

Segregating Network Traffic Across Multiple Isolated Sites

MPC Kinetic was challenged by a fast-growing network spread over 15-20 sites in extremely remote areas. The company struggled to effectively segregate traffic for separate business units and joint venture partners and needed to fully segregate its core network infrastructure from its branch offices. VMware SD-WAN and partner Coevolve implemented a software-defined solution that provided total network control, automation, enhanced security and visibility, increased bandwidth, and cost reduction.

In order to deliver positive project outcomes to its energy and resource customers, MPC Kinetic requires a robust network that can extend to multiple project sites, including some sites in remote areas such as the Australian desert. In the past, MPC Kinetic had a multi-protocol label switching (MPLS) network and hosted almost everything in its own data centers. Its network extended out to 15 to 20 different sites, many of which were situated in extremely remote areas with little terrestrial connectivity. This created challenges for the company when trying to swiftly deploy new MPLS-based sites. Specifically, MPC Kinetic needed to launch new sites in weeks, whereas carriers could only promise to do so in months.



MPC Kinetic is an Australian-based company, providing essential upstream services to some of the country's leading energy and resource industries. The company specializes in constructing and managing gas pipelines, water pipelines, and large-scale mining infrastructure.

Industry

Energy-Utilities

Headquarters

Brisbane, Australia



About the Partner

VMware software powers the world's complex digital infrastructure. The company's compute, cloud, mobility, networking, and security offerings provide a dynamic and efficient digital foundation to over 500,000 customers globally, aided by an ecosystem of 75,000 partners. VMware is headquartered in Palo Alto, California

MPC Kinetic was also challenged to effectively segregate traffic among its various sites. While corporate offices connect to the corporate network, remote sites provide connectivity for multiple business units and joint venture partners, each of which require direct access to their own infrastructure without traffic going through the core network. Consequently, MPC Kinetic needed to find a solution that could separate the core network from the multiple virtual private networks (VPNs) at the branch offices.

Simplified Management with Coevolve and VMware SD-WAN

MPC Kinetic knew they needed to update their network infrastructure in order to meet the needs of multiple project sites. As a result, the company began searching for an alternative IT model that could complement and extend their existing network.

MPC Kinetic turned to Coevolve, a global provider of telco-independent integrated SD-WAN solutions, to meet their network performance needs. Based upon the principles of software-defined networking (SDN), SD-WAN is a solution that provides the tools for intelligently and securely directing network traffic from a centralized control plane. MPC Kinetic decided to implement VMware SD-WAN with the aid of Coevolve, who helped the company configure, implement and manage the solution.



VMware SD-WAN enabled MPC Kinetic to segregate network traffic at its sites that were connected using either MPLS or dark fiber, otherwise known as unused optic fiber. Leveraging the VMware SD-WAN technology, MPC Kinetic was able to provide three virtual connections at each site. This allowed the company to bring a route back to the data center and split it off, with one route going to the core network and the other two routes going straight to its internet gateway, keeping the traffic completely separated.

Using the VMware SD-WAN solution, MPC Kinetic was able to launch additional sites that did not have traditional WAN routers. The company placed the VMware SD-WAN solution directly on each site's existing internet links, allowing them to quickly connect to the corporate network. This allowed MPC Kinetic to seamlessly expand beyond its 15 to 20 privately connected sites, while rapidly deploying new ones.

The VMware SD-WAN solution also provided additional benefits including:

- Total network control
- Automation
- Enhanced security and visibility
- Increased bandwidth
- Cost reduction

Total Network Control

Overseeing the complexities of multiple sites can be an arduous undertaking. As MPC Kinetic continued to take on more projects, the company needed a solution that could provide network-wide visibility and control.

“Seeing VMware SD-WAN enable performance even in harsh and remote conditions, has enabled us to avoid significant additional expenditure and time on private MPLS.” – Brian Carroll, Group Manager IS&T, MPC Kinetic

VMware SD-WAN provided MPC Kinetic with comprehensive visibility and control by enabling them to connect to all network endpoints from a centralized control plane. With VMware SD-WAN, MPC Kinetic could oversee network traffic, detect jitter, determine which sites needed more bandwidth, and whether backups were running at the appropriate time — all in real time. Coevolve also provided MPC Kinetic with a monthly report about how the sites were performing, along with data usage, profiles and other pertinent information.

Automation

Another way that VMware SD-WAN simplified network management for MPC Kinetic was through automation. Using SD-WAN, companies can define routing policies that automatically determine the optimal route to direct traffic flows. By abstracting away various management capabilities — from troubleshooting to segmentation — MPC Kinetic staff can now focus on more critical business tasks that help them differentiate and gain a competitive edge in the marketplace.

“Working with MPC Kinetic to deliver services in far flung locations really demonstrates the power of good design and technology. MPC Kinetic was able to deliver connectivity to users even while in the harsh Australian desert.” – Daniel Urbina, Managing Director APAC, Coevolve

Enhanced Security and Visibility

By using VMware SD-WAN, MPC Kinetic also enjoys enhanced security for its various sites. Cellular and broadband transport are often used to connect sites that extend beyond MPLS, which broadens the network attack surface and can make visibility a challenge.

The flexible architecture of VMware SD-WAN offers enhanced visibility into the use of data center and SaaS applications, applying network-wide security policies and providing local, third-party and cloud security services wherever they are needed. Coevolve also provides MPC Kinetic with additional customized reports and analytics to highlight the utilization and performance of the network.

Increased Bandwidth

The demand for bandwidth has increased with the widespread enterprise adoption of cloud services. Companies like MPC Kinetic are challenged to meet the growing bandwidth needs of multiple sites due to the inflexibility of traditional MPLS networks.

VMware SD-WAN is able to economically expand bandwidth by aggregating all kinds of WAN circuits. The bandwidth of multiple sites is constantly monitored and measured in order to optimize network traffic. Effectively allocating bandwidth to different devices helps alleviate traffic congestion and quickens the response time for real-time applications. This was particularly beneficial for MPC Kinetic construction workers at camp sites, who used VMware SD-WAN as a gateway to the internet to watch videos on streaming services, such as Netflix and YouTube.



Cost Reduction

VMware SD-WAN has been championed as a cost-effective alternative to MPLS and one that provides improved services. The platform slashes expenses by substituting or complementing legacy hardware routers with virtualized appliances.

Prior to embracing VMware SD-WAN, MPC Kinetic had a full MPLS network. While MPLS is excellent at providing VPNs and metro ethernet, it's also expensive. Using an alternative network connection, according to TeleGeography, can save enterprises up to 84 percent in associated MPLS costs.

*Using VMware SD-WAN, MPC Kinetic can capitalize on a hybrid approach to **decrease costs by more than 80%**, while boosting the connectivity of different sites.*

Future-Proofing

Since 2017, MPC Kinetic and Coevolve have successfully deployed this hybrid solution to numerous sites across Australia. Brian Carroll, Group Manager IS&T at MPC Kinetic, says, "Seeing the VMware SD-WAN technology enable performance even in harsh and remote conditions, has enabled us to avoid significant additional expenditure and time on private MPLS."

MPC Kinetic expects VMware SD-WAN to play a role in deploying future technology. The company's network is becoming more complex as they continue to acquire and merge with businesses that have varying levels of technological maturity.

What is certain is that more companies like MPC Kinetic are migrating to a cloud-based environment to manage their day-to-day business operations. By adopting VMware SD-WAN, MPC Kinetic can reap the benefits of new technological innovations that its former network infrastructure could not support.

This case study was produced by VMware in collaboration with Coevolve, to view the original case study please visit the following VMware webpage:
<https://sase.vmware.com/content/dam/digitalmarketing/vmware-sase/pdfs/sdwan-651-MPC-Kinetic-Coevolve-cs-0621.pdf>

Contact Us



info@coevolve.com



Australia (Toll-Free):
1800 091 785

United States (Toll-Free):
1 844 807 7500

Singapore:
+65 69716300

Malaysia
+60 330992399

Stay Connected

