**SERVICE SCHEDULE**

**HOSTING SERVICES**

**CUSTOMER** (“**Custome**r”): enter cUSTOMER name here

This Hosting Services Service Schedule (“Service Schedule”) shall be governed by and subject to the applicable Master Service Agreement (“MSA”) between Allstream Business Inc. and/or Allstream Business US, LLC. through its subsidiaries (“**Allstream**”). If the Customer has not executed an MSA then this Service Schedule shall be governed by the terms and conditions of Allstream’s standard MSA as posted on www.allstream.com incorporated herein by this reference and available upon request. Capitalized terms not defined herein will have the meaning ascribed to them in the MSA. Allstream and Customer may be referred to herein as a “Party” and collectively as the “Parties.”

This Service Schedule contains detailed information relating to the provisioning of communications services (“Services”) as purchased by Customer from time to time by way of an Allstream approved Service Order.

Processes, procedures and additional detail regarding the specifications in the Service offerings are set forth in the services guide (‘Service Guide”), which is available to Customer at <https://viewpoint.sungardas.com/> (“portal”). Customer will receive access to the portal upon completion and full execution of the Service Order. Upon receiving access, Customer agrees to enter the portal and subscribe to the Services Guide in accordance with the instructions specified in the portal and shall provide an email address(es) electronically so that notices of changes to the Services Guide will automatically be sent to the email address(es) provided. The email will notify Customer that the Services Guide has changed and upon accessing the Services Guide, the cover page will indicate the sections of the Services Guide that have been modified, deleted or added.

## The Services purchased by Customer from Allstream pursuant to the Service Order are described herein and are as follows:

1. **Data Centre Space**

Allstream hereby grants to Customer in accordance with the terms and conditions set out in the Agreement the right to use certain space as designated by Allstream in the designated facility (“Designated Facility”) for the placement and maintenance of the computer and communications equipment specified in the Service Order (“Equipment”) (“Space”). This includes:

* Conditioned power utilizing UPS systems with backup power generator capability (“Infrastructure”);
* The Space will be in secure facilities monitored seven (7) days a week, twenty-four (24) hours a day, three hundred and sixty-five days (365) a year (‘24x7x365”) by on-site staff with card key access and closed circuit TV monitoring; and
* Janitorial services, environmental systems maintenance, power plant maintenance, and other services as are reasonably required to maintain the Designated Facility in which the Space is located in good condition suitable for the placement of Equipment.

The Equipment and any necessary software (“Software”) may be provided by Customer (“Customer-provided Equipment” or “Customer-provided Software”) or by Allstream (“Allstream-provided Equipment” or “Allstream-provided Software”) as specified in this Service Schedule.

Allstream will provide to Customer (including any of its employees, agents and other authorized representatives as Customer may from time to time reasonably designate in writing), access to the part of the Designated Facility from which Allstream is providing the Space, twenty-four (24) hours per day, seven (7) days per week, including statutory holidays. All of Customer’s designees shall adhere to Allstream’s policies and the terms and conditions of this Agreement. Customer’s access to the Space shall be by escort by an Allstream employee or Allstream designated representative.

Customer represents and warrants that it will not materially diminish such Infrastructure at the Designated Facility.

Allstream reserves the right to change the location or configuration of the Space, at Allstream’s sole discretion, within the Designated Facility or to another facility. Allstream and Customer shall work in good faith to minimize any disruption to the Services that may be caused by such change in location or configuration of the Space. If the location of the Space is to be moved to another facility, Allstream shall provide Customer with at least sixty (60) days prior written notice of such relocation and Customer shall have the right to (a) elect to be relocated to another facility, or (b) elect to terminate the Service Order without penalty other than payment of fees then owing by Customer for Services provided to the date of any such termination. Customer shall provide Allstream with written notice of its decision regarding the preceding sentence within fifteen (15) days after receipt of Allstream’s written notice. In addition, Allstream at its sole discretion reserves the right to upgrade or modify the Infrastructure used to provide the Services provided that any such change will not adversely affect Customer’s environment in the Space.

**1.2 Customer’s responsibilities:**

In addition to Customer’s requirements contained in the Agreement, Customer’s requirements specific to this Service Schedule are as follows:

* Customer shall keep the Space clear of all refuse, cardboard or any potentially hazardous material.
* Customer shall maintain the Space in an orderly and safe condition.
* Customer shall return the Space to Allstream at the expiry or termination of this Service Schedule in the same condition (reasonable wear and tear excepted) as when such Space was delivered to Customer.
* At its sole risk and expense, Customer shall be responsible for installation of Customer-provided Equipment in the Space unless Customer elects to contract for Hardware Installation Services as defined herein.
* At its sole risk and expense, Customer shall be responsible for installation of Customer-provided Software in the Space.
* Upon termination or expiration of this Service Schedule, Customer shall be responsible for removal of Customer-provided Equipment and Customer-provided Software from the Space within thirty (30) days of such termination or expiration.
* Customer shall abide by any posted rules relating to the use of, access to, or security measures respecting the Space, the Designated Facility and or the Services.
* The Equipment shall be installed, operated, inspected, maintained, repaired, replaced and removed only by qualified agents of Customer who are properly licensed, if applicable, a list of whom shall be provided to Allstream in advance of such activity.
* Customer shall not permit any liens to be placed against all or any portion of the Space or any Allstream-provided Equipment and or Allstream-provided Software.
* Customer shall not make any alterations to the Space without prior written consent of Allstream.
* In the event that unauthorized parties gain access to the Space or the Designated Facility through access cards, keys or other devices provided to Customer (“access devices”), Customer shall be responsible for all liability and damages incurred as a result thereof.
* Customer shall be responsible for the cost of replacing any access devices lost or stolen after delivery thereof to Customer.
* Customer acknowledges that the Space shall be used in accordance with the equipment vendor’s specifications for electrical, airflow and clearance. If Customer desires to install Equipment in the Space that exceeds the vendor specification(s), Allstream reserves the right to require Customer to contract for additional Space.
* In all cases where Customer houses Equipment that is not owned by Allstream at the Designated Facility Customer shall, at its sole cost and expense, maintain during the Term of the Service Order the following insurance coverage with insurers licensed to do business in Canada:

(a) Commercial general liability insurance in an amount of two million dollars ($2,000,000) per occurrence including:

1. Allstream added as an additional insured; and
2. a waiver of subrogation clause in favour of Allstream;

(b) All Risk Property insurance insuring all of Customer’s Hardware or property situated on or within the Designated Facility on a replacement cost basis; and

(c) Customer shall provide to Allstream a certificate of insurance confirming the coverage specified in subsections (a) and (b) above prior to the commencement of this Service Schedule. Such certificate of insurance will include a requirement for Allstream to be given at least thirty (30) days prior written notice of any cancellation of the required insurance.

Space options: Customer may subscribe to any of the following options available and relating to the Space:

* 1. **Allstream-provided** **19” Cabinet**

Allstream will provide a 19” cabinet (“19” Cabinet”) which includes:

* A minimum of 42 U EIA rack space for the Equipment;
* Proper air ventilation for the Equipment;
* Two (2) stationary equipment shelves; and
* Security by lock and key, managed by Allstream.
  1. **Secure Cabinet**

The secure cabinet (“Secure Cabinet”) option includes:

* Fifteen (15) square feet of Customer Area to support an Allstream-provided full cabinet;
* Allstream-provided 19” Cabinet (as defined above);
* Space to support the Allstream-provided cabinet, including shared space in keeping with standard industry practices, in the aisles in the front and back of the cabinet to allow access to the cabinet; and
* The redundant power configuration as set forth in Section 2. Power.

**1.5** **Secure Space**

The secure space (‘Secure Space”) option includes the amount of Space in the square feet increments defined in the Service Order and:

* One (1) Standard Power Circuit (as defined herein) per twenty-five (25) square feet of Space defined for the Secure Space option in the Service Order, OR
* One (1) Standard Power Circuit (as defined herein) for each cabinet installed in the Secure Space; and
* Five (5) hours of Operational Support Services (as defined herein) per month (non-cumulative).
  1. **Secure Cage**

The secure cage (“Secure Cage”) option includes the amount of Space defined in the Service Order or the amount of Space necessary to install the number of cabinets as specified in the Service Order, and:

* Perimeter metal fence with an access door;
* Security by lock and key, managed by Allstream;
* One (1) Standard Power Circuit (as defined herein) per twenty-five (25) square feet of Space defined for the Secure Cage option in the Service Order, OR
* One (1) Standard Power Circuit (as defined herein) per cabinet installed in the Secure Cage; and
* Five (5) hours of Operational Support Services (as defined herein) per month (non-cumulative).
  1. **Secure Suite**

The secure suite (“Secure Suite option includes the amount of Space for the number of cabinets specified in the Service Order, and:

* Perimeter metal fence or perimeter walls with an access door;
* Private security with card key and pin code or by lock and key;
* One (1) Standard Power Circuit (as defined herein) per twenty-five (25) square feet of Space defined for the Secure Suite option in the Service Order, OR
* One (1) Standard Power Circuit (as defined herein) for each cabinet installed in the Secure Space; and
* Ten (10) hours of Operational Support Services per month (non-cumulative).
  1. **Secure Hosting Bundle**

The Secure Hosting Bundle option includes:

* One (1) Allstream-provided 19” Cabinet (as defined herein);
* Space to support the Allstream-provided 19” Cabinet;
* Allstream-provided Management switch infrastructure to support the initial eighteen (18) 10/100 fast ethernet switch ports to facilitate the Services set forth in the Service Order;
* Standard Monitoring Services (as defined herein) for up to ten (10) devices;
* Five (5) hours of Operational Support Services (as defined herein) per month (non-cumulative); and
* The redundant power configuration as set forth in the Service Order with the corresponding voltage (“V”) and amperage (“A”).

For Equipment that is not rack mountable, Allstream will provide power in accordance with Equipment manufacturer specifications. Equipment capable of supporting redundant power will be provided with redundant power feeds upon Customer’s written request as approved by Allstream and in which event additional power charges will apply for such redundant power feeds as determined by Allstream at its sole discretion.

At Allstream’s sole discretion, any cabling required to inter-connect any Customer-provided or Allstream-provided 19” Cabinet(s) may require the use of industry standard patch panels. If Allstream in its sole discretion determines that patch panels are required, Allstream reserves the right to install mutually agreed upon patch panel infrastructure and in such event patch panel charges may apply as determined by Allstream in its sole discretion.

1. **Power**

Allstream will provide Customer with the power configuration within the Designated Facility as specified in the Service Order. With respect to one hundred and twenty (120) volt power, Allstream will provide the power feed(s) with a minimum of a twelve (12) outlet power strip. If Customer requires a power strip for two hundred and eight/two hundred and twenty (208/220) volt power feed(s), Customer is responsible for providing the necessary 19” EIA rack-mounted power strip.

Customer is responsible to ensure that the total of the manufacturer's rated amperage for all Equipment on any single Customer circuit does not exceed the amperage size of that circuit.

Allstream may during the term of this Service Schedule increase the Monthly Fees associated with the power infrastructure as set out in the Service Order, once during any contract year of the term of this Service Schedule by providing Customer with thirty (30) days prior written notice, if the underlying utility provider increases Allstream’s fees. Allstream reserves the right to determine, in its sole reasonable judgment, its ability to allow Customer to contract for additional power based upon the then available power at the Designated Facility.

Allstream reserves the right exercisable upon providing Customer upon seven (7) business days prior written notice to audit power consumption of Customer relating specifically to the Services provided under this Service Schedule and Service Order. If during such audit, Allstream determines (a) that a Customer is using redundant power in a non-redundant fashion; or (b) a Customer is drawing more power than specified in the Service Order, then Allstream shall notify Customer in writing and Customer shall have seven (7) business days to either balance or reduce its power loads respectively, or request an upgrade from Allstream to provide additional capacity.

* 1. **Standard Power Circuit**

As used in this Service Schedule, a Standard Power Circuit is a single one hundred and twenty (120) volt, twenty (20) AMP power feed (“A-side Circuit”).

* 1. **Power Infrastructure Upgrade B-Side**

Allstream will provide a redundant power circuit (“B-Side Circuit”) to Customer’s a-side circuit (“A-Side Circuit”) as specified in the Service Order with the corresponding voltage (“V”) and amperage (“A”).

**2.3** **Power Infrastructure Upgrade (Additional Power)**

The power infrastructure upgrade (‘Power Infrastructure Upgrade”) option(s) provides Customer with: (i) additional non-redundant A-Side Circuit(s); or (ii) additional power capacity, as specified in the Service Order on both the A-side and B-side, with the corresponding voltage (“V”) and amperage (“A”).

1. **Network Services**

Network services (‘Network Services”) include those network services and Internet Access Services (as defined herein) specified in the Service Order. Network Services are only available to a Customer who has subscribed to other Services under this Service Schedule.

The Network Services shall be made available to Customer on an exclusive 24x7x365 basis, excluding downtime attributable to previously scheduled routine and preventative maintenance. All circuits will be connected between the entry point on the Allstream network, as designated and coordinated by Allstream (“point of presence”) and the Designated Facility specified in the Service Order.

Internet access services provide Customer with access to the Internet from the Designated Facility specified in the Service Order (“Internet Access Services”). The Internet is not owned, operated, or managed by, or in any way affiliated with, Allstream or any of Allstream’s affiliates. The Internet is an international computer network of both federal and non-federal inter-operable packet switched data networks. Allstream cannot and will not guarantee that the Internet Access Services will provide Internet access that is sufficient to meet Customer’s needs. Customer agrees that its use of the Internet is solely at its own risk and is subject to all applicable local, provincial, national and international laws and regulations (“Applicable Laws”). Customer represents and warrants that it will comply with all Applicable Laws in its use of the Internet Access Services.

Network addresses assigned from an Allstream IP network block are non-portable. Network space allocated to Customer by Allstream must be returned to Allstream in the event Customer discontinues Internet Access Services as defined in this Service Schedule for any reason, or upon expiration, termination or cancellation of the Service Order.

Customer hereby acknowledges receipt of Allstream’s policies and agrees to comply with such policies at all times while utilizing the Network Services. Customer acknowledges that Allstream may from time-to-time revise its network policies, which revisions will be communicated to Customer in writing, by posting at <https://viewpoint.sungardas.com/> or via email notification. Customer also acknowledges that a breach of any of the network policies may result in the termination of the Network Services if any such breach is not cured within twenty-four (24) hours of Allstream’s written notice of such breach to Customer. Allstream shall have no liability to Customer for any restriction or termination of the Network Services pursuant to Customer's violation of the network policies.

1. **Managed Internet Access Services**

Allstream will provide Customer with a dedicated IP connection of committed bandwidth tier level as selected by Customer (“Committed Bandwidth Tier Level”). Customer can contract to burst above the selected Committed Bandwidth Tier Level up to the burstable limit set forth in the Service Order (“Incremental Burstable Limit”), subject to available bandwidth on Allstream’s network. Customer’s selected Committed Bandwidth Tier Level as well as the associated incremental burstable usage fees (“Incremental Burstable Usage Fee”) are specified in the Service Order. Customer’s monthly billing is based on the Committed Bandwidth Tier Level and the actual level of sustained burstable usage (“Burstable Usage”). An Incremental Burstable Usage Fee will be charged for each Mbp(s) exceeding the contracted Committed Bandwidth Tier Level. All Incremental Burstable Usage Fees are invoiced monthly in arrears.

Customer's burstable usage (“Burstable Usage”) level is determined by traffic samples taken every five (5) minutes over the course of a month. The traffic samples are ranked from highest to lowest with the top five percent (5%) discarded to account for temporary traffic bursts. The level at which ninety-five percent (95%) of the samples fall will be Customer’s Burstable Usage for that month and will determine Customer’s total Incremental Burstable Usage Fees. Burstable Usage will be determined based upon Customer’s utilization data as maintained by Allstream.

In addition, managed internet access services “(Managed Internet Access Services”) include domain name administration services for up to ten (10) primary and/or secondary Customer domain(s).

**4.1** **Managed Load Balancing Services**

Allstream will provide managed load balancing “Managed Load Balancing”) Services for the number of load balancer devices within a single Designated Facility as specified in the Service Order. This includes:

* Equipment Management Services (as defined herein);
* Standard Monitoring Services (as defined herein);
* Load balancer policy configuration upon Customer’s reasonable request;
* Resolution of load balancer problems; and
* Hardware Installation Services (as defined herein).

**4.2****Geographic Load Balancing Services**

Allstream will provide geographic load balancing (‘Geographic Load Balancing”) Services for the number of load balancer devices situated across multiple Designated Facilities as specified in the Service Order. This includes:

* Equipment Management Services (as defined herein);
* Standard Monitoring Services (as defined herein);
* Load balancer policy configuration upon Customer’s reasonable request;
* Resolution of load balancer problems; and
* Hardware Installation Services (as defined herein).

**4.3 LAN Services**

Allstream will provide lan (“Lan”) Services for the number of LAN devices within a single Designated Facility as specified in the Service Order. This includes:

* Equipment Management Services (as defined herein);
* Advanced Monitoring Services – Device (as defined herein);
* LAN device configuration upon Customer’s reasonable request;
* Resolution of LAN device problems; and
* Hardware Installation Services (as defined herein).

**4.4** **Cross Connect Services**

Allstream shall provide technical support to assist Customer with the provisioning and installation of third party telecommunication circuits procured by Customer or Allstream. This includes:

* Assistance with provisioning third party circuits procured by Customer or Allstream;
* Port connections from Allstream’s network distribution center to the Equipment situated in the Space; and

Cables.

* 1. **Dedicated Transport Services**

Allstream shall provision third party telecommunications circuit(s) for Customer as specified in the Service Order. This includes:

* Provisioning and installation of dedicated third party circuit(s); and
* Port connections from Allstream’s network distribution center to the Equipment situated in the Space.

**4.6 Managed Customer Premise Equipment (“CPE”) Services**

Allstream shall provide managed CPE Services (“Managed CPE Services”) for the network termination equipment located at both the Customer premises and at the Designated Facility defined in the Service Order. This includes:

* Provisioning and installation of the network termination equipment, as required;
* Provisioning of third party telecommunications circuit(s);
* 24x7x365 monitoring and management of the router and circuit(s);
* Performing a physical inventory of the router and circuit termination equipment situated at the Customer premises (such information will be maintained in Allstream’s customer service system);
* The coordination, as necessary, of vendor maintenance with respect to the network termination equipment;
* Advanced Monitoring Services – Device (as defined herein); and
* Equipment Management Services (as defined herein).

1. **Support Services**
   1. **Hardware Installation Services**

Allstream will provide hardware installation services (“Hardware Installation Services”) for the number of devices specified in the Service Order. Hardware Installation Services include the one-time installation of hardware devices and do not include on-going support. This includes:

* Unpacking and installation of the Equipment into nineteen inch (19”) computer racks or cabinets in accordance with hardware vendor’s recommendations and Customer’s requirements as set out in the Service Order;
* Installation of network cables and cross-connects; and
* Floor cut-outs, as necessary.

**5.2** **Operational Support Services**

Allstream will provide Customer with access to technical personnel to assist Customer on a 24x7x365 basis for the number of hours per month (non-cumulative) specified in the Service Order. In the event that Customer exceeds the number of hours indicated in the Service Order in any month during the term of this Service Order, Customer may then elect to have Allstream attempt to resolve the problem on a time and materials basis at Allstream’s then prevailing hourly rate. This includes:

* The execution of a command or series of commands as directed by Customer to determine operating status or to facilitate configuration changes;
* Enlisting of vendor support as requested by Customer and as available pursuant to Customer’s agreement with the applicable vendor;
* Visual inspection of Equipment and power up, restart or reboot as directed by Customer;
* Insertion and ejection of media as directed by Customer; and
* Preparation of media for pickup at the Designated Facility as requested by Customer.
* Customer is responsible for providing all media, related materials, storage containers, procedures and any off-site storage contract for the media.

**5.3 Equipment Management Services**

Allstream will provide equipment management services (“Equipment Management Services”) for the Equipment specified in the Service Order. This includes:

* Resolution of detected Equipment failures;
* Coordination of preventative maintenance;
* Installation of microcode or firmware upgrades;
* Power cycling or reboot;
* Issuance of software or firmware commands; and
* Physical inspection of all Equipment components.
* With respect to Customer-provided Equipment, Customer is responsible for obtaining the consent of the maintenance vendor in order for Allstream to act as Customer's agent.

**Allstream-provided Equipment**

If necessary in support of certain Services, Allstream may install certain Allstream-provided Equipment into Customer’s Space.

1. **Server Services**

For all Services listed in this section, Customer acknowledges the following requirements in order to be eligible for server service(s) (“Service Services):

* Customer is required to have Customer-provided Equipment and Customer-provided Software covered under a valid maintenance contract with the original equipment/software manufacturer for 24x7x365 support with four (4) hour on-site response time. In the event that Customer elects to contract for maintenance services with a vendor other than the original equipment/software manufacturer, Customer is responsible for resolution of all issues arising as a result thereof and associated obligations;
* Customer’s server(s) must be configured with a drive capable of reading a cd-rom to facilitate the installation of utility software on the disk volume where the operating system resides;
* Customer must subscribe to Vaulting Services (as defined herein) or Data Backup Services (as defined herein);
* Customer must provide one (1) dedicated network interface per server for Data Backup Services (as defined herein);
* Customer must provide a minimum of one (1) dedicated network interface per server for administration and monitoring; and
* In order for Allstream to provide Operating System Management Services, Allstream will install utility software on the contracted Operating System(s).
  1. **Operating System Management Standard Services**

Allstream will provide operating system management standard services (“Operating System Management Standard Services”) for those servers or partitions specified in the Service Order. This includes:

* Advanced Monitoring Services – Operating System (as defined herein);
* and, as requested by Customer and in accordance with Customer’s written instructions as agreed to by the Parties:
* Initial operating system build on the server;
* Operating system patch maintenance and reporting;
* Resolution of detected operating system failures;
* Hardware Installation Services (as defined herein);
* Equipment Management Services (as defined herein);
* Configuration of operating system level backups; and
* Tracking of physical inventory and installed patches for the servers/devices under contract with Allstream.

In order for Allstream to provide Operating System Management Standard Services, Customer shall provide Allstream with root (“ROOT”) or administrator (“ADMIN”) security access.

* 1. **Operating System Management Advanced Services**

Allstream will provide operating system management advanced services (“Operating System Management Advanced Services”) for those servers or partitions specified in the Service Order. This includes:

* The initial operating system build on the server;
* Operating system patch maintenance if available from the vendor, and upon Customer’s reasonable request;
* Resolution of detected operating system failures;
* Operating system configuration changes upon Customer’s reasonable request;
* Advanced Monitoring Services – Operating System (as defined herein);
* Hardware Installation Services (as defined herein);
* Equipment Management Services (as defined herein);
* Configuration of operating system level backups;
* Tracking of physical inventory and installed patches for the managed servers/devices under contract with Allstream; and
* Exclusive management by Allstream of ROOT or ADMIN security access.

In order for Allstream to provide Operating System Management Advanced Services, Customer shall:

* Provide Allstream with exclusive control of ROOT or ADMIN security access to be eligible for the Service Levels specified at Hosting Service Level Objectives; and
* Provide a minimum of one (1) dedicated network interface per server. .Customer acknowledges that for Allstream to provide Operating System Management Advanced Services that Allstream will install utility software on the server(s) in the Space on which the operating system resides.
  1. **Operating System Management Enterprise Services**

Allstream will provide operating system management enterprise services (“Operating System Management Enterprise Services”) for those servers or partitions specified in the Service Order. This includes:

* Operating System Management Advanced Services;
* Management of the separate partitions on the server; and
* Management of Allstream-supported clustering technology as set forth in the Services Guide;

In order for Allstream to provide Operating System Management Enterprise Services, Customer may be required to provide the appropriate management console (hardware and software) to manage the servers with logical and/or physical partitions.

1. **Application Services**

For the Services listed in this section, Customer acknowledges the requirement to have Customer-provided Equipment and Customer-provided Software covered under a valid maintenance contract with the original equipment/software manufacturer for 7x24x365 support with four (4) hour onsite response time in order to be eligible for Application Services.

In the event that Customer elects to contract for maintenance services with a vendor other than the original equipment/software manufacturer, Customer is responsible for resolution of all issues arising as a result thereof and associated obligations. Customer must provide a minimum of one (1) dedicated network interface per server to be eligible for application services (“Application Services”).

**7.1** **Standard Application Support – Database Services**

Allstream will provide standard application support - database services (“Standard Application Support -Database Services”) for the number of servers and instances specified in the Service Order. This includes the following as requested by Customer and with Customer’s instructions:

* Advanced Monitoring Services – Database (as defined herein);
* Operating System Management Standard Services (as defined herein);
* Database patch installation and tracking; and
* Assistance in resolution of database failures.
  1. **Advanced Application Support – Database Services**

Allstream will provide advanced application support - database services (“Advanced Application Support – Database Services”) for the number of servers and instances specified in the Service Order. This includes:

* Advanced Monitoring Services – Database (as defined herein);
* Operating System Management Advanced Services (as defined herein);
* Initial database build on the server;
* Database software patch maintenance and tracking including one (1) version upgrade per contract year during the term of the Service Order, if available from the database vendor, and upon Customer’s reasonable request;
* Resolution of detected database failures;
* Table compaction or reorganization upon Customer’s reasonable request;
* Database configuration changes upon Customer’s reasonable request; and
* Management of database security access in accordance with Customer-supplied specifications as set out in this Service Schedule.
  1. **Application Support – System Utility Services**

Allstream will provide application support - system utility services (‘Application Support -System Services”) for the specific application(s) specified in the Service Order. This includes:

* Installation of releases, maintenance uplifts and patches upon Customer’s reasonable request;
* One (1) version upgrade per contract year during the term of the Service Order, if available from utility software vendor and upon Customer’s reasonable request;
* Resolution of detected utility software failures reported by Customer or detected by Allstream;
* Utility software configuration changes upon Customer’s reasonable request; and
* Management of ROOT, ADMIN, or equivalent security access, if applicable to the utility.

This Service is only available for servers under contract with Allstream for Server Services (as defined herein) and utility applications currently supported by Allstream as set forth in the Services Guide.

1. **Monitoring Services**

Monitoring services (“Monitoring Services”) are provided within a measurement period (“polling period”) whereby the monitoring system detects resource availability and resource utilization. There may be occasions when monitored resources reset completely within the polling period and therefore may not be monitored during such reset period. The frequency of the polling of devices and servers will be every five (5) minutes unless otherwise expressly specified in the Service Order.

In the event that there is more than one instance or partition of an operating system or application running on a monitored device or server, then the monitoring “unit” is per instance instead of per device or server.

* 1. **Standard Monitoring Services**

Allstream will provide standard monitoring services (“Standard Monitoring Services”) for the number of devices and servers specified in the Service Order. This includes:

* The Implementation of monitoring rules provided by Customer for the requested device(s), database(s), operating system(s) or website(s);
* 24x7x365 monitoring of alerts generated by the monitoring system;
* Detection of the failure of a device or server to respond;
* Notification to Customer of monitoring alerts that may include a service impacting event (as defined in the Services Guide); and
* TCP/UDP port monitor, as applicable, to verify that a connection can be made to the network port.

**8.2** **Advanced Monitoring Services – Operating System**

Allstream will provide advanced monitoring services – operating system (“Advanced Monitoring Services- Operating System”) for the number of servers and the number of operating system partitions specified in the Service Order. This includes:

* Provision and installation of a monitoring agent;
* The implementation of monitoring rules provided by Customer for the requested operating system(s);
* 24x7x365 monitoring of alerts generated by the monitoring system;
* Monitoring of CPU, memory, and system disk utilization;
* Monitoring of IP port availability; and
* Notification to Customer of alerts that may include a service impacting event (as defined in the Services Guide).
  1. **Advanced Monitoring Services – Web**

Allstream will provide advanced monitoring services – web (“Advanced Monitory Services – Web”) for the number of servers specified in the Service Order. This includes:

* Provision and installation of a monitoring agent;
* 24x7x365 monitoring of alerts generated by the monitoring system;
* Monitoring of Customer’s specified web server specific services or processes (i.e. DLLhost, InetInfo, and www service);
* System level web server logs;
* Web server performance metrics, such as users and connections;
* Detection of HTTP error codes as described in the Services Guide and URL failure to respond to an HTTP GET request within a specified time threshold; and
* Notification to Customer of alerts that may include a service impacting event (as defined in the Services Guide).
  1. **Advanced Monitoring Services – Device**

Allstream will provide advanced monitoring services – device (“Advanced Monitoring Services – Device”) for the number of servers and the number of devices specified in the Service Order. This includes:

* 24x7x365 monitoring of alerts generated by the monitoring system;
* Monitoring of device CPU, memory, physical hardware and environmental components (i.e. temperature, voltage, power supply failure, fan failure);
* Notification to Customer of alerts that may include a service impacting event (as defined in the Services Guide); and
* Wide area network interface utilization, as applicable.
  1. **Web Transaction Monitoring Services**

Allstream will provide web transaction monitoring services (“Web Transaction Monitoring Services”) for the number of transactions specified in the Service Order. This includes:

* Development of a specific URL sequence as a synthetic user;
* 24x7x365 monitoring of alerts generated by the monitoring system;
* Detection of transaction failures as determined during transaction development (transactions may include up to five (5) discreet steps); and
* Notification to Customer of alerts that may include a service impacting event (as defined in the Services Guide).

The polling frequency of the actual transaction(s) will be determined during transaction development. Customer agrees to provide a technical contact to assist Allstream in the development of each transaction.

* 1. **Advanced Monitoring Services - Database**

Allstream will provide advanced monitoring services – database (‘Advanced Monitoring Services – Database”) for the number of servers and the number of databases specified in the Service Order. This includes:

* Provision and installation of a monitoring agent;
* The implementation of monitoring rules provided by Customer for the requested database(s);
* 24x7x365 monitoring of alerts generated by the monitoring system;
* Monitoring of table-space utilization, related logs and file systems; and
* Notification to Customer of alerts that may include a service impacting event (as defined in the services guide).

1. **Storage Services**
   1. **Storage Area Network (SAN) Services**

Allstream will provide storage area network (SAN) Services for the amount of storage in Gigabytes (“GB”) or Terabytes (“TB”) and in association with the specific target servers specified in the Service Order. SAN Services include:

* Initial installation of connectivity between the storage device and target server(s) located at the Designated Facility;
* Initial allocation and configuration of storage units to target servers in accordance with Allstream-supplied and Customer-completed design requirements; and
* Problem resolution related to storage connectivity and storage device.

If Customer has also contracted for Server Services (as defined herein) for the target servers, then SAN Services will also include:

* Initial installation and configuration of path management software, if applicable;
* Installation of storage management software and related device driver software on the target servers;
* Application of maintenance changes; and
* Problem resolution of path management software, storage management software and related device driver software.

Alteration of the storage allocations, the number of connections, the number of target servers, or hardware and software replacements, will require a modification or upgrade to the affected Service Schedule prior to any of these additional Services being rendered by Allstream.

SAN Services do not include installation or support for volume management or volume replication software, which can be contracted for separately through an addendum to this Service Schedule.

**9.2 Shared SAN Services**

If SAN Services are provided through shared SAN (“Shared SAN”), the Services include:

* Monitoring and maintenance of SAN performance and capacity utilization;
* SAN capacity upgrades; and
* Maintenance services for the storage device.

In order for Allstream to provide Shared SAN Services, Customer must provide server(s) that each contain two (2) Allstream supported host bus adapters, as specified in the Services Guide.

* 1. **Dedicated SAN Services**

If SAN Services are provided through dedicated and/or Customer-provided storage devices, the Services will include Equipment Management Services (as defined herein) for the associated storage devices. Customer acknowledges that the specifications for the design of the SAN must include IP network connectivity to the hardware, software and network components of the SAN in order for Allstream to provide Equipment Management Services to Customer through the management network.

In order for Allstream to provide dedicated san (Dedicated San) Services for Customer-provided storage devices, Customer must:

* Provide Allstream with the appropriate system access and management console (hardware and software) to manage the storage devices; and
* Contract with the original equipment manufacturer for the installation and configuration of the storage devices.
* Dedicated SAN Services are only available if Allstream supported storage and network devices, servers and adapters as specified in the Services Guide are utilized in the solution. SAN Services do not include installation or support for volume management or volume replication services.

1. **Data Backup Services**

For both Standard and Advanced Data Backup Services, Allstream will use commercially reasonable efforts to schedule backups within Customer identified back-up window(s). Allstream cannot guarantee that back-up schedule(s) will be completed within Customer’s requested back-up window(s) as backup times are dependant on the number of files and the quantity of data to transfer. If a backup schedule cannot be completed during Customer’s requested back-up window, a customized solution may be required. A customized solution will require a modification to this Service Schedule including but not limited to the Service Order and a detailed Statement of Work identifying any additional hardware, software and service requirements and the cost and charges for such customization solution.

Customer must provide a minimum of two (2) dedicated network interfaces per target server for connectivity to the backup and Allstream management networks. Customer agrees to provide Allstream with administrative access to all target servers requiring Data Backup Services to facilitate issue and/or problem resolution.

The Service Order will define Customer’s committed storage amount in gigabytes (GB) or tapes and the additional charges to be assessed for each GB or tape used by Customer in excess of the contracted committed storage GB capacity or tape quantity.

* 1. **Standard Data Backup Services**

Allstream provides standard data backup services (“Standard Data Backup Services”) for the amount of storage in association with the specific servers (at least one backup agent is required for each target server); as specified in the Service Order. This includes:

* Initial connectivity between backup network and target servers;
* Installation of backup software agent on target servers
* Configuration of daily backup schedules in accordance with Customer’s requirements as set out in the Service Order;
* Execution of daily backup schedules;
* Retention of file system data and/or daily database data as set forth in the Service Order;
* Weekly off-site tape rotation of media;
* File restore from media upon Customer’s reasonable request; and
* Modification to the backup schedule upon Customer’s reasonable request.

If Customer subscribes to standard application support – database services (‘Standard Application Support - Database Services”), Allstream will define and implement database backup and restore methodology as part of application support services (‘Application Support Services”). Otherwise, Customer is responsible for the backup and restoration methodology for the database(s).

* 1. **Advanced Data Backup Services**

Allstream provides advanced data backup services (“Advanced Data Backup Services”) for the amount of storage in association with the specific servers (at least one backup agent is required for each target server); as specified in the Service Order. This includes:

* Initial connectivity between backup network and target servers;
* Installation of backup software agent on target servers);
* Configuration of daily backup schedules in accordance with Customer requirements;
* Execution of daily backup schedules;
* Retention of file system data and/or daily database data (one on-site and one off-site) as specified in the Service Order;
* Daily off-site tape rotation of media;
* File restore from media upon Customer request; and
* Modifications to the backup schedule upon Customer’s reasonable request and as agreed to by the parties.

If Customer subscribes to advanced application support – database services (“Advanced Application Support -Database Services”), Allstream will define and implement database backup and restore methodology as part of Application Support Services. Otherwise, Customer is responsible for the backup and restoration methodology for the database(s).

* 1. **Special Terms Applicable to Data Backup Services for OS/400 Operating System**

In order to be eligible for data backup services for OS/400 operating systems (“Data Backup Services for OS/400” operating systems”), Customer agrees to provide Allstream with the following:

* A dedicated tape drive or tape library capable of performing a daily or full backup within Customer’s requested backup window; and
* The software (supported by Allstream) to perform the backup function.

Customer agrees to maintain a valid maintenance contract with the original equipment/software manufacturer for 24x7x365 support with four (4) hour onsite response time in order to be eligible for Data Backup Services for OS/400 operating systems. Otherwise, Customer is responsible for resolution of all issues arising as a result thereof and associated obligations.

1. **Vaulting Services**

vaulting services (“Vaulting Services”) provide for access to centralized off-site automated disk-to-disk backup data protection and restoration capability at the Designated Facility specified in the Service Order. Allstream will provide Vaulting Services for the amount of committed storage in GB or TB as specified in the Service Order.

Customer is responsible for the following:

* Execution of regular backups using Customer-selected and Allstream-supported vaulting software;
* Reporting any errors in executing backups promptly to Allstream via the portal or by telephone to Allstream’s authorized representatives.
* Secure and maintain telecommunication services to facilitate the connectivity between the source location and the Designated Facility including and is responsible for all communication costs associated with the connection between the source location and the Designated Facility; and
* Unless otherwise specified in the Service Order, Customer is responsible for executing a successful backup.

If Customer cannot demonstrate that a successful backup was completed, Allstream will, as an accommodation to Customer, use reasonable efforts to assist Customer in restoration activities on a time and materials basis at Allstream’s then prevailing hourly rate and charges Customer acknowledges that there will be an additional charge assessed for the Vaulting Services for each GB or TB used by Customer in excess of the storage capacity specified in the Service Order based on the excess usage fee charge specified in the Service Order. Additional installation fees and any other ancillary service fees are billed on a onetime basis and are due in accordance with the terms and conditions of the Agreement.

To facilitate the transfer or restoration of large amounts of Customer’s input and/or output data transmitted to the Designated Facility rather than using a network based connection, a removable disk-based storage device option can be requested from Allstream. Customer’s input and output data will be copied onto the removable storage device and the device will be shipped to the Customer-specified address in accordance with Customer’s shipping instructions. Daily rental fees will be charged by Allstream for Customer’s use of the device. The removable disk-based device can also be purchased from Allstream. Customer is responsible for all costs related to the shipping of the storage device(s). If Customer elects this option for data retrieval, Customer must identify the size of the storage device and the appropriate interface type, either universal serial bus (USB) or firewire.

1. **Replication Services**

**12.1** **Server Replication Services**

Allstream will provide server replication services (“Service Replication Services”) for the number of servers specified in the Service Order. This includes:

* Initial installation and set-up of replication software on the target and source server(s);
* Monitoring and problem resolution with regard to the replication between source and target server(s);
* Hardware Installation Services (as defined herein) for the source and/or target server(s) situated in the Designated Facility;
* Monitoring of failover readiness;
* Management of the Server Replication Services Failover process (as defined below);
* Implementation of software changes and patches on the source and target server(s) when available from the replication agent vendor(s);
* Reasonable telephone access 24x7x365 and escalation to the vendor when appropriate;
* Reasonable telephone support 24x7x365 for software failures detected by Customer on the source and/or target server(s) at the Designated Facility;
* Monitoring of all established software sessions between source and target server(s); and
* Notification to Customer when error conditions occur or pre-established limits are exceeded.

Allstream will notify Customer of any error conditions in accordance with the procedures set out in the Services Guide. All error conditions will be logged and tracked by Allstream for follow-up action and historical reporting.

In order to provide Server Replication Services, Customer must:

* Provide Allstream with Internet and/or IP access to source and/or target server(s) situated at the Designated Facility;
* Provide Allstream with ROOT or ADMIN security access to the source and target server(s); and
* In order to facilitate replication, Customer must contract with Allstream for or provide IP network connectivity between the source and target server(s).

In addition, if Customer requires installation of the replication software on servers in a test environment prior to the implementation of the Services to Customer’s primary source and target servers(s), there will be an additional one-time fee as expressly set forth in the Service Order, and a statement of work as agreed to by the Parties will be attached to the Service Schedule which will detail the specific deliverables.

Customer may test failover functionality once per calendar quarter during the term of the Service Order on a non-cumulative basis. Each failover test can utilize Customer’s full configuration or a subset thereof.

**12.2 Server Replication Services –Failover Process**

During initial installation and set-up, a management agent will be installed on the source and target servers that are replicating data. These agents monitor the status of the servers by tracking network requests and responses exchanged between sets of servers. When a server misses a user-defined number of requests, the management agent assumes the server has failed, and initiates a request to failover. A failover event will not be initiated until approved by an authorized Customer representative. During a failover event, the target server may assume the IP address, DNS identity, or both of the failed source servers. Applications are initiated and processing resumes on the target server based upon scripts developed during initial setup. Once the failed source server has been restored operationally, replication will then be initiated between the target and source server. After the data on the source server has been resynchronized with the target server, return failover can be initiated between the target and source servers, and normal operations resumed.

1. **Security Services**
   1. **Managed Firewall & VPN Services**

Allstream will provide managed firewall & vpn services (“Managed Firewall & VPN Services”) for the number of firewalls specified in the Service Order and up to five (5) virtual private network (VPN) tunnels for each firewall. This includes:

* Equipment Management Services (as defined herein);
* Standard Monitoring Services (as defined herein);
* Initial configuration of the firewall based on Customer’s specifications as set out in the Service Order;
* Resolution of firewall problems.
* Hardware Installation Services (as defined herein);
* LAN Services (as defined herein) for an Allstream-provided production switch; and
* Firewall log reports which are retained for ninety calendar (90) days and are made available to Customer via the portal at [https://viewpoint.allstream.com](https://viewpoint.mtsallstream.com/).

If Customer subscribes to dual firewalls per device (i.e. router, server, etc.), Allstream shall provide dual firewall devices configured to provide redundancy should one of the firewalls fail to operate.

* 1. **Managed Intrusion Prevention Services (IPS)**

Allstream will provide managed intrusion prevention services (Managed Intrusion Prevention”) as network IPS (‘Network IPS”) and/or host IPS “(Host IPS”) for the number of appliances or servers specified in the Service Order. IPS includes:

* Hardware Installation Services (as defined herein);
* Installation and configuration of IPS software;
* Configuration of IPS rules;
* 24x7x365 network traffic monitoring;
* Detection of attempted intrusions and server misuse consisting of traffic abnormalities and/or pre-defined known attack signatures; and
* A monthly report of IPS incidents;

For in-line IPS where the network traffic passes directly through the IPS appliance, the appliance will be configured to monitor and automatically filter attacks based on a predefined list of threats and vulnerabilities. Customer understands and acknowledges that the IPS device(s) make decisions to drop packets which meet Customer’s selected criteria. A packet may generate a “false positive” and could be dropped, possibly disrupting valid network activity.

* 1. **Managed Vulnerability Protection Services**

Allstream will provide managed vulnerability protection services “(Managed Vulnerability Protection Services”) for the number of IP addresses specified in the Service Order. Managed Vulnerability Protection Services are delivered over the Internet or internally to scrutinize Customer’s Internet facing devices for security vulnerabilities. Managed Vulnerability Protection Services includes:

* Identifying visible perimeter and/or network devices and mapping all underlying Customer network devices that are accessible from the Internet and provide information about each device;
* Characterizing devices as access gateways, routers, or other types of equipment by machine type and operating system;
* Providing information such as the Customer machine names and where possible, identifying information about private networks and intranets
* Identifying all common TCP/IP services, such as HTTP servers, SMTP servers, and telnet or SSH servers; and
* Scans can be conducted either monthly or quarterly (as set forth in the Service Schedule) on a date that is mutually agreed to between the Parties. Customer will be provided with a summary report of the security of the network devices which includes a summary of the security of the network devices, including summary information about the scan, general network information, specific host information, a list of detected vulnerabilities and an executive overview that provides a global view of the security level of all networks and IP addresses.

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