



Community bank assures high quality of experience for customers using interactive teller machines across geographically distributed banking centers

Republic Bank eliminates downtime due to circuit outages and increases available bandwidth with Unity EdgeConnect

In communities across Kentucky, Tennessee, Indiana, Ohio, and Florida, people and businesses are turning to a friendlier way of banking—with Republic Bank. The reason is as clear as the bank's slogan: "It's just easier here."

Republic Bank—the largest locally owned community bank in Kentucky—prides itself on making banking a personal, supportive, and pleasant experience for its customers. One way is using interactive teller machines (ITMs). ITMs provide customers

with drive-up or walk-up access to banking services, much like a standard ATM, but with a live teller experience delivered via an interactive video session.

Because the tellers are remote from the point of service, Republic requires a high performing and reliable wide area network (WAN) to deliver a high-quality customer experience at the ITM. The bank also consolidated business services in its centralized data center, placing further uptime and performance demands on the WAN.

**REPUBLIC
BANK**



INCREASED
AVAILABLE
BANDWIDTH 83%



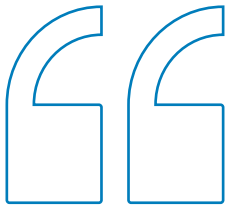
ACCELERATED
APPLICATION
PERFORMANCE



ZERO DOWNTIME
DUE TO LINK
OUTAGES

Advancing beyond a conventional router- and firewall-centric WAN

Historically, Republic relied on a traditional dual-router WAN configuration using MPLS circuits for its primary connectivity with broadband links for backup. However, as bandwidth demands intensified, Republic needed to ensure that each application receives the network priority necessary to maintain high quality of experience. Also critical: avoiding branch or ITM downtime due to periodic MPLS outages.



If we had to put firewalls in every location, that would mean manual deployments and a lot more devices to configure and manage. Instead, we can create a template in Orchestrator, which has the edge configuration pre-built in it. Then we just deploy the EdgeConnect appliance, segment our debit card traffic using the built-in firewall, and apply the template. It's as simple as that.

— Eric Hubbard, Infrastructure Technology Manager, Republic Bank

A major turning point came when Republic decided to offer a new on-demand debit card printing service at its banking centers. This required compliance with Payment Card Industry (PCI) regulations and even more stringent security requirements from Mastercard, which presented IT with a whole new set of challenges.

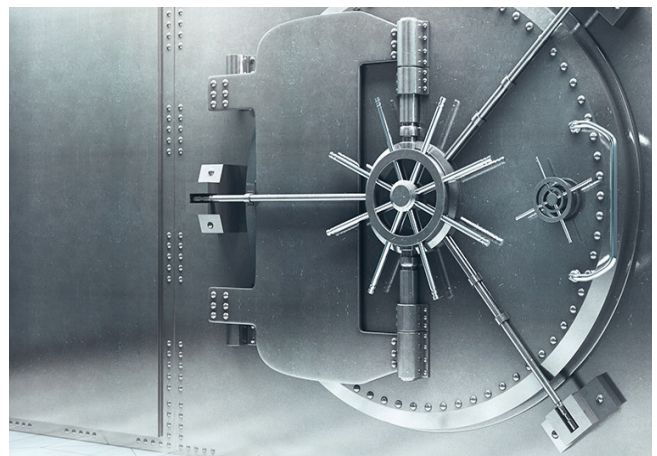
Sean O'Mahoney, Senior Vice President and Managing Director of Technology Services at Republic Bank, explains, "To meet PCI and Mastercard requirements, traffic related to the debit card printing service must be completely isolated from all other traffic on our network. We could have rolled our own and put firewalls in every banking center, but that approach wouldn't scale well, it would be a management nightmare, as well as cost-prohibitive. So we started looking into SD-WAN."

When the bank's IT partner, SHI International, recommended Silver Peak, O'Mahoney and his team knew they had the right solution with the [Unity EdgeConnect™](#) SD-WAN edge platform. EdgeConnect enabled Republic to create business intent overlays on its WAN so different applications are prioritized based on their unique requirements or criticality to the business.

Rapid SD-WAN rollout across five states

Within about two months, Republic rolled out the EdgeConnect platform to 42 banking centers in all five states where Republic operates. At each banking center, EdgeConnect is the termination point for a 20 Mbps MPLS circuit bonded with a 100 Mbps broadband link, or in a few locations, a 25 Mbps fiber connection.

Centrally configuring business intent overlays via the [Unity Orchestrator™](#) management interface, O'Mahoney and his team created classes of service



for key applications. For example, one overlay is specifically for the ITMs, which use real-time transport protocol (RTP) to deliver live video streaming, applying centralized QoS policies to give ITMs network priority and ensure the highest quality of customer experience. A second business intent overlay and QoS policy is used for file transfers, FIS Horizon core banking, and general business applications such as Microsoft Exchange running in the corporate data center. And a third overlay applies exclusively to traffic for the debit card printing service, which is securely segmented end-to-end from all other WAN traffic using the unified zone-based firewall within EdgeConnect. This eliminated the need to deploy a separate firewall at each banking center, and ensured compliance with both PCI and Mastercard requirements.

The bank also takes full advantage of additional SD-WAN capabilities on EdgeConnect such as [path conditioning](#) and [dynamic path control](#). In addition, the unified routing interoperability provided by EdgeConnect allowed Republic to retire routers at the edge.



Increased performance and efficiency; simplified management

With both the MPLS and broadband connections active simultaneously, Republic has effectively increased available bandwidth from 20 Mbps to as much as 120 Mbps for many sites. With sub-millisecond failover between the two connections, downtime due to a circuit outage has disappeared.

O'Mahoney points out that the increase in bandwidth and ability to prioritize traffic resulted in a substantial improvement in application performance. "By applying QoS to applications like core banking and Microsoft Exchange, we've seen a substantial improvement in performance, which was noticeable enough by our end users that they took the time to tell us about it."

Eric Hubbard, Republic Bank's Infrastructure Technology Manager, adds that the biggest impact has been on system overhead and management. "If we had to put firewalls in every location, that would mean manual deployments and a lot more devices to configure and manage. Instead, we can create a template in Orchestrator, which has the edge configuration pre-built in it. Then we just deploy the EdgeConnect appliance, segment our debit card traffic using the built-in firewall, and apply the template. It's as simple as that. If we're adding the card printing service to a site, we can bring that up in hours with EdgeConnect and Orchestrator compared to days, if not weeks, if we had to manually deploy separate firewalls."

The increased visibility available through Orchestrator is another important benefit. "We're able to drill down into the latency and speed and bandwidth utilization at every branch very easily," says Hubbard. "That kind of detailed information is key to troubleshooting. For example, if a branch reports underperforming applications, we can

quickly log into Orchestrator and see whether there's an issue on the network or if it's something else like a desktop problem. With the complete network insight and intelligence provided by Orchestrator, it's a lot quicker to identify the root cause and resolve the problem."

O'Mahoney concludes that the business case for investing in the EdgeConnect SD-WAN edge platform is strong. "We were facing a router upgrade anyway because the legacy routers could no longer support our bandwidth needs. The cost of deploying EdgeConnect worked out to be just about the same as the router upgrade, but we got a lot more features and benefits with SD-WAN than we would have with a traditional router configuration."

For more information on Silver Peak and our solutions, please visit: silver-peak.com

Customer

Headquartered in Louisville, Kentucky, [Republic Bank](#) is the largest locally owned community bank in Kentucky. With 45 banking centers in Kentucky, Indiana, Florida, Tennessee and Ohio, and \$5.2 billion in assets, Republic is dedicated to meeting the needs of consumers, small business owners, and large corporations by offering a full range of competitive products and services while providing highly personalized service. The company's goal is to make banking easier for its clients, and to exceed their expectations in all the bank does, living up to the slogan, "It's just easier here."

Challenge

Republic Bank needed to maintain high-quality video streaming for a growing network of interactive teller machines, as well as ensure compliance with PCI and Mastercard requirements for a new on-demand debit card printing service at its banking centers.

Solution

Republic Bank deployed the EdgeConnect SD-WAN edge platform at 42 banking centers, bonding MPLS and broadband links, and created business intent overlays with quality of service policies to prioritize traffic. The bank also leveraged the routing interoperability and zone-based firewall on EdgeConnect to consolidate the WAN edge

and segment debit card traffic. Republic uses Orchestrator for centralized orchestration and automation of the SD-WAN.

Results

- Assured PCI compliance for critical debit card printing service with no added infrastructure overhead
- Increased available bandwidth by up to 83 percent, improving application performance substantially
- Ensured each application receives network prioritization based on business criticality using business intent overlays
- Delivered the highest quality of experience for users by classifying applications with appropriate QoS policies
- Retired routers and eliminated need for separate firewalls at branch locations
- Eliminated downtime during circuit outages with sub-millisecond failover across any network link
- Simplified troubleshooting with detailed, real-time insights into network performance and bandwidth utilization
- Gained strong financial business case for investing in SD-WAN through edge consolidation



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