



Customer Case Study

Chemical Company Compounds Cost Savings

with Talari Failsafe SD-WAN

SI Group is a privately held global leader with more than 100 years of innovation in chemistry. More than 2,800 employees work on products that are integral to countless industrial and consumer goods, ranging from Ibuprofen to the adhesive that makes Teflon stick to pans.



Executive Summary

Company

SI Group

Locations

United States, Brazil, China, United Kingdom, France, India, Korea, Singapore, South Africa and Switzerland

Key Applications

UC, ERP, Skype audio and video, email, backup, and disaster recovery

Challenge

Deliver 100% network availability

Solution

Talari Failsafe SD-WAN

Results

- Employees have a resilient hybrid network ensuring they work effectively without gaps in communication due to Internet or MPLS outages
- Network uptime has increased from 90 percent to 99.99 percent
- Increased capacity while cutting cost 40 to 80 percent

Regional Connectivity a Challenge

SI Group's globe-spanning network is populated with dozens of busy remote manufacturing sites and branch offices across five continents, with facilities in 10 countries serving customers in more than 90 countries. While a global presence and regional diversity has distinct advantages, it poses serious WAN challenges, especially in smaller, more remote locations.

Many of SI Group's locations are 30 miles or more outside a major metropolitan area and served by smaller telcos. Many locations have limited connectivity options available. The result is a mix of WAN connections, including MPLS, cellular, microwave, DSL, cable, and fiber Internet. Before adding Talari SD-WAN, SI Group's network reliability, even on its best days, was only partially acceptable.

"We were bouncing between network connections and experiencing a tremendous amount of pain and costly downtime. We would experience week-long MPLS outages," says Allen Look, CIO at SI Group. "SI Group was desperate to find a way to keep the network up when individual segments of the network were constantly going down."

Reliable network performance was a company-wide complaint among employees. The network was configured to route all traffic and services through the data center. With much of the traffic coming across on 2-Mbps MPLS circuits, application performance was frequently sluggish. Look describes it as "like pushing an apple through a straw." From the

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Allen Look
CIO
SI Group

employees' perspective, ERP, Skype audio/video, and email would work fine one day and be slow or unresponsive the next.

What if There Were a (Three-Day) MPLS Outage, and No One Noticed?

Look made it his mission to find a solution that ensured network availability even when individual circuits were down. He started his search in 2009 – before the term SD-WAN even came into fashion – and found Talari in 2012.

"One magical day, my infrastructure lead told me she had found the box I was looking for. Very soon after, we put in dozens of Talari appliances," says Look.

Now, when there are problems with a carrier connection, Talari SD-WAN technology automatically detects the failure within a fraction of a second and moves traffic to a well-performing link without interrupting active user sessions, ensuring that SI Group's 2,800 engineers, chemists, payroll and other employees don't experience a performance gap. Talari's failsafe SD-WAN approach provides SI Group with increased capacity,

"Talari has been fantastic."

Allen Look
CIO
SI Group

improved reliability, and lowered costs while ensuring that applications are not impacted by underlying network issues.

"The results were immediately apparent. We started getting compliments from the plant managers and others working with and in the remote branches," Look says.

When the IT team took a closer look at Talari's network diagnostics, they found unexpected good news. They were seeing MPLS outages in multiple locations at different times, but the outages had zero impact on the network. In one location in France, MPLS circuits were down for three days without anyone knowing.

"The Talari SD-WAN was doing its job and re-routing traffic over the best available path; everything was still running with no noticeable reduction in speed or capabilities," says Look.

Talari's patented failsafe technology delivers both MPLS-class high availability and high QoE (quality of experience), predictable application performance for both TCP-based apps and real-time apps including VoIP and videoconferencing. SI Group benefits whether any location's connectivity is built on a hybrid MPLS plus Internet WAN fabric, or a WAN made up only of Internet connections. Continuous, unidirectional measurement of all traffic between any pair of locations enables sub-second response. This approach applies not only to link or device failures, but also WAN

"brownouts" – episodes of congestion-based packet loss and jitter that occur on shared IP networks like the Internet.

Talari Pushes Network Uptime to 99.99%

Before installing Talari, SI Group's WAN averaged 95 percent uptime. Talari boosted uptime to 99.99 percent. For Look, the most visible changes were around the real-time staff Skype audio and video traffic. Skype is extremely popular within SI Group, and employees now reliably schedule and conduct conferences without worrying about dropped calls. These communications are vital for remote locations working with headquarters, partners and customers.

Talari diagnostics also proved out that the Internet most of the time was vastly better at handling their traffic than MPLS.

"The failsafe-enabled Internet connections were consistently faster and had less jitter than MPLS. We were considering an MPLS overhaul but based on the stats opted for leveraging 100 Mbps Internet connections. SI Group kept 2 Mbps MPLS for added QoE for the most performance-sensitive apps. We have no plans to scale MPLS and spend more money with a carrier," says Look.

Moving to 100 Mbps Internet is leading to both significantly more bandwidth and monthly cost savings for SI Group. Typically, MPLS connections run 50 to 400 times more expensive per bit than Internet connections. SI Group is realizing both near term and future cost savings.

"Internet pricing keeps going down while MPLS stays at the same high price," notes Look.

Simplified Management, More Bandwidth at Lower Costs

Network management is another area where SI Group gives Talari high marks. One person manages the global Talari SD-WAN, in addition to many other responsibilities.

"We don't need a large team of network engineers or multiple people to manage and monitor Talari's edge devices," says Look.

Talari SD-WAN solution brings additional benefits for SI Group, especially around future WAN upgrades. SI Group is now ready to leverage multi-cloud-based services, and easily incorporate any additional WAN provider at its different locations, since Talari's SD-WAN solution is carrier-agnostic.

With very little ongoing input from IT, the Talari SD-WAN manages all the network connections across all the different regions and telcos. SI Group has gained 50 times the overall WAN capacity, maintained QoS for its applications, and increased network uptime and application performance by moving traffic from MPLS to Internet connections, and back as needed, even multiple times during an existing user session, all without users knowing.

"We've gained more bandwidth and reduced costs 40 to 80 percent while increasing network reliability with Talari," says Look. "We tried other SD-WAN products, but we have torn those out of the network. Talari is at every location, supporting a diverse mix of connections, and everything stays up. Talari has been fantastic."

As SI Group's global reach expands, the chemical company is primed and ready for new remote branch offices and any other regional connectivity needs.

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About Talari Networks

Talari Networks, the trusted SD-WAN technology and market leader, engineers the internet and branch for maximum business impact, delivering superior application reliability and resiliency, while unlocking the benefits of branch consolidation. Incorporating years of innovation into six generations of product, Talari is deployed across thousands of sites in 40 countries.

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