Operational Resiliency:
Winning strategies every bank needs to know

Does your bank have the right tools in place to effectively monitor, automate, and secure operations in today's complex environment? That is a question financial institutions must consider as they strive to successfully mitigate operational risk and better serve customers.

Operational resiliency is not a new concept for banks. However, increased complexities, advancements in technology, and heightened regulatory pressure are fueling a need for stronger operational resiliency and pushing it to the top of the strategic agenda.

As defined by the Basel Committee on Banking Supervision, operational resiliency enables a bank to "identify and protect itself from threats and potential failures, respond and adapt to, as well as recover and learn from disruptive events in order to minimize their impact on the delivery of critical operations through disruption. "

What is notable is that operational resiliency is not just about recovering from a disruption, should one occur; it's also about having a holistic view of the entire business ecosystem and leveraging the right tools to ensure operations remain continuous, and to reduce the cost of disruption.

It is no secret that the banking industry has been in the midst of significant change. For at least the past decade, financial institutions have been working to modernize their infrastructure through the adoption of such technologies as the cloud, APIs, and microservices. More recently, the onset of COVID-19, and the pandemic-related disruptions, has kicked industry transformation into higher gear.

In fact, IDC estimates that spending on public cloud by banks worldwide, for instance, will grow at 11.3 percent through 2024, outpacing overall IT spend in banking (4.5 percent) in that same time period.

While the adoption of technology benefits banks and their

customers, it also comes with new risks. Too often, technology teams operate in silos, information sharing is inconsistent, and there's a limited view of the relationships between technology assets and the essential business services they support.

Consider this: IDC's 2020 Worldwide Industry Cloud Path Survey revealed that more than 60 percent of banks do not have consistent service-level monitoring and reporting across private, hybrid, and public cloud applications and services. Furthermore, fewer than 30 percent have gone beyond simple monitoring and have implemented and/or optimized automation and orchestration.

"One of the things about financial services organizations that makes them unique is they've been around for a long time … and that has driven them towards having very disparate and legacy/ heritage infrastructure that extends from the mainframe, to distributed systems, and into public cloud offerings. So, what makes that challenging is that you have very different technology stacks that are trying to talk to one another and that, alone, is a big challenge," said Greg Bukowski, Strategic CTO for solutions provider BMC. "Then you layer on top of that all of the regulatory requirements that are forced upon them that they have to operate under. … Are they recording what is happening in their environment? Do they know what changed? Do they know everything that exists in their environment? "

In light of the complexities and increased regulatory pressure facing banks today, now is the time to act. In order to remain successful, financial institutions must have comprehensive strategies, processes, and systems in place that enable them to address risks and remain within the impact tolerance threshold of each critical business service. Failure to do so could lead to hefty fines, and a loss of market share and consumer trust.

Leverage the Right Tools

To achieve operational resilience, financial services organizations must have the right tools in place to gain a holistic view of their entire business ecosystem and help them effectively address four key areas:

Identification and mapping

Assess and test

Response and recovery

Security and governance

More than

60%

of banks do not have consistent service-level monitoring and reporting across private, hybrid, and public cloud applications and services.

Identification and mapping: This begins with leveraging a discovery and dependency modeling system that provides instant visibility into hardware, software, and service dependencies across multi-cloud, hybrid, and on-premises environments. Features and functionality to consider when evaluating solutions include:

- The ability to fully leverage Artificial Intelligence for IT Operations (AIOps) and machine learning to perform anomaly detection, root cause analysis, cost optimization, and service management.

- Detects blind spots, locates back door entry points, and identifies vulnerabilities.

- Provides continuous content updates and access thousands of asset types, including containers and cloud infrastructure.

- Discovers assets and their dependencies from any starting point.

- Ingests topology data and leverages AI to dynamically update service models for continuous service awareness.

Assess and test: Once identified, it's imperative to assess business services and address any weak links and bottlenecks. This involves enabling predictive analytics and scenario planning to gain a complete understanding of the people, processes, data, and technology involved, and exposing how a failure would impact critical business services. Some of the capabilities to look for in a solution include:

- Uses business KPIs and "what-if" simulations to accurately determine resource needs for future changes in business demand.

- Delivers robust automation and provides proactive brokering of artificial intelligence and machine learning recommendations to optimize resources and manage risk.

- Provides ongoing visibility to the entire IT infrastructure including legacy applications, mainframe, physical, virtual, containers, Kubernetes, pods and cloud infrastructure resources.

Response and recovery: Banks must be able to rapidly respond and recover from a disruption, should one occur. Unfortunately, service management systems and processes are often still manual, inaccurate, and slow. This results in higher costs, lower productivity, and delayed responses to critical business service disruptions. To overcome these

challenges, consider a solution that delivers such features as:

- Built-in anomaly detection that triggers events and notifications based on metrics. This can decrease incidents by up to 40 percent, reduce time to identify root cause by up to 60 percent, and increase service ability.
- Uses AI- and ML-driven event management to help manage and control events and service impacts and perform event analytics.
- Leverages AI-and ML-driven predictive analytics to identify operational issues quickly and significantly reduce event noise.
- Provides multivariate analysis that looks across key metrics simultaneously to ensure nothing is missed and reduces false positives.

Security and governance: Faced with ongoing security threats and increased regulatory pressures, ensuring good governance practices is essential for banks to help ensure operational resiliency. This entails leveraging a solution that automatically protects, detects, and responds to threats on the mainframe. Key features to look for include:

- Provides continuous, automated protection, detection, and response to mainframe security events.
- Delivers automatic alerts and responses to unusual, privileged user activity.
- Prevents credential theft and insider threat activities by surfacing and acting on malicious events before a compromise can occur.
- Uses out-of-the-box policies and a large library of Indicators of Compromise (IOCs) to harden the mainframe environment against vulnerabilities, insider threats, and data theft.

Built-in anomaly detection that triggers events and notifications based on metrics. This can decrease incidents by up to 40 percent, reduce time to identify root cause by up to 60 percent, and increase service ability.

Take, for example, BMC, which provides the features and functionality banks need to achieve operational resiliency in today's landscape. Through its comprehensive portfolio of open, scalable, and modular solutions, BMC can serve financial services organizations of every size.

"We provide tools that provide visibility from the mainframe, to your distributed infrastructure, to your cloud-based infrastructure — across all of it. We give you a holistic view across the enterprise for your business services," said Bukowski. "... A lot of solutions out there look at a transaction; we look at not only the transaction but we also look at all of the various technology stacks and infrastructure that support it, and collect all of that data and provide a view for our customers' to see resiliency of those applications. "

Continued Bukowski, "We allow them to measure it. One is providing visibility, the second piece is then being able to measure that. So, how do you measure that? How do you measure success? We do that through a policy-based approach to be able to identify and drive what 'good' looks like; what is abnormal; being able to identify what probable cause is so that customers, when things do go bump in the night, can go and fix them. And then we also provide automation brokering to also fix those issues that do happen. ... We are providing full end-to-end lifecycle capabilities for operational resiliency for our customers' business services. "

Banks today may understand the importance of improved operational resiliency but some may still be unsure where and how to begin. Bukowski believes the roadmap to success begins with having a clear understanding of your environment and the business services being provided.

"When you define your business services you can then define, in essence, when those need to be available and how resilient those

> "...A lot of solutions out there look at a transaction; we look at not only the transaction but we also look at all of the various technology stacks and infrastructure that support it..."

> "How do you measure success? We do that through a policy-based approach to be able to identify and drive what 'good' looks like; what is abnormal; being able to identify what probable cause is so that customers, when things do go bump in the night, can go and fix them."

Greg Bukowski
Strategic CTO, BMC

services need to be. When you understand how resilient they have to be then you can define those policies that help drive to that metric," said Bukowski. "… Understanding the level of resiliency for your operational readiness is critical for you being able to run your business in a cost efficient manner as well because everything comes with a cost to drive toward a certain level of resiliency. "

Based on the level of resiliency needed, financial institutions can then determine the level of spend and resources required (i.e., technology, people, etc.) to meet those demands.

It is also important for banks to remember that they are not alone in their journey toward greater operational resiliency. Turning to a solutions provider, like BMC, can help financial institutions confidently embark on their path to success.

The roadmap to success begins with having a clear understanding of your environment and the business services being provided.

Call to action: **bmc.com**

About BMC

From core to cloud to edge, BMC delivers the software and services that enable our global customers, including 86% of the Forbes Global 50, to thrive in their ongoing evolution to an Autonomous Digital Enterprise.

In an era of constant change, the ability to adapt quickly and turn challenges into opportunities is critical. BMC helps companies around the world run and reinvent their businesses to evolve to an Autonomous Digital Enterprise, a state in which intelligent, integrated, value-creating functions operate with minimal human involvement across the organization and its ecosystem to enable seamless change and rapid innovation.

The BMC portfolio comprises durable and daring technology along with comprehensive and highly effective services, all dedicated to empowering today's businesses with intuitive, scalable solutions for intelligent automation and service management, enterprise DevOps, mainframe modernization, IT optimization, security and compliance, and so much more, from your multicloud infrastructure to your core data center and beyond.