

**NetServices can provide internet connectivity services to client sites, either as part of a wide area networking or hosting solution or as a stand alone service.**

### Control

Consolidating internet access into one central location, for example as part of a WAN solution, is appropriate for many businesses. Centralising Internet connectivity enables organisations to have greater control of their security policy as it can be administered easily and effectively in one place and then distributed across all satellite sites.

### WAN Consolidation

As part of a WAN solution NetServices can deploy Internet connectivity centrally from one of the NetServices' Super POPs. Internet facing servers are hosted in the NetServices data centre facilities ensuring far greater internet bandwidth efficiency across the private WAN.

### Stand Alone Internet Access

NetServices can provide stand alone internet connectivity for organisations adding resilience to their existing infrastructure. This can be delivered across any type of access circuit such as noncontended (1:1) DSL, Leased Line and National or Local Ethernet.



### Options

Access circuits which are providing internet services can be offered on either a fully managed router service or a wires-only basis.

The organisation can either maintain a firewall at their own site or NetServices can supply and manage a firewall remotely.

Customers can choose to pay either a fixed monthly bandwidth subscription or per usage when part of a hosted solution basis.

The service can be provided as flat internet access or by using the Border Gateway Protocol (BGPv4) providing the client has their own Autonomous System (AS) Number and their own provider independent range of IP Addresses.

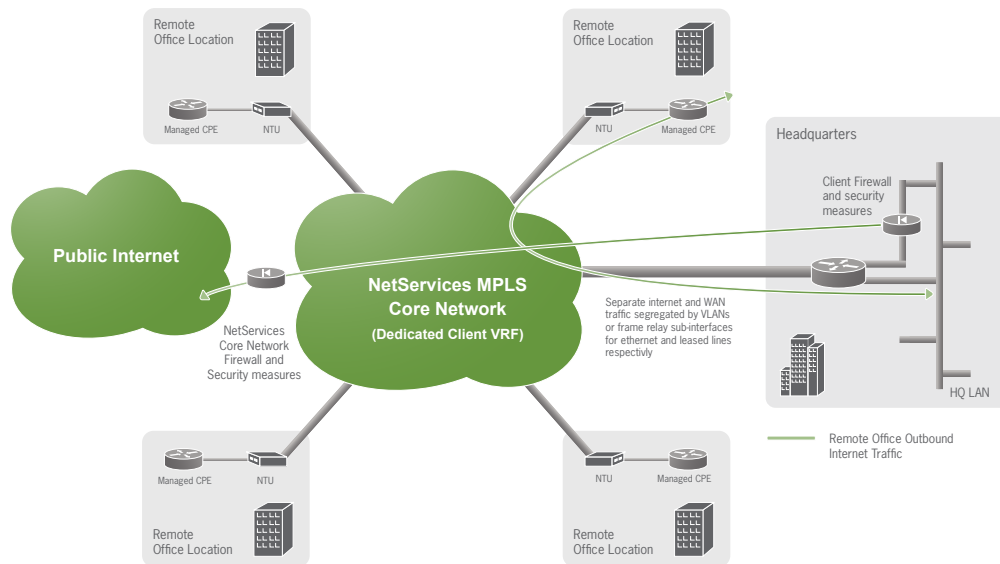
## Service Topologies

### From the Hub (WAN solution)

In a classic MPLS VPN hub and spoke network topology, the greater access bandwidth afforded to an organisation's headquarters can also be used for Internet connectivity. WAN data traffic can be completely separated depending upon the type of tail access circuit deployed.

Locating the Internet breakout at the main site allows an organisation to deploy and maintain their own internet facing servers and applications in a Demilitarised Zone (DMZ) at their central location. This is particularly appropriate if the client has their data centre facility at this location. This connectivity scenario is represented in fig 1 showing the internet and WAN traffic flow from the remote sites to the Headquarters and eventually out to the public internet.

Fig. 1



### From the "cloud" (WAN solution)

Centralising Internet breakout at an organisation's headquarters can result in hosting issues and potential security breaches as well as the requirement for increased bandwidth to the central site (fig. 1) so may not suit, or be cost effective, for all organisations. As an alternative, we can deploy internet connectivity to one of the NetServices Super POPs. This introduces several advantages including those afforded by deploying Internet facing servers in the NetServices data centre facilities; centralisation of Internet security and the far greater internet bandwidth efficiency across their private WAN.

A centralised internet WAN deployment schematic is portrayed in fig. 2, where Internet breakout is provisioned at the NetServices data centre.

Fig. 2

