



Fast Is the New Big

How Leading Financial Services Companies Are Accelerating Development and Improving Resiliency While Lowering Costs

Speed vs. Stability: Challenges to Pursuing “Bimodal IT” in Enterprise Finance Firms

Let’s be honest: The financial sector is very risk-averse in its IT infrastructure choices. Systems need to be hardened, highly available and protected, both for regulatory compliance and often more importantly, to meet the demanding requirements of internal business stakeholders. Traditionally, finance firms have spent whatever was required to maintain resiliency, even investing in a set of overlapping products, tools and services to be confident that they could recover from disruptions, both large and small. The result: Big, stable, costly, inflexible legacy systems.

On the application front, though, even the largest financial firms are being challenged by a growing cadre of nimble FinTech SaaS startups delivering new and appealing capabilities to customers fast, changing the pace of innovation in the financial marketplace. Fast is the new big when it comes to defending your customers from emerging competitors, and forward-looking Finance CIOs are demanding and working to deliver software releases faster and more continuously to keep up.

Gartner has described the challenge of accelerating innovation while maintaining a foundation of robust and secure core infrastructure as “Bimodal IT,” and it’s a concept that has particular importance for firms like yours that are undertaking a significant digital transformation. Allocating finite IT resources among the conflicting demands of business resiliency and core operations (“Mode-1” projects) and new capabilities that enable innovation

CUSTOMER PROFILE

Investment and Asset Management Provider

PROBLEM—The growth and speed of their Agile application development organization was hindered by the speed (3 to 5 days) at which infrastructure and data could be provisioned for test/dev teams. The firm also had high software and hardware costs to support backup and recovery on-premises.

SOLUTION—Actifio was deployed to provision and manage data for DevOps teams, providing test data to 100 dev/test environments in just 30 minutes. Integrated backup and replication capabilities to support new DR in the cloud.

RESULT—Accelerated test data provisioning 240x; Decreased app release cycles by 25%; Doubled the number of test environments without increasing storage needs; 50% reduction in the administration time by operations and database teams to support DevOps; Reduced support costs: More defects found in lower environments before UAT & Production.

and improve business agility (“Mode-2”) often means making tough choices, and even then, unique challenges exist.

Many financial firms pursuing Mode-2 efforts to improve agility found that existing infrastructure and manual processes hampered their ability to move faster, more flexibly—in no small part because critical application data was locked into silos prioritized for production workloads, backups, DR or archiving. Providing data access meant deploying loads of new separate storage hardware for data copies or risking impact to production workloads by co-mingling dev/test activities on expensive production storage—again more hardware consumption. Efforts to improve access to data for more continuous, early, parallel and higher-quality software testing to support DevOps, CI/CD or even Agile software development approaches were slowed by both processes and expensive infrastructure choices.

Resilience and Speed: Data Access without High Costs

At the crux of both issues—of ensuring the resilience of business applications and of developing and testing new business applications—is the data. More specifically, large finance firms need to instantly access copies of data, for backup, recovery, testing, vaulting, analytics—whatever is needed for their firms to move faster, and keep critical services safe.

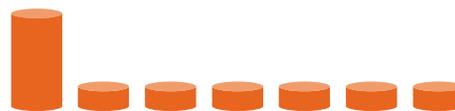
A growing number of financial firms are deploying new data virtualization platforms to consolidate the tools they use for resiliency services, and to speed up their development and testing efforts to gain a competitive edge in the market. These systems enable banks and other large institutions to both protect applications, AND to get more development projects released on-time with fewer defects, better controls, and lower costs. This approach better aligns the interests of Dev and Operations groups, enabling a DevOps model that reconciles developers’ need for self-serve, instant access to high-fidelity test data while ensuring Ops has control: tight SLAs for data protection, roles-based access controls and data masking integration.

What Does It Take?

To address either, or both, of the agility and resilience challenges in a more cost-effective way, a fundamentally different approach to managing data is required—one that is infrastructure-agnostic and application centric. Specific required capabilities include:

- **Decoupling data** from underlying infrastructure and enabling access on any storage, hypervisor, and cloud. This capability is also known as data virtualization.
- **Automating data refresh** from production, so testing is done against real, high-fidelity data.
- **Doing incremental refreshes** with a minimal backup window to minimize impact on production applications.

Incremental Forever Backup



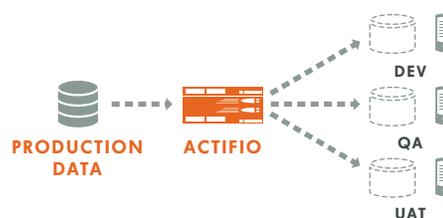
LESS IMPACT ON YOUR APPS

- **Ability to instantly mount or recover databases** and applications, regardless of the size of the data set.
- **Reducing storage consumption** by provisioning virtual copies instead of physical copies of production application data.
- **Supporting multi-vendor enterprise-scale technology** sets such as Fiber Channel networking, Oracle databases and capabilities (RAC, ASM, RMAN, etc.) and Microsoft SQL Server.
- **Integration with API-driven automation workflows**, DevOps toolchains or Continuous Integration/Continuous Delivery (CI/CD) pipelines.
- **Role-based access controls** to specify who can access which test data on what test machines, and workflows to automate data masking with any 3rd party tools and scripts.

How Actifio Increases Business Agility and Improves Resiliency

Over 50 financial institutions around the world have deployed Actifio to better protect their businesses and speed up development cycles. [Actifio invented Copy Data Virtualization](#)¹, a set of technologies that sit alongside production IT systems to manage, protect, virtualize and provision copies of production applications’ databases (and other data types), for testing, development, analytics, recovery, or any use case.

Instant Virtual Databases for DevOps Test Environments



¹ http://cdn2.hubspot.net/hubfs/214442/451_Reprint_Actifio_R1.pdf

The Actifio data virtualization approach provides instant data access, vastly accelerating the time it takes to recover applications, or to provision ‘personal’ (but really virtual) masked and secured database copies to DevOps teams. This Copy Data Virtualization approach also radically reduces storage consumption and operational burdens, as Gartner notes in their recent report on the technology and its benefits, [“Innovation Insight: Copy Data Management Accelerates Bimodal IT”](#).²

Actifio’s Proven Impact

The real-world business impact of Actifio on customers including very large financial firms is nothing less than remarkable:

PROTECTION

- Enterprise Scale: Protection of a 100+TB single-instance Oracle database, and recovering / remounting it under 30 minutes
- Recovery of 100 VMs in under 30 minutes, with automated testing every 2 weeks
- Cutting application recovery times to minutes from hours or days

AGILITY – DEVELOPMENT SPEED

- 240x faster test database refreshes
- Delivery of 30 additional development projects per year—within existing budgets
- Gaining a full quarter (16 weeks) of development time

COST SAVINGS

- 50% lower total administration time
- 15–25% time saving per DBA per year
- 14 copies per database avoided: 100s of TB storage recovered

² <https://www.gartner.com/doc/reprints?id=1-3BP06J2&ct=160714>

RISK & QUALITY

- Minimized compliance risk with automated data masking
- 50% increased testing, earlier, in parallel for critical application releases
- Decrease in defects found in late development stages (UAT, pre-prod)

Learn More

DEMONSTRATIONS

- [Oracle Virtual Database-as-a-Service with Ansible](#)
- [SQL Server Automated TDM Provisioning](#)
- [Recovering a 1.6TB SQL Server Database in <1 Minute](#)
- [Actifio Resiliency Director: Automated DR for Virtual environments](#)

DOCUMENTS

- [Actifio: Your Last Backup Modernization, Ever](#)
- [The Very Large Database Problem: How to Backup & Recover 30–100 TB Databases](#)
- [Actifio for DevOps White Paper](#)
- [Brief: Test Data Management for DevOps: Actifio’s Differentiation](#)
- [Gartner Report, “Innovation Insight: Copy Data Management Accelerates Bimodal IT”](#)
- [Nasdaq Case Study](#)

About Actifio

Actifio virtualizes the data that’s the lifeblood of businesses in more than 35 countries around the world. Its Virtual Data Pipeline™ technology enables businesses to manage, access, and protect their data faster, more efficiently, and more simply by decoupling data from physical storage, much the same way a hypervisor decouples compute from physical servers. For enterprise-class backup modernization, self-serve instant data access, or service provider business transformation, Actifio is the first and only enterprise class copy data virtualization platform.

For additional information, visit Actifio at www.actifio.com or contact Actifio at info@actifio.com or **855.886.8997**.

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