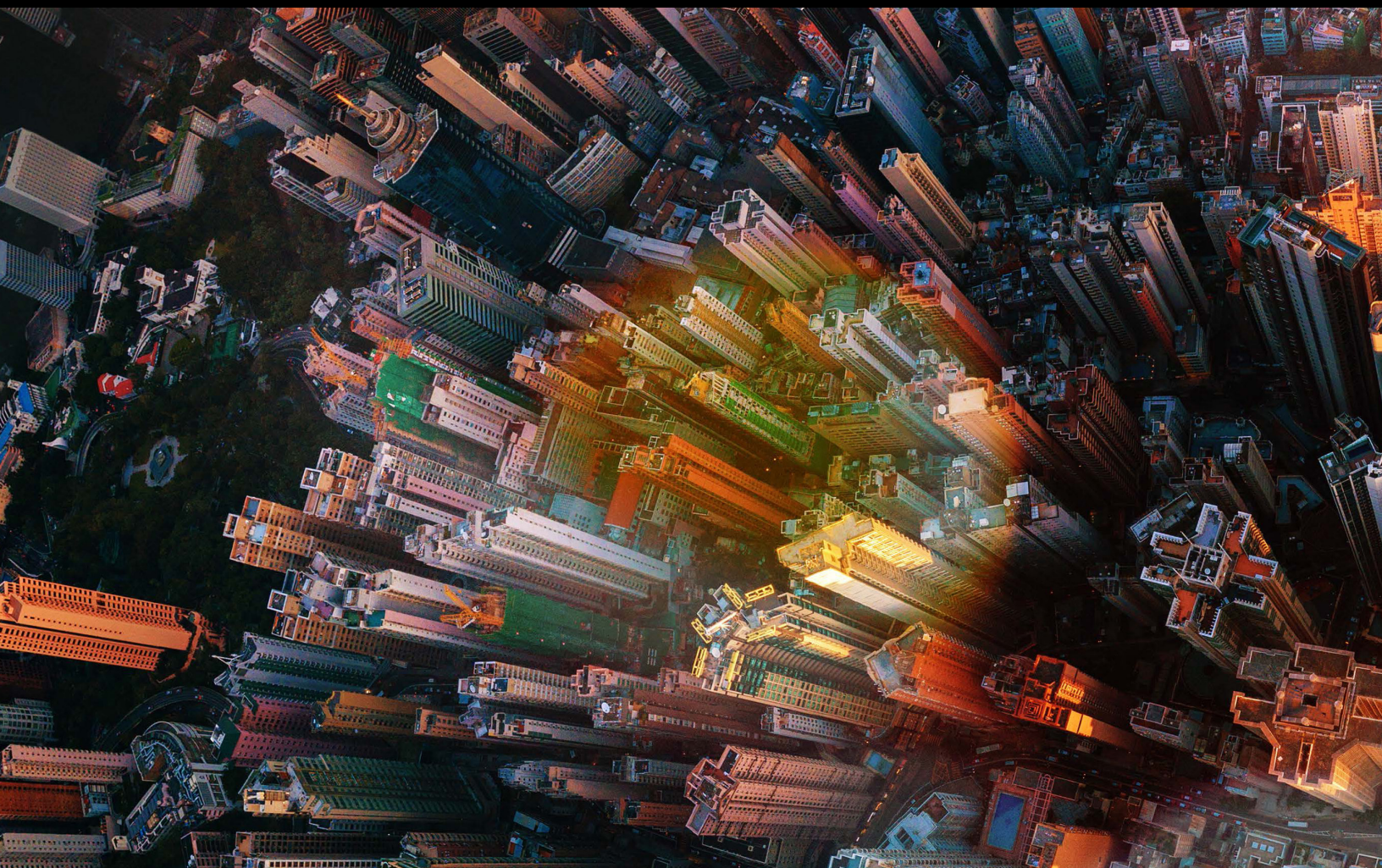
CASE STUDY

SECTOR
Engineering & Construction

SERVICE
Managed SD-WAN

JENSEN HUGHES + GTT

ACCELERATING DIGITAL TRANSFORMATION



A TOP ENGINEERING FIRM LEVERAGES VMWARE SD-WAN MANAGED BY GTT

Jensen Hughes is one of the top specialty engineering firms in the world. Safety, security, and risk-based engineering are its main focus. Headquartered in North America, with over 80 branches located all across the globe, the company relies on a distributed network infrastructure to keep its operations running smoothly.

Being at the forefront of innovation in its field, Jensen Hughes has seen rapid growth in the amount of data driving its engineering and construction design process. The company needed to increase network bandwidth availability in order to handle higher traffic volumes and enable its digital growth. A new approach to networking was required. Upgrading its network with VMware SD-WAN™ by VeloCloud® and a global network with managed services from GTT offered significant benefits. These included simplified service management and coordination through one global network service provider, enhanced scalability and cost savings. By modernizing its network architecture and matching the network access type as best suited for each site, Jensen Hughes stands perfectly poised for global expansion to drive revenue growth and improved profitability.

JENSEN HUGHES' NETWORK BEFORE GTT AND VMWARE SD-WAN

When Jensen Hughes' vice president of IT, James Rippetoe, first joined the organization, its networking infrastructure featured a mix of connection types and providers. Some branches in Europe, Asia, and the Middle East used local providers for connectivity services, while the company's internal IT team primarily handled the North American sites. Rippetoe noted networking as one of the big areas affording the opportunity for improvement.

Especially in North America, the company relied on Multiprotocol Label Switching (MPLS) circuits for a wide variety of purposes, including VoIP. These connections suffered from jitter at times, while a lack of bandwidth also hampered overall performance.

For a company focused on efficiency and growth, Jensen Hughes needed to upgrade its network architecture. VMware SD-WAN, leveraging GTT's global Tier 1 IP network offered an innovative, global service that was a perfect fit for its business goals.

WHY JENSEN HUGHES CHOSE VMWARE SD-WAN MANAGED BY GTT

Jensen Hughes chose VMware SD-WAN managed by GTT for its network infrastructure needs for many reasons, including:

- **Cost savings.** Using VMware SD-WAN to augment enterprise network with access types such as DIA and Broadband can offer significant cost advantages compared to the price of installing new MPLS lines.
- **Increased flexibility.** A VMware SD-WAN approach provides bandwidth flexibility by allowing multiple wide area network (WAN) links from MPLS to Internet and 4G backup, simultaneously.
- **Greater scalability for business growth.** GTT owns and operates a global Tier 1 Internet network which can provide connectivity to any location in the world and every application in the cloud. VMware SD-WAN enables zero touch provisioning which makes it quick and easy to bring new locations on-net.
- **A network fit for flexibly connecting to cloud apps.** The company's migration from on-premises data centers to the cloud benefited from the ability to quickly add bandwidth as and where needed. This allowed Jensen Hughes to implement Office 365 while moving its email applications and customer data to the cloud. Using VMware SD-WAN with GTT's IP backbone means Jensen Hughes' traffic can leverage GTT's fast core network between locations, to any destination on the Internet or to any of securely interconnected cloud service providers around the world.

"With VMware SD-WAN and GTT's cloud networking capabilities, we've cut our networking costs in half while nearly doubling available bandwidth at each of our branch sites.

JAMES RIPPETOE
VICE PRESIDENT OF IT, JENSEN HUGHES

Without cloud networking from GTT and VMware SD-WAN, we could not have moved to Microsoft Teams. We could not have done cloud storage. We could not have migrated our information to Office 365 so we could not have had email in the cloud.

There's just so much that is now a de facto part of our everyday business life that we could not have done without GTT and VMware SD-WAN, which have radically transformed our ability to conduct our business."

JAMES RIPPETOE
VICE PRESIDENT OF IT, JENSEN HUGHES

REAPING OPERATIONAL BENEFITS

After a seamless VMware SD-WAN implementation managed by GTT, Jensen Hughes' global network no longer contained any costly and inflexible MPLS circuits.

"With VMware SD-WAN and GTT's cloud networking capabilities, we've cut our networking costs in half while nearly doubling available bandwidth at each of our branch sites," said Rippetoe.

Additionally, Jensen was able to leverage GTT's global network reach and streamlined software-defined wide area network (SD-WAN) deployment process to easily onboard its sites in the US as well as remote branches in Europe, Asia, and the Middle East, which improved operational efficiency and reduced expenses. GTT's dedicated technical experts supported design, implementation, installation and optimization of the VMware SD-WAN solution from end-to-end, leveraging GTT's experience as an established managed services provider.

PERFORMANCE GAINS

The company gained the ability to transition from a hub and spoke to a multihub topology for its network architecture. All branches are now able to directly and securely access the Internet without backhauling traffic to a centralized data center for the application of central security policies. This approach reduced latency which greatly improved performance.

It also became easy to organize its branch sites into different tiers based on the number of employees located onsite, and subsequently, its data usage needs. This helped Jensen Hughes' network administrators allocate enough bandwidth based on usage, as well as the available connections. For example, some branch sites use the cloud-based version of AutoCAD, with a requirement to transfer large data files across the Internet to the cloud provider's data centers. VMware SD-WAN enables the prioritization of traffic for this application across GTT's Tier 1 Internet backbone, ensuring the best performance for this important use case.

Being able to leverage this kind of analytical approach to bandwidth allocation and path control is a major benefit of combining VMware SD-WAN architecture with the GTT network. It also plays a big role in Jensen Hughes improving its overall IT efficiency while reducing network expenses.

The advantages of cloud-based data storage are also vital. For example, Jensen Hughes' engineers are now able to collaborate with each other and with clients using CAD software over the cloud. This level of collaboration simply wasn't possible before moving to VMware SD-WAN managed by GTT. In short, VMware SD-WAN with cloud networking from GTT allows Jensen Hughes to truly take advantage of its cloud investment while helping its engineers do a better job.

MANAGING NETWORK INFRASTRUCTURE BECOMES EASIER

A major advantage of the VMware SD-WAN solution is its VMware SD-WAN Orchestrator, a component used for central management and monitoring of the VMware SD-WAN infrastructure. The VMware SD-WAN Orchestrator adds flexibility to the managerial process, since users can manage from a centralized data center or by using a cloud version of the component.

Jensen Hughes works with GTT to monitor and manage its network from a central portal. Historical usage data is available at a glance in the VMware SD-WAN Orchestrator via the GTT Ethervision portal, helping to quickly troubleshoot any issues at a branch site. This level of monitoring wasn't available before VMware SD-WAN and the consolidation and upgrade of network services with GTT, when Jensen Hughes' network contained a variety of MPLS circuits from different telecom providers. In that situation, figuring out who to call was typically the first troubleshooting step of a timeconsuming process.

Rippetoe notes that VMware SD-WAN and its VMware SD-WAN Orchestrator via the GTT Ethervision portal gives Jensen Hughes a "single pane of glass" for its entire global network. This modern take on network management ensures network administrators are able to react to any issue in a fraction of the time compared to its old network. Additionally, fast access to utilization data and metrics facilitates a proactive approach to monitoring.

In addition to the operational efficiencies gained through VMware SD-WAN, Jensen Hughes also enjoys significant new capabilities due to its new network infrastructure. Ultimately, this networking innovation made a transformational impact on the engineering firm's operations.

It's become difficult for Jensen Hughes to imagine its operations before implementing VMware SD-WAN managed by GTT. Its network infrastructure now fosters collaboration and facilitates business, where in the past it sometimes served as a barrier. Jensen Hughes even saved money, especially when considering its IT operations expenses.

The superior management capabilities of VMware SD-WAN allows Jensen Hughes' network administrators to work more efficiently. GTT's global Tier 1 IP backbone and extensive experience with global SD-WAN deployments has enabled Jensen Hughes' to consolidate and upgrade its network using a range of access options.

Jensen Hughes now enjoys increased collaboration, improved operational efficiency, and significant cost savings, all due to its move to VMware SD-WAN managed by GTT.

ABOUT GTT

GTT is a managed network and security services provider to global organizations. We design and deliver solutions that leverage advanced cloud, networking and security technologies. We complement our solutions with a suite of professional services and exceptional sales and support teams in local markets around the world. We serve thousands of national and multinational companies with a portfolio that includes SD-WAN, security, Internet, voice and other connectivity options. Our services are uniquely enabled by our top-ranked, global, Tier 1 IP backbone, which spans more than 260 cities on six continents. The company culture is built on a customer-first service experience reinforced by our commitment to operational excellence and continuous improvement in our business, environmental, social and governance practices. For more information, visit **www.gtt.net**

ABOUT VMWARE

VMware software powers the world's complex digital infrastructure. VMware SD-WAN by VeloCloud simplifies branch WAN networking by automating deployment and improving performance over private, broadband Internet and LTE links for today's increasingly distributed enterprises, as well as service providers. For more information on VMware SD-WAN, please visit **www.velocloud.com.**

GTT Making Exceptional Possible

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