

The transformation of the banking infrastructure to a hybrid environment will require new automation and orchestration tools to be successful. However, those tools must be intuitive and consistent as well as span the enterprise.

Visibility Is Critical in Managing a Resilient, Modern Banking Infrastructure

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Introduction

A fundamental change is taking place in the banking infrastructure that is needed to achieve the industry's goal of transformation and to support the industry's ability to become more agile, more resilient, and more efficient, as well as, ultimately, to be more in tune with the needs of the customer. For almost a decade, financial institutions have been slowly embracing a set of technologies — including APIs, microservices, and cloud — that will be their underpinning for decades to come. But given the disruption that occurred in 2020, the pace of that transformation is accelerating. The danger of this acceleration could be a lack of control unless institutions are able to instrument, monitor, and manage the operating environment.

These new challenges in operating in a hybrid environment, in a way, run counter to the way banks have traditionally developed, delivered, and operated products and services. The challenges include:

- » The ability to acquire and retain new skills aligned with modern operating paradigms
- » The security and governance policies and procedures necessary to maintain trust and stewardship in a hybrid environment
- » The tools needed to monitor, automate, and secure the operation of a modern infrastructure

This last challenge is one that few institutions have addressed and that many haven't considered as a component of their overall strategy. Many banks "inherit" monitoring and resolution systems and security platforms that are disparate and disconnected. This solution is not viable in the long term. Operational resiliency is not just about recovering in the aftermath of disruption; it's also about ensuring that operations are continuous, that service-level agreements are met, and that should a disruption occur, automated intelligence is used to assess the impact (if any) and, most importantly, to immediately understand the breadth of the disruption in order to maintain operational resiliency without undue costs of time and manpower. Further, as history has shown, this micro-infrastructure itself should be intuitive, consistent across the enterprise, and available to all stakeholders in the institution.

AT A GLANCE

WHAT'S IMPORTANT

The financial services industry is accelerating efforts to transform its business with modernized infrastructures. But fewer than 40% of banks can actually see how well the infrastructure is performing in a consistent way across their hybrid operating environment.

KEY TAKEAWAYS

Visibility across the enterprise infrastructure, delivered in a consistent and ubiquitous way to every stakeholder, is critical to ensure that the investments made in transformation are effective, efficient, and aligned with business goals. The work doesn't stop at building; it must continue into operating with transparency.

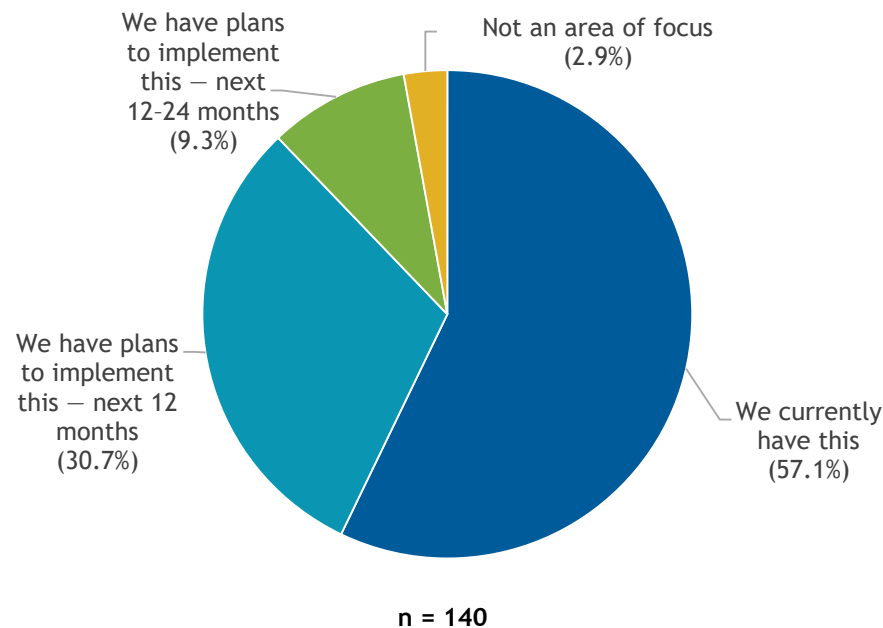
Migrating to a Modern Infrastructure Environment

The move to hybrid infrastructure has been taken to mean that all bank platforms will eventually run on cloud services. This is oversimplistic and not an accurate representation of reality. Banking is a risk-based business, and as such, due diligence dictates that deployment decisions for any specific platform must be carefully considered. One benefit of the modernization to microservices is that deployment decisions can now be made at a more granular level of functionality. Working at this more granular microservices level allows the lines of business to collaborate with IT on those decisions more than ever.

What can't be argued is that banks are moving to hybrid environments that consist of traditional on-premises platforms, private cloud implementations, and public cloud services. In IDC's discussions with financial institutions, it is clear that even "legacy" mainframe systems and workloads won't be redeployed, at least not in the short term. Some of these systems are reliable, resilient, and fast, which makes them exceptionally suitable for a subset of applications at a bank. Figure 1 shows the extent to which banks are using, or plan to adopt, hybrid environments.

FIGURE 1: *The Move to Hybrid Infrastructures*

Q Hybrid cloud is the integration and orchestration between a private environment including on-premises and private cloud and one or more public clouds. Does your organization currently have a hybrid cloud environment?



Source: IDC's Worldwide Industry CloudPath Survey, May 2020

Only 3% of the banks responding to IDC's 2020 *Worldwide Industry CloudPath Survey* indicated that hybrid cloud was not an area of focus. But given the disruptions of the past year, and the ability of institutions to overcome the challenges stemming from the disruption by using cloud services, IDC expects that the number will approach 1% or less in the 2021 *Worldwide Industry CloudPath Survey*. In fact, IDC estimates that spending on public cloud by banks worldwide, for instance, will grow at 11.3% from 2021 to 2024, outpacing overall IT spend in banking (4.5%) in that same time period.

The move to a modernized infrastructure is desirable for institutions that want to build agility and resiliency into their operating environments, but unless a bank commits to the "operating" part of the modernization strategy — that is, how it will monitor, automate, and secure the environment — much of the work on transformation will be wasted effort.

The Industry Is Not Yet Fully Prepared to Manage the New Infrastructure

According to IDC's 2020 *Worldwide Industry CloudPath Survey*, over 60% of banks do not have consistent service-level monitoring and reporting across private, hybrid, and public cloud applications and services. Fewer than 30% have gone beyond simple monitoring and have implemented and/or optimized automation and orchestration. This is an indication that banks are allocating focus and investment more to the development of the modern infrastructure than to the operational aspects of that environment, a situation that IDC believes is out of balance and may be detrimental going forward.

IDC's February 2020 *Future Enterprise Resiliency and Spending Survey* asked 127 global financial institutions to list their business priorities for 2021. The top 10 priorities cited by the institutions are as follows:

1. Profit growth
2. Increase innovation
3. Revenue growth
4. Reduce business risk (i.e., regulatory compliance, security downtime)
5. Improve customer retention
6. Improve customer experience/customer satisfaction
7. Increase business resilience
8. Improve operational efficiency
9. Improve employee productivity
10. Increase revenue from new markets, products, and/or customers

It is key to note that four of the top 10 — reduce business risk, improve customer experience, increase business resilience, and improve operational efficiency — rely directly on a bank's ability to know what is going on in the operating environment across the enterprise, reacting quickly to any disruption, and to maintain an environment of digital trust. One could argue that improved employee productivity is also directly affected by the ability to monitor and secure the systems and networks needed to conduct business, even more so in a world that has moved to, and will continue to operate in, a remote worker environment.

The other important takeaway from this list is that these are *business* priorities, clearly indicating that areas such as resiliency and efficiency have moved beyond the sole interest of the technology groups and now command the attention of line-of-business executives. For IT executives, aligning operational monitoring and healing with business goals is imperative.

The Benefits of Infrastructure Visibility and Management

When asked about the benefits experienced from deploying workloads to cloud, respondents to IDC's May 2020 *Worldwide Industry CloudPath Survey* identified "improved customer experience" as the number 1 benefit. The irony is that the adoption of cloud as a deployment model is typically viewed as a back-office initiative, more often tied to cost savings or need for scale than to direct impact on customers. This direct tie between the infrastructure and customer experience — which drives many of the other previously mentioned top initiatives such as revenue and profit growth and customer retention — makes the operational aspects of a modern infrastructure that much more important.

Benefits of a well-managed infrastructure include the following:

- » **Improved operational resiliency and reduced risk.** If 2020 proved nothing else, it showed that there were hidden vulnerabilities in institutions' infrastructure that could have been prevented or resolved if proper visibility and controls had been in place. Some banks saw their online banking systems fail due to scalability issues, while others saw increased fraud and cyberthreats. The move to remote work was hampered by inadequate security in such environments.
- » **Digital trust and stewardship.** Ensuring that the widening scope of infrastructure transformation maintains a high level of trust is not a trivial task, and it is even more difficult if security is applied patchwork style. A security approach that is centralized or at least consistent — from compute to storage to network — creates an environment of trust that benefits both the customer and the organization.
- » **Operational efficiencies.** By modernizing their approach to monitoring, automating, and securing the infrastructure in a consistent, strategic way, institutions eliminate redundancies in staffing and process, reduce training requirements, and reduce the costs associated with disruption and downtime. Traditionally, any disruptive event would require research and analysis by qualified staff just to pinpoint the problem, much less to resolve it. Using monitoring and automation to resolve problems reduces the cost of disruption and, in many cases, nearly eliminates it.

Considerations

As financial institutions seek to improve resiliency, agility, efficiency, security, and customer experience, infrastructure modernization is being accelerated around the world. But the challenge will be to implement monitoring, automation, and security to manage operations in a modern environment, particularly given the number of legacy platforms that prevent a consolidated approach to operations management. Banks must audit their current operational management platforms and answer key questions:

- » Is the bank able to provide consistent visibility into the service levels across the enterprise? Can the institution instantly pinpoint the cause of a service-level breakdown?
- » Is the bank able to withstand and/or resolve disruptive events, whether global in nature or local in impact, in real or near real time? If not, can automation support an improved stance against disruptive events?
- » Do the technology executives understand the direct impact of infrastructure modernization on the customer?
- » Does the organization have the right internal skill sets to deploy an operational management architecture? If not, can the bank find partners to fill in the gaps in its abilities?

Takeaways

Infrastructure transformation in financial services is accelerating. Banks are adopting cloud, for almost every aspect of their operation, faster than ever. Because of this rapid pace of change, it is incumbent on institutions to complete their transformation work and develop an operational management architecture that delivers visibility into the operation, automates the operation (both business and technology) to ensure resiliency and high customer experience levels, and maintains a strong security posture against attacks.

About the Analyst



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Jerry Silva is Vice President for IDC Financial Insights responsible for the Global Banking research program. Jerry's research focuses on technology trends and customer expectations and behaviors in retail banking worldwide. He draws upon 35 years of experience in the financial services industry to cover a variety of topics, including banking infrastructures, back- and front-office systems, technology workforce optimization, security and fraud, IT work resources, enterprise mobility, and payments.

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