FINANCIAL SERVICES
7 Steps to better data quality management

Driving more effective data management with Veeam

Executive Summary

For financial services organizations, well-managed and protected data ensures the safety and effectiveness of business operations while protecting data and critical assets. Veeam® builds data management systems that go beyond simple backup and recovery and enables organizations to maximize their data capability through comprehensive, centralized and efficient data protection and management. Data sharing must be combined with robust cyber resiliency. Adherence to industry compliance with high data quality management is needed to ensure strong data governance.

Financial services organizations are undergoing a radical shift to overcome the challenges of ever-changing business models. Due to competition from FinTech, they need to adopt more modern technologies to provide cutting-edge customer experiences and keep up with data, privacy and security regulations. Data protection management is always a top priority for financial services firms since they store very sensitive personal and financial information, which is a prime target of cybercrimes and fraud.

Veeam's modern data protection approach can assist any financial services organization to achieve its compliance objectives while accelerating data quality management and adhering to current and future regulations. The quality and veracity of data is a must to achieve high availability, but Veeam's solution delivers data portability and cloud mobility through its unique, self-describing data format and data movement capabilities.

Data-driven decisions require greater data awareness and tracking. Through the integrated compliance audit reporting offered by Veeam, financial services organizations can ensure data integrity and drive consistency across all data sets in use, and track for unknown or unexpected alterations, as well as duplications from the original data source. The integrity, security and availability of data are paramount when driving modern business. Veeam ensures secure access to sensitive backup data, as well as the integrity of the backup data itself.

Data is the center of everything that Veeam does. Veeam ensures data availability and data integrity but also enables data reuse for data mining, data classification, security analysis and eDiscovery and forensics. Trust in data is crucial for the ongoing evolution of IT modernization. Data provides the raw bases for analytics, driving AI systems to greater heights and delivering the core decision-making framework that command requires. At Veeam, we strive to ensure trust, availability and the accessibility of data to all who need it. As data is cleansed and operationalized, lifecycle management is necessary so that previous uncleansed information is not reintroduced back into production. Veeam delivers comprehensive backup lifecycle management to ensure that departments can restore pristine datasets as needed, guaranteeing the trust and confidence in the data that is recovered.

These demanding and evolving data availability and data management requirements demand a well-integrated but flexible solution that leverages data portability and cloud mobility to ensure data resiliency, proper governance and compliance, and allows for greater data sharing and data reuse when appropriate. This paper analyzes seven data management strategic objectives and provides tactics and direction on how financial services organizations can use Veeam to better meet outcomes and benefits faster and more efficiently.

Dave Russel
VP of Veeam Strategy

Foreword
by Danny Allan, CTO, Veeam

The Veeam vision is to be the most trusted provider of backup solutions that deliver modern data protection. With more than a decade of innovation in data protection, over 400,000 customers around the world and a rich ecosystem of partners, Veeam continues to distinguish itself as the dominant industry leader for backup and data protection. Our breadth of capabilities spans from physical infrastructure to virtual to cloud and Software as a Service (SaaS) workloads. This position is further supported by industry analysts that place Veeam as a repeated and consistent market leader with unmatched market execution and growth.

Veeam is obsessively focused on successful customer outcomes and ensuring that customer requirements, feedback and partnerships drive the company strategy. While there is longer-term strategy driven from unleashing additional value from data and data mobility, the consistent feedback from our customers is that the most compelling and immediate need is for data availability and accessibility. The first and foremost imperative of our modern data protection platform is to provide data availability. We recognize that there is no more essential imperative than to help our customers and partners maintain business operations and continuity of service. This focuses our company resources on modern data infrastructures and both speed and granularity of recovery.

While Veeam prides itself on our software-driven model and delivering data management across the spectrum of data center and cloud platforms, we have no greater pride than helping our customers achieve their business objectives.

Strategic objective ONE

Improve the availability and accessibility of data

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Strategic objective two
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Strategic objective three
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Strategic objective four
Drive the consistent use of decision-making data across the departments

Strategic objective five
Ensure integrity, confidentiality and data security

Strategic objective six
Improve the knowledge, education and behaviours of our people to ensure data is managed as a strategic asset

Strategic objective seven
Enable the exploitation of new data-driven technologies

Strategic objective one

Improve the availability and accessibility of data

Well-managed and protected data ensures the effectiveness of business operations while protecting customers' data and critical assets. By providing asynchronous data protection across any platform, even across the globe, systems can be returned to a "known good state" within minutes.

Veeam prides itself on building data management systems that go beyond simple backup and recovery and enables financial organizations to maximize their data capability. Users gain a safe, secure and centralized data management that is always available, portable across any system (online, offline or in the cloud) and drives solid compliance practices.

Modern business requires modern data management systems and practices that are flexible, trusted and meet their unique needs. The Veeam Platform improves the availability and accessibility of data through:

Centralized and efficient data protection and management.

As businesses continually modernize their platform, they need assurance that their data is retained and recoverable, regardless of what applications they use. In today's always on economy, having confidence in your data access and availability is paramount. Veeam provides an intuitive backup solution that leads the market in usability, is fully software-defined and with intelligent application awareness, ensures granular and verified recovery of all critical assets. In many cases, instant recovery can remove potential disruptions within a few minutes with AI-based diagnostics uniquely learning systems to remediate issues faster before they can become detrimental to any operations.

Data portability and sharing

Today, most financial organizations are taking significant steps to modernize existing systems, however, many still have extensive mission-critical assets in on-premises data centers, in the cloud and various other global facilities. A hybrid approach, where on-premises and cloud resources function together, will enable many organizations to make the most of existing assets while benefitting from cloud innovation.

Veeam leads the industry in data portability, enabling data to seamlessly move from system to system, platform to platform, without format changes. The ability to collect, store and centralize data for immediate analysis leads to faster response times and greater mission success.

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Maximising the reuse of data

The gap between the collection of data and its analysis can have a significant impact on the effectiveness of operations. Too often, data is replicated in a raw format multiple times across the environment. This ultimately leads to management overhead and even opening the surface area for malicious threats and cyberattacks. By decoupling the direct need to replicate raw data and being able to launch systems and services directly from the original production backup, vast efficiencies can be attained, as well as greater control and security of the dataset.

Veeam, through its advanced data management systems, can launch individual workloads and even entire applications from the centralized data backup repository support. These systems can also be used for intelligence gathering and tactical analyses, application development and workload testing — without extra data overhead.

Governance and compliance following recognised industry standards

With Digital Transformation, financial organizations can rapidly modernize their systems, taking advantage of modern resources while ensuring the best use of time and budget. This means they can achieve better operation services while driving more robust governance, compliance and accountability.

Veeam is focused on helping businesses attain strong governance and compliance. Through a centralized data protection service such as Veeam, they can assure compliance mandates are adhered to when storing and restoring data, while also using the same data for compliance auditing and reporting.

Support effective cyber defence

Malicious attacks are becoming a tactical tool in modern business and the many enterprise organizations are targets for commercial hackers. Data management systems are uniquely positioned to monitor, protect and, if needed, restore possibly-infected systems and data before sensitive information can be breached.

Veeam strategically targets ransomware and malware threats on many different levels. This includes intelligent monitoring of workloads and data, and looking for inconsistencies. There's also support for immutable (air-gapped) backups that are 100% protected from malicious attacks and, if needed, rapid recovery of malware-free data through integrated virus scanning upon restoration.

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Supporting the mobile business

Frequently, local workers and offices located around the globe don't have fast, reliable connections back to centralized systems. This can stall data collection, storage and analysis until systems reconnect. Bringing data management to the field is critical to ensuring that data can be readily accessed and acted upon without delay.

Veeam has one of the largest ecosystem support models, ensuring data can be stored, replicated, protected and managed, even if not connected to a centralized system. Our software provides complete architecture flexibility. The same systems that protect the largest data centers can be deployed on endpoints in mobile command centers — providing the same set of data management services on the front line.

Supporting the rapid change in innovation

To meet the needs of modern business, solutions must be flexible by design, enabling the power of seamless services, even in offline situations. Employees need to be able to rely on these systems for intelligence and analysis, no matter where they are located.

Veeam continues to showcase a proven strategy while leading the data management and protection market in R&D. Our backup and data management solutions will continue to evolve alongside customers to better address issues of cost, capability and complexity. Software-defined, hardware-agnostic and cloud-ready solutions give you the choice to run Veeam software however needed.

Strategic objective TWO

Implement data governance at all levels of the organization

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Strategic objective two
Implement data governance at all levels of the organization

Governance of data is critical in all financial organizations. With the numerous outsourcers, vendors and third-party organizations that many organizations also work with daily, adherence to industry compliance is a must, as with high data quality management.

Ensuring data governance

As governance and regulations continually update, it weighs on the company to continue to adjust to meet them. This puts an overarching burden on any organization. Veeam is a leading vendor in helping organizations through this challenge.

- **Personnel to manage the data:** Data quality managers need tools that enforce data quality requirements, change managers need to be able to audit baselines and model for potential risks, and data stewards need access to data intelligence reporting to ensure the overall health of the data assets. Veeam tools can ensure data requirements are enforced through all restore mechanisms. And through robust reporting, intelligent dashboards and reports can be built in real-time, providing auditing and monitoring for audit exceptions.

- **Data quality definition:** Once data quality definitions are set, to be successful, systems need to drive transparency and compliance to these definitions. That takes intelligent reporting and intuitive business views. Through Veeam Availability Suite™, governance can be tracked and reported on in real-time.

- **Data profiling audits:** Data profiling is an audit process that ensures data quality. During this process, auditors look for validation of data against metadata and existing measures. As Veeam touches and monitors all the sensitive data in an organization through its continuous backup approach, auditing can be included as part of this process.

- **Consistency of tools:** When all data admins use the same product sets, it is easier to build robust governance around this established and repeatable tool approach versus applying a set of governance principles across a changing toolset.

Strategic objective THREE

Improve the quality and veracity of data

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Strategic objective three
Improve the quality and veracity of data

For financial organizations, the quality of data can mean the difference between success or failure of strategic business bets. That can have a long-term effect on business success, brand and customer relationships, so the quality of data must remain high. Ensuring the right information reaches the right people in the correct location relies on the existence of accurate and authoritative data being available.

Data veracity and quality

Having confidence in the quality and accuracy of data is paramount. Data must remain unchanged, in its original format, even when portable.

Veeam stores data in a specific way that sets us apart from the rest of the industry. In most cases, data systems rely on a single indexing system that understands the data format. If there's any corruption or loss of the indexing system, or if it's not available, then the data is unusable. This can be detrimental to any intelligence-based operation, especially if trying to access data in remote sites that may not have access to the master systems. Veeam stores its data uniquely — as a portable and independent image file.

This approach enables the format to be self-describing. As long as you have the image file, you can get that data back in its original and unaltered format at the destination rapidly, even in an offline situation such as a remote office or mobile worker.

Governance to driving quality

Tracking data can be difficult, especially when not centralized. Backup touches all data that is important to an organization's process. Data management systems also have a unique position in monitoring all the systems that touch data.

Through Veeam Availability Suite, organizations can provide rich audit reports of all the data the system interacts with, including backup data and the systems that support data storage (servers, appliances, NAS, SAN, cloud storage and more). With the integrated compliance audit reporting offered by Veeam, organizations can ensure data integrity driving consistency across all data sets used and track for unknown or unexpected alterations, as well as duplications from the original data source.

Strategic objective FOUR

Drive the consistent use of decision-making data across the departments

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Unanalyzed and inconsistent data access processes can be detrimental to the operational intelligence of a financial organization; it's essential that systems offer consistent and centralized access to quality data sources to analyze all data quickly and efficiently.

Veeam offers data integration APIs, which allows third-party application integration into backups and opens an expanding list of possibilities, including the following:

- Data mining

- Data classification

- Security analysis

- eDiscovery

This helps with consistent data access across without the need of replicating data and enables all staff the ability to tap into the most recent backup of the production systems. User access controls also ensure personnel cannot access secret or sensitive data if their security clearances disallow this.

Strategic objective FIVE

Ensure integrity, confidentiality and data security

Strategic objective five
Ensure integrity, confidentiality and data security

Data security is paramount when driving modern business. Data must be able to be trusted, as the literal success of operations and the brand of the company can depend on it. While all data must be secured and protected, financial organizations must also approach backup, replication and archival with the same security trigger. The same processes that control those accountable and responsible for data need to apply to the backup and restoration processes.

Trust in data access and restoration

Through the Veeam Platform, we can help secure all protected information through three primary mechanisms.

- **Controlling access:** Veeam implements security based on user roles by limiting access to both features and data. This empowers the administrator to delegate permissions in a granular way, on an as-needed basis. For example, the administrator can grant permission to another user to recover files without seeing the content of the files.

- **Protection from threats:** Data can be susceptible to threats from many different attack angles. Through direct attacks such as malware, intentional injected attacks such as cyber espionage and even accidentally or deliberate deletion of critical archived data. Veeam support for immutable backups provides a replica of your production backup that is "air-gapped" from your systems. It's a read-only, 100%-protected safeguard to ensure the integrity of backup items from direct attack threats. Veeam DataLabs™ Secure Restore also provides the last guard for restoring safe data by scanning before releasing it back into production environments, mitigating unknown malware that may have been captured at backup.

- **Veeam DataLabs Staged Restore:** Upon restoration, sometimes administrators will want to test the integrity of the data in a protected and secured way. Staged Restore enables the automation of immediate testing of backups before restoring them into the production environment. It allows this by setting up a fully isolated virtual environment integrated into the various authentication and verification systems; however, it remains fully isolated to production access.

Strategic objective SIX

Improve the knowledge, education and behaviours of our people to ensure data is managed as a strategic asset

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Premier support and education ensure predictability of systems, and a robust and proven education system is a must for any department undertaking an extensive evolution of data management systems.

Veeam's customer success program

Veeam helps train customers to get the most out of Veeam products and online access to resources to support future learning. Veeam approaches learning through a proven systematic style — including certification, monitored community interaction and our free online university. This enables everyone who touches data to have access to the right level of training available to them, both free and paid (certification) and interaction with peers worldwide.

Veeam premier support

With over 370k customers worldwide, Veeam support ensures you can be ready to support and react to any data management situation. Not just break-fix, Veeam provides additional services, including analysis, architectural review, planning and in-house education from the experts in the field every day.

Strategic objective SEVEN

Enable the exploitation of new data-driven technologies as a strategic asset

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Data provides the raw bases for analytics, driving AI systems to greater heights and providing the core decision-making framework that the modern financial organization requires. While AI will never replace human experience and analysis, it allows personnel to make faster and more informed decisions for higher impact.

Building trust in data

As data is cleansed and operationalized, you need lifecycle management, so previous uncleansed information is not reintroduced back into production. Veeam prides itself on backup lifecycle management, helping ensure departments can restore pristine datasets as needed, guaranteeing the trust of the recovery models.

Ensuring privacy is a mandate for all. Regulations like DPA and General Data Protection Regulation (GDPR) need to be enforced and respected. As these regulations modernize, organizations need to ensure backup and archived data also respect all the latest regulations. Veeam enables through mechanisms, like privacy locators (literally a map for all GDPR subject information), a consistent tracking of all data subject to privacy regulations. Even if privacy regulations update, organizations can trust that archived data will follow the new policies.

Building flexibility

As most businesses manage multiple locations, including hybrid and multi-cloud instances, they expect their data management systems to be flexible. Veeam is software-defined, hardware agnostic and cloud-ready, giving you a choice to run Veeam software however needed. Veeam also offers incredible architecture flexibility, enabling organizations to deploy only what is needed to grow and scale, without overheads or wasted services.

Building integration

Consolidating data and services through a consistent user experience will provide organizations a faster and more robust mechanism to increase data analytical and modern service usage. Veeam provides a full set of data, management and operational APIs to integrate with many existing (and new) platforms and services.

Why Veeam

Veeam is the leader in backup solutions, delivering modern data protection and serving over 400,000+ organizations across the globe. Founded in 2006, Veeam quickly grew to become an industry leader in data center backup and recovery. But as the importance of data has grown to drive every aspect of the digital business, so has the need for solutions that can do far more than ensure its availability. There is a new expectation for data in today's enterprise. Data must move to a higher state of intelligence and be able to anticipate needs and meet demands. Data must move securely across multi-cloud infrastructures. Financial organizations must meet the demands of a data-centric world.

Ensuring instant backup, reliable recovery and reuse of data requires an evolution in how it is managed, leveraging artificial intelligence and machine learning to enable data to back up autonomously, migrate to the right location based on business needs and to secure itself during anomalous activity. With our strong partner ecosystem and breadth of integrations, Veeam has the most complete software platform to meet today's new expectations for data. The Veeam Platform automates the provisioning and management of the massive, constant flow of data running across on-premises and multi-cloud infrastructures, both today and tomorrow.

Financial organizations that run on the Veeam Platform gain multiple improvements in efficiencies and far greater agility to respond to business needs and deliver new digital services. Veeam solutions receive the highest customer satisfaction scores in the industry, 3.5x the industry average, for their simplicity, flexibility and reliability. "It Just Works," as hundreds of thousands of customers have said.