Commitments.**
 - 2.1 **Service Availability**
 - 2.1.1 **Service Availability Commitment.** Rogers will provide the Customer with an Optical Wavelength Service Availability performance level. Service Availability commitments specifically pertain to a particular Optical Wavelength circuit, between and including the demarcation points, Access Network (where provided by Rogers), and the Rogers Core Network. CPEs and Customer in-

building fibre access are specifically excluded. The Service Availability Commitment can be found in Table 2 below.

- 2.1.2 Service Availability Service Credit. If a Customer believes that Rogers has failed to meet an applicable Service Availability commitment for a particular Optical Wavelength circuit in any given billing month, then the Customer must contact their Rogers’ sales representative and apply for a Service Credit within fifteen (15) Business Days starting from the fifteenth (15th) day of the following billing month. Upon Rogers’ verification that the Service Availability for a particular Optical Wavelength circuit over a given billing month was less than the committed Service Availability metric for reasons other than Acceptable Downtime, Rogers will issue a Service Credit to the Customer. The Service Credit will equal the applicable amount from Table 2 for the monthly recurring charges for the affected Optical Wavelength circuit(s) in the applicable month.

Service Availability		
	Metric	Service Credit
Optical Wavelength Service	99.90%	10% of the monthly recurring Optical Wavelength Services charges for the affected Optical Wavelength circuit(s)

Table 2 – Service Availability Commitment

2.2 Mean Time to Repair (MTTR)

- 2.2.1 MTTR Commitment. Rogers will provide the Customer with two types of MTTR performance levels: Network MTTR, which is only valid for Service Outage Time between Network Access Points (NAPs); and Fibre MTTR, which is valid between and including the demarcation points, Access Network (where provided by Rogers) and the Rogers Core Network. CPEs and Customer in-building access are specifically excluded from both the Network MTTR and the Fibre MTTR. MTTR commitments only apply to Customer locations that are within fifty (50) km or thirty (30) miles of a Rogers NAP. The MTTR guarantees can be found in Table 3 below.

- 2.2.2 MTTR Service Credit. If a Customer believes that Rogers has failed to meet an applicable MTTR Commitment in any given billing month, then the Customer must contact their Rogers’ sales representative and apply for a credit within fifteen (15) Business Days starting from the fifteen (15th) day of the following billing month. Upon Rogers’ verification that an MTTR Commitment for the Optical Wavelength Services over a given month was greater than the committed MTTR metric for reasons other than Acceptable Downtime, Rogers will issue a Service Credit to the Customer. The Service Credit will equal the applicable amount from Table 3 for the monthly recurring charges for the affected Optical Wavelength circuit(s) in the applicable month.

MTTR		
Type	Metric	Service Credit
Network	4 hrs.	10% of the monthly recurring Optical Wavelength Services charges for the affected Optical Wavelength circuit(s).
Fibre	12 hrs.	

Table 3 – MTTR Commitment

3. Service Performance Commitments. Service Performance metrics are a measure of how well data travels through the Optical Wavelength Services.

3.1 Latency

- 3.1.1 Latency Commitment. Optical Wavelength Services Latency commitment is listed below in Table 4. Latency metrics are one-way trip measurements. The Optical Wavelength Services will be

configured on the best available network route to optimize latency unless otherwise agreed to in writing by the Customer and Rogers.

- 3.1.2 Latency Service Credit.** If the Customer believes that Rogers has failed to meet its Latency commitment set out in Table 4, the Customer must provide Rogers with details of the Customer data that substantiates the belief and request that Rogers test the circuit. The Customer must cooperate with Rogers’ reasonable requirements and provide access to the service demarcation point upon request in order to retain its rights to any applicable Service Credit. Upon Rogers’ verification that the actual Latency is greater than the committed Latency for reasons other than Acceptable Downtime, Rogers will issue a Service Credit to the Customer as specified in Table 4.

One-way Latency			
	Distance	Metric	Service Credit
	< 150 km	< 1 ms	10% of the monthly recurring Optical Wavelength Services charges for the affected Optical Wavelength circuit(s)
	< 500 km	< 3 ms	
	< 1000 km	< 6 ms	
	< 2000 km	< 12 ms	
	< 3000 km	< 18 ms	
	< 4000 km	< 24 ms	
	< 5000 km	< 30 ms	
	< 6000 km	< 36 ms	

Table 4 – Latency Commitment

3.2 Bandwidth.

- 3.2.1 Bandwidth Commitment.** Rogers commits that 100% line rate Bandwidth will pass through the Rogers Core Network and be delivered to each demarcation point for a particular Optical Wavelength circuit. The Bandwidth performance metric is referenced in Table 5 below.

- 3.2.2 Bandwidth Service Credit.** If the Customer believes that Rogers has failed to meet its Bandwidth commitment set out in Table 5, the Customer must provide Rogers with details of the Customer data that substantiates the belief and request that Rogers test the circuit. The Customer must cooperate with Rogers’ reasonable requirements and provide access to the service demarcation point upon request in order to retain its rights to any applicable Service Credit. Upon Rogers’ verification that the actual Bandwidth being delivered is less than the committed Bandwidth for reasons other than Acceptable Downtime, Rogers will issue a Service Credit to the Customer as specified in Table 5.

3.3 Packet Loss.

- 3.3.1 Packet Loss Commitment.** Rogers commits that the Packet Loss will not exceed the performance metric referenced in Table 5 below.

- 3.3.2 Packet Loss Service Credit.** If the Customer believes that Rogers has failed to meet its Packet Loss commitment set out in Table 5, the Customer must provide Rogers with details of the Customer data that substantiates the belief and request that Rogers test the circuit. The Customer must cooperate with Rogers’ reasonable requirements and provide access to the service demarcation point upon request in order to retain its rights to any applicable Service Credit. Upon Rogers’ verification that the actual Packet Loss is greater than the committed Packet Loss for reasons other than Acceptable Downtime, Rogers will issue a Service Credit to the Customer as specified in Table 5.

Service Performance		
SLA	Metric	Service Credit

Packet Loss	<0.01%	10% of one month's Optical Wavelength charges for the affected Optical Wavelength circuit(s)
Bandwidth	100%	

Table 5 – Service Performance Commitments

Definitions

The following definitions are used in relation to Optical Wavelength. Any capitalized terms not defined below are defined in the Agreement.

1. Acceptable Downtime. In calculating whether or not Rogers has met its Service Level Agreements in any specific month, Service Outage Time for any of the reasons set out below will not be factored into the SLA calculations:
 - a) Customer delays including, but not limited to: (i) acts or omissions by the Customer, its agents or vendors; (ii) inaccurate, incomplete or changes to previously accepted orders; (iii) unavailable and/or faulty Customer premises, unavailable and/or faulty Customer premise equipment (CPE) and/or facilities necessary to install the Services; or, (iv) extension of demarcation point by Customer without Rogers approval;
 - b) during an event of Force Majeure, as set out in the Agreement;
 - c) Customer's failure to materially comply with its obligations as defined in the Agreement, including failure to pay valid past-due amounts; order suspensions due to Customer's credit worthiness;
 - d) during Scheduled Maintenance;
 - e) troubles resolved as "No Trouble Found";
 - f) time attributed to Customer's delay in responding to Rogers requests for assistance to repair an Out of Service event;
 - g) the failure of any Customer owned and maintained equipment on the Customer's premise, beyond the local demarcation device;
 - h) hardware, operating system, and application failures or security breaches on LAN components, WAN components, servers, or workstations that were not configured by Rogers;
 - i) failures or security breaches caused by improper use, improper care, or damage to Rogers equipment by the Customer's employees or a third party;
 - j) failures or security breaches caused by the movement of Rogers equipment by the Customer or a third party, electrical and power irregularities, or abnormal use; or
 - k) failures or security breaches, where an Rogers device's configuration, IOS/Software, or hardware has been modified by the Customer or a third party.
2. Bandwidth - means the bit rate of the Customer subscribed service. Bandwidth is measured as bits per second (bps).
3. Business Day – means Monday to Friday inclusive, excluding statutory holidays observed in the Province of Ontario.
4. Business Hours – means 8:00am to 5:00pm local time on a Business Day.
5. Core Network – means the Rogers core network. This includes all network infrastructure between, and including the Network Access Points.
6. Latency – means the measure of total time taken for a packet to travel one-way from demarcation "A" to the destination demarcation "Z". The main sources of latency are processing delays in the network elements and propagation delay along the transmission medium. Service latency is calculated as the median value (50th) percentile of a cumulative distribution of all source-to-destination latency probes calculated during a testing period.
7. Mean Time to Repair (MTTR) – means the average length of time it took to repair Optical Wavelength Services during a specific month. MTTR metrics are based solely on the Service Outage Time statistics

collected by the Rogers Trouble Reporting System (TRS). Rogers's MTTR structure comprises of two components; Network and Fibre. Network MTTR is only valid for service outage between Rogers Network Access Points (NAP's). Fibre MTTR is valid for any damage between and including the demarcation points, Access Network (where provided by Rogers) and the Rogers Core Network. MTTR is calculated with the following formula:

$$\text{Mean Time to Repair} = \frac{\text{Network outage time in one month (hours)}}{\text{Number of trouble tickets issued in that month}}$$

8. No Trouble Found – means Customer reports a problem that cannot be duplicated by Rogers, after reasonable efforts to do so. For example, a Customer reports an Out of Service condition, but Rogers sees the Services up and active with no evidence of a recent outage.
9. Out of Service - When a specific Customer access is unable to transmit or receive data, an “Out of Service” condition will be recorded for the specific Customer access in the Rogers Trouble Reporting System. Following Customer notification, a Rogers’ technician will validate the outage and will manually declare an Out of Service condition in the Rogers Trouble Reporting System.
10. Packet Loss - means the percentage of service frames not successfully delivered between demarcation points over the Optical Wavelength Services during a testing period.

Packet Loss is expressed as a percentage and calculated as follows:

$$\text{Packet Loss} = \left(1 - \frac{\text{Number of frames delivered to destination}}{\text{Number of frames sent to the destination}} \right) \times 100$$

11. Scheduled Maintenance. Scheduled Maintenance means any maintenance activities performed on the Rogers network to which Customer's facilities are connected provided that Customer shall be given at least ten (10) days' advance notice of such maintenance activities. Such activities are typically performed during the standard maintenance window on Mondays to Fridays, 00:01 and 6:00 am local time.
12. Service Availability - means the percentage of time in a given month that a specific Optical Wavelength circuit was available for useful transmission. Service Availability metrics are measured against service outage time statistics collected by the Rogers TRS.

Service Availability is expressed as a percentage and calculated as follows:

$$\text{Service Availability} = \frac{(\text{Total amount of circuit time in a specific month (minutes)} - \text{Total validated outag time (minutes)})}{\text{Total amount of circuit time in a specific month (minutes)}} \times 100$$

13. Service Outage Time – Total time during a specific calendar month that a specific Optical Wavelength circuit is unable for the Customer’s use, excluding Acceptable Downtime. Service Outage Time is the total of all recorded Out of Service conditions collected by the Rogers Trouble Reporting System (TRS) for a particular Optical Wavelength circuit during a specific month.
14. Site. A Site means a geographic location where one or more of the Customer’s Services is delivered.

LTE Fixed Wireless Access

The following terms pertain specifically to LTE Fixed Wireless Access supplied by Rogers to you. LTE Fixed Wireless Access Services which provide high speed wireless access and connection to the Internet utilizing the Rogers LTE wireless network. LTE Fixed Wireless Access Services have the following features:

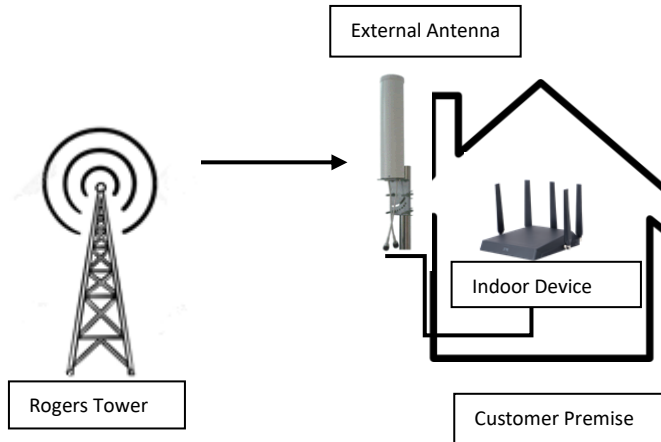
1. **Wireless Connectivity:** The LTE Fixed Wireless Access Services are delivered by connecting Customer end-user devices wirelessly to a Rogers-provided router-modem device, which in turn connects to the Internet via the Rogers Wireless Network, as shown in Diagram 1 below. The connection speed between the Customer's end-user devices and the Internet is up to 25Mbps download and up to 10Mbps upload. The Customer will purchase a monthly data package as specified in a Product Quotation. Where the Customer's monthly usage exceeds the amount included in the specified data package, the Customer will automatically flex to the next data tier, as indicated in Table 1 below. Where a percentage discount on the standard data package monthly recurring charges is mentioned in the Product Quotation, such percentage discount will be applied to the rates below. The amount paid by the Customer in a given month will be based on the actual data usage for the previous month.

Data Included in Flex Plan Tier	Monthly Recurring Charge
10 GB	\$99.99
20 GB	\$129.99
100 GB	\$199.99
250 GB	\$349.99
500 GB	\$449.99

Table 1: LTE FWA Flex Plan Tiers

2. **Equipment Rental.** The Monthly Recurring Charges set out in the Product Quotation includes a separate line item for the monthly rental charges of one (1) modem-router and one (1) network antenna per fixed wireless connection. The rented equipment constitutes Rogers Equipment, as defined in the Agreement.
3. **Enhanced Security.** LTE Fixed Wireless Access Services include Enhanced Security, which leverages a foundational component of the Internet called Domain Name Server (DNS). DNS is a system that automatically translates Internet addresses to the numeric addresses used by computers, smartphones, and tablet devices. Enhanced Security manages a dynamic list of known Internet addresses that have security threats, updated in near real time. When an attempt is made to connect to a compromised site, the connection is not completed and the "blocked" page notice is shown.
4. **IP Addresses.** Each LTE Fixed Wireless Access connection is provided with one (1) public IP address.
5. **Support.** Rogers will provide installation and ongoing service support to the Customer through its Service Delivery and Customer Care organization. The Customer can contact Rogers Customer Care for LTE Fixed Wireless Access at 1-877-274-3375.

Diagram 1 – LTE Fixed Wireless Access Network Architecture



Product Terms and Conditions

1. **Termination Fees.** If the Customer terminates one or more LTE Fixed Wireless Access connection for any reason other than for cause as permitted under the Agreement, or if Rogers terminates the LTE Fixed Wireless Access for cause as permitted under the Agreement, the Customer shall pay to Rogers, as liquidated damages and not as a penalty, a termination fee which is an amount that is equal to the sum of:

- (i) \$50.00 per month remaining in the Service Term (plus applicable taxes), and applies for each connection that is deactivated;
- (ii) the amount equal to the aggregated total of any credits (activation, conversion, renewal or otherwise) or any waived or discounted charges or any other form of economic inducement provided to Customer in consideration of the Customer’s Service Term, prorated by the number of months remaining under the Service Term as follows: the total of the above mentioned credit amounts at the time the Line was activated divided by the total number of months in the Service Term and then multiplied by the number of months remaining in the Service Term.

Where the Customer terminates the LTE Fixed Access Services prior to the expiration of the applicable Line Term, the Customer must either return all Rogers Equipment associated with the LTE Fixed Access Services to Rogers or pay Rogers for the fair market value of such Rogers Equipment.

The parties acknowledge and agree that the Termination Fees are payable by the Customer as a genuine pre-estimate of liquidated damages and not as a penalty. Such Termination Fees shall be invoiced on the effective date of any and all terminations and are payable in accordance with the terms of the Agreement.

2. **Invoicing.** Monthly recurring charges for LTE Fixed Wireless Services are invoiced monthly, in arrears each month based on the Customer’s data usage in the previous month. Charges for LTE Fixed Wireless Services will commence as of the Service Effective Date. In the first month the charges may be prorated for the number of days in the month after the Service Effective Date.

3. **Additional Charges.** The following circumstances may give rise to additional charges to be paid by the Customer in respect of the LTE Fixed Wireless Services:

- **Missed Appointments:** Customer must be at the Site at the agreed upon date and time for access to the location by the installation technician. If the installation technician arrives at the Site and there is no access, a missed appointment fee of \$500.00 will be charged.
- **Cancellations/Postponements:** A \$500.00 cancel-before-start fee will be charged for orders or install appointments cancelled or postponed within two (2) Business Days prior to the scheduled installation date.
- **Failure to Provide LOA:** If an installation is not possible owing to Customer’s failure to provide a signed Letter of Authority (LOA), as described below, prior to the installation time for a particular Site, the \$500 cancel-before-start fee will apply.

- **Additional Wiring Cost:** If Rogers accepts an order for installation that requires wiring and other installation costs that exceed Rogers' then-current capital investment threshold amount ("**CITA**") (which as at the Service Effective Date is \$1,500) at any particular Site, Rogers will notify Customer of the estimated cost differential – ie: the estimated differential amount above the CITA. If Customer wishes to proceed, in addition to the standard installation and other fees set out in the Product Quotation, Customer shall pay Rogers that portion of actual out-of-pocket costs that exceed the then current CITA.
 - **Additional Work.** Work requested by Customer and performed by Rogers or its sub-contractors that is outside the scope of this Product Schedule will be billed to Customer at Rogers' then current time and material rates. Work requested and performed outside of Rogers' Business Hours will be subject to an additional charge, to be quoted upon request.
4. **Failed Installation.** For reasons including, but not limited to, external or internal building factors, line of sight or unique atmospheric conditions, Rogers may be unable to install the LTE Fixed Wireless Access Services at the Customer's Site in a manner that is consistent with the expected service experience described in this Product Schedule. If, after reasonable efforts by both Rogers and Customer, this situation occurs, the delivery of the LTE Fixed Wireless Access Services will be considered a failed installation and the Customer will be released from any obligation to purchase, and Rogers will be release from any obligation to deliver, the LTE Fixed Wireless Access Services at such Site, without any liability.
 5. **Equipment Configuration.** The router-modem, external antenna and other hardware devices are configured to provide the maximum connection capabilities between the Customer's end-user devices and the Rogers Wireless Network. Actual connection speeds may vary with Internet/network traffic, environmental or other factors.
 6. **Service Orders.** Customer may: (i) order LTE Fixed Wireless Access Services for new or existing Sites; and (ii) order changes or additions to previous orders at existing Sites; in each case by signing a Product Quotation specifying the LTE Fixed Wireless Access Services to be ordered, changed, or added, as the case may be.
 7. **Letter of Authority.** For each Site not owned by the Customer, prior to the scheduled LTE Fixed Wireless Access Services installation date, the Customer is responsible for assisting Rogers to secure a Letter of Authority from the Site's owner or landlord in the form and content that Rogers reasonably requires, authorizing Rogers to install the LTE Wireless Access Services and associated Rogers Equipment at the Site.
 8. **Changes to Services.** The LTE Fixed Wireless Access Services to be provided on the Service Effective Date are described herein, however, they may be slightly changed from time to time. For the most up-to-date description of LTE Fixed Wireless Access Services check www.rogers.com/business. The Customer's experience of LTE Fixed Wireless Services may vary from Site to Site depending on the location of the Site and the time of provisioning.
 9. **Suspension of Services.** The Customer may request that a LTE Fixed Wireless Access Services on one or more connections be temporarily suspended, provided that the Service Term for each such connection have been active for a minimum of six (6) months at the time the request is made. During any such suspension, the Customer will pay \$39.00 per month per suspended connection.
 10. **Fair Usage.** The LTE Fixed Wireless Access Services include a fair data usage policy. If a single LTE Fixed Wireless Access connection exceeds 2TB of data usage per month, Rogers reserves the right to suspend the impacted Services and/or charge the Customer a reasonable overage charge for data usage in excess of 2TB per month.
 11. **Data Rounding and Rating.** Actual billed rates for data usage may vary from those quoted as a result of, without limitation, rounding and usage patterns. Customer agrees that, to the extent there is any dispute as to the amount of data transmitted to and from a single LTE Fixed Wireless access connection in a particular period of time, then the amount of data transmitted as calculated by Rogers' systems shall govern.
 12. **Rogers Facilities.** The LTE Fixed Wireless Access Services will be provided to Customer using the Rogers Wireless Network where the Customer's Site is located within the area that Rogers provides the LTE Fixed Wireless Access Services (which area may be enlarged or reduced in scope from time to time by Rogers in its sole discretion). The Customer acknowledges that the geographic areas within which Rogers provides different LTE Fixed Wireless Access Services may vary. Customer acknowledges and agrees that Rogers reserves the

right in its discretion and without notice to Customer, from time to time to make changes in any aspect of the Rogers Wireless Network.

In addition to Rogers' rights set forth in the Agreement, Rogers shall have the right to suspend all or part of the LTE Fixed Wireless Access Services or access to the LTE Fixed Wireless Access Services immediately if Rogers reasonably suspects or determines that there is a malfunction, abuse, incorrect configuration or use of the devices, Rogers Equipment, the LTE Fixed Wireless Access Services, or the Rogers Wireless Network. Customer agrees that, to maintain or improve service, or for other business reasons, Rogers may at its sole discretion modify or temporarily restrict or suspend all or part of the LTE Fixed Wireless Access Services without notice.

Customer acknowledges that the LTE Fixed Wireless Access Services are subject to transmission limitations caused by atmospheric or topographical conditions or equipment failures beyond the reasonable control of Rogers. The LTE Fixed Wireless Access Services may be temporarily refused, interrupted or curtailed due to governmental regulations or orders, system capacity limitations or equipment modifications, upgrades, reallocations, repairs, maintenance and similar activities necessary for the proper operation of the LTE Fixed Wireless Access Services.

13. **NO WARRANTY.** CUSTOMER ACKNOWLEDGES AND AGREES THAT THE SERVICES AND ALL DEVICES, OTHER ROGERS EQUIPMENT AND THIRD PARTY SERVICES ARE PROVIDED BY ROGERS "AS IS" AND "AS AVAILABLE" AND, TO THE EXTENT PERMITTED BY LAW, WITHOUT WARRANTY BY ROGERS OF ANY KIND WHATSOEVER, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, INFRINGEMENT, OR THOSE ARISING FROM A COURSE OF DEALING OR USAGE OF TRADE. WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, ROGERS SHALL HAVE NO LIABILITY WHATSOEVER TO CUSTOMER FOR: (I) ANY INTERRUPTIONS OR DISRUPTIONS OF THE SERVICES, THE INTERNET OR THE THIRD PARTY SERVICES OR ANY OTHER DAMAGES SUFFERED BY CUSTOMER WHICH ARE CAUSED BY DIRECTLY OR INDIRECTLY BY ANY FAILURES OF THE DEVICES, OTHER ROGERS EQUIPMENT, THE SERVICES, THE ROGERS WIRELESS NETWORK, THE INTERNET OR THE THIRD PARTY SERVICES; (II) ANY POWER FAILURES; (III) ANY ACTS OR OMISSIONS OF CUSTOMER OR ITS OFFICERS, EMPLOYEES, AGENTS OR CONTRACTORS INCLUDING, WITHOUT LIMITATION, DEFAMATION OR COPYRIGHT INFRINGEMENT; (IV) ANY DISRUPTION OF ANY PART OF THE EQUIPMENT USED TO PROVIDE THE SERVICES BY PARTIES OTHER THAN ROGERS; (V) ANY INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS ARISING FROM OR IN CONNECTION WITH CUSTOMER'S USE OF THE DEVICES, OTHER ROGERS EQUIPMENT, THE SERVICES OR THE THIRD PARTY SERVICES; (VI) ANY EVENT OF FORCE MAJEURE, AS DESCRIBED IN THE AGREEMENT; OR (VII) ANY SUSPENSION OR TERMINATION OF THE SERVICES FURTHER, TO THE EXTENT PERMITTED BY LAW, ROGERS DOES NOT WARRANT THE PERFORMANCE, AVAILABILITY, UNINTERRUPTED USE OF OR OPERATION OF THE INTERNET OR CUSTOMER'S CONNECTION TO THE INTERNET. ROGERS DOES NOT WARRANT THAT ANY DATA OR FILES SENT BY OR TO CUSTOMER (WHETHER BY E-MAIL OR OTHERWISE) WILL BE TRANSMITTED, TRANSMITTED IN UNCORRUPTED FORM, OR TRANSMITTED WITHIN A REASONABLE PERIOD OF TIME.

Service Levels Objectives

1. Purpose

These Service Level Objectives sets out Rogers' objectives with regards to the LTE Fixed Wireless Access.

Rogers may update these Service Level Objectives from time to time without prior notice to the Customer.

2. Service Level Objectives

2.1 Mean Time to Respond (MTTR)

2.1.1 MTTR Objective. Rogers offers the Customer with a Mean Time to Respond (MTTR) performance objective that measures the duration of time that the Rogers Equipment that connects a Customer Site to the Rogers Wireless Network is Out of Service, as set out in Table 2 below. Such Rogers Equipment encompasses all elements from, and including, the router-modem to the network antenna located at the Customer Site. Customer Premise Equipment (CPE) is not considered as part of the network access. MTTR objectives are based on the location of the Customer's

Site. MTTR objectives only apply to Customer Sites that are within one hundred and fifty (150) km of a Rogers' Tech Support dispatch location.

TABLE 2: Mean Time to Respond Objective

Access Type	Monthly MTTR Objective	Service Credit
LTE Fixed Wireless Access	< 4 h	N/A

Mean Time to Respond (MTTR) is measured by calculating the average length of time it took to respond to a particular Customer access issue during a specific month. MTTR metrics are measured solely against Out of Service conditions on the applicable Rogers Equipment. MTTR metrics are based solely on Out of Service statistics collected by the Rogers Trouble Reporting System (TRS), and exclude the following:

- (i) an event of Force Majeure or other event beyond the reasonable control of Rogers;
- (ii) the LTE Fixed Wireless Access Services are not available or the Customer end-user devices are unable to transmit data traffic due to the failure, malfunction or (including, without limitation, any applications or software thereon) or any other applications, systems or equipment not owned or controlled by Rogers including, without limitation, Customer's Internet Service Provider connections;
- (iii) individual Customer end-user devices are unable to transmit and/or receive data due to reasons other than a Rogers Wireless Network outage affecting the LTE Fixed Wireless Access Services; or
- (iv) the Rogers Wireless Network was unavailable due to planned, routine or emergency maintenance.

2.2 Installation Interval

Rogers aims to install a LTE Fixed Wireless Access connection within fifteen (15) Business Days of receiving a signed Customer agreement, where the Customer owns the Site where the LTE Fixed Wireless Access will be installed. Additional LTE Fixed Wireless Access connections ordered on a single Customer agreement and installation of LTE Fixed Wireless Access to a Site not owned by the Customer will be subject to longer lead-times.

2.3 Device Monitoring

Rogers will monitor the status of the router-modem and network antenna installed as part of the LTE Fixed Wireless Access, and will aim to notify the Customer via a designated email within twenty (20) minutes of identifying any of the following:

- Device is offline
- Device has been moved from original installation location
- Device's operating temperature is above or below optimal thresholds; or
- Device is below the minimum threshold for sending or receiving wireless signals.

Definitions

The following definitions are used in relation to LTE Fixed Wireless Access. Any capitalized terms not defined below are defined in the Agreement.

1. Business Day – means Monday to Friday inclusive, excluding statutory holidays observed in the Province of Ontario.
2. Business Hours – means 8:00am to 5:00pm local time on a Business Day.

3. LTE – means Long Term Evolution, a wireless communications standard otherwise known as 4G which provides faster data connection speeds.
4. Rogers Wireless Network – means the Rogers-owned wireless transmission facilities.
5. Site - means a geographic location where one or more of the Customer's LTE Fixed Wireless Access Services is delivered.