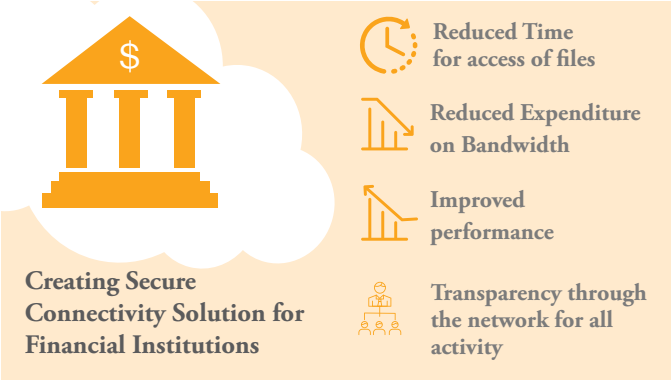


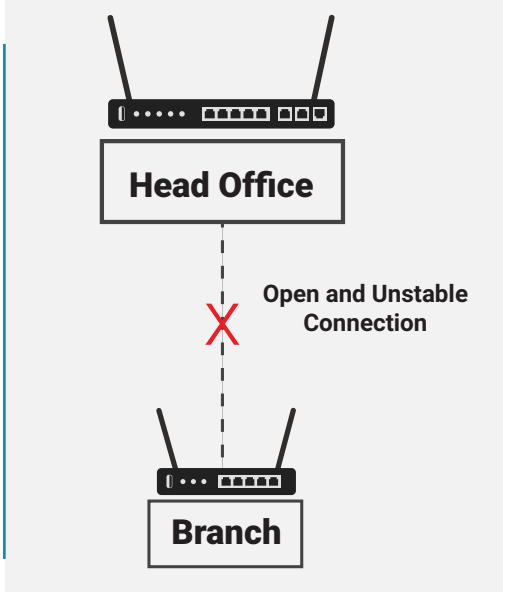
Financial Institutions face the demand for a highly advanced network connectivity and security solutions. They are faced with various problems of lack of connectivity options between branches and secure VPN to Head office for access to all the data.

Introduction:

We were approached by a few co-operative banks in one of our regions with a few problems associated with their network connectivity and lack of security in their connection. The major problem that most of them had was towards access to their files kept on a cloud server which would take them minimum of 20 minutes to download locally on any of their systems. In addition to this, these connections were unsecure as they were accessing these files over a cloud server. The employees would request access to these files and wait until the process completed

These institutions were looking for a solution which would help them access these files instantly and would be secure to avoid any unwanted access to these confidential documents.

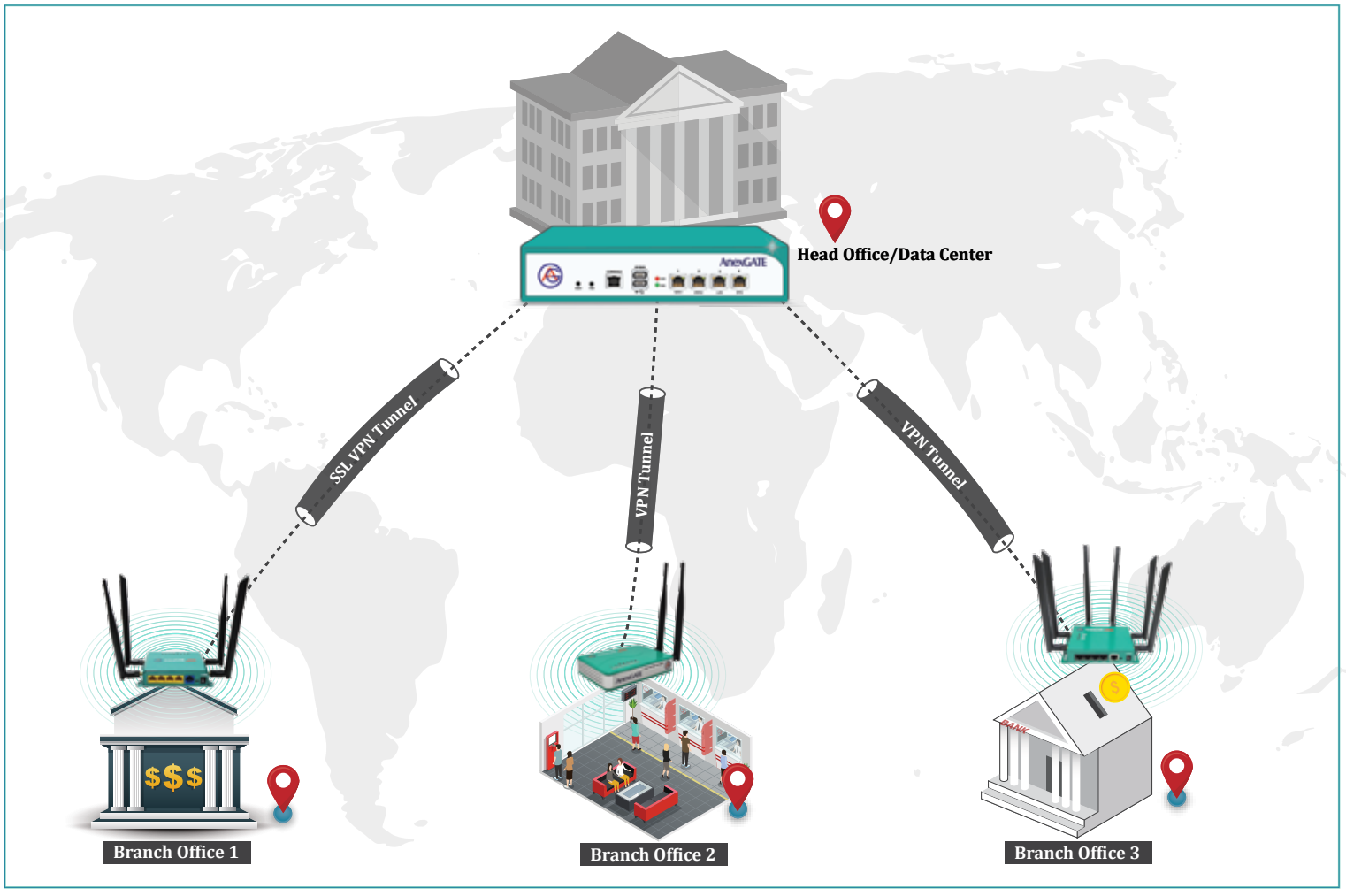
Problem:



The primary problem was related to connectivity, since cooperative societies provide financial services to Tier 2 and Tier 3 cities and towns, reliable connectivity is a major problem. The branch offices are at remote locations and villages where there is no availability of stable broadband. This causes problems in upload and download of files and exchange of transaction information from a branch office to head office. These problems hamper their ability to provide ease of banking services and core banking to their customers. In this case, the Head Office was located at a town, where broadband connectivity was erratic. This caused considerable delay in upload and download of transaction data.

These problems also made it difficult for the organisation to move further in business and adopt advanced software since there was no connectivity between the branch and the head office. Even if connectivity was available, the security of the connection was always a question since financial data is very sensitive and unauthorized access to banking or transaction data has to be secured during transaction. For a financial institution, data is a valuable asset and compromise to its accessibility can ultimately lead to loss of customers eventually lead to financial losses. It was important to create a permanent solution to take care of both the interconnectivity between the Head Office and branch offices which needed to be faster and the secure communication tunnel for these financial transactions

Solution:



The solution to all the problems mentioned above was provided in two stages. The first stage of the solution was to solve the connectivity issue. This was done by providing an automatic failover between multiple broadband and 4G connections. A remote branch was connected with one broadband connection from BSNL and one 4G SIM connection from Jio, Whenever the BSNL connection would go down. The 4G data connection was used to provide internet connectivity. For some branches, we have deployed 2 4G SIM cards where no broadband was available. normal consumer SIM cards were used in this deployment.

Using the robust connectivity provided in the first phase, a secure VPN network using encryption methods prescribed by the RBI was established.

This VPN network provided bulletproof security for the exchange of banking transaction data as well as file exchange between head office and branch offices.

Description	Before	Our Solution
HO & branch Connectivity	Slow	Fast
Accessing data from HO to Branch	About approx 20 - 25 Min	Within 1 Min
Data Consumption at HO to Branch	Avg 3 - 5 GB	Avg 500 MB - 1 GB
HO & branch Connectivity	Unidirectional	Bidirectional
Network Latency	More (Slower)	Less (Fast)
Branch Connectivity	Individual PC needs to connect to HO	Interconnectivity done through Secure VPN