Summary

Enterprise backup is among the most critical tasks for infrastructure and operations professionals. Gartner provides analysis and evaluation of the leading data center backup solution vendors that offer a range of traditional to innovative availability capabilities.

Strategic Planning Assumptions

By 2021, 50% of organizations will augment or replace their current backup application with another solution, compared to what they deployed at the beginning of 2017.

By 2022, 20% of storage systems will be self-protecting, obviating the need for backup applications, up from less than 5% today.

By 2020, 30% of large enterprises will leverage snapshots and backup for more than just operational recovery (e.g., disaster recovery, test/development, DevOps, etc.), up from less than 15% at the beginning of 2017.

By 2020, 30% of organizations will have replaced traditional backup applications with storage- or HCIS-native functions for the majority backup workloads, up from 15% today.

By 2020, the number of enterprises using the cloud as a backup target will double, up from 10% at the beginning of 2017.

By 2021, over 50% of organizations will supplant backup with archiving for long-term data retention, up from 30% in 2017.

By 2019, despite increasing effectiveness of countermeasures, successful ransomware attacks will double in frequency year over year, up from 2 to 3 million in 2016.

Market Definition/Description

Gartner defines data center backup and recovery solutions as those solutions focused on providing backup capabilities for the upper-end midmarket and large enterprise environments. Gartner defines the upper-end midmarket as being 500 to 999 employees, and the large enterprise as being 1,000 employees or more. Protected data comprises data center workloads, such as file share, file system, operating system, hypervisor, database, email, content
management, CRM, ERP and collaboration application data. Today, these workloads are largely on-premises; however, protecting SaaS applications (such as Salesforce and Microsoft Office 365 [O365]) and infrastructure as a service (IaaS) are becoming increasingly important, as are other, newer "born in the public, private or hybrid cloud" applications.

These backup and recovery solutions provide writing data to tape, conventional random access media (such as a hard disk or solid-state drives) or devices that emulate the previous backup targets (such as virtual tape library [VTL]). Data services, such as data reduction (compression, deduplication or single instancing), array and/or server-based snapshot, heterogeneous replication (from/to dissimilar devices), and near-continuous data protection (near-CDP) can also be offered. Exploiting converged data management (also referred to as "copy data management") has become important; here, backup data is leveraged for additional use cases, such as analytics, disaster recovery, test/dev, reporting and so on (see "Predicts 2017: Business Continuity Management and IT Service Continuity Management"). In particular, the concept of performing a live mount of the backup data, prior to actually restoring it — making it usable nearly instantly, then using tools, such as VMware's Storage vMotion, to move the data from the backup store to primary storage — has become table stakes in the market.

Additionally, integration and exploitation of the cloud, particularly the public cloud, or on-premises object storage as a backup target or to a colocation facility are becoming more important for backup workloads, despite modest deployment to date.

As the backup and recovery market has hundreds of vendors, this report narrows the focus down to those that have a very strong presence worldwide in the upper-end midmarket and large enterprise environments. Solutions that are predominantly sold as a service (backup as a service [BaaS]) do not meet the market definition for inclusion. Software for a homogeneous environment, such as native tools from Microsoft or VMware, primarily for their own platforms, are also excluded, as many midsize and large customers prefer a more heterogeneous, scalable backup product for their environments.

Provider solutions that primarily address backup and recovery of remote office, small enterprise, individual system and/or an endpoint device data are outside of the scope of this data-center-oriented focus. Some providers may, however, also address these workloads, as well as the larger data center workloads described above. However, those are not the primary use cases for deploying these data center solutions.

This 2017 "Magic Quadrant for Data Center Backup and Recovery Solutions" is an update to the "Magic Quadrant for Data Center Backup and Recovery Software" that was last published in June 2016. The slightly renamed Magic Quadrant (change of wording from "Software" to "Solutions") and updated market criteria are driven by expanding packaging options (for example, physical and virtual appliances).

Note that Gartner analysts may need to update the market definition as they progress through the research process. You will be explicitly notified of the change(s), should they need to happen.

**Magic Quadrant**

*Figure 1. Magic Quadrant for Data Center Backup and Recovery Solutions*
Actifio first came to market as a data virtualization appliance with its pioneering copy data management capability. The concept of copy data collapsed the number of secondary copies of data (archive, backup, disaster recovery, test/dev and so on) by keeping a single golden image of the data. Today, the solution can still be deployed as an appliance, but also as software-only or as a virtual appliance, and often in the cloud. Actifio protects a range of workloads, but excels at large-scale virtual environment and large applications, especially Oracle instances. Actifio is praised for its ease of management via an intuitive administrative console and SLA-driven policy management that facilitates end-to-end application protection. In 1Q17, Actifio expanded on its
copy data message, and now positions itself as an enterprise-data-as-a-service (EDaaS) solution that provides data availability and archive capabilities, as well as hybrid cloud mobility and faster application development (DevOps). In late 2017, Actifio will add a catalog for faster search of virtual machine data. Pricing is via a simplified front-end capacity-based model. Once deployed, Actifio receives positive feedback for the ability to easily protect large environments.

**STRENGTHS**

- Actifio successfully pioneered copy data management and delivers a single platform that integrates backup, disaster recovery and long-term data retention, but that can be used for broader data management, such as application development and facilitating multidirectional hybrid cloud deployments.
- Actifio offers scalable, writeable instant recovery for applications, files and virtual machines (VMs), including physical, as well as virtual, workloads.
- Customer and references praise Actifio’s ease of use and customer support.

**CAUTIONS**

- Some customers have stated that initial deployments can require extra care and effort in order to properly configure the solution.
- Actifio is mostly deployed in North America and specific countries in Europe, but has been gaining traction in more of Europe and especially in Japan.
- Actifio is most often deployed in larger enterprises with large amounts of data, and is only recently beginning to examine smaller enterprise routes to market with its streamlined Actifio One product.

**Arcserve**

Arcserve offers two different backup products: Arcserve Unified Data Protection (UDP), which is available as software-only and as an integrated solution via the Arcserve UDP Appliance, and the legacy Arcserve Backup offering. The majority of the company's efforts are focused on the UDP solution, with capabilities from Arcserve Backup embedded in to UDP via a common console and a single installer. This research primarily focuses on UDP. Now independent from CA Technologies for three years, Arcserve as a stand-alone company has been investing in research and development, marketing and sales expansion. These efforts have made Arcserve one of the few backup vendors in the industry that is experiencing market share growth. In 2Q17, Arcserve acquired two companies: Zetta for cloud backup and disaster recovery, and FastArchiver for email archiving. Zetta will extend Arcserve's backup-to-the-cloud, remote location and failover-to-the-cloud capabilities. Arcserve protects virtual and physical environments, offering robust cloud integration, virtual standby and recovery assurance capabilities. Arcserve offers a broad range of packaging and pricing options. Arcserve is focused on the medium to large midsize enterprise and the decentralized large enterprise, typically with 250 to 2,500 employees.

**STRENGTHS**

- Arcserve UDP offers comprehensive backup, continuous data protection, high availability and disaster recovery for physical, virtual and cloud environments.
References rate UDP high on ease of deployment.

Arcserve offers a variety of packaging, deployment and pricing options, allowing customers to choose just the function that they need at a favorable price.

**CAUTIONS**

- Gartner end-user inquiry and reference checks give low marks to Arcserve's technical support.
- Arcserve is typically not deployed in large data centers where Oracle RAC is often required.
- While well-deployed in Japan and parts of Europe, North American deployments continue to lag.

**Commvault**

Commvault has the most expansive list of supported public cloud providers, hypervisors, big data support and database protection, providing technological liberty for future procurement decisions in other areas of the data center and beyond. Commvault is primarily offered as a software-only solution, but has an appliance as an option. Aside from protecting more exotic and newer technologies, coverage for traditional physical and on-premises applications is end-to-end and complete. Building on its early lead, Commvault is adding orchestration to its machine conversion capabilities to enable migration of whole applications to the cloud. Commvault is primarily licensed by capacity for physical servers, by socket or VM bundles for hypervisors, and by VM bundles for portability from virtual environments to the cloud. Despite the 2016 pricing revision and popular solution set bundles, Commvault has not been able to completely get rid of its now-undeserved reputation as an expensive vendor. Customer support and satisfaction feedback remain very favorable. While Commvault does have a unified interface, it is complex in a commensurate measure to its capability. Commvault has introduced administrator-persona-oriented, simplified UIs to improve ease of use.

**STRENGTHS**

- Commvault has comprehensive and leading public cloud support as well as protection of O365 and Salesforce.
- IntelliSnap features the industry's broadest support for integrating with and exploiting storage hardware platform snapshots, directly supporting over two dozen of the top-selling storage arrays.
- Customers and references report a very high likelihood to repurchase the solution.

**CAUTIONS**

- Implementing Commvault is relatively complex, and often requires professional services.
- Administrators report that the product has an initial steep learning curve, which makes training a prerequisite.
- Field sales will generally lead with VM bundles, which may not be the most cost-effective licensing model for very dense VM-per-socket environments, where socket-based licensing would be less expensive.
Dell EMC

Dell EMC offers data center backup software in multiple editions of Data Protection Suite (DP Suite). The suites are sales bundles of relevant backup products, including Avamar and/or NetWorker as the key backup engines, augmented with alternative backup methods and additional capabilities through other components such as DD Boost for Enterprise Applications, ProtectPoint, CloudBoost, Search and Data Protection Advisor (DPA). (Note that the Data Domain appliances are not evaluated in this research.) The newly launched all-in-one Integrated Data Protection Appliance (IDPA) combines Data Domain with Avamar and DD Boost for Enterprise Applications. Dell EMC now supports emerging big data workloads such as Hadoop and MongoDB. DP Suite has significantly improved support of public cloud storage for both long-term retention and cost-effective disaster recovery of backup data, as well as protecting cloud-native data. Avamar is well-known for its storage and WAN efficiency and strong file backup, while NetWorker has stronger support for heterogeneous environments with different physical servers and database applications. Key roadmap items before year-end 2017 include a centralized dashboard for all DP Suite components and a backup-as-a-service solution to manage Amazon cloud-native backups. However, heavy dependence on Data Domain and management complexity with multiple management consoles remain top customer concerns.

STRENGTHS

- Dell EMC offers aggressive discounts and often high attach rates of its backup solution to its primary storage sales.
- The Integrated Data Protection Appliances are partially addressing the long-existing complexity of managing various components of DP Suite plus Data Domain.
- Dell EMC is one of the few vendors offering the use of low-cost cloud object storage for backup-based DR without persistent usage of cloud compute.

CAUTIONS

- Dell EMC’s data protection portfolio often results in lock-in into the Data Domain and other Dell EMC hardware platforms due to high attach rates to EMC hardware.
- With the centralized DP Suite dashboard still in the works, DP Suite management and support continue to be fragmented and complex.
- Some large database backup solutions such as ProtectPoint and DD Boost for Enterprise Applications may require evaluation by database administrators and application owners.

HPE

Hewlett Packard Enterprise (HPE) Data Protector is a software-only traditional data center backup product, typically deployed in conjunction with tape or deduplication backup target appliances such as HPE StoreOnce and Dell EMC Data Domain. Data Protector is a single, scalable solution supporting a range of host environments, with some gaps, and offering native integration with many enterprise core applications, especially SAP. HPE announced in the fall of 2016 the pending spinoff/merge of its software assets, including Data Protector, to Micro Focus, which will be completed in the fall of 2017. In the last year, HPE completed a much-overdue Data Protector graphical user interface (GUI) overhaul, improved back-end product
communication, and added backup analytics enhancements to the Backup Navigator product for problem remediation and service-level assurance. Roadmap items focus on enhancements including self-service restore and the integration of VM Explorer into the core product, along with further improvements to Backup Navigator. HPE offers Data Protector as part of the Adaptive Backup and Recovery (ABR) Suite, licensed by suite level, or as a stand-alone product licensed by feature or capacity. Data Protector is rated lower than other vendors in this research for the lack of innovation and execution compared to major competitors.

**STRENGTHS**

- HPE Data Protector has good, heterogeneous OS, database and file system support.
- Backup Navigator and Storage Optimizer provide analytics and visibility to the backup and storage environment.
- HPE is a good value from a cost perspective if the use case is traditional on-premises enterprise backup requirements.

**CAUTIONS**

- The upcoming Micro Focus spin-merge may further weaken Data Protector's (and thus the ABR Suite's) strategic cross-divisional focus and relationship with HPE Storage, which now also resells Veeam.
- HPE does not offer socket or VM bundle-based pricing, and references cite dissatisfaction with packaging and pricing.
- Support for Microsoft Hyper-V requires agents in the guest virtual machines.

**IBM**

IBM's Spectrum Protect is offered as software from IBM, or as an appliance from third-party partners, and can be deployed to protect small to extremely large enterprises. Spectrum Protect supports physical and virtual environments, as well as a broad mix of applications, operating systems and backup target devices. Of note, DB2 and Domino, AIX, iSeries and zLinux, and robust physical tape support and media-tracking capability stand out. IBM remains unique with its highly scalable two-tier architecture, along with its incremental-forever methodology, which results in potentially lower total cost of ownership due to reduced infrastructure requirements. In early 2017, IBM united its sales force into one holistic storage seller, resulting in a larger, vertically aligned direct sales group with a greater focus on new-customer acquisition and customer retention. In late 2017, Spectrum Protect’s Operations Center will add a new security dashboard and add broader historical reporting for trend analysis. Spectrum Protect is a component of IBM's software-defined storage (SDS) strategy, with IBM offering a Spectrum Storage Suite that allows for deployment of any of IBM’s SDS products under a single license. While the Operations Center was released four years ago and has been continually enhanced, Spectrum Protect’s ease of use and administrative console receive very mixed feedback.

**STRENGTHS**

- A single instance of Spectrum Protect can protect a very scalable 4PB to 5PB of data.
• Spectrum Protect's new cloud accelerator capability boosts performance up to many TB/hour in a single Spectrum Protect server instance when writing to cloud storage, enabling customers to leverage the cloud for large environments.

• Customer support is rated highly by references.

CAUTIONS

• Gartner end-user inquiry and customer references give Spectrum Protect the lowest marks for ease of management of all of the products in this Magic Quadrant, even though IBM states that it has invested in improving the user experience in several areas in recent years.

• Perceptions of being high-priced remain, mainly due to processor value unit (PVU) pricing that was historically predominant in North America and that it is often used in the rest of world, despite capacity-based alternatives.

• Spectrum Protect's deduplication is not global across all Spectrum Protect server instances; rather, it is constrained to a single storage pool.

Rubrik

Rubrik offers an integrated backup appliance with a scale-out architecture that offers global deduplication and ease of expansion. Despite being a new entrant to the market, Rubrik has generated heightened market awareness and rapid adoption by upper midsize to large enterprises, augmenting or completely replacing mainstream data center backup solutions. By using modern backup and recovery techniques and a distributed metadata and task scheduler, Rubrik's backup appliances remove dependency on external databases and storage controllers to manage backup and storage, drastically simplifying the backup software and hardware infrastructure. Its software instance can run in remote offices or in Amazon Web Services (AWS) and Microsoft Azure to back up cloud-native data, or serve as a replication target. Rubrik also simplified its pricing practices by offering two main options: all-in-one appliance licensing (with separate support) or subscription-based licensing (including support) for its software instances. However, Rubrik is quite limited with its support matrix today, and can back up VMware virtual machines, Windows and Linux physical servers, Microsoft SQL Server and network-attached storage (NAS). In August 2017, it is launching support for Hyper-V, Nutanix AHV and Oracle running on physical servers. Its scalability needs to be proven as customers gradually grow their backup footprint. Roadmap items for the remainder of 2017 include tape support via integration with QStar and AWS-native snapshot management.

STRENGTHS

• Modern backup and recovery techniques, coupled with deployment, management and pricing simplicity, drive market adoption.

• Rubrik is aggressively expanding the support matrix to cover key production environments in the data center and the public cloud.

• Customers praise Rubrik's product reliability, pay-as-you-grow architecture and ease of use.

CAUTIONS
- Rubrik has a short track record and limited support for physical servers and enterprise applications.

- Although the scale-out architecture allows for near-linear scalability, it takes time to validate scalability because most of Rubrik's customers start from a midsize installation and expand gradually.

- Despite the "Cloud Data Management" product name, Rubrik's deployment is primarily on-premises, and its cloud data backup functions are either missing or too new to be proven.

Unitrends

Unitrends Enterprise Backup (UEB) offers a package of on-premises backup, backup to the cloud, cloud-to-cloud IaaS backup and disaster recovery as a service (DRaaS) via integrated appliances, virtual appliances or software-only offerings. Unitrends focuses on delivering a backup appliance for the generalist IT administrator in the small to midsize enterprise. Cloud options include differentiated purpose-built Unitrends Cloud or a broad choice of public cloud providers; public cloud is required if SaaS or IaaS backup will be used. UEB provides hypervisor host-level protection for VMware, Hyper-V and XenServer, and more traditional protection for physical servers, databases and NAS. The Unitrends roadmap includes global deduplication across appliances, and support for KVM and Nutanix host-based hypervisors, and in the next year Salesforce and Google Suite support will be added. Standard licensing is perpetual, with term-based licensing available, and is calculated by server or socket with cloud options on a subscription-based model. Despite Unitrends' delivery as an appliance, references placed UEB's ease of use and deployment score in the middle, but commented favorably on backup speed. However, its scale of solution relative to other vendors in this Magic Quadrant came in the lowest, according to references.

**STRENGTHS**

- Unitrends has a mature portfolio of cloud backup and disaster recovery (DR) capabilities, and supports of a broad range of cloud providers, such as AWS S3 (and Glacier), Microsoft Azure, Google Cloud Platform (and Google Nearline) and any OpenStack Swift-compatible provider.

- To ensure recoverability, Recovery Assurance available with the Enterprise Plus version provides fully automated, application-level consistency sandbox testing of physical servers, Microsoft Hyper-V or VMware vSphere VMs. This capability is available for on-site, Unitrends Cloud and service providers.

- Unitrends has a predictive analytics algorithm that can detect a ransomware infection.

**CAUTIONS**

- Due diligence must be used to properly scope for growth, performance and bandwidth requirements, as Gartner has received reports of customers needing additional hardware after the initial purchase to meet service-level objectives.

- Some modules are not fully integrated into the main interface, and SaaS O365 backup requires purchase of an OEM product.
- Unitrends lacks broad storage vendor integration for NAS and storage area network (SAN) snapshots, limiting its support only to a few EMC and NetApp models for select functions.

Veeam

Veeam is known for its agentless VM backup software for VMware and Hyper-V. It recently added agent-based physical server backup software for Linux and Windows, including Windows Server applications such as Active Directory, Exchange, Oracle, SQL and SharePoint. Veeam has become the fourth-largest backup vendor (based on 2016 revenue), and is frequently showing up on vendor shortlists for backup software. The company has effective sales strategies, such as free-of-charge promotions for backup of physical servers and O365 Exchange Online to jump-start adoption. Over the years, it has added data center functions, such as tape support and storage snapshot integration, as well as integration with key deduplication backup target appliances to improve storage efficiency. Customers and references have favorable comments on ease of management. Roadmap items before the end of 2017 include converged management of virtual and physical server backup and NAS backup. However, Veeam's pricing has become less competitive and less flexible than some key competitors'.

**STRENGTHS**

- Veeam offers rich functionality and many simple recovery options for the VMware and Hyper-V environment.
- Veeam continues to stand out with numerous agentless VM recovery options and unique functions to overcome hypervisor-native limitations.
- For the last several years, Veeam has been — and continues to be — one of the fastest-growing companies in the backup industry.

**CAUTIONS**

- Several customer references noted that pricing options and license management need to be improved, as Veeam's street pricing is often no longer competitive.
- While daily management and recovery are straightforward, proper sizing and configuration at the deployment phase may need extra attention, as the change rate for VMs is often higher than many account for.
- Veeam has only just begun officially supporting physical server environments and has yet to fully integrate or prove these capabilities.

Veritas Technologies

Veritas Technologies offers NetBackup for larger enterprises as software or as an integrated appliance, and offers Backup Exec for the midmarket. This research focuses on NetBackup. NetBackup is a proven, very scalable solution that can protect a diverse mix of physical, virtual and cloud workloads, with optional multitenant support. In the last year, NetBackup has added additional Oracle integration, including rapid recovery, and integrating its portfolio with its broader 360 Data Management solutions. The NetBackup integrated appliances provide a cost-effective, easy-to-deploy solution that is effective for organizations needing an additional or replacement media server. Before the end of 2017, Veritas plans to release broader support for
next-generation storage, database and big data solutions. According to Gartner reference surveys and conference polling, Veritas' NetBackup is tied for the second-most-evaluated enterprise backup solution, and remains the market-share-leading offering. The transition into a new stand-alone company again has seen turnover in high-ranking development, sales and marketing leadership. New socket-based pricing for virtual machines has been well-received by the market. Daily administrative requirements for operation of NetBackup have been rated favorably, which is not common for a solution with broad protection and scalability capabilities.

**STRENGTHS**

- NetBackup and the NetBackup Appliances offer a highly scalable solution with a broad support matrix.
- References rate NetBackup highest for database protection of all of the products in this Magic Quadrant.
- Product quality and strength of technical support have been rated highly for the last two years.

**CAUTIONS**

- Continued compliance audits, first initiated by Symantec in 2015, remain an ongoing practice by the new Veritas in 2016 and 2017, continuing to cause some customers to seek replacement solutions.
- Recently, new functionality has largely centered on integration with other Veritas data management solutions; however, NetBackup 8.1 (in beta at the time of publication) offers significant new capabilities.
- Veritas field support, in terms of sales people and support engineers, has seen turnover since the company re-established its independence.

**Vendors Added and Dropped**

We review and adjust our inclusion criteria for Magic Quadrants as markets change. As a result of these adjustments, the mix of vendors in any Magic Quadrant may change over time. A vendor's appearance in a Magic Quadrant one year and not the next does not necessarily indicate that we have changed our opinion of that vendor. It may be a reflection of a change in the market and, therefore, changed evaluation criteria, or of a change of focus by that vendor.

**Added**

Rubrik was added to this Magic Quadrant. Over the last year, Rubrik has been focused on selling into the target market of this research, and it has met the inclusion criteria.

Note that the current vendor name of HPE is expected to change in late 3Q17 to early 4Q17 to Micro Focus as a result of HPE's completion of its spinoff/merge of many of its software assets (see "HPE's Spinoff/Merge of Its Software Businesses to Micro Focus May Create Significant Challenges for Users").

**Dropped**
No vendors were dropped from this Magic Quadrant this year.

**Inclusion and Exclusion Criteria**

To qualify for inclusion, vendors need to meet the following nine criteria at the time that initial research and survey work commences (January 2017), unless otherwise noted. The criteria for inclusion in the 2017 "Magic Quadrant for Data Center Backup and Recovery Solutions" are:

- Vendor's qualifying backup and recovery solution(s) must focus on the upper-midsize enterprise to the large data center, possess the capability to capture data directly, and not solely rely on other third-party and/or partner means of data capture/ingestion. In short, the vendor must own heterogeneous backup capabilities which meet all of the criteria below.

- The qualifying solution must be focused on protecting data center workloads, such as file system, operating system, hypervisor, database, email, content management and customer relationship management (CRM) data.

- The solution(s) must support files on Windows and Linux and multiple applications on Windows, in a physical and/or a virtual deployment supporting both VMware and Microsoft Hyper-V hypervisors prior to publication of this research.

- The qualifying solution must be deployed at least one-third of the time as an on-premises solution and not predominantly be a cloud-service-required solution.

- The vendor must have a backup and recovery solution commercially available for at least one calendar year prior to publication of this research.

- The vendor must actively market its branded backup and recovery products in at least two major geographic regions of North America, Europe or Asia/Pacific.

- The vendor must have generated greater than $45 million in 2016 (either calendar or fiscal year) for the total revenue for its data center backup and recovery solution(s), exclusive of specific endpoint or lower-midmarket backup and recovery offerings, with signed certification by the vendor to confirm this.

- The vendor must be the originator of the required capabilities and meet all of the above requirements via intellectual property that they own, and not rely exclusively on third-party and/or resold solutions to meet these criteria.

Gartner will continue to cover emerging vendors, as well as vendors and products that do not yet meet the above inclusion criteria.

Based upon the criteria above, the following vendors and products are believed to have qualified for inclusion in to this Magic Quadrant:

- **Actifio** — Actifio Enterprise, Actifio Sky

- **Arcserve** — Arcserve Unified Data Protection (UDP), Arcserve Unified Data Protection (UDP) Appliance Series

- **Commvault** — Commvault software (formerly Simpana), Commvault A-Series appliances
• Dell EMC — Avamar, Data Protection Suite (which includes Avamar, NetWorker and Data Protection Advisor), Integrated Data Protection Appliance, NetWorker
• HPE — Data Protector, Adaptive Backup and Recovery Suite
• IBM — Spectrum Protect (formerly Tivoli Storage Manager [TSM])
• Rubrik — Cloud Data Management
• Unitrends — Unitrends Enterprise Backup, Recovery Series appliances
• Veeam — Veeam Availability Suite, Veeam Backup & Replication
• Veritas Technologies — NetBackup, NetBackup Appliances, CloudPoint

Evaluation Criteria

Ability to Execute

Gartner analysts evaluate technology providers on the quality and efficacy of the processes, systems, methods or procedures that enable IT provider performance to be competitive, efficient and effective, and to positively impact revenue, retention and reputation. Ultimately, technology providers are judged on their ability and success in capitalizing on their vision:

• **Product/Service** — This is the evaluation of how well a vendor does in building and effectively delivering the solution that the market wants and perceives as being worthy of new investments — ideally resulting in a three- to five-year strategy based on the vendor’s portfolio (versus tactical or point product usage). The solution must be easily configured and managed so that the capability of the product is easily exploited. The product’s completeness of overall capability, as well as the breadth and depth of the specific key features, will be considered. The overall scalability of a single instance of the solution will be taken into account. Also tracked is the level of customer interest and positive feedback.

• **Overall Viability** — Viability is important because backup solutions are considered strategic, and organizations do not want to change offerings frequently. Viability is in relation to commitment to the backup portfolio, not the overall vendor, unless the vendor sells only backup solutions. Company viability, which equates to risk for the buyer, is something that data center professionals tell Gartner is important to them.

• **Sales Execution/Pricing** — This criterion also includes the transparency of pricing, including line item and list pricing in a bid. The ability to quickly and easily obtain clear product pricing, whether through direct sales, partners or other resellers is a priority for data center personnel.

• **Market Responsiveness/Record** — This criterion heavily considers the provider’s recent three-year history of responsiveness in meeting, or even being ahead of, the market, and being adaptable enough to maintain or achieve competitive success as opportunities develop, competitors act, customer needs evolve, and market dynamics change.
• **Marketing Execution** — Marketing execution directly leads to unaided awareness (that is, Gartner end users mentioned the vendor without being prompted) and a vendor's ability to be considered by the marketplace. Gartner's end-user client search analytics results are also factored in as a demonstration of vendor awareness and interest. Clear messaging, product naming and an ability to succinctly state why the vendor and/or its product(s) are unique is taken in to account.

• **Customer Experience** — Customer experience is a very heavily weighted criterion, as data center professionals tell Gartner that they are evaluating vendors more and more on this capability. Because many products can now satisfy many technical requirements, differences in initial configuration, daily administration and product support take on greater importance.

Table 1. Ability to Execute Evaluation Criteria

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Source: Gartner (July 2017)

Completeness of Vision

Gartner analysts evaluate technology providers on their ability to convincingly articulate logical statements about current and future market direction, innovation, customer needs, and competitive forces, and how well they map to the Gartner position of the future of backup and recovery. Ultimately, technology providers are rated on their understanding of how market forces can be exploited to create opportunity for the provider:

- **Market Understanding** — The more visionary vendors not only can observe the customers' wants, but also can enhance those wants with their added vision, and can potentially even either shape or move the market in a new direction, or accelerate market activity and trends. Market understanding, like all Completeness of Vision evaluation criteria, is overweighted toward the recent past deliverables, as they are a clear demonstration of what the vendor has actually been able to achieve recently. This criterion is not overly influenced by the discussion of futures that a provider may offer, which may or may not come to pass in the time frame or with the amount of capability that was promised; rather, it is more focused on the past three years.

- **Marketing Strategy** — This relates to what the vendor and its backup solution message is, how well and easily it can be described, how that message is communicated, what vehicles are used to effectively deliver it, and how well the buying public resonates with and remembers the message. In a market where many vendors and/or products can sound the same, or sometimes not even be known, message differentiation and overall awareness are vital.

- **Sales Strategy** — This criterion considers the ability for the sales team to effectively and clearly communicate the current capabilities is considered, along with the future vision and roadmap, while also positively differentiating the vendors' offerings from the competition and alternative approaches.

- **Offering (Product) Strategy** — The vendor's offering needs to be capable of more than meeting the current and future tasks. The product's completeness of overall capabilities, as well as the breadth and depth of the specific key features, will also be considered. The overall scalability of a single instance of the solution will also be considered. Vendors that deliver function ahead of the market or influence the industry will be deemed to have a superior product offering. The product should also be extensible, such that today's
investments can easily be leveraged in the future. Vendors that deliver function ahead of the market, or influence the industry, will be deemed to have a superior product offering.

- **Innovation** — This criterion looks in particular at the recent past (the last three years') track record for innovation and current customer production exploitation of new capabilities, as well as the near-term (less than 12 months) upcoming feature set and longer-term (three to five years) roadmap. Customer production exploitation of new capabilities is also factored in to validate the ability of the offering to withstand the demands of a data center environment.

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Source: Gartner (July 2017)

Quadrant Descriptions

Leaders
Leaders have the highest combined measures of Ability to Execute and Completeness of Vision. They have the most comprehensive and scalable product portfolios. They have a proven track record of established market presence and financial performance. For vision, they are perceived in the industry as thought leaders, and have well-articulated plans for enhancing recovery capabilities, improving ease of deployment and administration, and increasing their scalability and product breadth. A fundamental sea change is occurring in the backup and recovery market. For vendors to have long-term success, they must plan to address the legacy requirements of traditional backup and recovery, while looking to expand their integration with and exploitation of emerging applications, hypervisors, snapshot and replication technologies, and public cloud capabilities. A cornerstone for Leaders is the ability to articulate how new requirements will be addressed as part of their vision for recovery management. As a group, Leaders can be expected to be considered part of most new purchase proposals and to have high success rates in winning new business. This does not mean, however, that a large market share alone is a primary indicator of a Leader. Leaders are strategic vendors, well-positioned for the future, having established success in meeting the needs of upper midsize and large data centers.

Challengers
Challengers can execute today, but they have a more limited vision than Leaders, or they have yet to fully produce or market their vision. They have capable products and can perform well for many enterprises. These vendors have the financial and market resources and the capabilities to potentially become Leaders, but the important question is whether they understand the market trends and market requirements to succeed tomorrow, and whether they can sustain their momentum by executing at a high level over time. A Challenger may have a robust backup portfolio, but has not yet been able to fully leverage its opportunities, or does not have the same ability as Leaders to influence end-user expectations and/or be considered for substantially more or broader deployments. These vendors may not devote sufficient development resources to delivering products with broad industry appeal and differentiated features in a timely manner, or effectively market its capabilities and/or fully exploit enough field resources to result in a greater market presence.
Visionaries

Visionaries are forward-thinking, advancing their portfolio capabilities ahead, or well ahead, of the market, but their overall execution has not propelled them into being Challengers or possibly Leaders (often due to limited sales and marketing or elongated time to initially install and configure, but sometimes due to scalability or breadth of functionality and/or platform support). These vendors are predominantly differentiated by product innovation and perceived customer benefits, but they have not achieved solution completeness, or sustained broad sales, marketing and mind share success, or demonstrated continued successful large-enterprise deployments required to give them the higher visibility of Leaders. Some vendors move out of the Visionaries quadrant and into the Niche Players quadrant because their technology is no longer visionary (the competition caught up to them) and/or they have not been able to establish a market presence that justifies moving to the Challengers or Leaders quadrants, or even remaining in the Visionaries quadrant.

Niche Players

It is important to note that Gartner does not recommend eliminating Niche Players from customer evaluations. Niche Players are specifically and consciously focused on a subsegment of the overall market, or they offer relatively broad capabilities without very large-enterprise scale, or the overall success of competitors in other quadrants. In several cases, Niche Players are very strong in the upper-midsize-enterprise segment, and they also opportunistically sell to the large enterprises, but with offerings and overall services that, at present, are not as complete as other vendors focused on the large-enterprise market. Niche Players may focus on specific geographies, vertical markets, or a focused backup deployment or use-case service, or they may simply have modest horizons and/or lower overall capabilities compared with competitors. Other Niche Player vendors are too new to the market or have fallen behind, and, although worth watching, have yet to fully develop complete functionality, or to consistently demonstrate an expansive vision or the Ability to Execute.

Context

Backup and recovery is one of the most critical and most frequently performed operations in the data center. Despite the long timeline associated with backup, the practice has undergone a number of changes (such as new recovery techniques, new deployment options and pricing models, and a new, expanded set of vendors and approaches to consider) and challenges, such as how to protect server-virtualized environments, very large databases, emerging next-generation databases and big data applications, as well as how to integrate with the cloud and/or how to protect SaaS applications. Gartner end-user inquiry call volume regarding backup has been rising by over 13% each year for the past nine years. Organizations worldwide are seeking ways to easily, quickly and cost-effectively ensure that their data is appropriately protected.

Organizations are also voicing the opinion that backup needs to improve a lot, not just a little. The ongoing frustration with backup implies that the data protection approaches of the past may no longer suffice in meeting current — much less future — recovery requirements. As such, many companies are willing to adopt new technologies and products from new vendors, and they have shown an increased willingness to augment or even completely switch backup and recovery
providers to better meet their increasing service-level needs, overall cost requirements and ease of management needs.

Ransomware is on the rise, and backup remains the best protection against data loss. As a fail-safe, organizations should implement enterprise endpoint backup for laptops/workstations, and set recovery point objectives (RPOs) for each server deemed to be at greater risk to ransomware, according to organizational requirements based on the data loss time frames acceptable to the organization.

**Market Overview**

For years now, many organizations have continued to rearchitect their backups in an effort to modernize their approach to handle new data types and deployment models, increased workload volumes, and to improve backup and restore times to meet rising SLAs. Disk-based solutions (including backup directly to disk and perhaps additionally to a cloud target, array-based snapshot and replication exploitation, server virtualization backup features, and leveraging compression, deduplication and other data management efficiency technologies) are among the key items sought. Today, even backup to a flash target device is not out of the question. Ease of deployment, with a rapid time to value, and especially a greater ease of daily administration are key requirements. Mission-critical workloads are predominantly deployed in server-virtualized environments, making capable, scalable VM backup a mainstream requirement.

Gartner sees that many organizations are willing to deploy multiple backup solutions in an attempt to best match the needs of what is being protected (Office 365, remote office, VMs, SharePoint, etc.), to contain product costs and/or to implement a solution that the staff will find easy to use. As a result, large vendors are no longer viewed as being safe choices, with many losing market share to emerging providers. Today, the market is willing to take on more risk with vendors and solutions than in the past; a trend that Gartner believes will remain on the rise for the next several years.

**Evidence**

Placement on the Magic Quadrant is based on Gartner's view of a vendor's performance against the criteria noted in this research. Gartner's view regarding vendor placement on the Magic Quadrant is heavily influenced by more than 2,800 inquiries, and conferences and one-on-one meetings with Gartner clients on the topic of backup/recovery solutions, conducted since the publication of the last Magic Quadrant. Gartner also utilizes worldwide end-user surveys, Gartner conference kiosk surveys, Gartner conference session polling data, Gartner.com Research Circle polls and Gartner Peer Insights. The Magic Quadrant methodology includes the solicitation of references from each vendor; for this Magic Quadrant, Gartner conducted over 140 reference checks (via electronic survey and/or live interview) from a set of customers provided by each vendor. The included vendors submitted just over 500 pages of responses to Gartner's Magic Quadrant survey on this topic, which were used as the basis for subsequent vendor briefings and follow-up meetings, product demonstrations, and correspondences.
Additionally, this research drew input from other Gartner analysts, industry contacts and public sources, such as U.S. Securities and Exchange Commission filings, articles, speeches, published papers and public domain videos.

**Evaluation Criteria Definitions**

**Ability to Execute**

**Product/Service:** Core goods and services offered by the vendor for the defined market. This includes current product/service capabilities, quality, feature sets, skills and so on, whether offered natively or through OEM agreements/partnerships as defined in the market definition and detailed in the subcriteria.

**Overall Viability:** Viability includes an assessment of the overall organization's financial health, the financial and practical success of the business unit, and the likelihood that the individual business unit will continue investing in the product, will continue offering the product and will advance the state of the art within the organization's portfolio of products.

**Sales Execution/Pricing:** The vendor's capabilities in all presales activities and the structure that supports them. This includes deal management, pricing and negotiation, presales support, and the overall effectiveness of the sales channel.

**Market Responsiveness/Record:** Ability to respond, change direction, be flexible and achieve competitive success as opportunities develop, competitors act, customer needs evolve and market dynamics change. This criterion also considers the vendor's history of responsiveness.

**Marketing Execution:** The clarity, quality, creativity and efficacy of programs designed to deliver the organization's message to influence the market, promote the brand and business, increase awareness of the products, and establish a positive identification with the product/brand and organization in the minds of buyers. This "mind share" can be driven by a combination of publicity, promotional initiatives, thought leadership, word of mouth and sales activities.

**Customer Experience:** Relationships, products and services/programs that enable clients to be successful with the products evaluated. Specifically, this includes the ways customers receive technical support or account support. This can also include ancillary tools, customer support programs (and the quality thereof), availability of user groups, service-level agreements and so on.

**Operations:** The ability of the organization to meet its goals and commitments. Factors include the quality of the organizational structure, including skills, experiences, programs, systems and other vehicles that enable the organization to operate effectively and efficiently on an ongoing basis.

**Completeness of Vision**

**Market Understanding:** Ability of the vendor to understand buyers' wants and needs and to translate those into products and services. Vendors that show the highest degree of vision listen
to and understand buyers’ wants and needs, and can shape or enhance those with their added vision.

**Marketing Strategy:** A clear, differentiated set of messages consistently communicated throughout the organization and externalized through the website, advertising, customer programs and positioning statements.

**Sales Strategy:** The strategy for selling products that uses the appropriate network of direct and indirect sales, marketing, service, and communication affiliates that extend the scope and depth of market reach, skills, expertise, technologies, services and the customer base.

**Offering (Product) Strategy:** The vendor’s approach to product development and delivery that emphasizes differentiation, functionality, methodology and feature sets as they map to current and future requirements.

**Business Model:** The soundness and logic of the vendor’s underlying business proposition.

**Vertical/Industry Strategy:** The vendor’s strategy to direct resources, skills and offerings to meet the specific needs of individual market segments, including vertical markets.

**Innovation:** Direct, related, complementary and synergistic layouts of resources, expertise or capital for investment, consolidation, defensive or pre-emptive purposes.

**Geographic Strategy:** The vendor’s strategy to direct resources, skills and offerings to meet the specific needs of geographies outside the “home” or native geography, either directly or through partners, channels and subsidiaries as appropriate for that geography and market.