Business Continuity Solutions—Satellite WAN Backup At-A-Glance

Cisco IP VSAT Satellite WAN Module for Cisco Integrated Services Router

Network Resiliency is Key to Success

WAN connectivity is critical to the functioning of businesses, and any downtime means not just loss of productivity but lost opportunities and damaged reputation as well. From real-time e-commerce traffic to corporate e-mail messages and enterprise-resource-planning (ERP) data, the move towards data-center consolidation has brought WAN connectivity to center stage. And with centralized voice-over-IP (VoIP) deployments and videoconferencing applications, businesses need broadband connectivity—100 percent of the time.


Major Causes of WAN Failures

- Service provider network equipment failure
- Power outage at the service provider
- Planned network overhaul or upgrades
- Natural disasters such as earthquakes, floods, and hurricanes
- Man made emergencies like Terrorist Attacks and Security Breaches
- Accidental cable or fiber cut during construction and damage during moves or maintenance
- Human operational errors at the time of installation or configuration

Need for Independent Non-Terrestrial WAN Backup Solution

Traditional backup solutions such as dialup and ISDN share the same central office infrastructure, and sometimes the same conduit as the primary link. When natural disasters or crises occur, these terrestrial links are prone to prolonged downtime. A better solution is one that is independent of the local communications infrastructure and can be managed and operated from a centralized location. In addition, with growing bandwidth needs, businesses are looking for a WAN backup solution that can match the broadband speeds of the primary link.
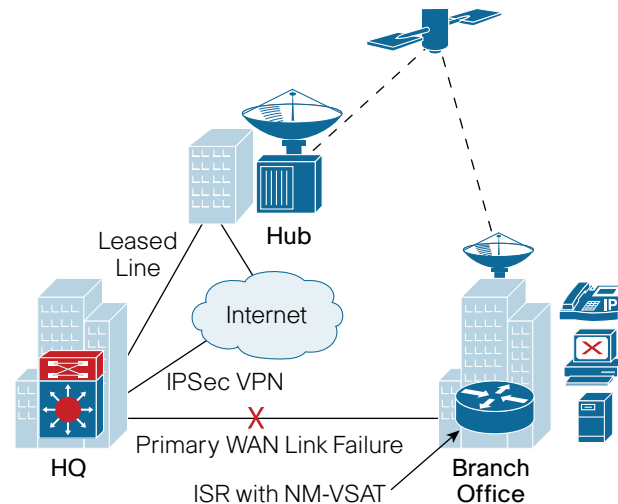
Non-terrestrial backup solution using highly-reliable satellite networks supplements the primary WAN connection by providing diversity and rapid deployment. Satellite networks do not share any of the cables, switching infrastructure, or service provider infrastructure with the primary WAN link. Cisco Integrated Services Routers provide WAN connectivity over Satellite using the Cisco IP VSAT Satellite WAN Module, with the ability to do instant and transparent failover for backup applications. Using an IP Security (IPsec) VPN tunnel or leased line, the WAN traffic can be directed back to the corporate headquarters or data center.

Satellite Provides Umatched Reliability and Availability

Satellite connectivity offers the following benefits:

- WAN diversity, independent of the terrestrial infrastructure
- Extensive coverage, available everywhere
- Quick installation and instant activation
- Single service provider for all branch offices
- Centralized management and unified grade of service
- Shared bandwidth between branch offices and pay-as-you-use mean low monthly cost.
- Asymmetric use for multicast content distribution

The Cisco IP VSAT Satellite WAN Module (part number **NM-1VSAT-GILAT**) for the Cisco Integrated Services Routers and Cisco 2600XM and 3700 Routers allows straight forward integration of satellite connectivity into Enterprise access routers. Using Cisco IOS® based backup configuration, instant and transparent failover from primary to satellite connectivity can be assured. This single-box solution reduces management overhead and operations costs. The support for dynamic routing protocols allows faster convergence, and integrated TCP acceleration and encryption (ITAE) simplify deployment of enterprise VPN over satellite.