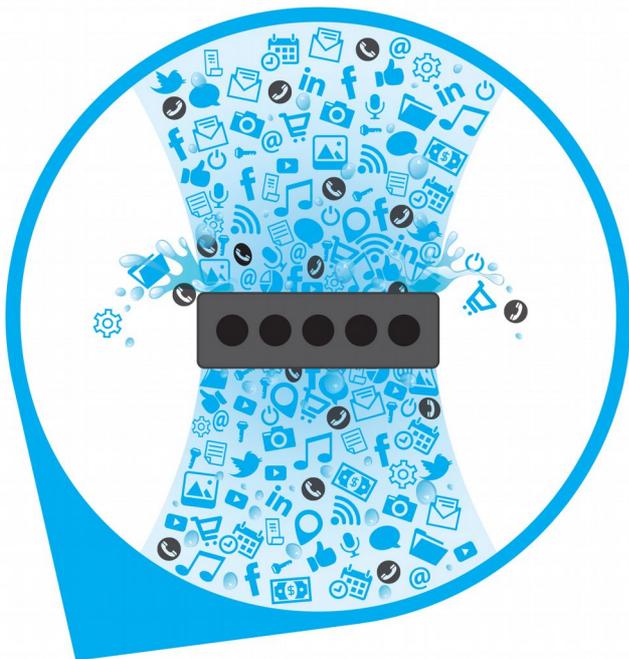
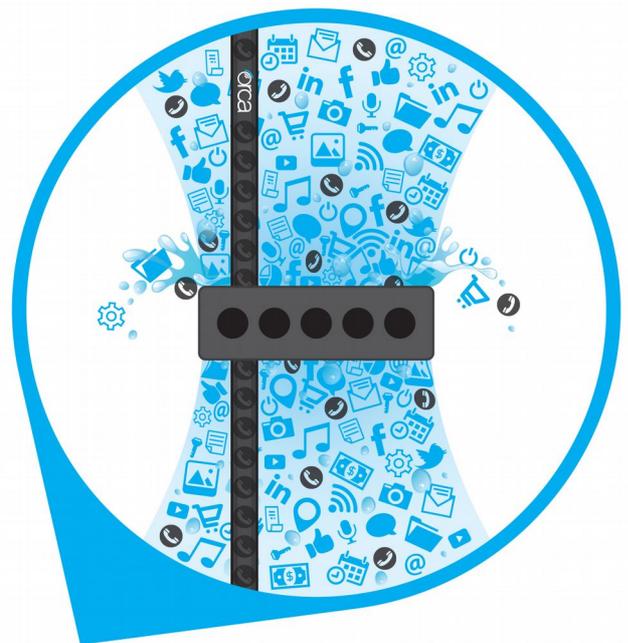


Why is Orca UFB Better?

A little know fact about UFB connections; they are not guaranteed to run at the ultra fast speeds that their headlines promote e.g. An advertised 100/100Mbit/s UFB circuit will only reach peak speeds of 100Mbit/s with no minimum guaranteed speed. Internet service providers do have the option of applying a minimum speed to UFB service but most don't due to the fact that a more expensive customer Router and more expensive infrastructure across their own networks are required to support these minimum speeds. The lines companies that own the physical fibre optic networks (Chorus, Enable, UFB etc....) are required (by regulation) to offer minimum speeds within wholesale UFB services. They refer to this minimum speed as the Committed Information Rate (C.I.R). The agreed method/standard for using the C.I.R is a standard called 802.1p or pTag in short. This approach requires any internet traffic wishing to use the C.I.R to be specifically 'Tagged' to do so. This is an excellent way of implementing a minimum speed standard because it allows customers to selectively tag different traffic types allowing it to take priority over other traffic types as show below.



UFB without C.I.R



UFB with C.I.R

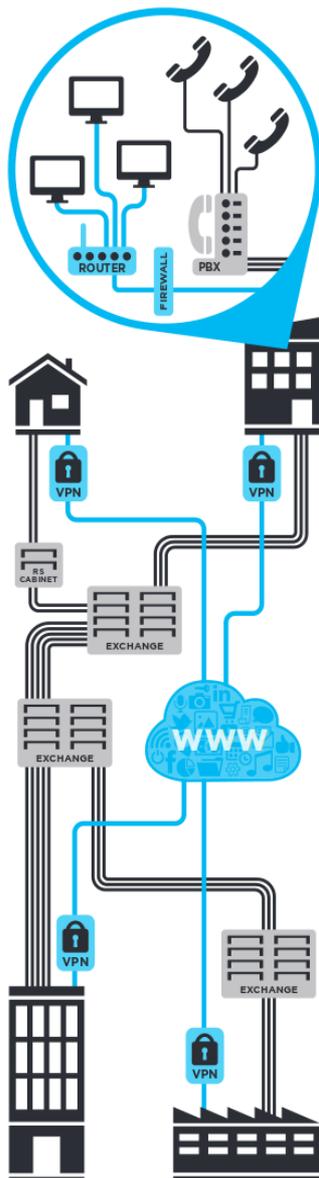
The only catch with this approach is that low cost routers (the type that most ISP's provide free) are not capable of Tagging and prioritising traffic, therefore more powerful business grade routers must be used, also the majority of Internet Service Providers internal networks must be upgraded to support this prioritisation across their networks.

Our Approach

The way that the C.I.R has been implemented for New Zealand's UFB network is ideally suited for Cloud Phone systems as voice traffic can be given priority over other less time sensitive traffic to ensure calls are always delivered reliably. Orca identified this opportunity early and has built its core network and customised routers to fully support the 802.1p standard allowing the C.I.R to be used to its full potential. Our UFB services are provided with an Orca Router that automatically directs all voice traffic to the C.I.R, all other data uses the peak available speed of the UFB connection. Further; the voice traffic using the C.I.R is placed into a private network (vLAN) with direct private access to the Orca Cloud Phone system hosted in Orca's data center. This mean that voice traffic never traverses the open internet completely eliminating the risk of delays to voice traffic which cause call quality issues. The diagram below illustrates Orca's approach.

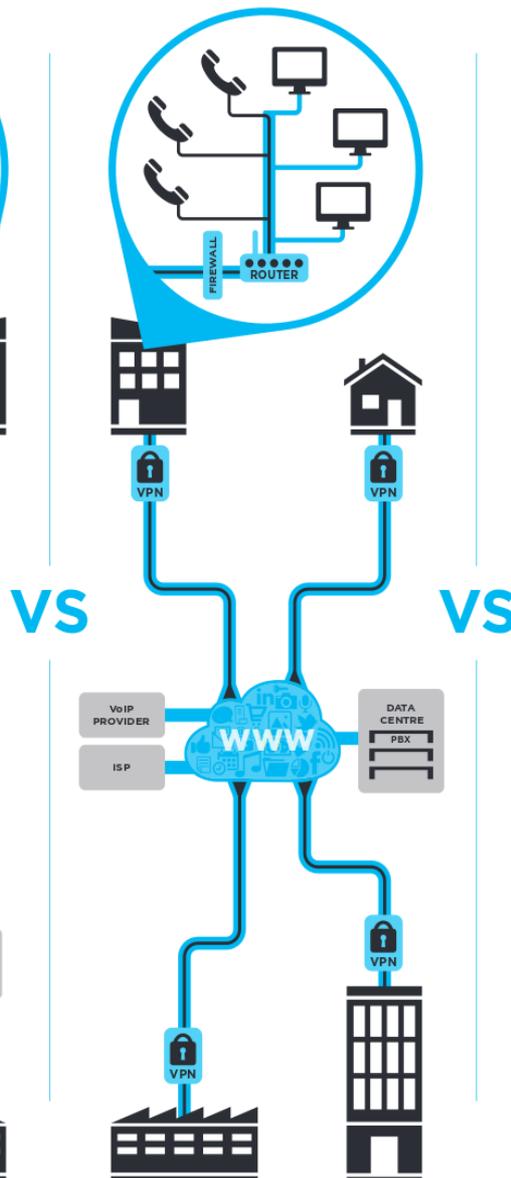
Traditional Setup

Analogue phone lines
No Managed WAN



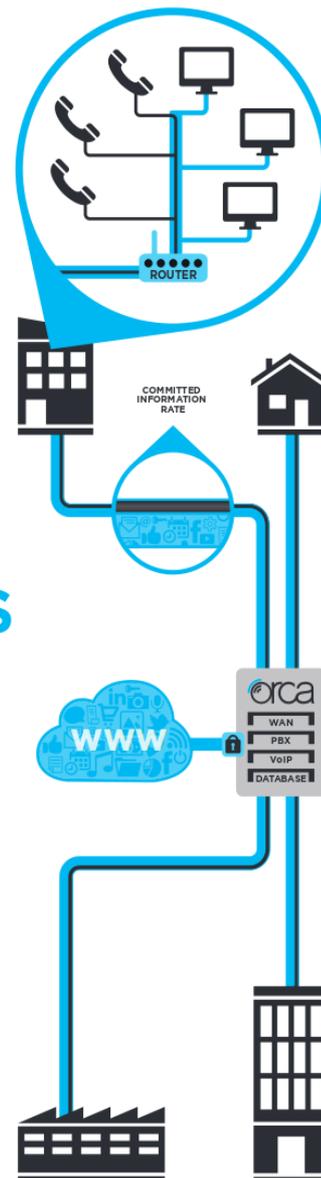
Typical VoIP Setup

No QoS
No Managed WAN



Orca VoIP Setup

Full QoS
Private Managed WAN



Advanced Managed WAN Service

Orca also offers the ability to privately link multiple office connections together without the need for VPN or complex and expensive MPLS network technology. This Private Network allows full layer 2 interaction between different site networks where a single Internet gateway/firewall is provided within the Orca Cloud for all sites. All Internet traffic is managed, secured and tracked allowing office locations to share a single data plan. Inter-office data no longer needs to traverse the open Internet allowing secure and free inter-office communications at significantly faster speeds than VPN networks.

Connection Types

	*ADSL2	**VDSL2	**UFB100	**UFB200	Business Fibre
Upload Speed	0.6Mbit/s	10 Mbit/s	50Mbit/s	200Mbit/s	5-1,000Mbit/s
Download Speed*	10-30Mbit/s	20-60Mbit/s	100Mbit/s	200Mbit/s	5-1,000Mbit/s
Guaranteed minimum speed	0.064Mbit/s	0.064Mbit/s	2.5Mbit/s	2.5Mbit/s	all
Service response	No SLA	No SLA	Optional SLA	Optional SLA	4 hours
- actual download speeds depend upon business location ** This connection type is available at your business address * Your exiting connection type					

Orca UFB Routers



Desktop UFB router
with full C.I.R support
\$689 +GST



1U Rackmount UFB router
with full C.I.R support
\$989 +GST

Specification/Performance:

4x Intel Pro 1GB ports.

Quadcore Intel Atom 1.8Ghz Processor, 2GB RAM, SSD storage.

Up to 400Mbit/s **Actual** throughput under full NAT and QoS load.

Runs real-time call-quality analysis.

Full Linux firewall feature set.

Includes full cloud management service for moves/adds/changes.

3 year warranty.

Redundancy

Orca's Core Network, Routers and Servers all run upon fully redundant hardware and network infrastructure ensuring equipment failure does not result in downtime. The Orca Data Centres all provide fully redundant power, cooling and If any office connection fails for any reason the Orca Hosted PBX system automatically forwards all calls to a pre-defined mobile (or land-line) phone number(s). Failover numbers can be specified for each extension. The Hosted PBX system 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.

Your Orca Contact

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