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# **VSAT LICENSING FRAMEWORK**

## **A Consultation Document**

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The Supreme Council of Information & Communication Technology “ictQATAR”

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## I. Introduction

### I.1. Background

The State of Qatar is undergoing the process of liberalizing its telecommunications sector, allowing for the introduction of competition in various parts of its markets. Pursuant to Article (2) of Decree Law No. (34) of 2006 on the promulgation of the Telecommunications Law (“**Telecommunications Law**”), the Supreme Council of Information and Communication Technology (“**ictQATAR**”) has as its objectives the responsibility for regulating the telecommunications sector and to achieve, among others: the promotion of the telecommunications sector in order to consolidate national, social and economic development; the enhancement the telecommunications sector’s performance in the State of Qatar through encouraging competition and fostering use of telecommunications services; and, encouraging sustainable investment in the telecommunications sector and increasing customers’ benefits as well as safeguarding their interests.

ictQATAR is empowered by the Telecommunications Law (Chapter Two, Article 2) to establish a fair and transparent licensing regime to enable its fulfillment of the objectives, including for meeting the requirements for a competitive sector.

ictQATAR has undertaken a number of initiatives, building on its first consultation document – “Consultation on Liberalization of the Telecommunications Sector in the State of Qatar” – which outlined ictQATAR’s general policy for telecommunications sector liberalization. This included the licensing in 2008 of a second provider of Public Mobile Telecommunications Networks and Services and a second provider of Public Fixed Telecommunications Networks and Services. ictQATAR aims to continue to address the liberalization of different parts of the sector. However, as indicated in the consultation referred to above, ictQATAR does not intend to award additional Public Telecommunications Licenses until the end of the initial phase of liberalization.

This document, “VSAT Licensing Framework – A Consultation Document”, addresses the closed user market – specifically the provision and use of Very Small Aperture Terminal (“**VSAT**”) - which falls outside of public telecommunications services. In keeping with preceding mobile and fixed licensing preparation practices and other matters concerning the regulation of the sector, and in the interest of transparency, ictQATAR invites interested stakeholders to comment about the licensing of VSAT service provision according to the procedures set out in Section 5 of this document. Additionally, interested parties are invited to express their interest in obtaining a VSAT License. This invitation is on a non-committal basis at this stage of the process.

This consultation document sets out ictQATAR’s understanding of the VSAT market in Qatar and its intentions for enabling competing VSAT service provision. The document outlines preliminary requirements and processes, and invites interested parties to comment. A complete version of a VSAT License will be prepared at a later date based on the details outlined in this document. This will include any comments received by ictQATAR that were deemed beneficial and applicable in the context and timeframe of this consultation document.

Previous consultations and licenses issued or drafted are available on ictQATAR’s website at [www.ict.gov.qa](http://www.ict.gov.qa).

## I.2. VSAT Opportunity

Telecommunications plays a critical role in Qatar's economy, in supporting many of the state's development plans and providing services for many industries. ictQATAR is committed to opening up the telecommunications market, enabling opportunities, encouraging investment and liberalizing communications network and service provision choice for consumers - choice that efficiently and effectively supports their business performance requirements and budgets.

VSAT is a wireless, satellite-based system that can support organizations, businesses and other groups, with dispersed offices and remote sites to have internal telecommunications (voice and data) connectivity. It can enable a range of communications purposes and services including the following indicative list:

- Broadband Internet
- National and multi-national networks
- Broadband data communications
- Multicast data services
- PSTN infrastructure extension
- GSM backhaul
- Intergovernmental communications
- Corporate communications, including inter-office or site (e.g., oil platforms, manufacturing locations)
- Logistics data
- Traffic data delivery
- Sales monitoring and stock control
- Point-of-sale electronic funds transfer
- Bank transactions and ATM (Automated Teller Machine) services
- Travel reservation systems
- Real-time market information
- News gathering and distribution
- Video monitoring
- Telemedicine and medical data transfer
- Disaster relief support
- Distance learning
- Rural telecommunications

The needs and benefits of VSAT vary between countries, depending on the marketplace, and its needs. Many, but not all, of the possibilities cited above could be relevant in Qatar.

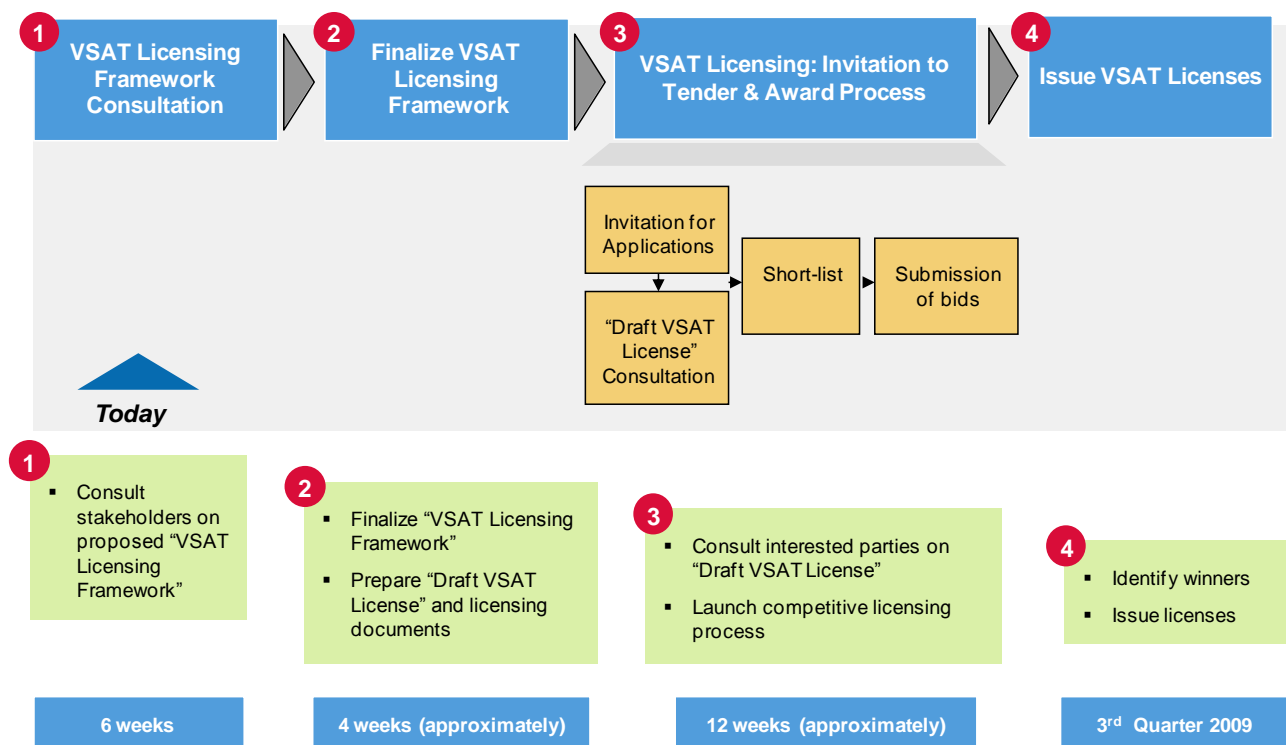
ictQATAR analysis finds that there is pent-up demand due to capacity constraints. Bottlenecks in supply are a problem, among which includes regulatory constraints on VSAT service provision. Qatar needs a constructive approach in addressing the gap between supply and demand.

### I.3. ictQATAR Intentions

To date, market-entry opportunities for VSAT provision in Qatar are closed due to regulatory circumstances in the country. ictQATAR is now planning to address these barriers and authorize the provision of VSAT beyond the status quo. This document is the first step in this process.

The purpose here is to inform interested stakeholders about ictQATAR’s perspective and positions. As set out in the indicative process diagram below, the licensing award process and relevant documentation will be finalized following this consultation. An announcement will be made inviting parties interested in obtaining a VSAT License to join the licensing process. As explained in this document, ictQATAR intends to offer a limited number of VSAT Licenses at this time. Qualified applicants will be invited to compete for one of the Licenses offered.

**Exhibit I: ictQATAR VSAT Liberalization Process**  
(The time frame is indicative)



In the sections that follow, an overview of VSAT technology and applications is provided to set the context and benefits of this type of infrastructure. Following this, some analysis of Qatar’s VSAT market is presented. ictQATAR then sets out its liberalization considerations for authorizing the provision of VSAT. Lastly, indicative terms and conditions for future VSAT Licenses are set out.

Interested parties are invited to submit their comments to the questions set out in this consultation document and to provide their views on any other relevant aspects. Parties are also invited to express their interest in obtaining a VSAT License. The process for submissions is set out in Section 5 of this document.

## 2. VSAT Technology and Applications

### 2.1. Technology Overview

The term "VSAT" refers to very-small-aperture terminals. These provide interactive or receive-only telecommunications to end-user premises generally via geostationary satellites. VSAT-based systems are used extensively to provide last-mile connectivity in remote areas, reduce risks by providing resilient communication, increase efficiency of data distribution, and improve productivity.

A VSAT network is a satellite-based communications system that can serve businesses, as well as individual users. VSAT-based solutions are distance independent, and can link widely dispersed sites of a corporation or government entity. Many industry sectors across the world benefit from VSAT, including banks and stock exchanges, oil & gas, retail chains and logistical transport.

VSAT-based solution systems consist of communications platforms comprising a hub often owned and managed by a VSAT operator, and terminal equipment at customer premises serving an entire region or the world, in relation to satellite coverage.

Whereas VSAT initially addressed niche markets with no terrestrial alternative, growing demand for ubiquitous and reliable connectivity coupled with VSAT technology improvements have opened a range of new applications. These enhancements have enabled VSAT to have significant advantages and provide niche services for providers and consumers.

For instance, VSAT has become effective to provide private and secure communications across sites, to multicast data to a large number of sites, and provide instant and affordable scalability to retail chains or large corporations.

VSAT provision is set-up through a VSAT operator that enables access to satellite communication links with basic access to satellite bandwidth capacity, or managed connectivity. Connectivity to the Internet is also often provided through a separate provider (an Internet Service Provider).

VSAT technology, now in its 5th generation, provides broadband terminals at the cost of a high-end PC, depending on location, link budget and bandwidth requirements. The average price of a VSAT terminal has fallen from more than US\$ 20,000 to as low as US\$ 800 for consumer VSAT terminals, with prices of terminals used for professional applications ranging from US\$1000 to US\$6000.<sup>1</sup>

It is widely acknowledged that new technologies could open new niche markets. This has been the case in the US with digital content distribution to movie theaters. Recent advent of stabilized VSAT platforms raises demand from maritime companies. New demand emanates from most commercial fleets.

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<sup>1</sup> Comsys VSAT report ([www.comsys.com](http://www.comsys.com))

## 2.2. VSAT Applications

Overall, VSAT systems cover a wide array of commercial applications in several industry sectors. VSAT technology allows a range of services tailored to market needs and vertical markets. For some specific applications and in some markets (e.g., financial services), it is a viable alternative to terrestrial connectivity to ensure resiliency. In few cases, such as remote locations not served by terrestrial connectivity, it is the only alternative (e.g., oil-rigs).

**Exhibit 2: Applications**

Industry Verticals	Primary VSAT Applications	Other VSAT Applications
Telecom	<ul style="list-style-type: none"> <li>International communications</li> <li>GSM backhaul to remote territories (e.g. islands)</li> </ul>	<ul style="list-style-type: none"> <li>Extension of PSTN for rural telephony</li> </ul>
Media	<ul style="list-style-type: none"> <li>Video contribution</li> <li>Satellite News Gathering (SNG)</li> <li>Publishing content distribution</li> </ul>	<ul style="list-style-type: none"> <li>Connectivity for foreign bureaus</li> </ul>
Financial	<ul style="list-style-type: none"> <li>Corporate network</li> <li>Backup connectivity</li> <li>Automated Teller Machine (ATM) connectivity</li> </ul>	<ul style="list-style-type: none"> <li>Electronic payment</li> <li>File transfer</li> <li>Financial news acquisition</li> </ul>
Energy	<ul style="list-style-type: none"> <li>Supervisory Control and Data Acquisition (SCADA)</li> <li>Communications to drill sites</li> </ul>	<ul style="list-style-type: none"> <li>Pipeline monitoring</li> <li>Power line monitoring</li> </ul>
Retail	<ul style="list-style-type: none"> <li>Credit authorization</li> <li>Fleet Management</li> <li>Point-of-Sale management</li> </ul>	<ul style="list-style-type: none"> <li>Private Branch Exchange (PBX)</li> </ul>
SME	<ul style="list-style-type: none"> <li>Broadband Internet</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
Transport	<ul style="list-style-type: none"> <li>Real time transaction</li> <li>Backup connectivity for reservation systems</li> </ul>	<ul style="list-style-type: none"> <li>Maritime VSAT broadband internet</li> </ul>
All Enterprises	<ul style="list-style-type: none"> <li>Real-time video streams/Video Conferencing</li> <li>Broadband Internet</li> <li>Enterprise applications (enterprise resource planning)</li> </ul>	<ul style="list-style-type: none"> <li>Content distribution / Training</li> </ul>

Certain user groups make wide scale use of VSAT. For instance large VSAT networks with more than 12,000 sites have been deployed around the world for postal services, networks of retail stores (e.g., pharmacy, grocery stores chains, restaurants chains as well as lotteries in the US and Europe). VSAT is also used by car dealerships affiliated with manufacturers for transmitting and receiving sales figures and orders, as well as for receiving internal communications, service bulletins, and interactive distance learning courses from manufacturers.

The integration of VSAT in the enterprise has been facilitated by the evolution of interoperable interfaces. Nearly all VSAT systems are now based on the IP protocol, with a very broad spectrum of applications. VSAT technology is also used for two-way satellite Internet services. These services are used across the world as a means of delivering broadband Internet access to locations which cannot get less expensive broadband connections such as Asymmetric Digital Subscriber Line (ADSL) or cable Internet access, usually remote or rural locations.

According to reports, the total number of VSATs ordered in the world as of December 2006 stood at over 1.6 million, with nearly 1 million terminals in service. Annual VSAT operators service



revenues were about \$ 3.88 billion in 2006<sup>2</sup>.

There exist more than 350 VSAT operators around the world, with a few global operators providing global coverage, access to teleports with fiber connectivity to all continents.

Market trends point to a growing VSAT market both globally and regionally, with now Time Division Multiple Access (TDMA) as the predominant technology platform in many industries, and Single Channel Per Carrier (SCPC) remaining used for critical and redundant trunks within enterprise networks.

## 2.3. Regional Focus

The Gulf Cooperation Council (GCC) region accounts for more than 30 VSAT operators including incumbent telecom operators offering VSAT services. Many countries in the GCC started to deregulate their VSAT market to stimulate competition and enable growth of the VSAT sector, which is considered as a small market but enabling larger sectors of the economy.

In the fast growing economies of the GCC region, VSAT services are notably in demand to help fill temporary communications gaps (e.g., on new – often remote - construction sites before terrestrial communications get deployed). VSAT is often cited as a critical communication service to help run multi-million or multi-billion businesses where terrestrial alternatives are limited.

The Middle East region is currently experiencing a satellite capacity shortage due to high demand that puts pressure on VSAT operators and their customers. As a result, VSAT customers often procure less bandwidth than they would normally require. The situation is exacerbated in Qatar where only one public service provider provides capacity to a single VSAT re-seller/distributor through a limited number of satellites.

VSAT connectivity is often used for mission-critical activities, such as connecting remote oil rigs to the shore, providing redundancy on critical links. Other typical usage of VSAT includes temporary connectivity for new plants or construction sites in remote locations in the country. Customers in Qatar have high expectations in terms of Quality of Service (QoS) for VSAT to support their business activities.

The Quality of Service delivered by VSAT operators results from the performance of delivered and installed VSAT systems, the availability of the satellite link, the guaranteed level of operational maintenance and expertise, and the ability of the VSAT operator to translate connectivity requirements into a solution best adapted to customers expectations. Many Qatar-based users report that the QoS is restricted.

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<sup>2</sup> Comsys VSAT report ([www.comsys.com](http://www.comsys.com))

## 3. Qatar VSAT Market

In this section, an assessment of VSAT services supply and demand in Qatar is provided to present an overview of the situation in Qatar regarding market needs and evolution.

### 3.1. Current Supply

The current VSAT market in Qatar is supplied through the incumbent operator, Qatar Telecom (Qtel), which maintains relationships with satellite operator Intelsat. Qtel has a relationship with one company acting as a VSAT service distributor which addresses the oil & gas market. Qtel offers SCPC service in point-to-point configurations and contracts a VSAT distributor to procure, install and manage connectivity services to customers on its behalf.

Qatar VSAT services are provided through the incumbent's hub with a 4.5 meter antenna, providing access to Intelsat 902 satellite at 62 degrees East. The VSAT distributor provides managed SCPC connectivity between oil rigs and the incumbent's VSAT hub. Other industries are currently not being served by any distributor or VSAT operator.

In comparison to VSAT services available in many other countries, VSAT supply in Qatar is constrained and reaches 45 MHz of bandwidth. Capacity is currently only available from Intelsat 902 platform through the incumbent. As a result, most VSAT customers report they experience difficulty in getting additional bandwidth when they require it.

The lack of other than SCPC services on-offer may also result in an inefficient use of bandwidth for some applications, aggravating the shortage of capacity. In the current market, VSAT customers are not offered a wide range of services, compared to those offered in many other countries.

As a result, many enterprises across industry sectors in Qatar have been inquiring about VSAT for various types of services with a wide range of bandwidth requirements.

### 3.2. Current Demand

Demand for VSAT services in Qatar has grown rapidly in the last 5 years. Nevertheless, VSAT demand remains suppressed in the Qatar market, despite the entry of a VSAT distributor in 2003. Constraints are caused in part by regulatory barriers to entry. Due to market constraints on supply provisioning, it is estimated that unfulfilled demand represents nearly half of total demand in 2008 in terms of bandwidth.

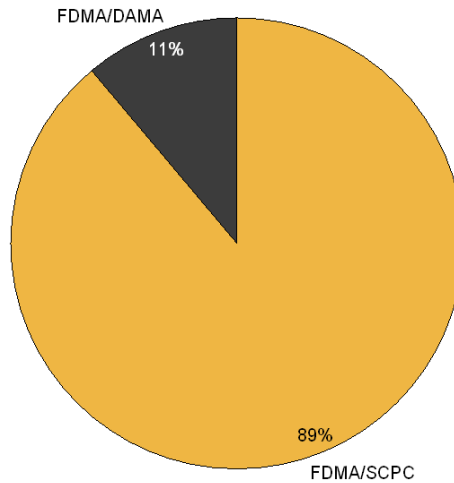
The main VSAT technology platform currently available in Qatar is SCPC. SCPC links are the satellite equivalent of a terrestrial leased line connection and enable Dedicated Bandwidth services.

The trend regarding SCPC in Qatar is in contrast to global and regional markets where the TDMA technology platform followed by DAMA (Demand Assigned Multiple Access) are most commonly used. TDMA VSAT networks use a hub station and small VSAT antennas in a set up in which channels are shared across users. TDMA enables services such as Managed Networks and Internet Access services. DAMA on the other hand is the satellite equivalent of a terrestrial dial-up connection and enables services such as On-Demand Bandwidth.

The predominant use of SCPC in Qatar poses challenges. SCPC is both more costly and less efficient than TDMA and DAMA. These usually set-up on a permanent, 24-hour basis allocated exclusively to a single user. The high cost of SCPC has hindered market adoption in Qatar, while lack of efficiency has placed additional pressure on the constrained supply of bandwidth.

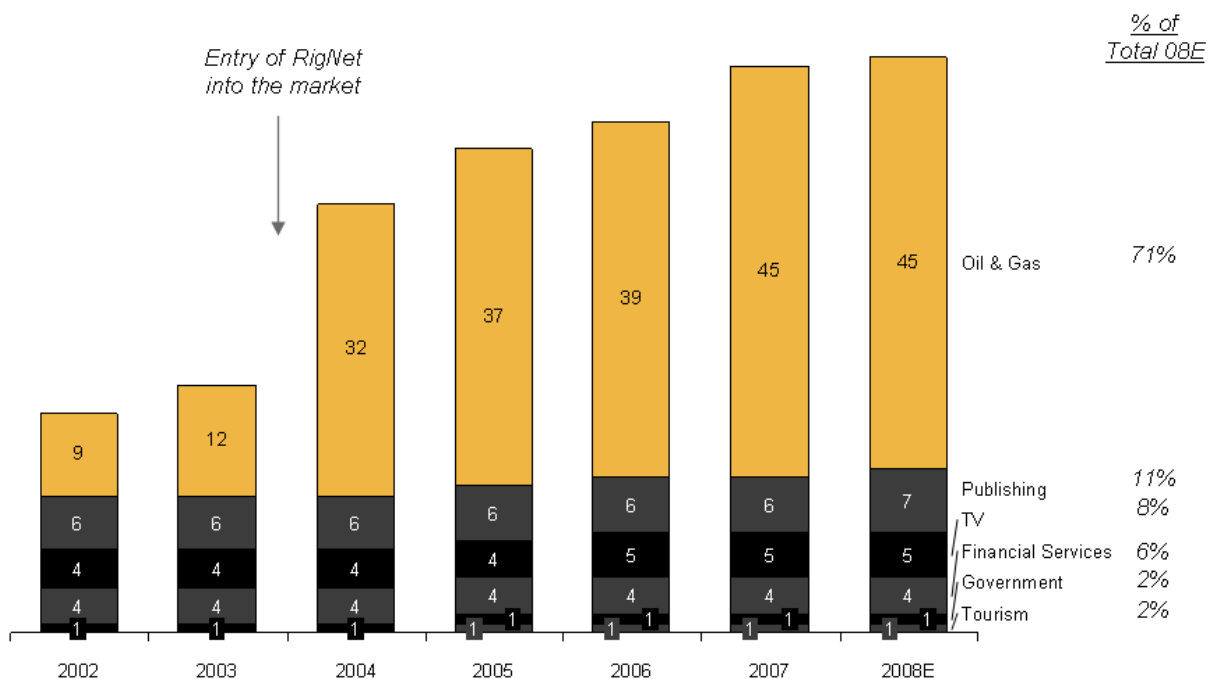
**Exhibit 3: Platform**

**Qatar VSAT Historical Fulfilled Demand by Platform**  
(in VSAT Terminals) (2002-2008E)



**Exhibit 4: Industry**

**Qatar VSAT Historical Fulfilled Demand by Industry**  
(in VSAT Terminals) (2002-2008E)



The oil & gas industry has historically been the largest end-user of VSAT services in Qatar. Today approximately 70% of VSAT terminals are used by enterprises in the oil & gas industry. They primarily use VSAT to provide connectivity for their off-shore rigs. The remaining demand for VSAT generates from publishing, TV, financial services, government and tourism in terms of size of fulfilled demand.

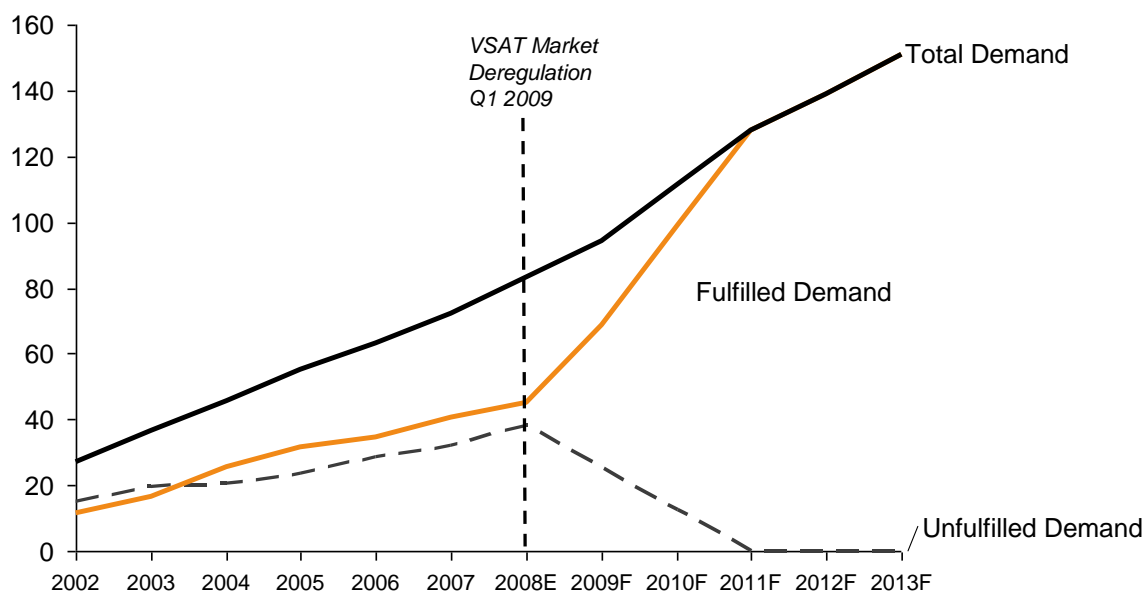
### 3.3. Demand Forecast

Following VSAT market liberalization, substantial growth in demand is expected over the next 5 years. It is estimated that total demand could grow by an average of 30% on an annual basis through 2013. VSAT operators are anticipated to experience high demand in the first two to three years, as a result of an existing backlog of unfulfilled demand.

Significant growth in demand from other industries beyond oil & gas, such as financial services and government is expected over the next 5 years. Demand from non-oil & gas sectors could reach around 55% of total demand in terms of terminals by 2013. Traditional demand from oil & gas is expected to continue growing but at a slower rate.

Exhibit 5: Demand

**Qatar VSAT Forecasted Fulfilled vs. Unfulfilled Demand**  
(in MHz) (2008E-2013F)



Qatar’s VSAT service proposition is expected to be enhanced with the introduction of new technologies such as TDMA and DAMA. This could enable significant bandwidth optimization and more attractive pricing propositions. In particular, TDMA is expected to become one of the leading service technologies, mirroring the market development of international liberalized VSAT markets in Europe and the Middle East.

As a result, it is estimated that following liberalization, demand for SCPC terminals could grow annually at an average of 10% with, however, a market share reducing from approximately 90% to closer to 40%.

Market liberalization, demand evolution and the introduction of new technologies would support the development of new services. Primarily driven by TDMA technology, Internet Access and Managed Network services are expected to significantly increase demand for TDMA service during the next 5 years. This could represent around 60% of the total market share in terms of terminals. Bandwidth intensive services, like dedicated bandwidth, are estimated to remain around 50% of market share in terms of terminals.

Market liberalization is expected to drive higher competition across technologies, service development and delivery to multiple market segments. Overall, as a result of liberalization, VSAT market revenues should increase by around 90% during the next 5 years.

Nevertheless, to support growth and overall development, it is in the country's best interest to attract long-term and experienced providers. Qatar's immediate VSAT requirements for the next 2 to 3 years would be best served by investors that have the know-how and capabilities, enabled by a supportive regulatory environment, to rapidly tap the unfulfilled demand and bring new capabilities to the market.

## 4. VSAT Licensing Framework

### 4.1. Introduction

#### 4.1.1. Current Status in Qatar

The Telecommunications Law states under Chapter Three (Article 9) that “no person shall without a License engage in any of the following practices:

- provision of telecommunications services to the public in return for a direct or indirect fee, whether the services are provided to all the public or a segment thereof, including the resale of telecommunications services obtained from another person, even if only one person benefits from such a service;
- own or operate a telecommunications network used for the provision of telecommunications services to or for the public in return for a direct or indirect fee;
- own or operate any other telecommunications network.”

Presently, long-term VSAT provision has not been explicitly licensed in Qatar, but it is implicitly licensed in the existing License for the Provision of Public Fixed Telecommunications Networks and Services. ictQATAR may permit the holders of the public mobile licenses to provide international VSAT networks and services.

VSAT is not defined in the Telecommunications Law. There is only one specific reference to VSAT in the definition of “International Gateway Facilities” found in the existing Licenses for the Provision of Public Fixed/Mobile Telecommunications Networks and Services.<sup>3</sup> This relates VSAT to its use for private networks, following the traditional and widely accepted use of this equipment. However, as ictQATAR’s assessment of the country’s VSAT market found, this use has not been exploited. In fact, demand has been suppressed by limited capacity made available by the incumbent and the fact that this has been a closed market.

There are a number of different approaches to liberalizing markets, and ictQATAR considered these with specific regard to the VSAT marketplace. ictQATAR considered three key areas: how VSAT licenses are issued, the scope of the licenses, as well as what and how international practices could benefit Qatar’s market needs.

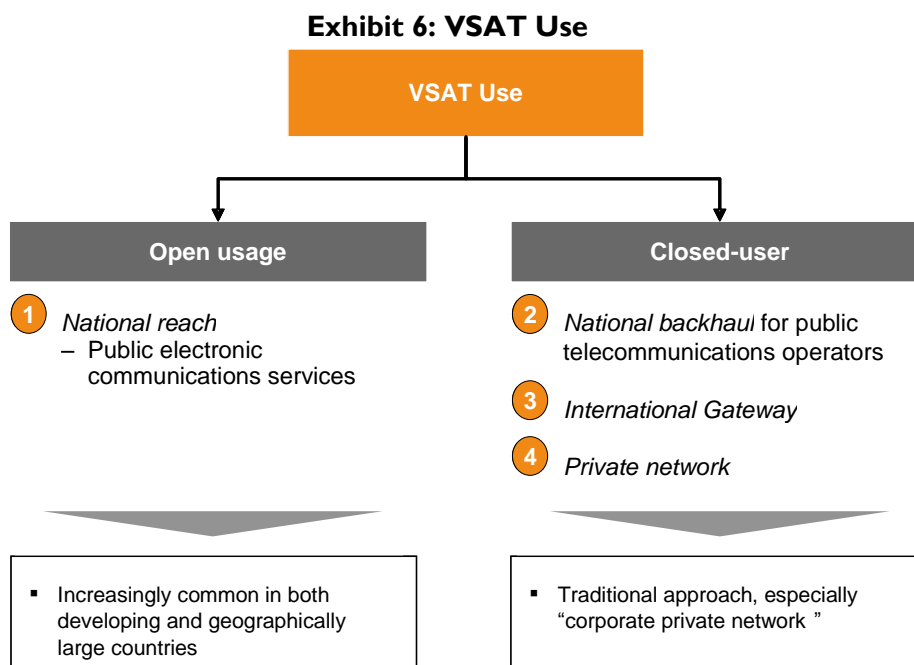
#### 4.1.2. International Practices

Licensing of VSAT services varies in the Middle East & North Africa (MENA) and other regions. This is in terms of the permitted services and how VSAT licenses are issued.

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<sup>3</sup> “*International Gateway Facilities*”: telecommunications facilities and physical plant utilized in the State of Qatar to enable a Public Fixed or Mobile Telecommunications Network to connect with and switch traffic to or from foreign public fixed or mobile networks, including via terrestrial links, undersea cables, or satellite (apart from Very Small Aperture Terminals that are used for the provision of satellite services over Private Networks), and also including international transit links.

There are typically four types of services for which VSAT is used, which ictQATAR categorizes for the present purposes as follows: *National Reach*; *National Backhaul*; *International Gateway*; and *Private Network*.

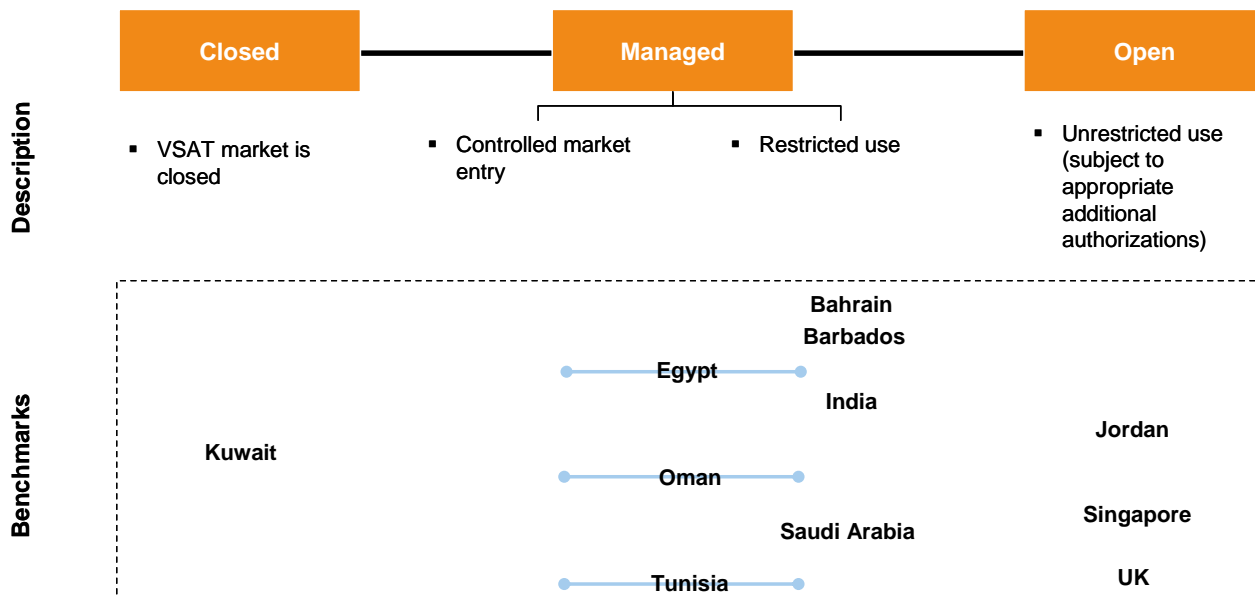


1. National Reach is the provision of electronic communications to different parts of a country in conditions in which it is not feasible to do so by fiber and possibly as a preferred alternative to microwave connections. Some service providers (to date, typically data providers) use VSAT as their primary network to provide national connectivity. This practice is increasingly common in emerging markets, especially in Africa. While Internet and other data communications are the most common services, the use of technology neutral licenses by authorities is facilitating VSAT as a means to enable fixed voice communications.
2. National Backhaul can be provided by VSAT, and this can be attractive for covering distances where fiber and microwaves are not feasible. It can also be a quick fix solution for new entrants seeking a quick entry into the marketplace while their permanent network gets rolled-out.
3. International Gateway can be supported through VSAT.
4. Corporate Private Network is one of the more common uses of VSAT, whereby a company connects its offices, subsidiaries and franchises across a country (and in some cases, internationally) for internal communications by way of a VSAT connection. Some countries limit this communication to data-oriented only.

Some countries limit access VSAT licenses through issuing them at specific dates determined by the licensing authority. Other countries have an open process whereby VSAT licenses are available at any time upon application. In terms of services, some countries restrict VSAT to data provision for closed user groups, whereas others allow VSAT to be used to provide commercial offerings,

including public telecommunications services, to third parties. Briefly, regulatory practices can be simplified into three licensing approaches: *closed*, *managed* and *open*.

**Exhibit 7a: VSAT Licensing Approaches**



*Closed* markets are those that do not allow VSAT provision, with the possible exception of the incumbent operator. There are relatively few countries that are closed. Based on ITU (International Telecommunication Union) information, in the MENA region, in addition to the present situation in Qatar, Kuwait is an example of a “closed” market.

*Managed* approach involves limiting the number of licensees (e.g., Oman) and/or limit the permitted services that can be provided through VSAT (e.g., Saudi Arabia). While both of these factors can be simultaneously applied, the two are not interdependent. General practice is to apply restricted use more than controlled market entry. However, liberalization trends are moving regulatory practices of VSAT towards the “open” approach.

*Open* licensing is the withdrawal of heavy regulatory management in favor of a “light touch” approach in terms of access to licenses, license obligations and permitted use of VSAT for services. European Union countries lean in this direction as a result of adopting general authorization approaches. Others, such as Singapore, allow light access and permit public telecommunications services subject to the party obtaining the relevant service provision license. The availability of such licenses is not necessarily limited.



Exhibit 7b: VSAT Licensing Practices (Selected Examples)

	Private	Public <sup>(1)</sup>	Comments	
MENA	Bahrain	✓	✗	<ul style="list-style-type: none"> <li>Application</li> <li>Individual license</li> <li>No interconnection permitted</li> </ul>
	Egypt	✓	✗	<ul style="list-style-type: none"> <li>Individual license</li> <li>Licensing not available on application (i.e. regulator-determined times)</li> <li>VoIP explicitly not permitted</li> </ul>
	Jordan	✓	✓	<ul style="list-style-type: none"> <li>Require a "Class License"</li> <li>Licensing on application</li> <li>Issued for a term of 15 years.</li> </ul>
	Saudi Arabia	✓	✗	<ul style="list-style-type: none"> <li>VSAT services can be provided to services to closed user groups inside and outside the country                             <ul style="list-style-type: none"> <li>- International gateway license may be required</li> </ul> </li> <li>Licensing available on application</li> </ul>
	Tunisia	✓	✗	<ul style="list-style-type: none"> <li>Individual license</li> <li>Licensing not available on application (i.e. regulator-determined times)</li> <li>Limited competition</li> </ul>
International	Barbados	✓	✗	<ul style="list-style-type: none"> <li>Application</li> <li>Individual license</li> <li>No interconnection to PSTN or mobile</li> <li>No resale permitted</li> </ul>
	India	✓	✗	<ul style="list-style-type: none"> <li>Application</li> <li>Individual license</li> <li>Commercial services can be offered but only to closed users</li> <li>Interconnection with PSTN not permitted</li> </ul>
	Singapore	✓	✓	<ul style="list-style-type: none"> <li>Application</li> <li>Individual license</li> <li>Public service provision possible if service license obtained</li> </ul>
	United Kingdom	✓	✓	<ul style="list-style-type: none"> <li>Registration</li> <li>General network license</li> <li>General service authorization enables public service provision</li> </ul>

1) "Public" refers to telecommunications services, including voice

## 4.2. Licensing Approach and Process

While current regulatory trends are advancing the principles of technology neutrality and general authorizations for service provision, market conditions combined with the infant state of liberalization in Qatar force ictQATAR to assess the right licensing approach as it opens up the telecommunications sector to new investors.

ictQATAR believes that moving from a monopolistic state to a fully liberalized market-based structure on general authorizations and unlimited access could be highly disruptive and counterproductive for consumers, as well as the wider, national economy in the short-term. ictQATAR believes that a transitional approach is required, although it is hoped this transition could quickly occur. Future market reviews will help assess the pace and direction for advancing liberalization practices. The position is reflected in the initial licensing approach taken for the recent licensing of the new providers of Public Fixed and Mobile Telecommunications Networks and Services. ictQATAR has publicly expressed its commitment to reviewing the market in 2010.<sup>4</sup>

In line with this approach, ictQATAR has decided that the best method for Qatar to build a solid investment and competitive platform for the VSAT market would be through a "managed" licensing approach. This would support attracting investors experienced in VSAT to enter and service the market in Qatar. The aim is to fuel competition, and manage the risk of unduly disruptive elements

<sup>4</sup> "In 2010, ictQATAR will conduct a Market Review and evaluate the state of the telecommunications market. If ictQATAR determines that individual and business consumers - as well as the economy itself - would benefit from the competition of additional competitors, the Council would consider a process to issue one or more additional licenses." ([www.ict.gov.qa](http://www.ict.gov.qa) at "news" June 29, 2008)

during the development stage of this important market. Following an initial period establishing market competition, ictQATAR would review the market and consider increasing entry opportunities to further encourage self-management by market forces. The proposed managed approach would involve enabling VSAT provision to a limited number of licensees, as well as setting the scope of authorized service provision.

ictQATAR intends to issue two types of licenses:

1. VSAT Licenses.
2. Special-events VSAT Permits.

In addition to these Licenses and Permits, ictQATAR may exceptionally, on a case by case basis, grant permissions to use VSAT to specific users such as foreign embassies and national security bodies in Qatar.

The issue of possible re-sellers will be dealt with after the initial VSAT licensing process. The existing re-seller in the market (RigNet) may continue to re-sell Qtel services pending the further re-consideration.

**QUESTION 1:** ictQATAR invites comments on the proposed licensing approach for the VSAT services in Qatar.

## 4.2.1. VSAT Licenses

ictQATAR considered different licensing approaches: *restricted*, *managed* and *open*. These approaches broadly reflect both the extent of market-entry as well as the extent of service provision rights.

ictQATAR concluded from its assessment of the VSAT marketplace that it is essential to apply a *managed* approach. Any approach less than this would be insufficient in addressing the objective of opening up the market to competition. ictQATAR concluded that the current conditions and circumstances concerning VSAT in Qatar present too many risks for enabling sustainable investment and competition in this telecommunications market. Furthermore, ictQATAR also needs to consider the role of telecommunications in supporting wider national economic development objectives. The combination of these considerations led ictQATAR to conclude that liberalization through an initial release of a limited number of VSAT Licenses would best enable an attractive environment for quickly building a platform for sustainable investment and competition.

ictQATAR regards the incumbent holder of the License for the Provision of Public Fixed Telecommunications Networks and Services as already holding the right to use VSAT and provide VSAT services. In the event there is any uncertainty on the part of this license holder, ictQATAR will provide it with a certification right.

Based on the size of the market and comparable markets elsewhere, it is intended that three (3) new licenses permitting VSAT service provisioning will be granted by ictQATAR. These new VSAT Licenses will be granted to entities whose business is to provide VSAT services to third parties

(i.e., Closed User Groups – as defined below). Licenses for Closed User Groups to operate VSAT services for their own internal use will not be available at this time.

The Licenses will be issued through a competitive process, following a beauty contest approach. This approach was applied in the licensing of the second provider of Public Mobile Telecommunications Networks and Services and the second provider of Public Fixed Telecommunications Networks and Services. ictQATAR regards each of these licensing occasions to have been successful and believes it is the best approach for determining the recipients of the limited number of VSAT Licenses in this instance.

**QUESTION 2:** ictQATAR invites comments on the proposed number of new VSAT Licenses and the approach for granting them.

The Pre-qualification process will be formally set out. The intended fundamental requirements are outlined below.

#### **4.2.1.1. Pre-qualification Process**

- Interested parties satisfying the Pre-qualification criteria shall register interest by submitting the required form and paying the registration fee
- Interested parties shall submit all requirements by the pre-determined timetable
- Registered applicants fulfilling the terms and conditions of the pre-qualification process shall be considered by ictQATAR as candidates for Pre-qualification
- Pre-qualified candidates will be invited to participate in the Application Phase

#### **4.2.1.2. Registration Fee**

A fee shall be charged to cover the costs of the development, administration and implementation of the licensing process. The proposed, non-refundable fee is QAR 20,000 (Twenty Thousand Qatari Riyals).

#### **4.2.1.3. Pre-qualification Criteria (Indicative)**

To qualify, interested parties shall be required to (an indicative but not exhaustive list):

- demonstrate established experience in deploying VSAT operations and providing commercial VSAT services to large Closed User Groups including institutions and industrial corporations, particularly in respect of the gas and oil industries;
- demonstrate solidity of current business and evidence of no previous bankruptcy, including on the part of major shareholders (i.e. over 10% ownership);
- be independent from the incumbent and already licensed providers of Public Telecommunications Networks and Services (Qtel and Vodafone) including in terms of their affiliates having an officer, director or employee who is also an officer, director or employee of existing providers, including their affiliates or holding companies;

- file during the Application Phase a financial comfort letter from a Qatari or a recognized international bank in a form to the satisfaction of ictQATAR.

#### 4.2.1.4. Selection Process

A pre-determined evaluation structure will be established. The weight of emphasis in assessing applicants will be on their experience in:

- deploying, operating and offering VSAT services. Since VSAT can involve international connectivity between entities within a single Closed User Group, the scale of operations will be an influencing factor;
- serving large Closed User Groups; and
- serving customers in the Gulf region.

In light of the fact the Licensees' overall services are limited to Closed User Groups and therefore a niche area in the sector, there will be no requirement for an applicant to be a part of a consortium with Qatari members, to issue equity voting stock on the Qatari Stock Exchange, or for any percentage of the entity to be held by a Qatari citizen, a Qatari institution or the Government. However, such requirements may be imposed should the Licensee's scope of permitted services be widened to include the right to provide Public Telecommunications Services. In such circumstances, requirements will be in line with other licensed public telecommunications providers. Nevertheless, any company selected for award of a VSAT License must establish a Qatari based company on its own or through partnership with other entities before a VSAT License may be issued to it.

#### 4.2.2. Special-Events VSAT Permits

ictQATAR will continue to provide temporary permits (will be called "Special-event VSAT Permits") to allow selected types of entities to have VSAT access (e.g., Satellite News Gathering – SNG). These Permits will apply to specific occasions and will not be permitted to result in a right that, in effect, leads to continuous use.

"Special-event" means the sum of a recognizable, single occasion at a set time period and within a defined location.

These Permits shall be available at any time, and shall be executed for the applicant as quickly as possible.

### 4.3. VSAT License Definitions, Terms and Conditions

Since the VSAT Licensees will offer services (albeit limited) on a commercial basis and be in competition with one another and since ictQATAR has adopted an approach incorporating regulatory instruments within licenses, ictQATAR intends to issue the VSAT Licenses based on the format applied to the existing Public Telecommunications Licenses. This format enables the inclusion of essential regulatory rules that will be applicable to VSAT Licensees.

The terms and conditions of the VSAT Licenses will be subject to the provisions of the Applicable Regulatory Framework (i.e., the Telecommunications Law and other applicable legislation and

international treaties, and any regulations, decisions, orders, rules, instructions or notices that have been on may be issued by ictQATAR).

The following sections provide an overview of draft definitions and terms and conditions intended for the VSAT License. The overview is descriptive and indicative only and the terms and conditions are not purported to be the legal text. Where deemed useful, supplementary explanations are provided within a box.

## 4.3.1. Definitions

An extensive list of definitions has been established in the Telecommunications Law and the existing Licenses for the Provision of Public Fixed/Mobile Telecommunications Networks and Services, which are available on ictQATAR's website ([www.ict.gov.qa](http://www.ict.gov.qa)). In addition to those definitions, the following terms and their proposed meanings will form part of the VSAT License and regulatory framework:

**“Closed User Group”** means entities, bound by a common economic and non-economic links, that can be identified as being part of a group on a basis of a lasting professional relationship, among themselves or with another entity of the group, and whose internal communication needs result from the common interest underlying this relationship. For clarity, Closed User Groups shall not include private individuals, individuals forming a family of direct or indirect blood or marital relations, individuals linked by bonds of friendship, or status, or residential communities.

Explanation:

Presently “Private Networks” is defined in the regulatory framework. The difference between a “Private Network” and a “Closed User Group” is as follows: “Private Network” is about a type of communications, whereas “Closed User Group” identifies types of users of communications. Groups with “Private Networks” are a form of operator. They presume ownership or dedicated control or management of a network by the user through self-configured, managed or leased facilities. “Closed User Groups” are subscribers of network provision services. They do not have or presume ownership or control, because the network or service is provided by a third party (e.g., network operator). Such groups subscribe to a licensed operator for dedicated services.

**“Corporate Communications”** means communications between offices of a registered company, holding companies and their subsidiaries, franchises and other companies closely related by ownership.

**“Telecommunications service”** means voice, data, video communications provided over a telecommunications network.

**“VSAT”** means very small aperture terminal(s).

**“VSAT services”** means telecommunications services provided by way of a satellite telecommunications network between points that are equipped with very small aperture terminal equipment.

**“VSAT License”** (or License) means a license granted by ictQATAR for the provision of VSAT services according to the VSAT licensing framework set out in this document.

**“VSAT Licensee”** (or Licensee) means a holder of a VSAT License.

Explanation: VSAT is not defined in the Telecommunications Law. “VSAT” is referred to within the definition of International Gateway Facilities in the public fixed and mobile licenses, but is not independently defined.

ictQATAR recognizes that clarification may be necessary regarding “VSAT” in the context of the definition of “International Gateway Facilities” found within the public fixed and mobile licenses. As set out above, ictQATAR views the inclusion of “very small aperture terminals” as an explanation and not a definition of VSAT itself. Therefore, since VSAT has not been established, a formal definition is necessary for the purpose of licensing.

The formal definition provided here shall take precedence over and above any previous understanding, statement or interpretation, including within the public fixed and mobile licenses, from the effective date of the first VSAT License issued or its incorporation into a law, decree or regulation; whichever comes first.

**QUESTION 3:** ictQATAR invites comments concerning points for clarification required for any of the proposed definitions.

**QUESTION 4:** ictQATAR solicits views about any definitions outstanding that should be included.

### 4.3.2. Scope of License

VSAT use will be restricted to Closed User Groups for the provision and use of telecommunications services within the State of Qatar (including the territorial waters). VSAT provision does not include the right to transmit or receive satellite television broadcasting.

The VSAT Licensees shall have the following service provision rights:

- Closed User Group telecommunications service provision on a commercial basis.
- International gateway (in the context of serving Closed User Groups).

The VSAT Licensees shall not be allowed to undertake the following:

- Public Telecommunications Services.
- International gateway for non-Closed User Groups or for any third party entity offering any form of Public Telecommunications Services.
- Interconnection with public telecommunications networks (fixed or mobile).

The scope of permitted services may be extended by ictQATAR after the Strategic Sectoral Review in 2010.

The VSAT Licensees shall be permitted to self-provide or lease access for the direct, international transmission and reception of telecommunications services applicable to its own Closed User Group.

The VSAT Licensees shall be required to provide services to any Closed User Group located within the State of Qatar, when the service provision is financially and technically feasible.

Where a VSAT Licensee provides services to third parties, such parties may only be Closed User Groups and Closed User Groups may not be connected with any other Closed User Group through the Licensee.

VSAT Licensees cannot connect with other VSAT Licensees within the State of Qatar.

Explanation: VSAT is typically used for Closed User Groups. Traditionally, this is to enable businesses and government entities to communicate with their respective offices in different parts of the country. This was restricted to internal communications and connection with public telecommunications networks and to other parties was not permitted. The restriction was to prevent alternative telecommunications networks from forming and by-passing the public telecommunications operators, thereby protecting incumbent operators' businesses.

In the instance of international telecommunications services, current international benchmarks reflect diverse practices, with some countries continuing to apply restrictions on VSAT (e.g., India). These force VSAT users to exchange international traffic through incumbent public telecommunications operators, thereby protecting highly profitable revenue streams for the latter. However, other liberalized countries permit VSAT licensees to undertake international telecommunications services (e.g., European Union, Jordan and Singapore). In some instances, the provider may require an additional license to undertake such activities (e.g., Bahrain).

In the interest of achieving liberalization, addressing pent-up demand for capacity, encouraging greater price efficiencies and in light of on-going development of a licensing regime for Qatar, it has been decided that VSAT Licensees should not be restricted in terms of international traffic exchange or additional licenses permitting such activities within the context of Closed User Groups.

In view of the fact that ictQATAR has stated that no further public fixed or mobile telecommunications competition will be introduced before 2010, VSAT Licensees will not be permitted to interconnect with public telecommunications operators, sell or resell public international telecommunications services. ictQATAR is aware that the trend is for technology and network neutrality for public telecommunications service provision, as is the case in the European Union, and may take this into consideration in a review in 2010 or at any later date as ictQATAR sees fit.

**QUESTION 5:** ictQATAR invites comments about the appropriateness of scope of the VSAT License given the fact no further public telecommunications networks or services can be authorized before 2010.

### 4.3.3. Compliance Obligation

In conducting its business, the VSAT Licensee shall comply with the terms of its License and the Applicable Regulatory Framework. This shall include, without limitation, all decisions and regulations issued by ictQATAR.

The Licensee shall take all reasonable and practicable steps and measures necessary to adapt its business practices and processes, organizational structure, network configuration or other aspects of its business to facilitate the introduction and development of competition in the



telecommunications sector in accordance with the decisions, orders, rules, instructions or timeframes issued by ictQATAR in accordance with the Applicable Regulatory Framework.

The Licensee shall not engage in any anticompetitive practices that prevent, hinder or substantially lessen competition, as stipulated in the Applicable Regulatory Framework, including any applicable provisions in the License.

**QUESTION 6:** ictQATAR invites comments about the scope of compliance obligations for VSAT Licensees serving Closed User Groups.

#### **4.3.4. Radio Spectrum Use**

The radio spectrum bands to be used are dictated by the bands chosen by the satellite operators selected for VSAT services. The available spectrum is governed by international coordination under ITU/WRC rules.

VSAT Licensees will have the right to access and use radio spectrum as agreed with ictQATAR at the time of licensing.

Spectrum may be allocated if required to meet the needs of the service provision.

#### **4.3.5. Network Roll-out and Coverage Obligations**

There shall be no roll-out or coverage obligations, other than a requirement to provide VSAT services to any Closed User Group in the State of Qatar that requests such services when the request is financially and technically feasible.

However, if the Licensee fails to commence services within a time deemed reasonable by ictQATAR, the License could be revoked.

**QUESTION 7:** ictQATAR invites comments about whether a coverage obligation should be imposed on a VSAT Licensee, and if so, what is the rationale for this.

#### **4.3.6. Interconnection**

Interconnection with public telecommunications providers shall not be permitted. Interconnection with other VSAT Licensees shall not be permitted, and neither shall interconnection between different users (i.e., Closed User Groups) within the customer portfolio of the VSAT Licensee be permitted.

#### **4.3.7. Fees**

VSAT Licensees shall be subject to an initial license fee and an annual license fee. The “annual



license fee” shall follow the principle applied to other licensees offering services on a commercial basis in the State of Qatar. The annual license fee shall be one percent (1%) of the net annual revenue of the commercial services the VSAT Licensee performed for Qatar consumers from activities under the VSAT License.

VSAT Licensees shall also be subject to an “annual industry fee” amounting to twelve-and-one-half percent (12.5%) of net profit from activities under the VSAT License.

**QUESTION 8:** ictQATAR invites comments about the proposed fees.

#### **4.3.8. License Term**

The VSAT License shall be valid for fifteen (15) years beginning on the Effective Date.

**QUESTION 9:** ictQATAR solicits views about whether the License period is reasonable. If not, ictQATAR welcomes views and supporting rationale about what the period should be for a VSAT License.

#### **4.3.9. Renewal of License**

The Licensee may request for the renewal of the License no earlier than thirty-six (36) months and no later than twelve (12) months prior to the date of expiry of the License. Subject to consultation with the Licensee and other interested parties, ictQATAR shall determine in its sole discretion whether to approve the request and grant a renewal under the same or revised terms and conditions. This does not affect the position that all VSAT Licenses shall be identical in their terms and conditions.

Renewal shall be for the same period, and any modifications to the terms and conditions of the License shall not be interpreted as a new License.

ictQATAR shall notify the Licensee of its intent, in writing, to either renew or decline to renew this License within six (6) months of receiving a request for renewal. Should ictQATAR decline the request, reasons for this decision shall be provided in writing to the Licensee.

#### **4.3.10. Performance Bonds**

Note: There will be no Performance Bonds in the case of VSAT Licenses.

**QUESTION 10:** ictQATAR solicits comments about whether or not there should be a Performance Bond, and why.

## 4.3.11. Obligations to Customers and Quality of Service

The Licensee shall provide services to its Customers in accordance with the terms and conditions that comply with the Applicable Regulatory Framework, including, but not limited to, the tariff procedures, service continuity requirements, procedures for disconnection and Quality of Service (QoS).

In light of the fact services will be offered on a commercial basis, the Licensees will be required to establish QoS commitments through a Service Level Agreement (SLA) with their customers.

The SLA should cover at least the following indicative QoS parameters, for each terminal:

- Delivered Bandwidth (shared/dedicated) (in Kbps)
- Committed Information Rate (CIR) (in Kbps)
- Bit Error Rate (BER) on its customer VSAT links
- Latency (in ms)
- Maximum fault detection time during business hours
- Maximum fault detection time outside business hours
- Maximum fault resolution time during business hours
- Maximum fault resolution time outside business hours
- Operational support coverage times (e.g., 24 x 7)
- Logistical issues related to access to terminal for servicing
- Obsolescence terms when applicable (all-in contract)

In addition, the VSAT Licensees shall:

- offer solutions supporting dedicated and shared bandwidth access schemes; and
- establish a Network Management System function with connectivity monitoring and fault detection capability.

VSAT Licensees are required to commit (in the SLA with their customers) and meet specific QoS targets based on standard QoS parameters that are commonly used in international best practices. ictQATAR could allow the VSAT Licensees the opportunity to determine the QoS parameters and obligations or impose these, especially if the ones proposed by the Licensees are deemed inadequate.

**Explanation:** Analysis undertaken found some concerns that VSAT service quality for Qatar customers was poor, with examples of prolonged outages. Such reports concern ictQATAR as it views the sector plays an important supporting role to Qatar's industries, and subsequently to national economy and diversification objectives. Poor service also relates to distorted prices for VSAT services.

**QUESTION 11:** ictQATAR invites comments about whether VSAT Licensees should be prescribed QoS parameters and obligations by ictQATAR or should this be left to the Licensees themselves, and why.

The table below provides indicative QoS parameters and obligations to guide the setting of the QoS commitments.

**Exhibit 8: Indicative QoS Parameters and Obligations**

QoS Parameter	Measure	Measurement method	Obligation during the 1 <sup>st</sup> year following the License attribution	On-going obligation after the 1 <sup>st</sup> year following the License attribution
Bit Error Rate (BER)	This measures the end to end performance of the link	The BER is measured by a BER test device or procedure set up by VSAT Licensee	< 10 E-8	< 10 E-9
Detection time	This measures the time it takes for the Network Management Function to detect connectivity failures	Time is measured by service provider	< 1 hour	< 1 hour
Fault repair time	This measures the time between a reported or detected fault and the service is restored	Time is measured by service provider in hours  - Area 1 (e.g., main land)  - Area 2 (e.g., remote locations)	The shortest of the two: 1. Time agreed with customer 2. Or: < 8 hours for main land  < 24 hours for remote locations	The shortest of the two: 1. Time agreed with customer 2. Or < 4 hours for main land  < 24 hours for remote locations
Throughput and bandwidth utilization versus Committed Information Rate (CIR)	This measures the throughput obtained at each remote site on the uplink and downlink versus CIR level specified in the SLA between service provider and customer. The CIR may be lower than delivered bandwidth in case of shared bandwidth	Measured by service provider as a percentage of bandwidth delivered over bandwidth committed	> 95%	> 99%
Installation time	Average time from a valid order received to initiation of service	Installation time is measured in days between the time the valid order is received and the service is initiated - SCPC with MPLS data services - Star TDMA	< 20 days  < 5 days	< 15 days  < 5 days

Network availability	This parameter provides a measure of the proportion of time that the space and ground segment network is available to customers. It is defined as a proportion of time during which the hub and associated services such as Domain Name Service are operational	For each hub station, the number of hours during which at least 80% of the booked transponder capacity is operational during the month is determined and divided by the number of hours in the month. Network availability is the average of each hub availability	> 98%	> 99.5 %
Billing correctness	The time to resolve billing complaints	The proportion of bill correctness complaints resolved within - 15 business days - 25 business days	> 50% > 90%	> 90% > 99%

**QUESTION 12:** ictQATAR invites comments about the indicative QoS requirements and if they are reasonable. If not, ictQATAR requests supporting rationale for the alternative suggestions.

### 4.3.12. Lawful Interception and Security and Network Blocking

The VSAT Licensee shall be subject to the same requirements applied to public telecommunications licensees in terms of cooperating with authorized law enforcement authorities and other government bodies concerning national security and public emergencies.

In the context of being subject to a requirement to provide information, the Licensee shall cooperate in providing any relevant information that is not collected or stored in the State of Qatar by the Licensee, but has been done by the Licensee or on its behalf in the course of providing the communication service. This provision applies to information that is the direct result of communications transmitted or received within the territorial jurisdiction of the State of Qatar through the facilitation of the Licensee.

### 4.3.13. Other Terms and Conditions

The terms and conditions regarding the following topics will be as set out in the existing License for the Provision of Public Fixed Telecommunications Networks and Services:

- 1) Breach of License Conditions
- 2) Enforcement Powers of ictQATAR
- 3) Penalties and Sanctions

- 4) Non-Discriminatory License Provisions
- 5) Treatment of Customer Communications and Data
- 6) Access to Premises and Information
- 7) Amendment, Suspension, and Revocation of License
- 8) Continuity of Service in the Event of Non-Renewal, Suspension or Revocation of License
- 9) Assignment of License
- 10) Transfer of Control
- 11) Representation before International and Governmental Organizations
- 12) Publication of License details
- 13) Tariff Approval
- 14) Governing Law and Language of License

#### 4.3.14. Details of VSAT Licensee

At the time of licensing, the applicant shall be required to provide business and technical details. All non-technical details are to be completed at the time of the application. All technical details are to be completed at the time of License issuance or, subject to the approval of ictQATAR, before the commencement of services.

#### Exhibit 9: Licensee Information

Non-Technical Details	
Personal Information	
Surname	
Family Name	
ID / Passport Number	
Nationality	
Permanent Address	
Mailing Address	
Telephone Number	
Fax Number	
e-mail Address	
Company Information	
Registered Name	
Registration Number	
Company Address	
Mailing Address	
Main office telephone number	
Main office fax number	
Email address	
Contact name (Senior Management level)	

Technical Details			
Site Information			
Address			
Longitude		Latitude	
Site Elevation Above Sea Level (meters)			
Coverage			

Coverage Area		Center Latitude	
Radius (Kilometers)		Center Longitude	
<b>Satellite Network Information</b>			
Satellite Name			
Satellite Operator			
Type			
<b>Frequency</b>			
		Transmit	Receive
Range			
Center			
Frequency			
Bandwidth			
<b>Modulation</b>			
Characteristics			
<b>Station</b>			
Designation of Emission			
Spurious Emission (dB)			
Receiver Sensitivity (uV)			
Output Power Supplied to the Antenna (W)			
<b>Antenna</b>			
3dB Beam (deg)			
Receiving System Noise Temperature (Kelvin)			
Type			
Total Peak Power (dBW)			
Antenna Displacement from Station Location (meters)			
Antenna Gain (dBi)			
Maximum Isotropic Gain (dBi)			
Elevation Angle (deg)			
Azimuth Angle (deg)			
Site Elevation Above Sea Level (meters)			
Structure Height (meters)			
Building Height (meters)			
Antenna Diameter (meters)			
Polarization			
<b>Base Band Equipment</b>			
Demodular Output Bit Rate			
Demodular Channel Capacity			
Number of 64 Kbps Channels			
Functional Block Diagram			
<b>LNR</b>			
Bandwidth			
Manufacturer & Type			
Noise temperature (Kelvin)			
Frequency Range			
IF bandwidth (KHz)			
<b>Feeder</b>			
Length (m)			
Losses (dB)			
<b>Down Convector</b>			
Type			
Frequency range			
Bandwidth			

Details of Apparatus (RF Head)	
Type of Equipment	
Manufacturer	
Model	
Serial Number	
Details of Apparatus (Digital Indoor Unit)	
Type of Equipment	
Manufacturer	
Model	
Serial Number	
Bit rate	
Address of system	
Details of Supplier	
Registered Name	
Company Address	
Mailing Address	
Main office telephone number	
Main office fax number	
Email address	
Contact name (Senior Management level)	

#### 4.4. Special-Event VSAT Permits

ictQATAR will continue to issue temporary or “Special-event VSAT Permits” which shall be subject to terms and conditions designed specifically for this type of authorization. Such Permits should not be seen as substitutes or alternatives to the VSAT Licensees.

##### 4.4.1. Rights and Restrictions

Special-event VSAT Permits are available through a standard application process. Applications are available, on request, from the offices of ictQATAR. An example of the standard Permit shall be available at the offices of ictQATAR.

Permit-holders shall have the following service provision rights:

- Closed User Group telecommunications service provision.
- International gateway (in the context of serving Closed User Groups).

Permit-holders shall not be allowed to undertake the following:

- Public Telecommunications Services.
- Interconnection with public telecommunications networks (fixed or mobile).

ictQATAR may establish a list of types of Closed User Groups that may apply for a Special-event VSAT Permit.

Special-event VSAT Permits shall be valid for a single event and not for longer than the duration of the event.

The Closed User Group of which the Special-event VSAT Permit holder belongs shall be clearly identifiable as a Closed User Group by way of a uniform, legal identity.

Holders of this Permit shall be authorized to use the temporary VSAT connection to enable an exchange of communication for the ordinary course of their business that is associated with the Special Event. Holders shall not be permitted to offer commercial services of any form, or to lend, lease, subcontract or otherwise outsource the connection to a third party, unless a holder is an entity whose principal business is VSAT provision supporting Special Events and provided that:

- such an entity has been pre-approved by ictQATAR as one whose principal business is to provide such support;
- the recipient of the services is identified to be a direct participant of the event (including media observers);
- such VSAT service provision is not available to others not identified as a recipient;
- the basic rights and restrictions set out for Special Events VSAT provision are adhered, and;
- an application is duly completed and approved for each Special Event.

Each Permit shall state the validity period, which shall be no longer than the period of the Special Event and shall not be renewable.

All Permit holders shall:

- be bound by the laws of the State of Qatar, including applicable rules and regulations pertaining to telecommunications relevant to their activities;
- be required to use equipment approved for use in the State of Qatar;
- operate in the allocated radio frequency;
- operate in the designated geographical area;
- not claim ownership or exclusive rights to any frequencies assigned for their temporary use;
- deploy and operate antenna for transmission within designated measurements, which shall be within specified ITU-R limits;
- not cause interference with other users of radio frequencies, and shall undertake all efforts to quickly resolve any disputes caused by their own use of frequencies;
- adhere to any Health and Safety Executive requirements ;
- obtain the necessary permissions, where required, from the appropriate authorities for each location of transmission and reception equipment prior to commencing operation; and
- pay applicable fees.

#### **4.4.2. Application**

The application process will involve the completion of an application and its submission at ictQATAR, approval of the application by ictQATAR, and the payment of applicable fees by the applicant.

The application will include, among others, details about the following:



- applicant;
- name, location and duration of the event;
- frequency needs;
- satellite connectivity;
- equipment;
- antenna set-up.

Application fees shall be non-refundable, including where the applicant is unsuccessful in obtaining approval or completing the application process.

The application fees will be pre-determined based on administrative costs and may reflect the duration of the authorized use of frequencies for the provision of VSAT.

Approved applicants will be provided with a Permit that sets out:

- allocated frequencies for the permitted user;
- duration of the Permit;
- standard terms & conditions, which will set out the lawful provision of VSAT.

Applicants and Permit holders may be subject to obtaining approvals or permits from other authorities to fully enable them to operate VSAT equipment. This will be the sole responsibility of the applicants and Permit holders. ictQATAR may require applicants to provide proof that some or all other authorizations have been obtained before releasing a Permit to the applicant. In the event all the necessary authorizations cannot be obtained, including circumstances in which ictQATAR withholds the release of the approved Permit until such time that all other authorizations are successfully obtained, fees towards the Special-event VSAT Permit shall remain non-refundable.

**QUESTION 13:** ictQATAR solicits comments about the scope, process, rights and conditions of the “Special-Event VSAT Permits”.

## 5. Consultation Procedures

All interested parties are invited to submit responses to the questions set out within this consultation document and to provide their views on any other relevant aspects. Parties are also invited to submit an Expression of Interest in obtaining a VSAT License. Details for these submissions are as follows.

### 5.1. Consultation Responses

Communications with ictQATAR concerning this consultation document must be submitted in writing. Written comments responding to this consultation document should be submitted to ictQATAR no later than 3:00 p.m. (local time in the State of Qatar) on **23 March 2009**. A covering page containing the information set out in Annex I should be included as the first page of the submission.

Interested parties are invited to answer the questions specifically identified in this document and to provide their views on any other relevant aspects. Comments should reference the number of the question being addressed or the specific section of this document if not responding to a particular question.

ictQATAR asks that respondents, to the extent possible, support their comments with examples or any relevant evidence. ictQATAR will take into consideration all comments received but is under no obligation to adopt or implement any comments or proposals submitted.

### 5.2. Expressions of Interest

ictQATAR invites Expressions of Interest for VSAT Licenses. This invitation does not apply to "Special-event VSAT Permits". Expressions of Interest should be submitted in writing no later than 3:00 p.m. (local time in the State of Qatar) on **23 March 2009** using the template set out in Annex 2.

### 5.3. Submission of Responses and Expressions of Interest

Consultation Responses and Expressions of Interest may be submitted separately or together by either of the following methods:

- (1) (Preferred method) by e-mail to [consult@ict.gov.qa](mailto:consult@ict.gov.qa). The subject reference in the email for either or both Responses and Expressions of Interest should be stated as "Consultation on VSAT Licensing Framework". It is not necessary to provide a hard copy in addition to the soft copy sent by email.
- (2) By hand or by courier, one hard copy accompanied by a CD Rom, to  
Regulatory Policy and Economic Affairs Department  
Regulatory Authority  
The Supreme Council of Information & Communication Technology (ictQATAR)  
Al Mirqab Tower, 4<sup>th</sup> floor

Corniche Road  
Doha - Qatar

(3) By post, one hard copy accompanied by a CD Rom, to:

Regulatory Policy and Economic Affairs Department  
Regulatory Authority  
The Supreme Council of Information & Communication Technology (ictQATAR)  
P.O.Box 23264  
Doha - Qatar

## 5.4. Publication of Comments

In the interest of transparency and public accountability, ictQATAR intends to publish on its official website copies of all comments submitted as part of this consultation process. All comments received will be processed and treated as non-confidential unless otherwise indicated on the covering page submitted by the responding party.

ictQATAR does not plan to state the names of the parties that have submitted Expressions of Interest at this stage of the process, but may decide to publish the number of such expressions received.

Parties may request confidential treatment for information that is commercially sensitive, proprietary, or subject to a pre-existing non-disclosure agreement at the time the Response is submitted to ictQATAR. Any requests for confidential treatment should be clearly indicated on the covering page, and a non-confidential version of the Response must be supplied for publication. Ideally, any confidential information should be included in a separate annexure marked as confidential. Information marked as confidential will not be made available to the public only where there is clear justification for the claim of confidentiality. This matter will be determined solely at the discretion of ictQATAR. By filing comments with ictQATAR in this consultation process, respondents will be deemed to waive all copyrights in their submissions that might otherwise pertain.

For more clarification concerning this consultation, contact Ahmad Sultan, Licensing Manager, at 4995415.

\* \* \* \* \*

## ANNEX I: Comments Covering Page

### Covering Page for Comments in Response to ictQATAR Consultation on VSAT Licensing Framework

#### Responding Party

Name:

Organization:

Address:

Telephone:

Email:

Date:

#### Confidentiality

- Do you request confidential treatment of your entire Response? \_\_\_Yes \_\_\_ No
- Do you request confidential treatment of parts of your Response? \_\_\_Yes \_\_\_ No

If so, please provide a copy of a non-confidential version of your Response, marked as such.

#### Consent

By submitting this Response to ictQATAR, the Respondent consents to its publication in full by ictQATAR on its official website or by other media, unless confidential treatment of all or parts of the Response has been requested on this form. The final decision on publication shall be entirely at the discretion of ictQATAR.

## ANNEX 2: Expression of Interest Form

### Expression of Interest

From: [Name & Address of Operator]

To: The Supreme Council of Information and Communication Technology (ictQATAR)  
Regulatory Authority – Regulatory Policy & Economic Affairs Department  
P.O. Box 2364  
Doha  
Qatar

[Insert date]

Dear Sirs,

### Response

#### Expression of Interest to Participate in the Licensing Process of VSAT Service Provision

We, [name of Operator], have reviewed the document “*VSAT Licensing Framework – A Consultation Document*” and hereby express our interest in obtaining a VSAT License in Qatar.

We understand that ictQATAR is in an initial period in enabling the licensing of VSAT operations and service provision, and that there are no commitments made or undertakings on the part of ictQATAR to apply the criteria, terms, conditions or approaches proposed within the consultation document referred to above. We also understand there is no commitment on the part of ictQATAR to proceed with VSAT licensing.

While we believe we could meet the criteria as currently set out in the consultation document referred to within, in the interest of clarity and certainty, our expression of interest neither commits us to participate further in any VSAT licensing process nor commits ictQATAR to accept us in such a process at this point in time.

Yours faithfully,

---

[Name]

Duly authorized signatory for and on behalf of [name of operator]

## ANNEX 3: Glossary of Abbreviations

Abbreviation	Meaning
ADSL	Asymmetric Digital Subscriber Line
ATM	Automated Teller Machine
BER	Bit Error Rate
CIR	Committed Information Rate
DAMA	Demand Assigned Multiple Access
FDMA	Frequency Division Multiple Access
GCC	Gulf Cooperation Council
GSM	Global System for Mobile
ictQATAR	The Supreme Council of Information and Communication Technology
IP	Internet Protocol
ITU	International Telecommunication Union
Kbps	Kilobits per second
MENA	Middle East North Africa
MHz	Mega Hertz
PSTN	Public Switched Telephone Network
QoS	Quality of Service
Qtel	Qatar Telecom
SCPC	Single Channel Per Carrier
SLA	Service Level Agreement
SNG	Satellite News Gathering
TDMA	Time Division Multiple Access
VSAT	Very Small Aperture Terminal
WRC	World Radiocommunication Conference