



## High-Capacity, High Availability (H-2) Satellite Service

*Reliable and dependable access to the internet and corporate data networks is non negotiable for all mining, industrial and enterprise operations. To ensure communications are not compromised most organizations deploy extensive terrestrial networks using dual redundant fiber access circuits and advanced MPLS network infrastructure.*



The question is? What do you do when fiber access is not possible? When you are located at a remote location in Africa? Or on a moving vessel? For these applications Q-KON has engineered a specific high-capacity, high-availability satellite access service. The H-2, high-capacity and high-availability satellite access service from Q-KON provides the following user benefits and advantages:

### Benefits & Advantages

#### **High Availability**

Satellite access service is known to be extremely reliable and offers enterprise customers the ultimate in network availability.

#### **High Capacity**

Satellite access circuits can be fully scalable to meet requirements from entry operations to full production sites. With capabilities up to and beyond 10Mbps the high-capacity service is well positioned to service the demands of all operations in Africa.

#### **Satellite Redundancy Option**

Given Q-KON's extensive satellite access service customers can be provided with an option that includes services on a redundant satellite and teleport infrastructure. This will ensure full operation even in the extreme scenario of a satellite or teleport failure.

#### **Equipment Reliability**

This specific solution is engineered to use fully redundant remote terminal equipment that is configured with auto-failover facilities to ensure maximum service reliability.

#### **End-to-end Service**

The Q-KON H-2 service is integrated with a full turn-key equipment service and support contract that provides in-country on-the-ground field engineering services. This benefit ensures end-users an on-going service inclusive of all support and maintenance cost.

#### **Proactive Out-of-band Monitoring**

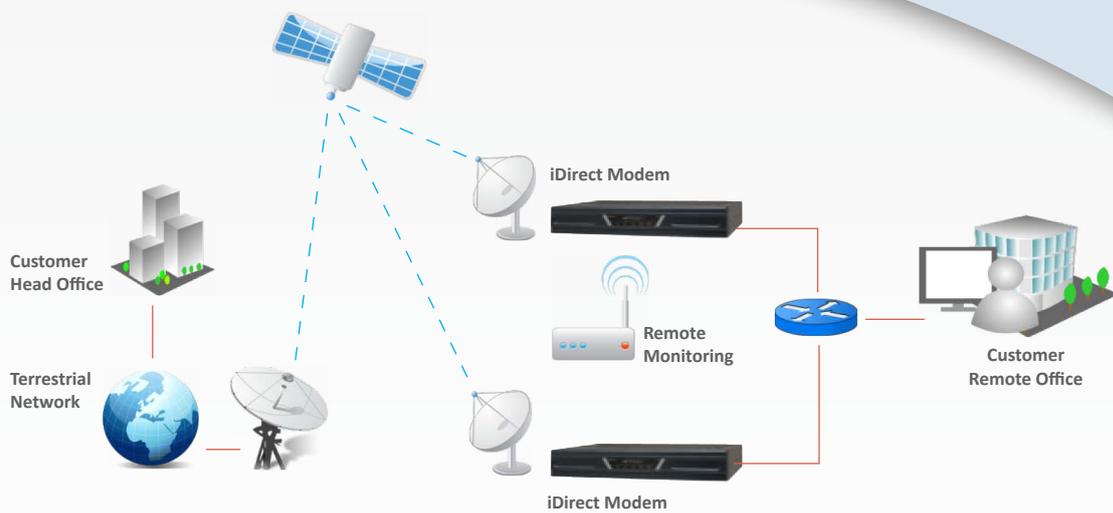
All services are integrated with Q-KON's advanced remote site monitoring solution that provides real-time status to a central control room of all equipment critical health parameters through an additional out-of-band signal path.

#### **Management Reporting**

Customers are provided with monthly management reports with detail availability and reliability levels. The reports include data usage statistics with content analyses and user pattern profiles.

#### **Equipment Warranty**

All services are underwritten with an extensive equipment warranty to eliminate any unexpected maintenance cost items and ensure that full service life-cycle costs are defined at the time of contracting.



## Solution Overview

### **Full Redundant Customer Remote Site Equipment**

The high-capacity, high-availability solution is designed to ensure - the maximum performance in the most challenging environments.

The customer remote site equipment includes two complete satellite terminals that are integrated to form a single full redundancy solution. This configuration ensures maximum redundancy while maintaining cost efficiency with reference to remote site equipment.

### **Independent Satellite Channels**

Given Q-KON's extensive range of satellite access platforms it is possible to provide connectivity to customer premises via two independent communication channels over two different satellites and with termination at different gateway teleports.

In this configuration specific system engineering will be done to ensure that the customer end-to-end service is delivered in a seamless and auto-recovery manner.

### **C-band Operation & Coverage**

The service is offered on high powered C-band satellites that provide coverage over all Africa with teleport gateways in South Africa and in the USA.

An end-to-end service availability of +99.9% can be reached with options to increase this availability by installing of larger size equipment. (This excludes failure due to on-site power or other infrastructure limitations).

### **Service Optimization and Load Balancing**

The two independent primary and secondary satellite communication channels are integrated to ensure optimum load balancing between the two circuits.

The Xiplink unit also provides additional data transmission optimization and acceleration to ensure maximum utilization of the satellite communication channel.

### **Out-of-band Monitoring**

The H-2 high-capacity, high-availability solution incorporates a real time out-of-band telemetry system that provides online access and monitoring of the equipment vital parameters.

Via the telemetry system the Q-KON engineers are immediately informed of any equipment failures or system malfunction. This ensures that field engineering support is tasked before any service disruptions occur.

### **Turn-key Support**

This service is offered inclusive of Q-KON's well known turn-key field engineering support service, which include the following;

- Real-time monitoring of on-site equipment performance and vital statistics.
- Weekly reporting on the satellite link capacity utilization and performance availability.
- On-site equipment spares.
- Shipping and RMA costs applicable to equipment failures including extended equipment warranty on repairs.
- Field engineering services to replace failed units.

**Contact Q-KON or your Service Provider regarding your requirements or tailor-made solutions.**

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