

Technical Article



4G/LTE Failover Solutions for MPLS Network

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Why is Failover Function So Important?

The reliable and constant Internet connectivity is very important for today's business. Unexpected network downtime can cost your business on everything from lost sales, reputation, productivity, and many more. Therefore, BEC Technologies believes in protecting business continuity with Multi-WAN connectivity, Auto and True Seamless Failover Functionality to ensure maximum connectivity and minimum service interruption.



Multiprotocol Label Switching (MPLS) failover to VPN:

Many enterprise have use MPLS for the network connection because of its advantage on Scalability, traffic routing, and low latency. However, if the MPLS goes down, the connection to a remote location is lost. BEC 4G LTE products can be placed in these networks to automatically re-route your MPLS data traffic failover to VPN connection via 4G LTE connection, and keeps your business up and running in the event of outage.

Key Features:



Performance and Connectivity:

- •4G/LTE fixed wireless broadband, and EWAN connectivity.
- •Carrier grade Wi-Fi, and Hotspot Captive Portal Functionality
- $\bullet {\sf Load}$ and remote management via SNMP or BEC LCMS

(Cloud based)

- •Enterprise level routing functionality
- •AT&T carrier network certified

Automatic and Secure:

- •Automatic failover to VPN connection and failback when MPLS connection returns to normal
- •Secured VPNs (IPsec, GRE, LT2P, PPTP)

QoS (Quality of Service)

- Traffic prioritization based-on IP protocol, port number, and IP address
- •Enhanced IGMP, Proxy/Snooping & Fast leave
- •IP ToS, Diffserv
- 802.1p/q Prioritization

How Does It Work?



- 1. Setup site to site **IPsec VPN** connection between 2 sites using 4G/LTE
- 2. Set **VPN** link as backup to the MPLS network
- 3. Traffic proceeds normally over the static route to the other location using MPLS link
- 4. After consecutive connectivity tests fail, the static route is marked as inactive
- 5. Traffic is then routed over the VPN using 4G/LTE
- 6. Once consecutive connectivity tests pass for the MPLS link, the static route will be marked as active, and traffic be fail back over to the MPLS connection