



Solutions for Bandwidth Optimisation, Bonding and Networking Private VPN - Branch Networking

ViBE's Private VPN functionality offers customers with multiple branches/stores the ability to virtualise these sites within a single, cost effective, VPN.

ViBE is an encrypted VPN technology that introduces market leading bandwidth optimisation and quality of service (QoS) irrespective of the last mile connectivity provided (LTE, Fibre, ADSL etc). Customers with a branch or store network can benefit hugely from this.

Firstly VoIP and data can be converged into a single low cost link if required and supported by a variety of resilience features such as RAIN Mode and RAIN Mode+. Secondly, with the use of VPN ID's it is possible for the entire branch/store network to benefit from free or heavily discounted 'on-net' traffic rates (check with the ISP). Thirdly, and especially relevant to retailers, ViBE can be deployed to locations where often an interim connectivity type (LTE for example) is required in circumstances where perhaps a store build is done ahead of the desired fixed line connectivity being available. ViBE's QoS also facilitates any requirement where a data type needs highest data priority in a store scenario such as payment approval on point of sale devices. This specific type of data traffic is so small that it would seldom conflict with VoIP however still needs to take a higher class of priority.

ViBE connections are default encrypted with an optional upgrade to a higher 128 AES encryption based on the application and complies with bank secure transmission requirements over connectivity such as ADSL.

TAKE ADVANTAGE OF VPN ID'S TO IMPROVE COST EFFECTIVENESS OF DATA AND VoIP INTER-BRANCH TRAFFIC WHILST PROVIDING A STANDARDISED CONNECTIVITY SOLUTION WHATEVER THE CONNECTION USED.



*A link (UDP) performance test should be carried out before installing ViBE.

How does it work?

ViBE's Private VPN's works by allocating unique VPN ID's to the assigned branch subnets thereby allowing these to be interconnected. Let us assume the following:

Customer 1 Branch 1 – Subnet 192.168.10.0/24

Customer 1 Branch 2 – Subnet 192.168.20.0/24

Customer 2 Branch 1 – Subnet 192.168.10.0/24

Customer 2 Branch 2 – Subnet 192.168.30.0/23

As you can see there is no subnet overlap between individual branches of customer 1 or customer 2 however there is a subnet overlap between the customers as they both use the subnet in their respective branch ones. This is commonplace when customers assign subnets. In order for ViBE to group branches these would be assigned a VPN ID

Customer 1 Branch 1 – Subnet 192.168.10.0/24 – ViBE VPN ID = 1

Customer 1 Branch 2 – Subnet 192.168.20.0/24 – ViBE VPN ID = 1

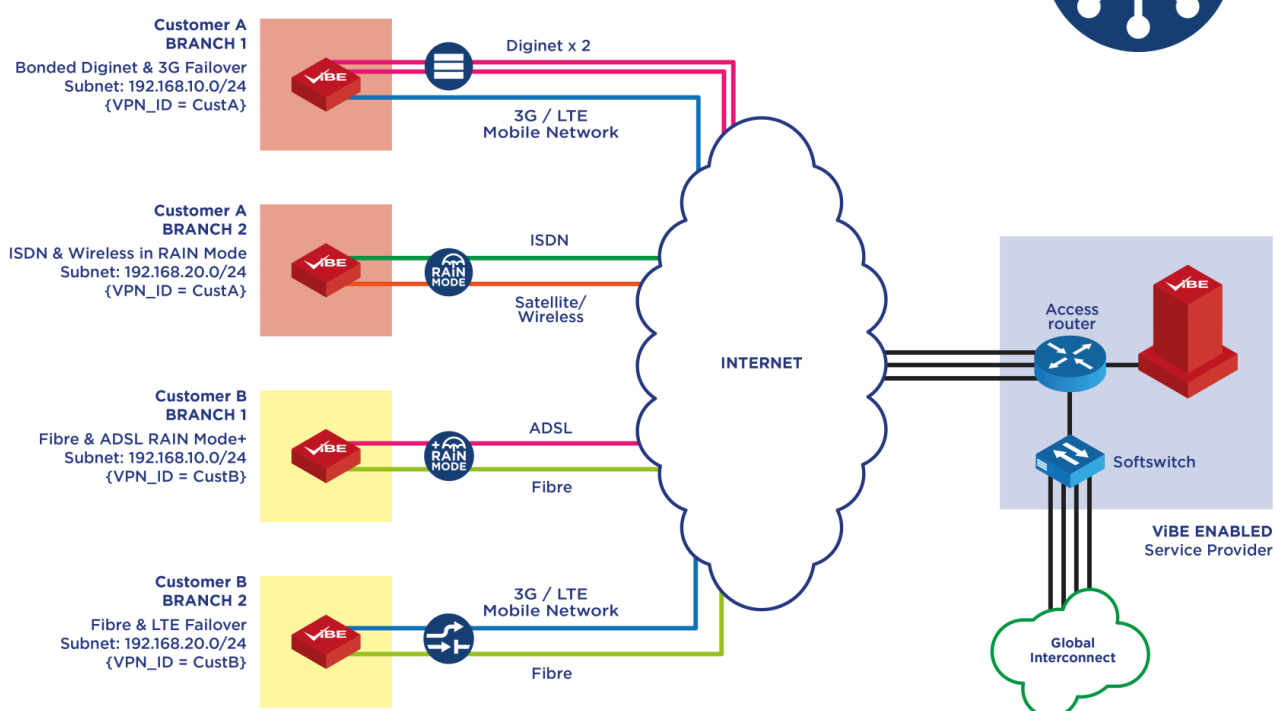
Customer 2 Branch 1 – Subnet 192.168.10.0/24 – ViBE VPN ID = 2

Customer 2 Branch 2 – Subnet 192.168.30.0/23 – ViBE VPN ID = 2

VPN ID's must be assigned to the same ViBE server pair to work effectively and will function effectively across NAT and NO-NAT environments. ViBE also facilitates vLAN's should a customer wish to split VoIP and data differently in this way. VPN ID's enable inter-branch communication within the ViBE VPN infrastructure with no interconnect being required (On-Net) therefore data and voice connected traffic is often zero rated or provided a discounted rate (check with your ViBE ISP). For point of sale data transmission ViBE tunnel encryption should be turned on especially across ADSL connections.

A key benefit of ViBE is its ability to optimise broadband connections (including ADSL) to carry a higher volume of VoIP calls (and data) simultaneously - and all at business class quality and full real-time prioritisation. The number of calls that ViBE can carry at once is dependent on the bandwidth available, but 20 concurrent calls plus other data (email, web browsing and cloud-based applications) is possible based on an upstream bandwidth as low as 256Kbits per second. Furthermore the ability of ViBE to dynamically react to changes in bandwidth performance ensures links are never over-subscribed and QoS is maintained. No other VPN is able to deliver this whilst also offering the benefits normally associated with expensive corporate networks.

ViBE Branch Network Connectivity



- Based on VPN technology.
- Delivers up to 5 times call concurrency.
- Business grade QoS on calls.
- Essential Call Access Control measures through EsP.
- Dynamic link suspension during high pure link quality.
- RAIN mode for service improvement and failover.
- Line bonding & bandwidth aggregation.
- Offers MPLS integration and additional customer features.

ViBE is a VPN technology that delivers **bandwidth enhancement**, designed to **optimise the performance and quality of internet and WAN** connections.

ViBE delivers a comprehensive range of **networking functions** and is a **key enabling technology** for the **effective delivery of voice and data services**'