The Vanguard 242D integrated router is an ideal serial over broadband platform for small branch offices, retail outlets, and ATM termirunning a mix of LAN and serial applications. This low cost platform provides secure broadband connectivity to the public netvia DSL, cable, and wireless services.

Many existing ATM machines and point of sales devices currently use dial-up or frame relay for connecting to the main office. By migrating to a low-cost broadband access solution as enabled by the Vanguard 242D, customers will be able to realize significant return on investments.

Moreover, the integrated Vanguard 242D router performs well as a multi-purpose "branch appliance", reducing the need for customers to purchase several single-function devices to achieve improved security and functionality. Advanced security features such as VPN encryption (IPSec) and integrated firewall capability enable secure, authorized Internet connections for customers relying on broadband links for their remote business sites.

The Vanguard 242D realizes investment protection by offering the most extensive suite of legacy serial data protocols in the industry, powered by Applications Ware software, as well as Legacy-LAN integration capability. Legacy support is a key differentiator of this platform and addresses the unique requirements of retail and financial communication network environments—including BSC 2780/3270, SNA/ SDLC, IBM LLC2 conversion services, Tandem host, and AS/400 computing.

Application: Retail Data Services (Serial over Broadband)
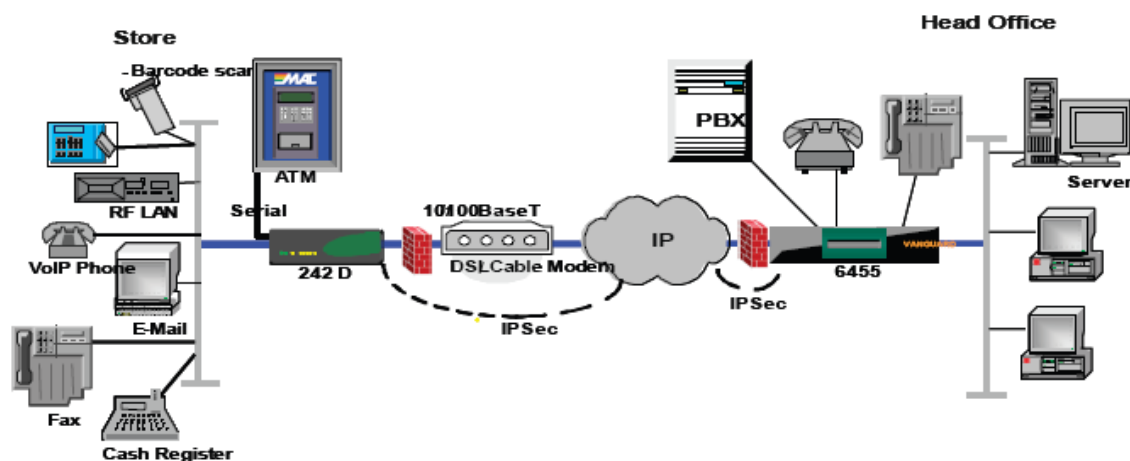
In this configuration, one LAN port is utilized to support in-store transactions while the second LAN port is used for secure Internet access through a DSL or cable modem connection. The serial port provides connectivity to a downstream ATM machine running a legacy serial protocol.

The Vanguard 242D provides enterprises with the quality of service needed to differentiate between high and low priority traffic. This is essential to a successful enterprise network, where mission-critical traffic such as financial transaction data or packet voice must be accorded preferential treatment over applications such as e-mail. VPN encryption - via IPSec - and firewall capability provide the store with robust security for public network connectivity.

## Application: IP Telephony QoS Support
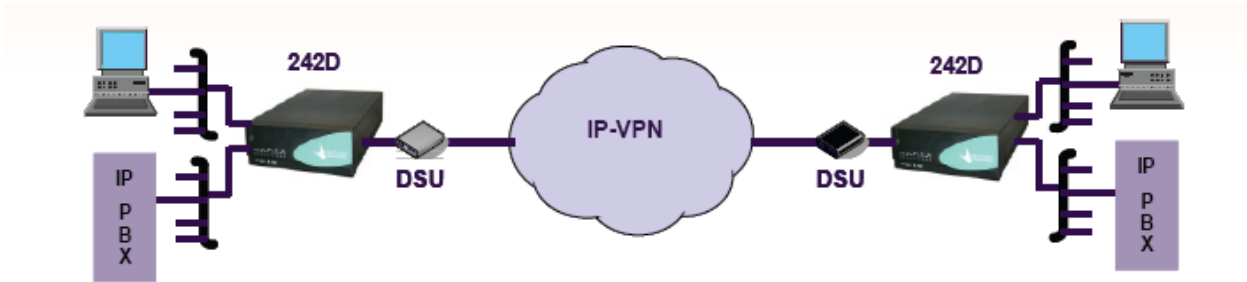
The Vanguard 242D provides robust QoS support for VoIP traffic via:
- Separate Ethernet port for IP PBX, VoIP Phone or Analog Telephone Adapter (ATA) - minimizing packet dropping risks
- Voice Prioritization (via Fast Path)
- IP Diffserv (Packet Marking and Handling)
- FRF.12 segmentation or MLPPP Interleaving

In this scenario, the Vanguard 242D communicates via BGP to the edge over a Frame Relay or PPP uplink, with either a BGP/MPLS or IPSec VPN through the IP network.

Application: IBM/SDLC, BSC, and IP Network Consolidation (Serial over Broadband)
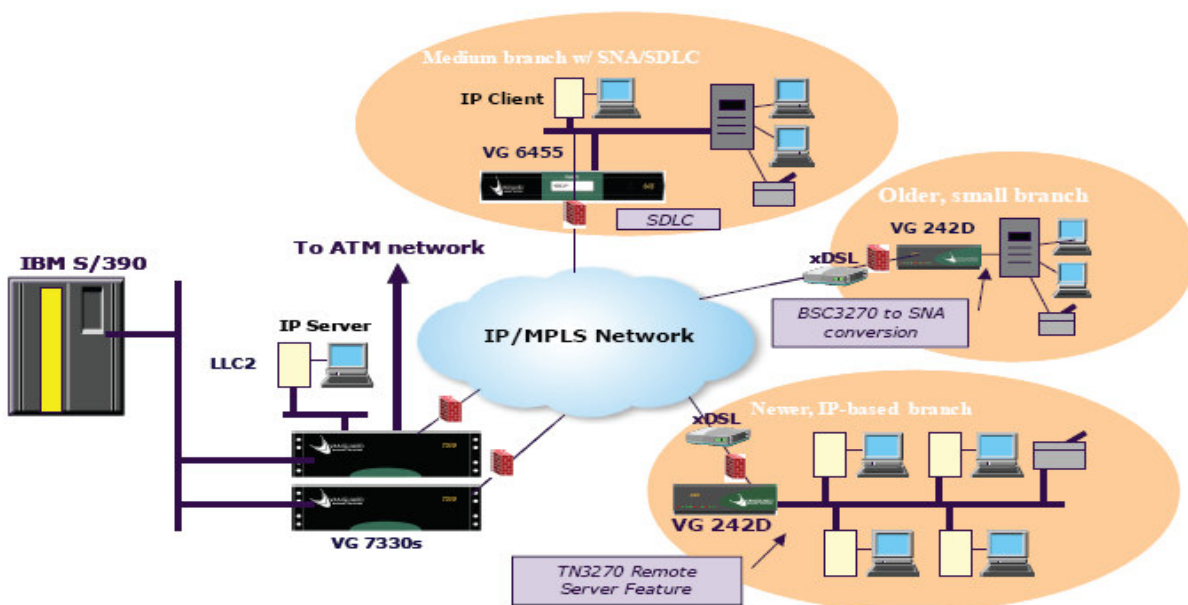
The Vanguard product family – with the Vanguard 242D as a key network component in the office branch - ensures growth capability for the evolving enterprise's IBM environments. Vanguard products integrate a rich suite of IBM WAN application software, which includes support for native serial protocols such as BSC 2780/3270 and SNA/SDLC along with LLC2 conversion software functions.

This software enables enterprises to operate a single WAN platform that supports a mixed network of IP-based and legacy IBM terminal and host applications simultaneously without compromising performance. Vanguard's software can also eliminate the expense of upgrading host software and hardware by reusing existing equipment and associated legacy software.

Application: Remote Bank ATM Site (Serial over Broadband)
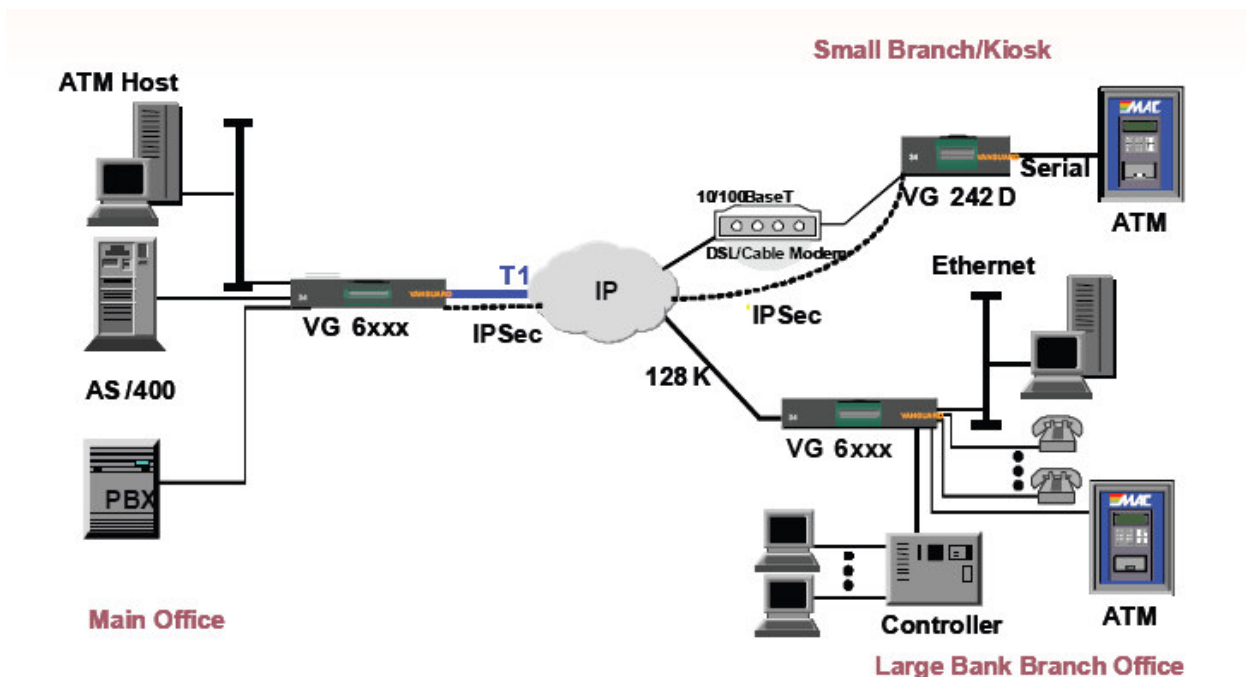
This diagram illustrates how the VG 242D fits into a bank application deploying another Vanguard portfolio product: the multi-service 6400 series router. The Vanguard 242D, in combination with the VG34x, 6400 and 7300 series products, enables a complete product solution for enterprise customers.