

# A leading British oil and gas distribution organization



## About the client

A leading gas distribution company that owns, operates and maintains the largest natural gas distribution network in the United Kingdom, transporting gas to 11 million homes and businesses across Northwest England, West Midlands, East Midlands, East of England and North London. Our client represents four of the eight gas distribution networks in the United Kingdom.

## Business requirements

The network contract between the client and Verizon ended in May 2021. This provided the client with an opportunity to provision an optimal solution that presented value for money but also delivered greater flexibility and mobility to the workforce, third party suppliers and contractors.

This includes a transformation of the current business network into a Software-Defined network, utilising public internet connectivity and the incorporation of next-generation technology. The transformation ensured client keep up with the rapid increase of mobile and remote working, and supports the Cloud First strategy which are among the trends driving the networking industry to re-examine traditional network architectures.

Client's Network Strategy is made up of several supporting strategies that come together to provide a next generation network.





**Using Internet over MPLS** – Local internet connectivity at sites to allow for faster access to cloud services, whilst reducing the bandwidth and cost of private connectivity.



**Intelligent WAN** –Using network policies to simplify deployment, centralise management and route traffic based on applications.



**Decentralised Core Network Services** – Moving network services from being traditionally centrally hosted and making them available from anywhere on the network.



**Always on Web Security** – Protection whilst accessing the internet from anywhere, enabling a consistent user experience on or off the client network.



**Network Trust Architecture** – A network trust architecture that allows us to segregate critical areas of the network and protect client’s most important data whilst allowing the rest of the network more flexibility for users to work in the ways that best suit them.



**Wireless First Connectivity** – Wireless access available for all devices for increased user mobility and lower LAN management.

## HCLTech solution

HCLTech has been working on a subset of technologies focusing on Cloud Central Services, part of the overall Network Transformation Programme. Cloud Central Services focuses on the ability for third party vendors to manage AWS Servers via a Bastion Host Solution and a refresh of the current AWS Backbone Network to a centralised, simplified and a highly resilient & scalable transitive networking solution.

AWS Transit Gateway was deployed to upgrade the AWS Network from a complex mesh-style network topology using VPC Peering’s. This is connected to two new Co-Locations where Physical SD-WAN Appliances are deployed to support forward connectivity to sites and the Internet.

## AWS services used

- AWS Transit Gateway
- Amazon EC2
- Amazon VPC
- Amazon Elastic Load Balancer (ELB)

## Third party solutions used

- Deployment of Cisco Identity Services Engine, Cisco Wireless LAN Controllers, Cisco FirePower Firewalls for North South and East West Inspection, InfoBlox DNS and StableNet on behalf of Vodafone for Core Networking Management/Administration
- Deployment of Guacamole Bastion Host for SSH/RDP Access



## Business benefits

- Delivery in-line with customer business strategy and priorities, with up-to-date industry technology, allowing simplified and cost-effective networking
- Deployment of customer’s third-party networking and security stack like Cisco Identity Services Engine, Cisco Wireless LAN Controllers, Cisco Firepower Firewalls and Infoblox DNS
- Future proofed scalable infrastructure architecture