

Perspective

3G VPN-Enabling Cost-Effective Connectivity for Enterprises



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In today's changing business climate, firms must seamlessly extend the application access to an increasing number of corporate assets. Network therefore becomes a core enabler. However, to connect a remote branch office site on a wireline (fiber, copper, cable) access is constrained by right-of-way issues, weak-per-unit economics, and high-level market fragmentation. Wireless, therefore, is expected to contribute significantly in increasing penetration across enterprise segments.

3G technology offers an excellent and a cost-effective solution for connecting branch office in remote sites where fiber is not feasible or where the rollout of fiber does not fit in the overall business economics.

3G provides an extended access/last mile VPN solution using the technology that enables one to reach a distributed or remote enterprise branch office. 3G SIM deployed on a router integrates securely to the enterprise Multi-Protocol Label Switching (MPLS) WAN to provide a symmetric bandwidth experience to enterprise branch offices. The packets originating from branch office are securely encapsulated over a Layer 2 tunneling protocol (L2TP) tunnel to MPLS VPN network. Enterprises can run secure encryption (IPSec) over and above this network for an additional layer of security. Integration with MPLS network ensures an end-to-end managed and secure connectivity for enterprises. Organizations can now deploy hybrid networks intelligently with a mix of fiber/copper/3G technology and optimize their network costs by appropriately connecting via apt media.

In a 3G VPN solution, value-added services like GPRS/EDGE, voice, and SMS are deactivated/barred thereby ensuring that the branch office only accesses desired resources hosted on the enterprise WAN. This gives flexibility to enterprises to avoid any misuse of the SIM at the branch office. The SIM is virtually locked to enterprise VPN credentials ensuring no threats from external world. This is a highly cost-effective solution for enterprise branch that requires subscribed bandwidths ranging from 64–512 kbps. The

solution has measures to ensure strong signal strength by deploying external antennas with branch office routers for better reception. It is a rapidly deployable solution and enterprises can scale up fast in rolling out their branches. Another innovative application of 3G VPN allows it to be used as a back-up last mile for primary wired sites. Enterprise routers can be configured in an auto-failover mode ensuring switchover of traffic in the event primary wired circuit is down. This will ensure higher uptime networks for enterprise branch offices.

3G VPN, an apt solution for retail industry. One of the major retail giants has opted for 3G VPN as the most preferred and cost-effective solution for connecting its supermarkets and hypermarkets. The solution provides secure and reliable wireless access to mission-critical data applications. It establishes an authenticated tunnel, which enables stores to securely access network resources and wirelessly transmit data over 3G wireless network. The connectivity between the retail outlets to the data center is bi-directional that replicates a LAN to LAN environment enabling them remote desktop login and control for pushing corporate policies to the store.

Banks are evaluating 3G VPN for their remote distributed ATM's/small branches. 3G VPN provides an excellent alternative for traditional VSAT connectivity solutions for connecting ATMs. One of the leading banks in India has implemented 3G VPN for connecting their ATM sites in a secure manner. Ensuring better bandwidth speeds, the solution also offers additional benefits of rapid deployment of ATMs or small bank branches, enhanced security integrated with core MPLS network and easy management. With 3G SIM integrated with the router the solution addresses secure environment avoiding loss/theft of the SIM module thereby ensuring high uptime networks.

3G VPN is an apt solution for BFSI, retail, manufacturing, and other verticals that need fast branch office rollouts or are looking for implementing better redundant networks for their branch offices. ■