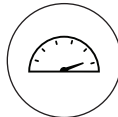
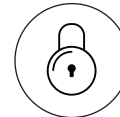




Improved quality of service.



Optimization of the available bandwidth.



End-to-end security.

How Michelin connects its 200 sites worldwide

With more than 120,000 employees in 170 countries, Michelin generates 24 billion euros in revenue. The world leader in tires, services for professionals and high-tech materials is investing 700 million euros in research and development to design, manufacture, and market high-tech tires for all types of vehicles: cars, trucks, two-wheelers, airplanes, as well as civil engineering and agricultural machinery.

Objective: improve the quality of service

“My responsibility as CTO is to provide Michelin’s businesses with the most efficient IT and network services at the best cost,” says Pauline Flament, Michelin’s Chief Technology Officer. “At the beginning of 2016, we started to migrate our on-premises collaborative applications to software as a service solutions. This had the effect of doubling our bandwidth requirements! The pace has not slowed down since then: every 12 or 18 months we have to increase this capacity by almost 100%, which is both a technical and a financial issue.”

Prior to the migration decision, each of Michelin’s 200 sites was connected to the WAN via a dual MPLS link. The network team was completely dependent on the local provider’s ability to provide the necessary bandwidth or, failing that, redeploy fibre. The dependency extended to prices as there was no possibility of competition. Users were globally dissatisfied because of the poor quality of service either in business applications or for audio and video communications.

Cloud-delivered SD-WAN

Pauline Flament’s technical team carried out a market study in the summer of 2017 to evaluate hybrid network technologies such as SD-WAN that were just beginning



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INDUSTRY

Manufacturing

LOCATION

Clermont-Ferrand, France

VMWARE FOOTPRINT

VMware SD-WAN™

to emerge. “I quickly became convinced that it was time to renegotiate the contracts with my four network providers (one per geographical plate) and to launch a request for proposals that would mix the renewal of MPLS, the purchase of internet links and the deployment of an SD-WAN technology.” However, the SD-WAN was not to be a service managed by an operator but to become “Michelin’s solution for Michelin.” The objective: to directly manage and improve the quality of service by themselves and improve it by prioritizing the flows passing through the extended network.

At the beginning of 2018, Pauline Flament chose the integrator AT&T and the VeloCloud solution which had just been acquired by VMware. More specifically, it is the VMware SD-WAN™ product that provides companies with its unique cloud-delivered SD-WAN that allows for faster deployment of new sites.

“I didn’t make a technology choice. I simply started from my need. I was solution and integrator agnostic. My objective was to equip myself with a wide area network management solution that would allow me to be autonomous, both technically and economically,” explains Pauline Flament.



ROI achieved in 16 months

Today, the solution has been deployed on more than 200 Michelin sites worldwide and serves more than 120,000 users. The benefits for the tire manufacturer are numerous. First and foremost: independence, both from the information transport layer and from network providers. “This independence allows us to keep the same rules and the same quality of service regardless of the ‘physical pipes’ used behind them. This permits our organization to use all the available bandwidth in active-

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active mode. But it also allows us to increase it, while at the same time creating healthy competition between service providers at the local level in order to choose the best quality-price ratio in places where it is difficult to get a network,” Pauline Flament is pleased to say.

“My responsibility as CTO is to provide Michelin’s businesses with the most efficient IT and network services at the lowest cost. The deployment of our SD-WAN in 16 months at more than 200 sites worldwide now allows us to provide nearly 120,000 users with all the bandwidth they need to work with peace of mind and on an optimized budget.”

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CHIEF TECHNOLOGY OFFICER, MICHELIN

Another advantage of the SD-WAN solution is the detailed visibility it provides on the traffic passing over the network, both quantitatively and qualitatively. Armed with this data, Pauline Flament’s team can optimise traffic flow by reconfiguring certain servers and equipment on site or by rescheduling backup operations at more opportune times, thereby relieving traffic and giving priority to business applications.

“We now measure the real quality of service of the networks we buy, not just the SLA measured by the service providers. And we have very precise visibility into the bandwidth actually used, congestion rates, latency. Finally, all this allows us to buy more bandwidth at a lower cost. In the end, the ROI of our SD-WAN was achieved in 16 months and users are much more satisfied,” Pauline Flament adds with a smile.

And what about tomorrow?

“One of my ambitions for the future is to automate security and self-healing scenarios to enable Michelin’s businesses not to be blocked in the event of a physical network breakdown. For example, by automating failovers to other links and ensuring the resilience of Michelin’s corporate network. In addition, our SD-WAN is also very useful for integrating external companies, as is currently the case following the acquisition of the Quebec-based CAMSO. Once you’ve had a taste of SD-WAN, you can’t do without it!” concludes Pauline Flament.