Gap Inc.

Mist
A Juniper Company

Gap Inc. Transforms the In-Store Wi-Fi Experience with AI-Driven Networking

Doris and Don Fisher opened the first Gap store in 1969 with a simple idea—to make it easier to find a pair of jeans and a commitment to do more. Over the last 50 years, the company has grown from a single store to a global fashion business with brands including Gap, Old Navy, Banana Republic, Athleta, Intermix, Janie & Jack, and Hill City. Gap Inc. relies on Mist, a Juniper Company, for wireless networking and on Juniper Networks for its corporate backbone.

The retail industry is forever transformed. Technology has changed the way shoppers interact with their favorite brands. A multichannel experience is the new normal, and e-commerce sales continue to grow rapidly in comparison to in-store sales. Consumers don't simply want to shop for products; they want to seek out a more engaging experience.

Technology has reshaped everything—from how shoppers find a local store, to making purchases, to being in-the-know about fabulous promotions. Associates can better balance assisting customers while keeping pace with their operational duties. Today's retail experience requires great in-store wireless, and that's what Gap Inc. set out to deliver.

TRANSFORMING THE RETAIL EXPERIENCE

Wi-Fi may be the foundation of the shopper experience, but delivering good Wi-Fi in stores is particularly challenging. A network that was built to accommodate a few mobile devices is now connecting shoppers' devices and many more retail technologies. One store's Wi-Fi may impact the performance of a neighboring store. Merchandise is rearranged seasonally, and those changes can unintentionally impact the wireless network. And the sheer scale of retail means IT must support users and devices in thousands of locations.

SUMMARY

COMPANY
Gap Inc.

INDUSTRY
Retail

BUSINESS CHALLENGES
Deliver a great Wi-Fi experience to retail associates and shoppers in a highly dynamic retail environment while simplifying network operations.

TECHNOLOGY SOLUTION
- Mist Platform
- MX Series 5G Universal Routing Platforms

BUSINESS RESULTS
- Delivered a great user experience to employees and shoppers with AI-driven Wi-Fi
- Reduced technical staff visits to stores by 85 percent
- Enabled digital tranformation for North American stores
- Laid the foundation to deploy game-changing services to leapfrog the competition

"Wireless in retail is really tough," says Snehal Patel, global network architect for Gap Inc. "The more clients that we deployed in the network, the more problems we had in the network. But we knew that not every problem was related to the wireless."

"Our SD-WAN store networks have been successful in leveraging our self-healing backbone to ensure simplified routing and network services, ultimately resulting in application performance improvement across the spectrum."

— Vishal Goradia, Senior Director of Networking and Technology, Gap Inc.

"Wireless was a key infrastructure pillar that absolutely needed to be high performing and be able to host the next generation of technology in our stores," says Vishal Goradia, senior director of networking and technology at Gap Inc. "The length and breadth of technologies and platforms in our stores have grown by 4x in the past few years and it was evident that our current infrastructure was not going scale."

"Before Mist, we spent a lot more time troubleshooting. Now, we can slice and dice the data and see very clearly that we're having a problem at a specific store."

— Snehal Patel, Global Network Architect, Gap Inc.

"We needed to redesign the wireless network in our stores," Patel says. "Stores need enough wireless capacity to support innovation, and the network operations team needs better visibility into issues when they arise."

Gap Inc. wasn't satisfied with the status quo.

The IT team wanted a WLAN that would leverage the scale and resiliency of public cloud and be based on modern engineering principles. It also wanted a network platform that offered full access to rich APIs so IT could integrate the network with its in-house-developed tool suite. "Full access to APIs would be instrumental to automating our provisioning process, which has helped us complete our wireless transformation in record time," Goradia says.

The IT team wanted to lay the groundwork to deploy game-changing services to leapfrog the competition.

AI-DRIVEN WLAN IS A PERFECT FIT

Gap Inc. redesigned its in-store networks to enable new levels of retail innovation. The AI-driven Mist Platform provides stores with predictable, reliable, and measurable Wi-Fi. With a modern microservices cloud architecture, Mist, a Juniper Company, delivers greater levels of automation and insight, visibility into Wi-Fi service levels, and scalable location services using Bluetooth LE®.

A proof-of-concept test quickly turned into a deployment of the Mist WLAN in stores across North America.

That's because Mist has given the Gap Inc. IT team unprecedented visibility into a user's Wi-Fi experience and consistently delivers the expected service levels.

Marvis, a virtual network assistant, is at the heart of what makes Mist different. The IT operations team can interact intuitively with Marvis to gain proactive insights to deliver a better user experience and simplify network operations.

"Our operations team can go to Marvis and ask questions, and it will tell them what's wrong with the network," Patel says. Marvis not only alerts the IT team when actions are required, but it provides recommended steps to keep the network running in peak condition.

"One of our focus areas for operations was to leapfrog the competition," says Goradia. From an operations perspective, the goal was to move the support functions down a tier or two.

"Before Mist, we spent a lot more time troubleshooting," says Patel. "Now, we can slice and dice the data and see very clearly that we're having a problem at a specific store.

"Similar to the self-service cloud model, we want to empower our tier-1 support teams to be able to quickly isolate and remediate wireless issues. Not having to escalate tickets to the next tier enables the DevOps team to focus on core engineering tasks."

"Mist shows eight key metrics so we can see whether wireless is good in the stores," Patel continues. "Mist is always measuring the baseline, and if there's a deviation, Mist helps our operation team identify the problem."

"We are excited to partner with an enterprise that shares our vision of one day relying on AI to drive all support calls and functions," says Goradia.

Mist's ability to integrate metrics from other vendors into its portal to provide a more comprehensive and holistic view has been refreshing. "We've been pleasantly surprised when the Mist system has been able to pinpoint and identify an issue that was upstream," says Goradia. "This has allowed our mean-time-to-repair metrics to downtrend significantly and ultimately, impress our nonnetwork teams with Mist's powerful data set."

"Mist's AI has been a key enabler to reduce store tech visits by 85 percent," says Goradia. "Mist has allowed us to complete our transformation in record time and well under budget."

RESILIENT WAN ENSURES SMOOTH OPERATIONS

Gap Inc. operates in 90 countries. Gap Inc.'s stores, corporate offices, distribution centers, Web properties, data centers, and points of presence (POPs) are spread across multiple countries, and a global backbone links all these locations. Juniper Networks® MX Series 5G Universal Routing Platforms provide SDN-enabled routing and industry-leading capacity, density, security, and longevity.

"We use MX Series platforms in our global backbone that spans across multiple countries as well as to connect us to multiple cloud regions," says Patel.

The corporate backbone delivers the highest levels of uptime and resiliency to ensure that Gap Inc. can scale and adapt technology operations as its business changes. Automation lays the foundation for a self-healing network, as the network is able to handle key management tasks on its own.

"Our SD-WAN store networks have been successful in leveraging our self-healing backbone to ensure simplified routing and network services, ultimately resulting in application performance improvement across the spectrum," says Goradia.

"We are excited to partner with an enterprise that shares our vision of one day relying on AI to drive all support calls and functions."

— Vishal Goradia, Senior Director of Networking and Technology, Gap Inc.

DELIVERING INNOVATIVE RETAIL EXPERIENCES

With a Mist WLAN, Gap Inc. has laid the foundation for game-changing retail innovation. Location-based marketing is simplified with Mist, since the APs use virtual Bluetooth LE beacons rather than traditional battery-powered physical beacons. It will be easier for Gap Inc. to turn up location-based incentives to build shopper loyalty and increase engagement.

FOR MORE INFORMATION

To find out more about Juniper Networks and Mist, please visit www.juniper.net and www.mist.com.

ABOUT JUNIPER NETWORKS

Juniper Networks brings simplicity to networking with products, solutions and services that connect the world. Through engineering innovation, we remove the constraints and complexities of networking in the cloud era to solve the toughest challenges our customers and partners face daily. At Juniper Networks, we believe that the network is a resource for sharing knowledge and human advancement that changes the world. We are committed to imagining groundbreaking ways to deliver automated, scalable and secure networks to move at the speed of business.

ABOUT MIST

Mist Systems, a Juniper Networks company, is leading the transition to AI-driven IT. The Mist Learning Wireless LAN (WLAN) makes Wi-Fi predictable, reliable and measurable by providing unprecedented visibility into the user experience and by replacing time consuming manual IT tasks with proactive automation. In addition, Mist brings enterprise-grade Wi-Fi, BLE and IoT together to deliver personalized, location-based wireless services without requiring battery-powered beacons. All operations are managed via Mist's modern cloud architecture for maximum scalability, agility and performance.