Advanced Managed Wide Area Networks

Summary

Managed WAN (Wide Area Network) services have traditionally only been available to enterprise or large business, mostly due the cost and complexity of delivering these services. Orca Communications has once again leveraged the power and flexibility of Open Source Technology to deliver an industry disruptive, comprehensive suite of Managed WAN services including C.P.E (Client Premise Equipment) management, Software Defined Networking and fully automated provisioning. The nature of Open Source Technology allows Orca to deliver these services to small medium and large business with more comprehensive and flexible features, more reliably at a more competitive price point.

Service Highlights

- Full layer-3 inter-office IP access using private IP addressing without the need for VPN technology or the traversal of the open Internet.
- Fully customised QoS (Quality of Service) definitions which do not limit service or prioritisation types.
- Use any Orca IP connection type including Fibre, low cost DSL services like ADSL and VDSL if limited options are available at some site locations.
- Centralised hosted Internet gateway and firewall options simplify and enhance WAN security by enforcing single gateway Internet access from a secure and redundant data centre location. Not to mention reduce cost by eliminating the need for firewalls at every location.
- All services delivered at ultra-competitive price points.
- Comprehensive Service Level Agreement (SLA) underpinning one of the industries most reliable managed WAN services.

Orca Managed WAN Service

Orca offers full site to site connection servcies forming a managed WAN service including local router management sharing central Data Centre based, redundant and secure Internet access. These services are provided via Orca's high availability Software Defined Core Network which as a platform allows rapid provisioning and fully customised network management from Layer 2 to Layer 7 network services. Comprehensive Quality of Service (QoS), traffic prioritisation, monitoring and reporting tools complete a powerful feature-set to deliver scalable and robust business communication services at a extremely competitive cost.

Why is Orca More Reliable?

Orca's Core Network, Routers and Servers all run upon fully redundant hardware and network infrastructure ensuring equipment failure does not result in downtime. If any office connection fails for any reason the Orca Cloud Phone system automatically forwards all calls to a pre-defined mobile (or land-line) phone number(s). Failover numbers can be specified for each extension. Orca infrastructure is housed with Orca's enterprise grade data centre where all server hardware is mirrored, multiple internet service providers are connected, power feeds, backup generators and cooling systems are all duplicated to provide total system redundancy. An additional replicated data centre can be added to ensure full geographic redundancy if required.
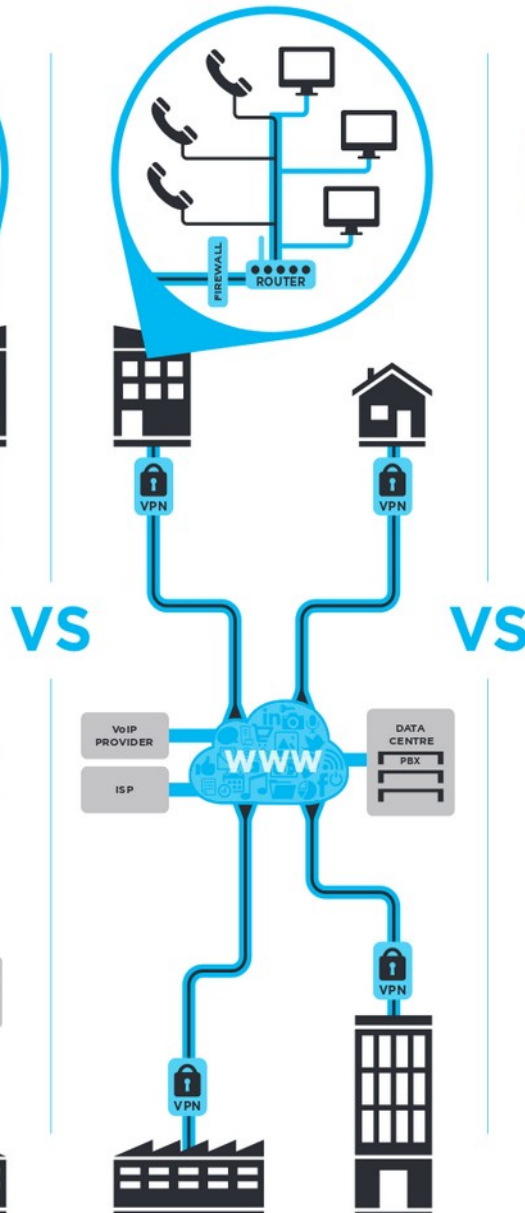
Simple Network Design

Traditional Setup
Legacy Phone lines
Multiple Internet Firewalls
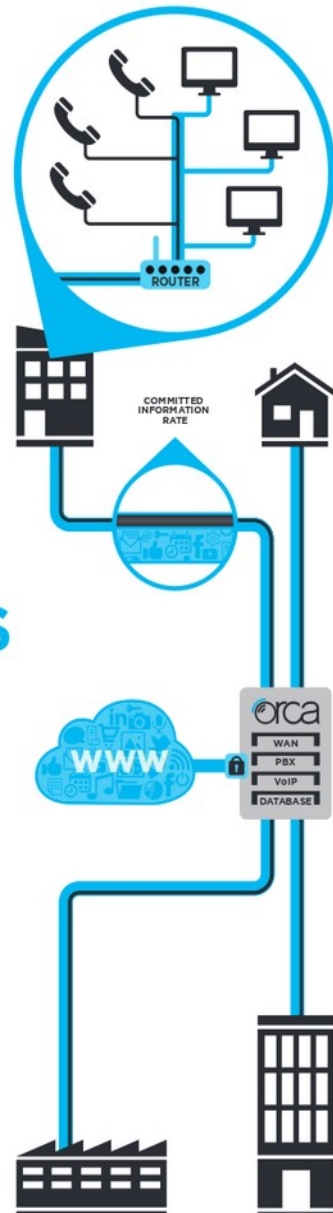Internet traversal required
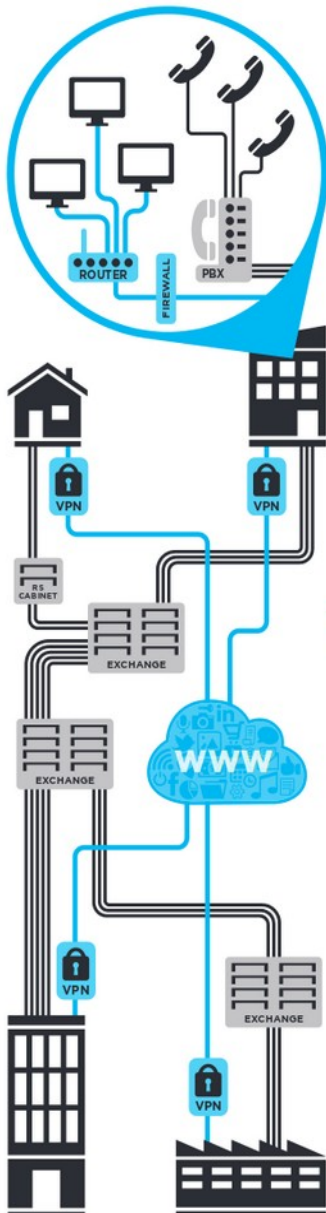
Typical WAN Setup
Multiple Internet Firewalls
Internet traversal required
No QoS

Orca WAN
Single Internet Firewall
No Internet traversal
Full QoS

Key Features

Connection types
A full range of access options to best suit the connectivity requirements for each site from basic xDSL circuits to 1Gbps fibre circuits with gaurenteed minimum bandwidth all supporting the delivery of managed IP network services.

QoS
Orca's QoS management model allows unprecedented granular level of traffic identification and uses hierarchical queuing to allow for fine control of traffic prioritisation. Application (layer7), vLan, IP, Port, Protocol, DSCP tag, source &/or detestation IP plus any multiple combination of criteria can be used to precisely identify traffic which should be prioritised and queued over other traffic types.

Traffic prioritisation
Traffic is prioritised by the Orca network according to your unique specifications so that higher class traffic has priority over lower class traffic. Create multipe traffic types and alocate any priority level to each group based on your specific business reuirements. Traffic priority levels range from 1 to 250.

vLAN Support
Allows secure separation of network traffic for more flexible performance and security management options e.g. more sensitive business data and/or guest data can be separated via vLAN to ensure appropriate access to appropriate network resources.

Active Service Management
24x7 network monitoring and response is available. This enables Orca to start the resolution process often before the customer is even aware.

Service Level Targets
SLA's to achieve network service delivery performance, plus provisioning, moves, adds and changes, with agreed service hours and restoration times able to be chosen on a per site basis.

Reporting & Diagnostics
IP based reporting is available per site. This allows a break down of typical usage (HTTP, VPN, TCP, UDP, ICMP) of each host on the local network. SNMP access can be provided to key hardware for monitoring from existing systems.

Reliable access to Orca Cloud Services
Orca allows easy connection to and integration with Cloud services hosted within Orca's private cloud network.

Policy Based Internet Blacklisting
Allows named websites to be blocked (blacklisted) preventing accesss from any device within your business WAN. e.g. facebook can be blocked for all or groups of devices or locations within your business.

Fully Automated Rapid Provisioning

Because Orca's high availability network infrastructure is software based, new network services can be built and provisioned within seconds without the need to engage network engineers to configure expensive proprietary network equipment. This approach also significantly reduces the risk of human error when provisioning network services. Including C.P.E network devices; Orca routers are automatically provisioned and managed further eliminating the need for network engineers to configure devices before shipping to customers, significantly reducing delivery cost and time-lines.

Security

All circuits are separated at the Layer 2 network level across Orca's network to ensure customers and links remain private. We don't utilise any publicly reachable connections to deliver WAN traffic. A single Internet gateway is presented for all sites removing the need to firewall each and ever WAN site and removing the duplication of connection traffic by moving the single internet access point/firwall to Orca's central data centre environment. SSL WAN encryption options are also available encrypting all WAN communications where required.

Hosted Firewall service

Orca's hosted firewall service (see page 7 for schematic) provides industry leading security features and performance within a convenient managed service framework, taking away the headache of managing internet access security for your busines.
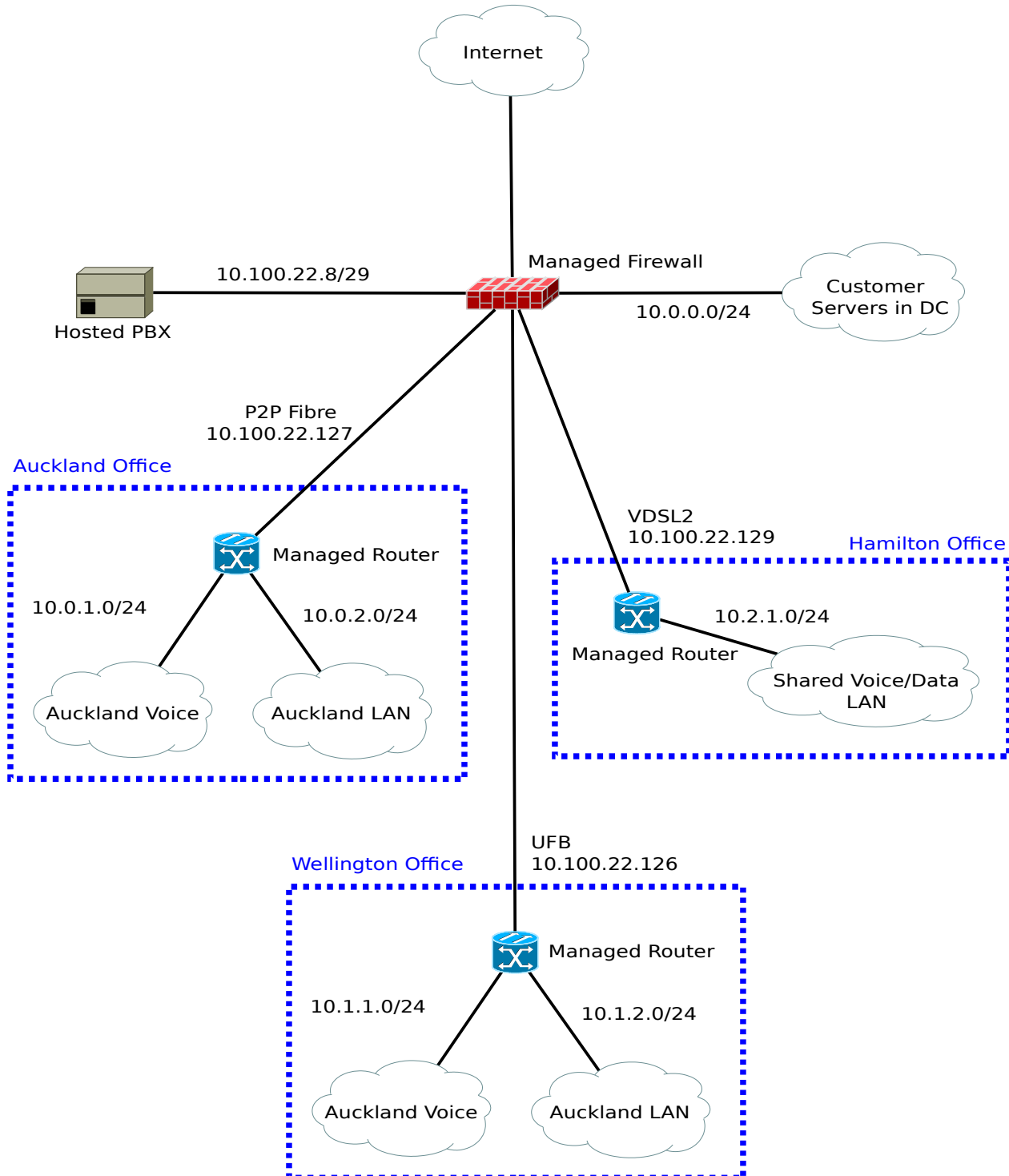
Privacy

The core Orca network establishes IP separation between clients at the IP layer, thus reserving each client's Orca network exclusively for their use, and is designed to prevent other parties from seeing, accessing or using it. This approach is not dissimilar to legacy Frame Relay services. Orca recommends that clients consider their network privacy needs carefully to confirm whether the level of privacy provided by this network-imposed separation is sufficient for their business needs. Clients can achieve additional privacy and security using encryption options if required.

Redundancy

Orca's software defined Core Network is run upon fully redundant hardware and network infrastructure ensuring equipment failure does not result in downtime. Orca infrastructure is housed within enterprise grade data centres were all hardware is mirrored, multiple internet service providers are connected, power feeds, backup generators and cooling systems are all duplicated to provide total system redundancy. An additional replicated data centre can be added to ensure full geographic redundancy if required.

Example 3 site WAN

Internet

Managed Firewall

10.100.22.8/29

Hosted PBX

Customer Servers in DC

10.0.0.0/24

P2P Fibre
10.100.22.127

Auckland Office

Managed Router

10.0.1.0/24

10.0.2.0/24

Auckland Voice

Auckland LAN

VDSL2
10.100.22.129

Hamilton Office

10.2.1.0/24

Managed Router

Shared Voice/Data LAN

UFB
10.100.22.126

Wellington Office

Managed Router

10.1.1.0/24

10.1.2.0/24

Auckland Voice

Auckland LAN

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