For a global oil & gas provider, edge networking is critical to the core of their business. With remote sites, drilling rigs, and offshore platforms distributed across the globe, everyday operations rely on robust connectivity. The company requires secure and reliable network capabilities in order to collect crucial data, coordinate activities, and maintain high levels of customer satisfaction.

The Challenge

With a cumbersome hardware stack, the company's network was becoming increasingly difficult to deploy and manage.

Having very isolated and remote sites meant space and energy came at a premium. On top of this, CAPEX, OPEX, and support costs continued to burden IT staff, since even a short period of downtime could result in major business losses.

To address their challenges, the company needed to focus on several key requirements, including:

- Reducing their hardware stack as much as possible
- Maintaining secure edge connectivity and high availability
- Simplifying management and providing convenient admin access

However, one of the most critical requirements would be to do away with the rigid capabilities of traditional edge networking, and instead implement a solution that would provide secure connectivity where users needed it most.

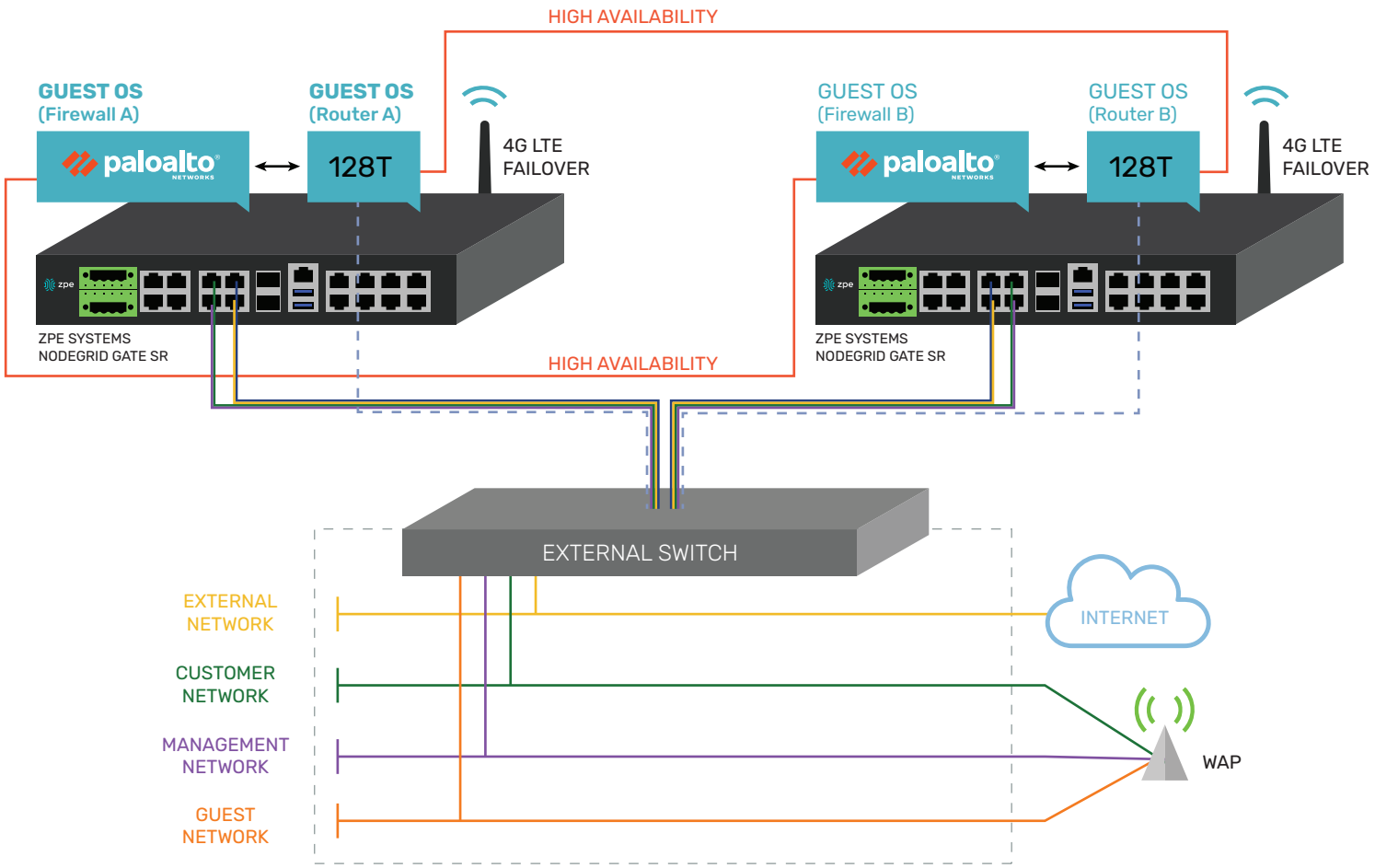
Finding an adequate solution would help the company retrofit their existing builds, as well as deploy new sites in a more timely and effective manner.

The Solution

Nodegrid was the only solution capable of delivering on all fronts. The company deployed **Nodegrid Gate SR's**, which directly hosted a virtualized environment consisting of SD-WAN and firewall applications. This networking and security combination would be delivered via cloud-like environment, to provide a Secure Access Service Edge (SASE) solution.

For high availability, two Gate SRs were used at each location, with redundant SD-WAN and firewall connections. These virtualized network functions (VNFs) were hosted directly on the Gate SR devices, allowing for more streamlined and efficient service chaining. Out-of-band access paths were also established, and each Gate SR provided another layer of reliability thanks to built-in 4G/LTE cellular failover.

By connecting Gate SR pairs to an external switch, all traffic could be secured by **Palo Alto Networks**' VM-Series virtualized firewall, and then routed appropriately by **128 Technology**'s SD-WAN application. To top it off, Nodegrid Manager could be used to see and control every part of the solution, even from thousands of miles away.



The Results

Instead of having to deploy a large stack, the company needed only two Gate SRs at each location. Achieving total security and a high-availability environment was simple thanks to the Gate SR's ability to host virtualized network functions.

All traffic, including traffic from management networks, could be segmented and forwarded via 128T's SD-WAN application. From there, traffic was safeguarded by Palo Alto's virtualized firewall and then forwarded to appropriate VLANs in the network.

Added reliability came via the Gate SR's 4G/LTE capabilities. This provided secure backup connectivity not only for the main networks, but also for administration networks. Nodegrid's advanced out-of-band management capabilities allowed for IT staff to remotely manage physical and virtual assets, all without disrupting service.

The Nodegrid solution cut the company's hardware stack in half, helped them maintain security in an HA (high availability) environment, and provided convenient management capabilities to support staff.

The Benefits

For the oil & gas provider, Nodegrid's SASE capabilities fully addressed all their networking challenges to help them achieve their business goals. Deploying Gate SRs allowed them to meet their requirements, as well as:

- Save space and energy
- Significantly reduce their stack
- Save on CAPEX, OPEX, and deployment resources

By pairing Gate SRs, the enterprise no longer needed to deploy six devices at each location. This meant significant space and energy savings, which were realized at new location deployments and existing site retrofits. Scaling became effortless as well, because Nodegrid supports automation and zero touch provisioning. The company could simply send Gate SRs to a new site, and then provisioning would be carried out automatically without requiring on-site network staff.

Users could securely connect to appropriate network resources, while support staff benefitted from more simple and centralized management thanks to a virtualized environment. Instead of juggling security, routing, and failover solutions, Nodegrid combined all these functions into a compact hardware & software package.

More savings came due to Nodegrid's remote out-of-band management and cellular failover features. To address network issues, support staff no longer needed to be dispatched hundreds or thousands of miles away. Instead, Nodegrid Manager allowed them to access all their distributed networks and devices from the safety of the NOC. This meant instant response times and savings on travel, on-site support, and other expenses.

Whether you're in utilities, logistics, or other globally distributed industry, Nodegrid makes edge networking effortless.

To discover the right edge solution for you, call or visit our website and book your free Nodegrid demo.

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