Enabling mobile app access and network security for a retail warehouse giant

Challenges

- The company had rolled out a mobile app to drive increased revenue by enabling customers to scan and pay for items in-store, check in for curbside pickup and manage digital coupon wallets

- Relying on customers connecting their phones via cellular was delivering a poor experience as the cellular signal inside the retail warehouses was inconsistent and high usage was occasionally overloading local cell towers

- Although in-store customer WiFi was the ideal solution, the store's connections to the existing MPLS network did not have sufficient bandwidth and was backhauling the internet traffic to the company's data center

- The company needed a secure guest WiFi network that was completely separate from the private store connection

- The incumbent provider of access and SIP trunks was not financially stable and could not deliver consistent service or support

- The customer's IT team was reluctant to use cable circuits for data access as these were perceived more complicated to deploy and manage

Solutions

- Granite worked with the customer's technical team to review the suitability of cable as an access solution and to ensure full understanding of the construction and deployment process and costs

- Granite proposed using cable circuits for guest WiFi access ensuring separate bandwidth for guest WiFi and company data

- Granite deployed a managed Fortinet firewall solution on a separate VLAN for guest WiFi ensuring that company and guest data is segregated and guest WiFi is secured

- Existing circuits were replaced with Granite MPLS circuits – connected to the Granite private cloud – and Granite edge routers; this lowered monthly costs and enabled Granite Guardian 24/7 cloud-to-edge monitoring, along with automated notification and trouble ticketing

- Existing SIP trunks were migrated to Granite network; Granite managed local number porting, E911 configuration and coordination
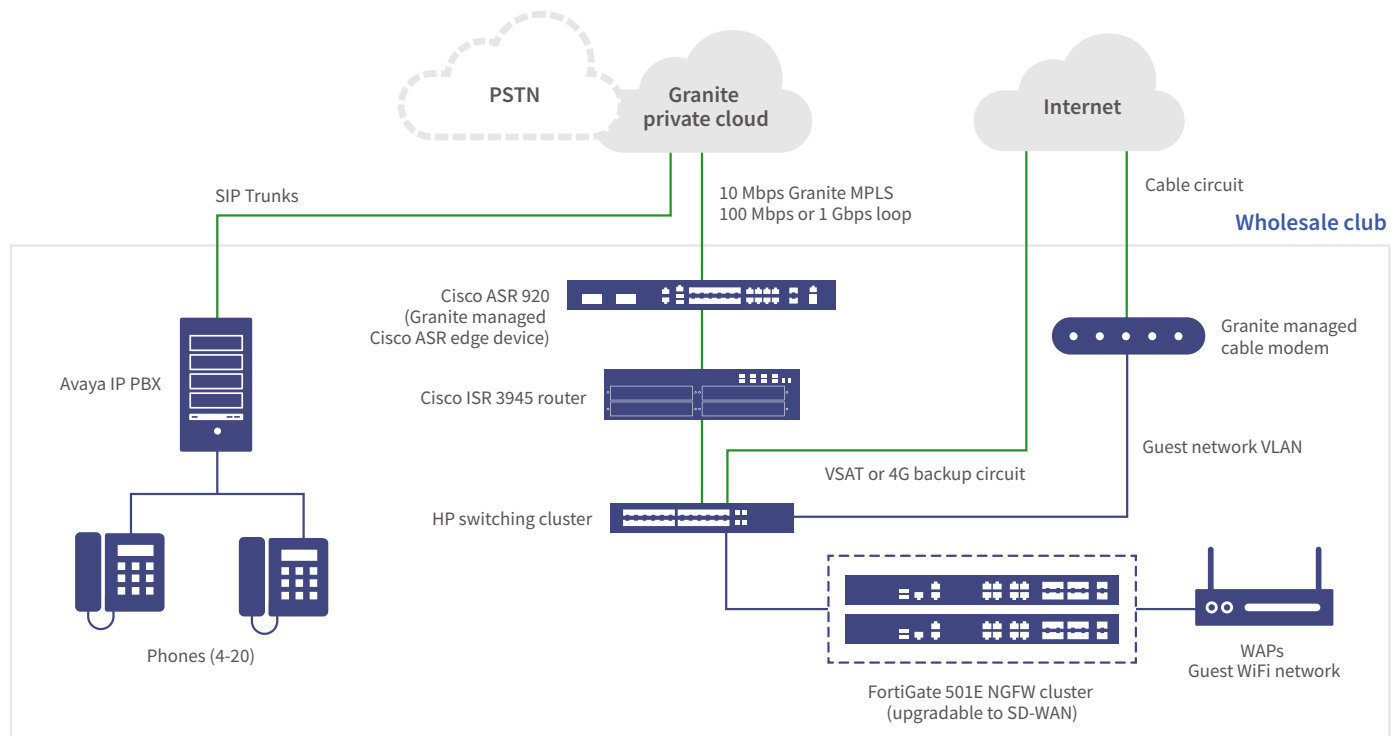
Customer Profile

Industry
Retail Warehouse

About
- 250 warehouse locations and more than 25,000 employees

- Operates across the eastern United States

- Annual revenue exceeding $15 billion

CISCO

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SD-WAN

Granite is proud to be Fortinet's 2021 SD-WAN Partner of the Year

Solutions *(continued)*

- Granite's Project Management Team provided full coordination including facilitating weekly calls with sites, educating the company on common issues encountered during cable installation, and completing order placement and provisioning

- Granite Managed Field Services handled end-to-end deployment: securing and configuring all devices, shipping equipment to site locations, and dispatching field technicians to cable the stores, perform the installations and execute connectivity testing

PSTN

Granite private cloud

Internet

SIP Trunks

10 Mbps Granite MPLS
100 Mbps or 1 Gbps loop

Cable circuit

Wholesale club

Cisco ASR 920
(Granite managed
Cisco ASR edge device)

Granite managed
cable modem

Avaya IP PBX

Cisco ISR 3945 router

Guest network VLAN

VSAT or 4G backup circuit

HP switching cluster

Phones (4-20)

WAPs
Guest WiFi network

FortiGate 501E NGFW cluster
(upgradable to SD-WAN)

Results

- Shoppers are now able to access a stable guest WiFi connection and use the the customer's mobile app smoothly in-store

- The customer and Granite share management of the network; Granite Guardian handles up/down monitoring and automatic trouble ticketing

- Retail locations are now future-proofed with SD-WAN compatible Fortinet equipment ready for network upgrades

- The voice network has been seamlessly transitioned to Granite, enabling top-tier voice quality, advanced reporting and 24/7 monitoring

- Granite's financial stability provides peace-of-mind to the customer's management team

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