



### General Tariff Information

Service Provider Name	Harris Salam
License:	VSAT Networks and Services
Tariff Number	QAR0001
Service Name	VSAT
Tariff Type	Business
Tariff Effective Date	11 January 2019
Tariff Version Number	V3.0
Country of Performance:	Qatar

# **1 Definitions and Acronyms**

CIR = Committed Information Rate

CRA = Communications Regulatory Authority of Qatar

CUG = Closed User Group, as defined in the VSAT License

Customer = Business CUG end user of the service.

Duplex Link = Two way link allowing information to travel from hub to remote and vice versa.

FEC = Forward Error Correction

Hub = The central or primary node of the VSAT network.

Kbps = bit rate in kilo bits per second

Mbps = bit rate in mega bits per second

MHz = Mega Hertz

SCPC = Single Channel Per Carrier

SLA = Service Level Agreement

TDMA = Time Division Multiple Access

Uplink = Carrier transmitted from a ground station towards the satellite.

VSAT License = the individual license for the provision of VSAT services granted to Harris Salam W.L.L. on 22 March 2012.

VSAT = Very Small Aperture Terminal

GUI = Graphical User Interface

NMS = Network Management Station

## 2 GENERAL TARIFF TERMS AND CONDITIONS

This Tariff contains charges and conditions applicable to the provision of VSAT services.

This Tariff will be effective as of the date established in this Tariff and will automatically cease being effective if Harris Salam publishes a new tariff for this service or publishes notification on its webpage that this Tariff is no longer effective subject to CRA approval, if required.

From time to time Harris Salam may publish promotions and readjustments on its webpage or by other means. Such promotions and readjustments will suspend or modify this Tariff as specified by Harris Salam as of the date Harris Salam publishes such promotions or readjustments subject to CRA approval, if required.

These terms are in addition to the Harris Salam Standard Terms and Conditions appropriate to the service offered, which should be read in conjunction with this document and which form an integral part of this Tariff.

All VSAT service terms and conditions shall be subject to the contract executed between Harris Salam and its Customer. The contract will include (and be subject to) Harris Salam Standard Terms and Conditions.

## 3 SERVICE DESCRIPTION

This Tariff is for VSAT services for business customers. VSAT is a wireless, (geostationary) satellite based two way networking solution which can provide network connections between remote locations and a central hub. Establishing a VSAT network between two or more locations enables a wide area network connection allowing the transmission of voice, data and video between those locations potentially over a large geography or where no alternative communications method exists (e.g., remote areas).

Harris Salam provides VSAT services via two separate technical configurations: (1) Time Division Multiple Access (TDMA) (Shared & Dedicated Service); and (2) Single Channel Per Carrier (SCPC) (Dedicated Service).

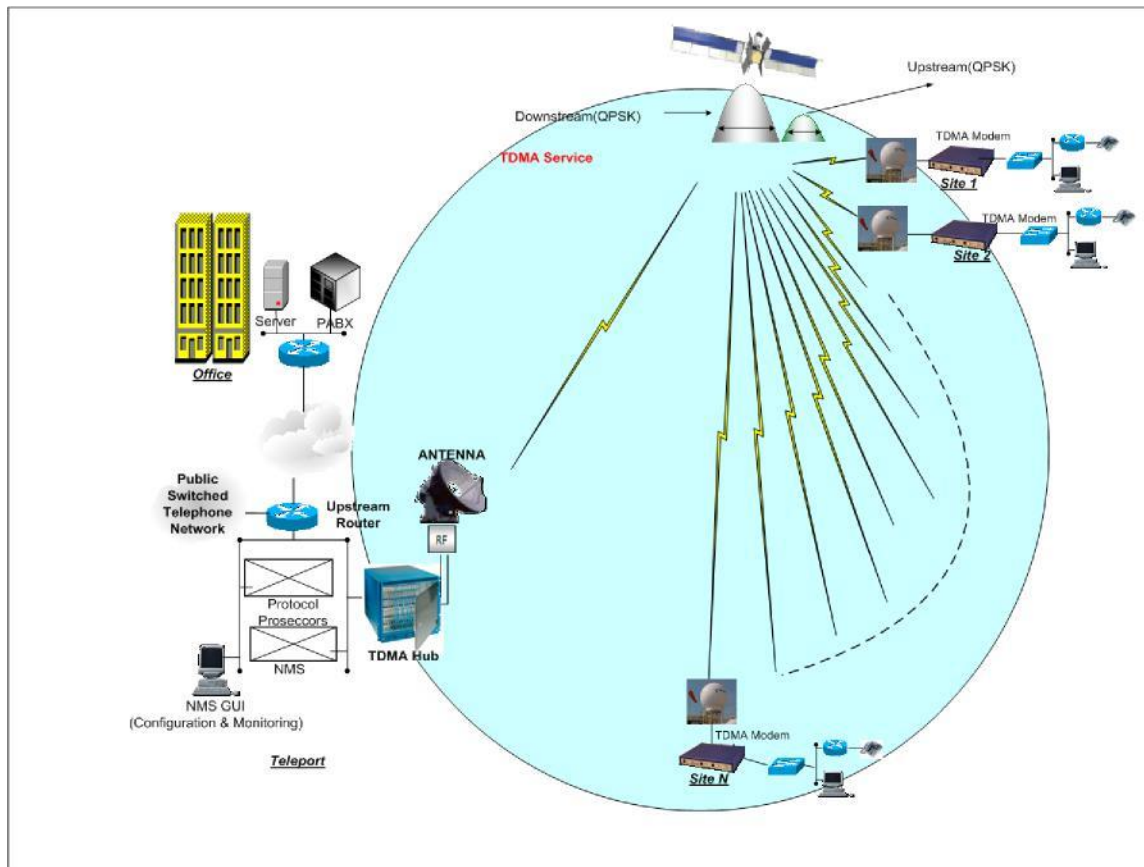
### 3.1 TDMA VSAT

#### 3.1.1 TDMA Shared Service

Using TDMA VSAT allows customers to manage flexible and scalable connections between remote sites. Applications or users share the same satellite frequency by dividing the full bandwidth into specific timeslots. The users transmit in rapid succession, one after the other, each using their own time slot. This allows multiple stations to share the same transmission medium (e.g. radio frequency channel) while using only the part of the total bandwidth they require.

Many technology providers have incorporated TDMA into their systems (e.g. iDirect Evolution Modem/Router).

The topology below depicts a typical multi-site VSAT wide area network. Remote VSAT (Sites 1 to N) communicate with a central TDMA hub (via the hub Antenna).



TDMA VSAT service may include installation and configuration of equipment to transmit and receive data over satellite. The service does not include Customer Premise Equipment (CPE) needed to terminate the signals - these can be purchased or leased separately.

### 3.1.2 **TDMA Dedicated Service**

TDMA Dedicated Service employs the same technology as described in 3.1.1 above, however, this service is configured to guarantee that a site will receive the contracted data rate at all times regardless of how other sites are using the service.

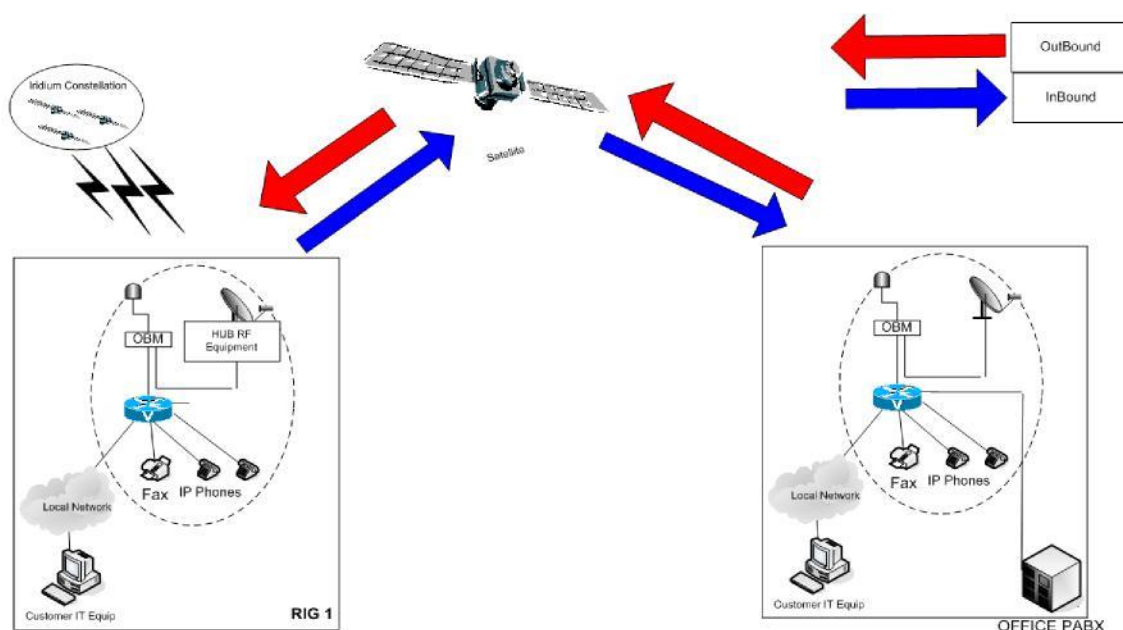
## 3.2 **SCPC VSAT (Dedicated Service)**

The SCPC VSAT service uses frequencies on a single channel that are dedicated to the customer. Various throughput speeds are available, however SCPC services will most likely be deployed as a point to point solution (remote site to dedicated terminal at client HQ) as opposed to the point to multi point topology best suited to the TDMA VSAT service.

SCPC VSAT service provides remote sites with the speed and dedicated bandwidth necessary for high capacity requirements and near real-time applications. With dedicated SCPC, the bandwidth is always available, as space segment is reserved independently for each site on both the inbound and outbound links; bandwidth is not shared among other sites.

Engineering for SCPC solutions will be bespoke to Customer requirements and optimum antennae sizes and modulation schemes will be selected. Capacity is priced as synchronous duplex links, based on dedicated synchronous capacity (same bit rate) in each direction etc. 8PSK (FEC7/8) is the standard modulation scheme operated by Harris Salam for its SCPC services.

Where, for engineering or compliance reasons, Harris Salam is required to implement a modulation scheme other than 8PSK (FEC7/8) price may vary, but will be consistent with equivalent /MHz value.



The SCPC VSAT Service may include installation and configuration of equipment to transmit and receive data over satellite. The service does not include Customer Premise Equipment (CPE), known as an SCPC compatible modem, needed to terminate the signals - these can be purchased or leased separately.

## 4 FEATURES AND CHARGE RATES

### 4.1 TDMA VSAT (Shared Service and Dedicated Service)

#### One-time and Equipment

- One-time set up charge: QAR 5,500
- Credit check: Customers will be subject to a credit check and may be required to provide a deposit to Harris Salam equivalent to up to 3 x the monthly rate of their subscribed service.<sup>1</sup>
- VSAT Equipment Prices: Charged separately by Harris Salam to the customer for any necessary equipment. May consist of:
  - Equipment rental; and/or
  - Equipment purchase.
- Termination Fee: Up to 3 months of Service Fees. See Harris Salam Standard Terms and Conditions.

<sup>1</sup> Deposit decisions are made on a non-discriminatory basis based on credit worthiness.

### Monthly Rate

TDMA VSAT features a range of throughput speeds measured in bits per second as shown in the table below:

<b>TDMA VSAT (Shared)</b>	
<b>Bandwidth*</b>	<b>Monthly Rate</b>
512 Kbps Duplex	QAR 7,462
768 Kbps Duplex	QAR 11,193
1024 Kbps/512Kbps	QAR 11,193
1024Kbps Duplex	QAR 14,560

\* Based on a 2.4m terminal

<b>TDMA VSAT (Dedicated)</b>	
<b>Bandwidth*</b>	<b>Monthly Rate</b>
1024/Kbps/512 Kbps	QAR 19,455.80
1536Kbps/768 Kbps	QAR 22669.56
2560Kbps/768Kbps	QAR 32,733.76

\* Based on a 2.4m terminal

Harris Salam will provide (included in the Monthly Rate):

- Shared burstable bandwidth (Shared Service);
- Guaranteed throughput/Committed Information Rate (CIR) (Dedicated Service);
- 24/7 NOC assistance; and
- Spectrum management services.

As a separate service, Harris Salam can provide an optional field engineer (which can be dispatched to the customer site for installation & commissioning, corrective and preventative maintenance) – to be charged separately according to the terms of that non-regulated service.

### Additional enhancements

Additional enhancements include, but are not limited to:

- Adaptive Coding and Modulation ensuring signal quality protection in the event of fade conditions e.g., rain attenuation
- TCP/IP Network acceleration
- Optional link encryption (AES)
- VLAN support

## **4.2 SCPC VSAT (Dedicated Service)**

### One-time and Equipment

- One-time set up charge: QAR 5,500

- Credit check: Customers will be subject to a credit check and may be required to provide a deposit to Harris Salam equivalent to up to 3 x the monthly rate of their subscribed service.<sup>2</sup>
- VSAT Equipment Prices: Charged separately by Harris Salam to the customer for any necessary equipment. May consist of:
  - Equipment rental; and/or
  - Equipment purchase.
- Termination Fee: Up to 3 months of Service Fees. See Harris Salam Standard Terms and Conditions.

#### Monthly Rate

SCPC VSAT features a range of throughput speeds measured in bits per second as shown in the table below:

<b>SCPC VSAT Charges</b>	
<b>Bandwidth*</b>	<b>Monthly Rate</b>
256 Kbps Duplex	QAR 10,162
512 Kbps Duplex	QAR 16,896
768 Kbps Duplex	QAR 23,812
1024 Kbps Duplex	QAR 31,092
2048 Kbps Duplex	QAR 57,664

\* Based on a 2.4m terminal

As the frequencies used are dedicated to the client there is no burst feature. Any bandwidth / throughput is guaranteed to the client at all times subject to normal operating conditions.

Harris Salam will provide (included in the monthly charge):

- 24/7 NOC assistance; and
- Spectrum management services.

As a separate service, Harris Salam can provide an optional field engineer (which can be dispatched to the customer site for installation & commissioning, corrective and preventative maintenance) – to be charged separately according to the terms of that non-regulated service.

## **5 SERVICE PROVIDER OBLIGATIONS**

*Commencement of Service:* The service shall commence from the service connection date, being the date upon which the services became activated for the Customer.

*Service Boundary:* Harris Salam is responsible for service up to the point of interface between the Customer managed equipment and the Harris Salam managed equipment and shall not be responsible for any quality of service, continuity of service or other matters impacted by Customer cabling, equipment or other facilities on the Customer side of the point of interface. The point of service interface on the network side will be the satellite footprint.

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<sup>2</sup> Deposit decisions are made on a non-discriminatory basis based on credit worthiness.

## 6 CUSTOMER OBLIGATIONS

*Equipment:* The Customer shall comply with any reasonable request by Harris Salam concerning the configuration of their devices and / or the use of the service.

*Permissions and Safety:* The Customer shall be responsible for the necessary permissions (from landlord(s), etc.) for the positioning of remote terminals and other equipment, and further be responsible for the safety of persons with access to the immediate area of installation.

*Contract and Policies:* The Customer must adhere to the conditions of the Contract and attached policies.

*Assignment or Resale:* The Customer undertakes to use the service for its own (Business CUG) use and shall not transfer, assign or resell to a third party.

*Unlicensed Service:* The Customer may not use the service to provide any form of telecommunications services that require a license from the CRA.

## 7 EQUIPMENT AND TECHNICAL INTERFACES

See Service Description for information about equipment.

*TDMA VSAT Technical Interfaces:* The output of the Customer Premise Equipment is Ethernet. This is referred to as an Ethernet interface.

*SCPC VSAT Technical Interfaces:* The output of the Customer Premise Equipment is either Ethernet or Serial. This is referred to as an Ethernet (or Serial) interface.

## 8 SERVICE LEVEL AGREEMENT

Standard SLAs in Harris Standard Terms and Conditions.

*TDMA VSAT Specific:* The configuration includes the following basic SLAs:

- Latency performance <800m/s
- Time to respond to network issues <4 hours

*SCPC VSAT Specific:* The configuration includes the following basic SLAs:

- A minimum Bit Error Rate performance of 10-8
- Latency performance <800m/s
- Time to respond to network issues <4 hours

## 9 TARIFF MODIFICATION TABLE

Tariff Modification Version Number	Effective Date	Description of Change
1.0	1 January 2013	VSAT Issue 1
2.0	25 September 2018	Updated 2018 Tariff (Replaces 1.0)
3.0	11 January 2019	Added TDMA Dedicated Service