Financial Services Path for Remote, Branch Office and Edge Computing Service Delivery



There's no going back.

That's what PwC has to say about the post-pandemic world.

No going back to the old ways of doing work and business.

As companies look forward to life after COVID-19, they are planning to digitally transform themselves, reinvent their business models, and ring in the new.

FinServ is leading the charge in getting "back to business" around the world with return-togrowth strategies that are built around the customer by personalizing products, services, and experience bringing facilities and operations closer to them, physically and virtually.

By meeting them at the edge.

The edge of computing, that is.

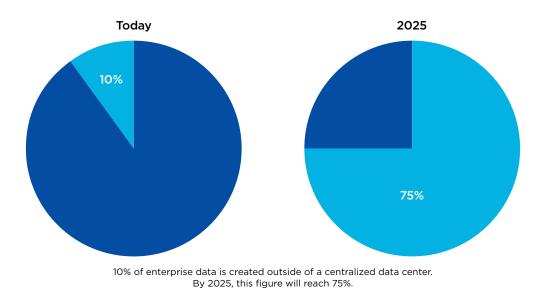
FinServ is a digitally mature industry now, constantly driven by innovation at Fintech startups, small community banks, and global enterprises alike. In the process, organizations are becoming more dispersed and operations are becoming more distributed.

Needless to say, it is increasingly important to have a modernized, agile approach to delivering IT at Remote Office & Branch Office (ROBO) locations to make businesses more visible and accessible to customers.

The key to this agility is decentralization of data. Today, most FinServ companies are based on a centralized model where data is collected, virtualized, and managed via a datacenter or cloud that also runs a virtual desktop infrastructure (VDI), databases, and business apps.

However, there is an increasing amount of data being generated at ROBO—the edge, o to speak. According to a Gartner study, around 10% of enterprise-generated data is created and processed outside a traditional centralized datacenter or cloud at present.¹ By 2025, this figure is projected to reach 75%.

¹ https://www.gartner.com/en/newsroom/2020-12-10-gartner-it-infrastructure-operations-and-cloud-strategies-conference-day-4-highlights?utm_medium=social&utm_source=twitter&utm_campaign=SM_GB_YOY_ GTR_SOC_SF1_SM-CONF-LC-PRDH-LSC39&utm_content=&sf240965450=1



Add this to the fact that one in three enterprises are accelerating their digital transformation initiatives post-COVID and you have some serious gains to make.

- How do you bring together people, processes, and technology to improve operational efficiency in time for this data explosion?
- How do you deliver better customer experiences while meeting them where they are?
- How do you create more business value while deploying edge technologies and optimizing your IT infrastructure for ROBO environments?

The ROBO Landscape in FinServ

The BFSI sector is leading the charge of economic recovery. Domestic banks are increasing their presence on a national level via mergers and acquisitions, while global banks are widening their footprint in new markets. For example, while there are fewer US bank branches, it's the combination of self-service and in-person higher value services that is still critical to banking. Forbes noted that 62% of consumers prefer to use banks or credit unions that have a physical presence, rather than a digital presence only. They're also creating new, localized branches for different lines of business, notably wealth management. Being able to coalesce the data from the branch and across all omni-channel touchpoints that will be key to delivering on the promise of impactful personalized financial services.

However, with expansion and operational change comes the need for IT infrastructure upgrades. Until now, FinServ businesses—like their counterparts in other industries with heavy regulation and complex workloads—were dragging their feet on digital transformation initiatives that involved widespread adoption of ROBO, EUC, and edge computing.

But COVID-19 proved to be a gamechanger for all of these. It's now imperative for remote users to have consistent and reliable access to data and applications. It's also imperative for them to process this data in real time and pass on the results to consumers on demand.

That said, a rise in localized data collection and processing means a bigger need for compute, storage, and network resources at every endpoint. In other words, more complexity.

Higher data volume and edge capabilities also lead to bigger security and compliance issues. Data localization, provenance, and privacy are paramount in FSI. You need to be as cautious at every endpoint as you are with your datacenter. Strict regulations and laws on data storage and sharing mean every branch and trading desk needs meticulous tracking, monitoring, and data governance.

You can't just tap into the cloud for all this functionality and security; cloud connectivity might be completely absent at a remote site. Many IT teams might be tempted to deploy smaller versions of the conventional infrastructure they use in corporate datacenters at remote offices and other edge locations. But legacy infrastructure is usually a bad fit— and overly capital-intensive—for these small environments.

How do you port functionality, reliability, and compliance from your HQ datacenter to branch offices then?

Complex Challenges Need a Simple Solution

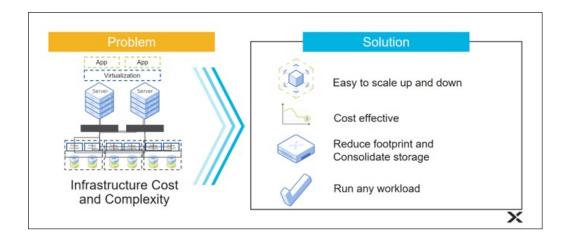
There are three challenge buckets that the typical FinServ enterprise encounters when it comes to ROBO deployments. Let's break down these problems and take a look at the practical solutions Nutanix provides for each of them.

1. INFRASTRUCTURE COST & COMPLEXITY

At present, ROBO is much more complex infrastructure-wise than it looks conceptually. There are islands of infrastructure with server, storage, network, hypervisor, backup, and DR provided by different vendors and managed separately. Customers are also running varied, non-standardized workloads and apps at these sites. Often, the devices and architecture themselves differ between sites. Add to that the challenges with the physical footprint—different infrastructure has diverse space and cooling needs.

Challenges:

- Multiple workloads at remote sites, but not big enough for a dedicated infrastructure silo
- Limited physical space
- Hard to right-size the infrastructure immediately or for the long-term
- · Siloed blocks and files with no way to do object storage



With Nutanix, you get a scale-based solution to the cost and complexity problem. And the scale is 100% linear—you can easily add compute or storage resources based on changing requirements.

For example, you might need additional capacity during trading hours or data consolidation and processing for operations such as NAV calculations. Our custom-built hyperconverged infrastructure (HCI) gives you the leeway to scale up or down on-demand, starting as small as one node.

What's more, with per-VM pricing, we untie prices from scale and make it more affordable for growing FinServ companies and startups. Life becomes simpler if you want to run a pilot project at a certain location.

No matter how many differing requirements you have for workloads, we build a single, unified solution that can run any workload or application.

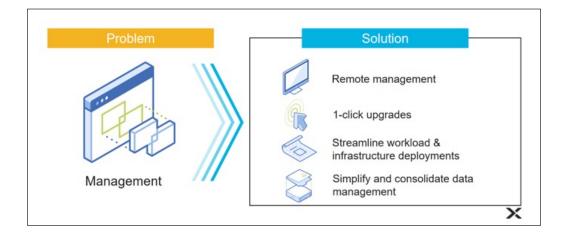
Lastly, an HCI-form factor also reduces the footprint at small locations, saving costs in cooling and power.

2. MANAGEMENT

We understand that ROBO also presents significant challenges with infrastructure management. Not having trained, dedicated IT support staff on site can lead to a lot of unforeseen errors in day-to-day operations. The problem is compounded when you're trying to manage things remotely over different platforms, connections, and interfaces. More often than not, staff at the remote site are stuck when an issue arises. For your customers, this is a clear sign your business can't respond quickly or adapt to their needs.

Challenges:

- No on-site IT staff
- Upgrades require site visits and downtime
- Workload deployment prone to errors, especially at scale
- Can't easily adapt to new needs and workloads



Traditional IT vendors overload you with a dozen apps for each workload and half a dozen more to manage them (and then gobble up your time with demos to walk you through different scenarios—which, ultimately, you forget at crunch time). With Nutanix, you get a "single pane of glass" solution that unifies infrastructure and application management into one UI, letting you manage multiple locations and workloads with a single console.

This management platform also lets you do upgrades. Fed up with patching and updating your applications, hypervisors, and firmware? Nutanix Prism reduces these time-intensive tasks to a single click. A one-click operation updates the full software stack on a Nutanix node, including Nutanix software, hypervisors from other vendors, and firmware with no downtime.

Consequently, you can automate your workload deployment and application lifecycle management with zero coding. Prism is also constantly monitoring application performance and resource consumption metrics and detects and corrects inefficiencies without manual intervention.

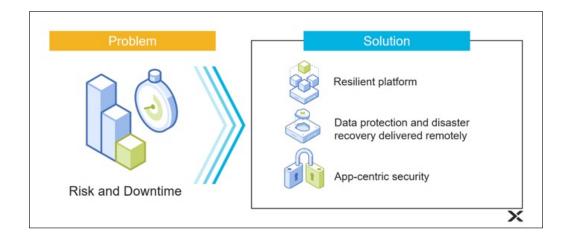
For your customers, this translates to a direct increase in QoS.

3. RISK & DOWNTIME

You're challenged to maintain the same uptime on remote sites as your datacenter. But with little to no IT resources, it is a constant struggle to plan for risk and downtime, or minimize the impact of unexpected outages on users and business.

Challenges:

- Inconsistent application of security policies
- Hard to protect and recover data at the edge
- No cost-effective HA or DR options



We build our software on the fundamental assumption that hardware will fail. And so, we aim to ensure that VMs and apps are never impacted when that happens, and the underlying issue is automatically fixed ASAP without any user intervention.

Nutanix ROBO solutions have high availability, data protection, and self-healing built into every platform from the ground up. You get enterprise-grade, automated DR and data protection at the remote site, with the option to replicate VMs locally or to the central datacenter.

A powerful distributed firewall gives admins a further layer of data protection with application-centric policy management. VM traffic can be protected with attribute-based grouping to define security policies, which is invaluable for managing different financial products, regulated trading, and reporting at the branch level.

The Nutanix Advantage: Intelligence at the Edge

Few FSIs have had the luxury of effectively planning their ROBO deployments. Many environments were set up using whatever could be put together at the time (especially post COVID-19) or was absorbed through mergers and acquisitions. This places a burden on IT staff to weave, operate, and maintain a tangled web of locations, technologies, and vendors.

As FinServ companies look to modernize their infrastructure, they are looking for alwayson solutions that deliver complete, invisible, and scalable infrastructure to power diverse ROBO workloads. Nutanix provides a consistent, centrally managed ROBO solution that is easily scalable, providing improved agility, visibility, availability, and drastically reduced operational overhead.

We bring the power of our software stack to edge environments across a variety of use cases in FinServ. Here are some advantages of our intelligent edge solutions that could prove to be key differentiators for your business:

- Increased financial inclusion: You can make banking more accessible and inclusive by incorporating technologies like 5G. For instance, a remote customer can have an immersive, immediate video chat with a banker or agent, resulting in faster processing of a personal loan application.
- Hyper-personalization of customer engagement: Marketing campaigns for retail banking benefit from granular customer segmentation using location-specific data. You can personalize customer engagement down to the individual level by advertising relevant financial products at the right times and using chatbots to comply with customer requests.
- Better fraud prevention: Running Al-enabled analytics (including on-site video analytics such as face recognition) allows you to be proactive at detecting fraud at the branch level. This is one area where FinServ can't embrace a centralized cloud or datacenter because of localized laws and regulations. Instead, low latency analytics at the edge ensures data sovereignty and security.

Put simply, our solution converges the edge and cloud into one seamless data processing platform, allowing you to perform real-time, high-frequency analysis using AI and IoT data, and ultimately focus on business logic specific to your operations. Be it ATM/ kiosks, branches, new agents, advisors, or investment banking offices, these last-mile remote sites, global datacenters, and connections to the cloud have become critical.

The Business of Money

Today, FinServ is driven by data and technology with significant emphasis placed on bettering the customer experience. This has led to a focus on service delivery at remote and branch offices, putting IT organizations under great pressure to deal with increasing demands at the edge.

Nutanix is with you in this endeavor, providing full stack infrastructure and virtualization solutions along with out-of-the-box deployment. This means you can run all of a branch office's apps, virtual desktops, and services securely on a single, hyperconverged platform that takes just a few hours to set up.

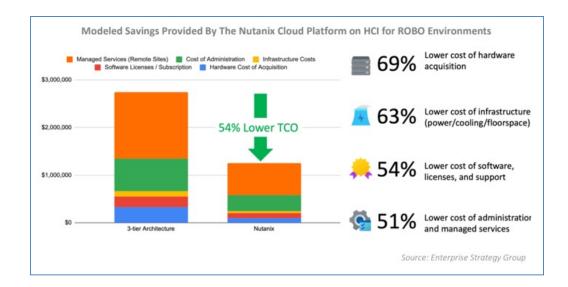
However, every business that deals with money is a business first.

To examine the ROI on our ROBO solutions, we commissioned ESG to do a cost-benefit and risk analysis and evaluate the financial impact of its deployment on a representative organization. They also conducted extensive interviews with actual customers, digging for details on the benefits and experience that Nutanix provided compared to what they were using before, which was predominantly legacy 3-tier infrastructure.

The results?

A representative organization (including the financial industry) experiences:

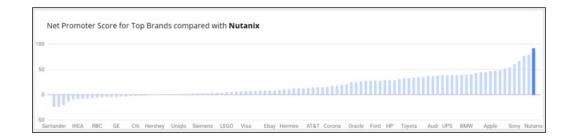
- 54% lower TCO over 3 years, 62% lower over 5 years
- 477% 5-year return on investment (ROI)
- \$932,800 average additional revenue per year



Nutanix has a successful multi-year history of providing ROBO solutions to scores of customers. In the FinServ business, we work with 3 out of 5 companies listed in the Forbes Global 2000.

But the biggest question for us is are they happy?

Here's what we've found. We've maintained an average Net Promoter Score (NPS) of 90+ for 6 years running now. That's over double our closest competitor.



Nutanix brings the flexibility and product range, as well as the FinServ domain expertise, to help you build and deploy a super-quick, high-performance, cost-optimized, and transformative ROBO solution customized to your operations and processes.

What's more, Nutanix is much more than edge computing. Our all-encompassing hybrid and multicloud environments help you reinvent the services you provide to your clients. The Nutanix Enterprise Cloud is a turnkey solution built with the agility of a public cloud and the control, performance, and data locality of an on-premises cloud. It can be consistently deployed across datacenters, ROBO locations, disaster recovery (DR) sites, public clouds, and edge computing sites.

	NUT		d Platform		
Unified Storage		Database Ser	vices	Desktop Services	
Cloud In	frastructur	re 🛛	Cloue	d Manager	
		letwork Security	Applica	Application Automation	
AHV Hypervisor	Virtual Net	tworking	Governance	Self-Service Infrastructure	
Scale-Out HCI Storage			AI-Powered Operations		
Unifie	ed Control Plan	e – Unified APIs – Se	curity - Lifecycle M	lanagement	
Private Cloud		Public Clouds /	aS	MSP / Telcos	

One customer summed it up perfectly after deploying Nutanix on their ROBO sites:

Mutanix was more of a partner in helping to create value for our customers—they helped in solving a business problem, not just a technical problem.

Download our solution brief Email: info@nutanix.com Twitter: @nutanix Go to https://www.nutanix.com/demo to set up a customized briefing!



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Nutanix is a global leader in cloud software and a pioneer in hyperconverged infrastructure solutions, making clouds invisible and freeing customers to focus on their business outcomes. Organizations around the world use Nutanix software to leverage a single platform to manage any app at any location for their hybrid multicloud environments. Learn more at www.nutanix.com or follow us on social media @nutanix. Learn more at www.nutanix.com or follow us on Twitter @nutanix.