

ARITARI CALL CENTRE VOICE OPTIMISATION

Cost Effective Quality Call Routing

OVERVIEW

There are several simple challenges and objectives for global call centers which include improving quality and availability while continuously addressing and reducing network costs. Aritari is the perfect solution to support these ongoing objectives due to its unique ability to drive call quality over reduced network resources.

Aritari has developed its first dedicated voice platform between South Africa, the United Kingdom, and the United States to highlight its network and software capability. This dedicated SD-WAN Voice network has been developed with the global call center operations situated in South Africa as a key target market. The solution includes:

- Voice Optimisation
- Dedicated International Voice Network
- 90% Voice Bandwidth Reduction (Compression)
- High Availability



ARITARI VOICE NETWORK

Aritari is the first company to offer a NAAS (Network as a Service) offering to global call centers or enterprise clients situated between South Africa and the US or Europe. Our core network was developed with our powerful SD Voice software and local Gateway technology that allows our customers to connect their own dedicated last mile or Internet links to deliver their voice traffic.

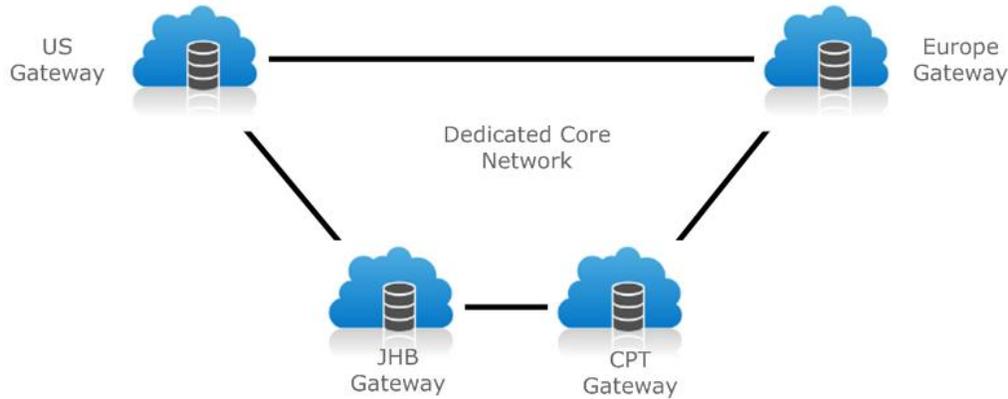
And because it's NAAS we don't have the requirement for lengthy unfavorable contracts which keeps us on our toes in terms of network performance and quality, but still provide a strong penalty based SLA's.

The Network

Our simple but powerful network architecture connects our Voice Gateways in South Africa, United States and Europe. This dedicated network provides measurable performance SLA's on network latency, network availability and of course network jitter.

We guarantee the lowest network latency based on the available routes from South Africa to ensure we can squeeze out every bit of voice quality available.

Diagram 1.1 Network and Gateway Design



- Low latency global dedicated Voice network (165ms/CPT-180ms/JHB)
- High availability (99.9%)

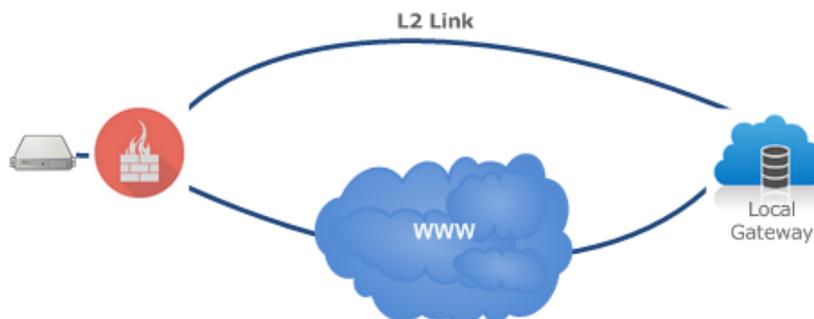
Whilst customers can choose to use Aritari SD Voice software on their own network, the Aritari dedicated voice network provides hard to beat performance and quality levels.

Connecting Your Network

To get access to the Aritari Voice Gateway from your call center or office region, we install an Aritari hardware solution or VM that builds a voice VPN tunnel from your network to the closest Aritari Gateway.

This simplifies voice routing in the network as all voice traffic can now be delivered to a single internal IP address which is forwarded to the Gateway via a secure VPN tunnel. This can be delivered over the Internet or via a dedicated L2 link available from any of 30 providers situated in Teraco DC's.

Diagram 1.2 Connecting to a Gateway



Whilst this network design overcomes some of the serious challenges in voice routing, especially where there are separate voice and data providers, the even greater benefit is achieved through what occurs in this VPN tunnel and between the network Gateways.



Voice Compression

Aritari reduces the bandwidth requirement to deliver your voice by up to 90% over traditional TCP IP networks. This allows customers with large branch networks to deliver high quality voice minutes over limited asymmetrical links like ADSL.

Aritari helps customers manage and reduce network and bandwidth cost without compromising on voice quality.

Chart 1.1 Concurrent Call Volume Aritari VS G.729 and G.711

Bandwidth	G.729	G.711	Aritari
256 kbps	6	3	32
512 kbps	12	6	64
1024 kbps	25	13	128
2048 kbps	50	26	256

In large global call center network designs, high quality international MPLS bandwidth can be expensive. Aritari provides the same high quality network but at a fraction of the cost through their unique and patented compression capability.

Forward Error Correction (FEC)

Aritari eliminates the negative effect of packet loss by sending your compressed voice packets multiple times when packet loss becomes evident in the network. Duplicate packets are sent down the same link or multiple links depending on resources available and based on a predetermined algorithm.

FEC is particularly effective in the following network designs:

- Where more than one link is available
- Where packet loss occurs such as Internet last mile or network congestion
- Where network resources are limited or shared with other applications

Aritari relies on FEC to improve the delivery of our client's voice packets over their chosen last mile or network infrastructure.

Additional Features Include

Voice Optimisation from Aritari includes the following additional technology:

- Quality of service parameters
- Link bonding and bandwidth aggregation
- Intelligent path selection



CONCLUSION

Aritari delivers both higher quality voice while reducing the cost of the network infrastructure. Because Aritari has been developed as a NAAS connecting or testing the network can be done in days or even hours. Contact us for an obligation free quote and POC.