



SOLUTION FOR SECURE CORE BANKING APPLICATION WITH ANEXGATE

ENHANCED SECURE BANKING

IMPORTANCE OF SECURE BANKING

- Banking is a sector which requires highly advanced and secure systems with 100% Uptime to have a smooth transaction history with all of its branches and end points. This ensures successful growth with its customers and a unmatched performance for the banking system across all its locations.
- It needs to be protected against both internal and external security threats and all data must be kept confidential. One of the main requirements of Banking is a secure connection with its Head Office and a secure VPN tunnel for all communication. All this and much more can be designed as a solution specially for the Banking segment by AnexGATE

LIMITATIONS OF THE EXISTING SYSTEMS

- No highly secure and uninterrupted inter-connectivity between the branch and the Head Office.
- Sustaining a higher throughput for easy access to all transactions.
- Ensuring data security for all concurrent transactions performed when customers and employees from various branches simultaneously access the CBS.
- Selective access and centralized management to block all unauthorized access and unwanted malicious activity on the network.
- The need to set up IT security policy and centralized administration across bank head office and branches
- Low budget and resource allocation for certain locations.

NETWORK SECURITY AND CONNECTIVITY ISSUE

a. Security

- Limitations of IP-based security – No tracing of malicious users, No reporting on Net use
- No Content Filtering / Bandwidth Management / Multiple link management
- No Endpoint Security
- Distributed Denial-of-service (DDoS) attacks
- Data Confidentiality Breach
- TCP/IP Spoofing

b. Connectivity

- Lack of 100% uptime to CBS servers from branch locations
- Secondary Connectivity (MPLS/CDMA) feasibility is a major issue in remote areas
- VSAT faces issue of no connection during monsoon seasons
- In remote locations, secondary connections can only be done over ADSL Broadband or 3G/4G data cards which are unsecure
- For locations having two connectivity options, separate manual intervention is required to power-off the down primary link network and power-on the secondary link
- Recruiting an IT admin for every location is an expensive step.
- Connectivity failure results in heavy financial losses in the long term.

CORE BANKING REQUIREMENT



100% Network Uptime



Highly Secure Network



Comprehensive Threat Protection



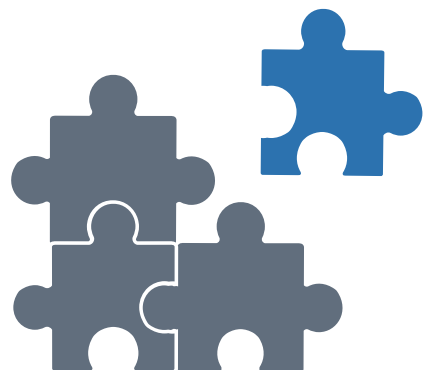
Uninterrupted Connectivity



High Performance Network

ANEXGATE APPLIANCES AND SOLUTIONS

- AnexGATE has a wide spectrum of appliances and solutions that are designed to understand your network needs and deploy pertinently for you to get the most efficient output for your business needs.
- AnexGATE appliances provide Perimeter Network Security with real time updates and comprehensive threat protection against internal and external malicious activity.
- Advanced features like Bandwidth management and optimisation, Content Filtering, Drop-in-placement and much more
- In all an enhanced experience for your network management with improved performance



ANEXGATE APPLIANCES AND SOLUTIONS

a. Banks have to bear the brunt generated due to data breaches and security threats caused by malicious activity, it is imperative that banks have highly secure systems in place to avoid any vulnerabilities to the Central Banking Server. AnexGATE creates state of the art infrastructure for banks to have their entire network, especially CBS under cautious protections and perform better in the long run, giving them an edge over other banking institutions.

b. Security

- Content Filtering and Internet Usage Policy: Allow access only to specific websites and block the rest to prevent any unauthorized access
- Absolute Transparency: The entire activity over the network is displayed on the dashboard and GUI is kept simple to know what activity is done by individuals.
- Gateway Anti-virus, Anti-Malware and Firewall to prevent all malicious activity.

b. Connectivity

- Multi-Link Auto Failover and Load Balancing are two basic features that allow banks to have 100% Uptime
- Bandwidth Optimisation and Management: Our appliances manage bandwidth efficiently so that priority servers get optimised bandwidth and there is never shortage of bandwidth.
- Gigabit Interface provides the fastest connectivity and the best performance standards to your network.
- DNS, DHCP, FTP, Windows file share is easily deployable.

b. Functionality

- Secure Auto-Failover in branch locations between MPLS over ADSL/3G to Core banking Servers
- Auto Load Balance between VSAT, CDMA & ADSL based links
- Drop-in installation (in less than 10 minutes) for MPLS Network in branch without modifying anything in the existing Network Setup
- Enhanced remote manageability of the branch locations over secure tunnels

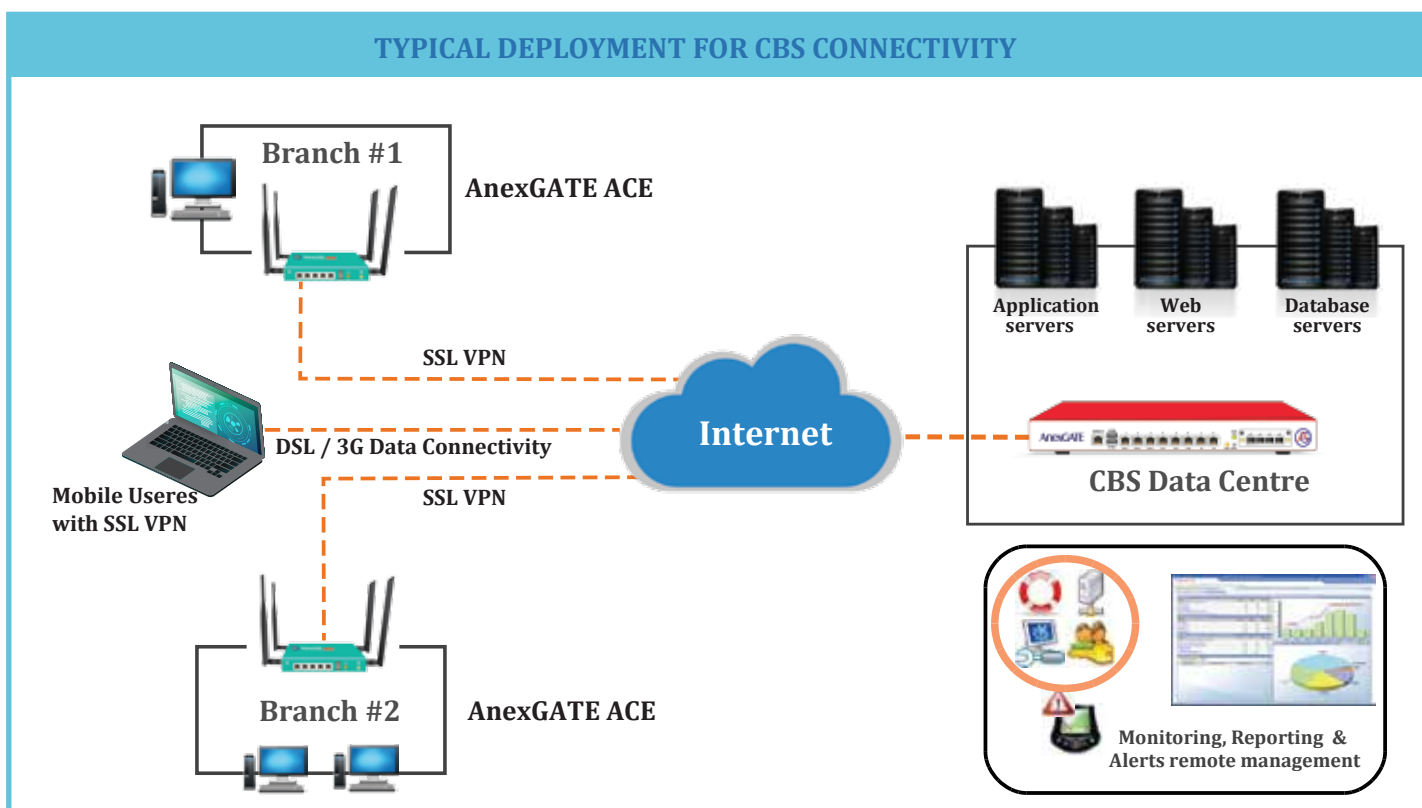
REPORTING AND DASHBOARD

a. The dashboard has a one glance view of all the important activities over your network. The GUI is kept simple to give a conspicuous detailing to your network activity.

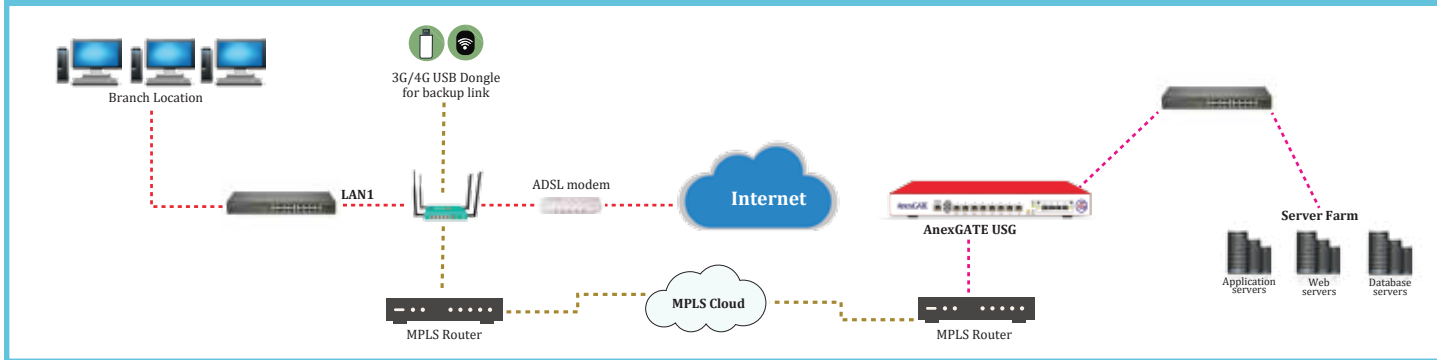


b. Reports can be customized to show the information that is prioritized and can be set for pre-defined time intervals, weekly, monthly, quarterly etc.

Source IP	Destination	Total	In	Out	Direction	TCP	UDP
192.168.1.10	192.168.1.1	1000000	500000	500000	Out	11	11
192.168.1.10	192.168.1.2	500000	250000	250000	Out	11	11
192.168.1.10	192.168.1.3	450000	225000	225000	Out	9	9
192.168.1.10	192.168.1.4	300000	150000	150000	Out	6	6
192.168.1.10	192.168.1.5	200000	100000	100000	Out	4	4
192.168.1.10	192.168.1.6	150000	75000	75000	Out	3	3
192.168.1.10	192.168.1.7	100000	50000	50000	Out	2	2
192.168.1.10	192.168.1.8	80000	40000	40000	Out	1	1
192.168.1.10	192.168.1.9	70000	35000	35000	Out	1	1
192.168.1.10	192.168.1.10	60000	30000	30000	Out	1	1
192.168.1.10	192.168.1.11	50000	25000	25000	Out	1	1
192.168.1.10	192.168.1.12	40000	20000	20000	Out	1	1
192.168.1.10	192.168.1.13	30000	15000	15000	Out	1	1
192.168.1.10	192.168.1.14	20000	10000	10000	Out	1	1
192.168.1.10	192.168.1.15	10000	5000	5000	Out	1	1



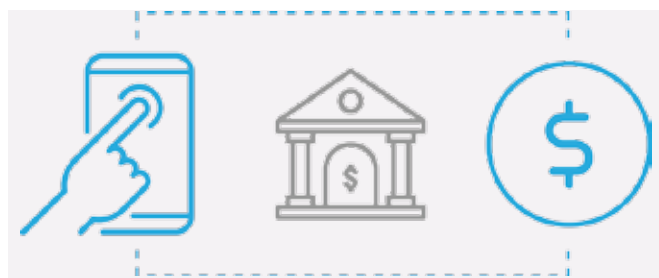
Network Diagram



BRANCH OFFICE CONNECTIVITY

- 100% uptime to CBS Server is achievable by using multi ISP links; multi link management feature-set with auto failover and load balancing
- Multiple type of connectivity supported: broadband, 3G, Cable Modem (PPPoE/Static/DHCP)
- Support DHCP & DNS servers
- Static Route / Policy Route / SPI Firewall / Proxy ARP
- IP/MAC/ SNAT/DNAT/IP Pass-through / VLAN support
- Control/Block internet access to client PC using web proxy
- Secure SSL VPN connectivity for CBS server access
- Key based SSL VPN with 128-bit encryption
- VPN-Static IP-based authentication control to prevent unauthorized branch to branch access
- Support DynDNS for Remote manageability

SOLUTIONS TO SOME BANKS



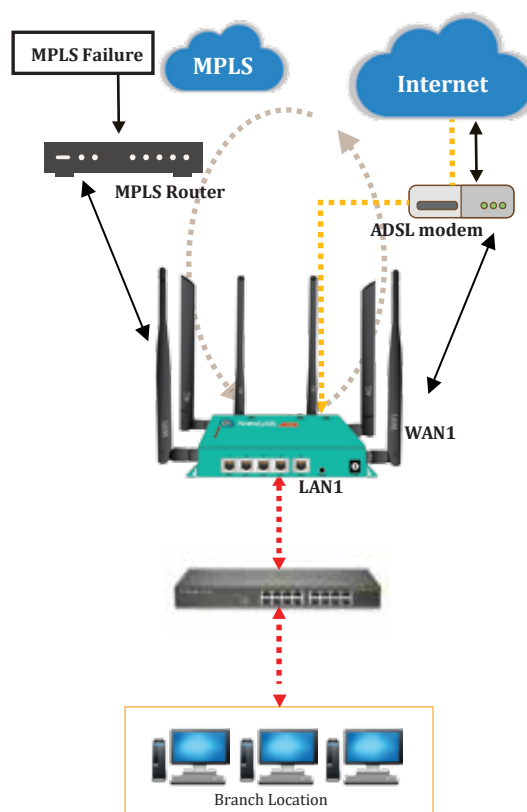
- Corporation Bank
- Manappuram Finance Limited
- Kannur Co Op Urban Bank
- Morazha Kalliasseri Service Co-Operative Bank
- Payangadi Urban Co-Operative Bank
- CHERUVATHUR Farmers Service Co-op Bank

FEATURE CONNECTION MAPS

Networking	VPN
Multi - IPS load Balance, Auto Failover	SSI VPN server / SSL VPN client
Policy Routing, Qos and VLAN Support	Support 5VPN Servers in same appliance
Bandwidth Management	VPN server starts with 25 VPN Site - Site Tunnel support to interconnect branches with data Centre
DHCP and DNS Servers	
Security	Management
Stateful Packet Filter firewall	Scalable to 5000 Tunnels if Required in future
IDS and IPS	Additional Tunnels can be purchased in the bundle of 25
IP & Mac Address based policy	
Dos and DDoS protection	
Zone-based IP Spoofing	
Web security/ categorizations /filtering	Self Monitoring, Live Network Sniffer, Real Time Netflow & Web configuration UI
Application security/ categorization/user & time based access controls/ bandwidth control	On - appliance reporting
	Secure Remote Desktop

NETWORK MAP FOR CHERUVATHUR.

In 2013 AnexGATE successfully deployed USG solution for secure VPN connectivity with auto failover between head office and 2 branches of the Bank in addition to providing sophisticated perimeter security features to the bank's network.



- ↔ Normal packet path for Core Banking Server Access
- Trading LAN
- ↔ Failover packet path for Core Banking Server Access
- ↔ Secure VPN over ADSL to Core Banking Server Policy based route to Mail server