Enterprise backup is among the oldest, most-performed tasks for infrastructure and operations professionals. Gartner provides analysis and evaluation of the leading providers that offer a range of traditional to innovative recovery capabilities.

**Strategic Planning Assumptions**

By 2016, 20% of organizations, up from 12% today, will employ only snapshot and replication techniques, abandoning traditional backup/recovery for the majority of their data.

Through 2016, despite the rise of disk-to-disk (D2D), disk-to-disk-to-tape (D2D2T) backup will remain the primary backup methodology for large enterprises.

By 2017, the number of enterprises using the cloud as a backup destination will double, up from 12% today.

By 2017, 75% of organizations will have replaced their remote-office tape backup with a disk-based backup solution that incorporates replication, up from 45% today.

By 2018, 50% of organizations will augment with additional products or replace their current backup application, compared to what they deployed in 2014.

By 2018, the number of organizations abandoning tape for backup will double, whereas archiving to tape will increase by 35%.

By 2019, there will be a 60% increase in the number of large enterprises eliminating tape for operational recovery.

By 2020, 16% of storage systems will be self-protecting, obviating the need for backup applications, up from less than 1% today.
Market Definition/Description

This Magic Quadrant describes the evolution of enterprise backup, which incorporates new products, solutions and techniques for protecting, backing up and recovering physical server and virtual server files, applications, system images, and endpoint devices. These backup products provide features such as traditional backup to tape, backup to random-access media (disk, flash, etc.) or devices that emulate the previous backup targets (e.g., virtual tape library [VTL]), data reduction (compression, deduplication, single instancing, etc.), snapshot, heterogeneous replication and continuous data protection (CDP). These solutions may be provided as software only, or as an integrated appliance that contains all of or substantial components of the backup application, such as the master server or a media server (a component beyond an agent, or preparsing code that is used for dedicated backup target devices). Additionally, integration and exploitation of public cloud storage as part of the on-premises backup methodology for a disk-to-disk-to-cloud (D2D2C) option is becoming important to some organizations.

Organizations are increasingly making their backup product selection from vendors that offer expanded protection capabilities and techniques in addition to traditional backup software, as organizations have come to understand the value of backing up critical data via multiple methods, techniques and destinations.

As the backup/recovery software and integrated appliance market comprises dozens, if not hundreds, of vendors, this report narrows it down to those that have strong presence worldwide in 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 greater. It also excludes backup software for a homogeneous environment such as native tools from Microsoft or VMware for their own specific platforms, as many midsize and large customers prefer a single, scalable backup product for their entire environment.

The emphasis of this Magic Quadrant is on the backup and recovery software capability (i.e., the large-enterprise backup application(s)). However, for vendors that meet the inclusion criteria below (weighted heavily toward the backup application), their entire backup/recovery software and the branded hardware portfolio that offers an integrated backup appliance will be evaluated. Note that a Magic Quadrant is not product-specific, but rather represents the vendor's overall position in the enterprise backup/recovery software and integrated appliance market and individual products in a vendor's recovery portfolio can vary in terms of capabilities, support, etc. This means that vendors that do not possess a heterogeneous backup application, do not have significant worldwide presence and only deliver disk-based target appliances are not eligible for inclusion in this Magic Quadrant. Note that Gartner has the "Magic Quadrant for Deduplication Backup Target Appliances" to focus on backup target devices.

The same is true with the report's emphasis on disk-based backup and server backup, although tape backup features, SaaS application and endpoint backup will be factored into the comprehensiveness of the vendor's data protection portfolio and capabilities.

This 2015 "Magic Quadrant for Enterprise Backup Software and Integrated Appliances" is an update to the Magic Quadrant of the same name that was last published in June 2014.
Magic Quadrant

Figure 1. Magic Quadrant for Enterprise Backup Software and Integrated Appliances

Source: Gartner (June 2015)
Vendor Strengths and Cautions

Acronis

Acronis provides solutions for small or midsize businesses (SMBs), and companies with remote office/branch office (ROBO) and departmental backup needs inside enterprise groups. Acronis Backup Service provides cloud-enabled central administration capabilities for distributed locations. The cloud offerings also include Acronis Backup to Cloud for managed service providers to deliver backup services, and Disaster Recovery Service for cloud-based server failover and off-site resiliency. Backups can be written to up to five different storage targets, including the Acronis Cloud, or via FTP/SFTP to a private cloud. Single-pass imaging allows full or object-level recovery with native support for Exchange, Microsoft SQL Server and SharePoint, as well as support for other Microsoft Volume Shadow Copy Service (VSS)-aware applications and databases using pre- and postbackup commands. To speed backup performance, source-side deduplication and compression are combined with target-side postprocessing, such as indexing or cataloging. A dynamically generated step-by-step disaster recovery plan (DRP document) is emailed as a recovery playbook following the backup.

Strengths

- A flexible licensing model, combined with a unified and oft-cited easy-to-use interface, gives businesses an upgrade path to add components to a unified platform as needed.
- There is complete portability of backup images using the Universal Restore capability (physical-to-physical [P2P], physical-to-virtual [P2V] or virtual-to-virtual [V2V]) and across all Acronis backup solutions, from consumer to full-featured versions.
- Version-independent intrahypervisor support across six supported hypervisors facilitates long-term flexibility, and allows service-level-based virtual machine (VM) tiering, migration or test/development.

Cautions

- Acronis may not be well-suited for very large enterprise deployments due to its support matrix and scalability.
- The on-premises Acronis Backup Advanced has limited self-service recovery capabilities that only allow for full disk recovery.
- Network-attached storage (NAS) support is limited to CIFS/NFS mount points.

Actifio

Actifio’s data protection solution consolidates traditional data protection copy silos, and enables fast data capture and backup via methods such as change block tracking, snapshots, multithreaded block-level incremental-forever processing, and the new integration with change-tracking APIs from NetApp and EMC Isilon. Its native format allows instant mounting by VMs and physical servers for fast recovery. Its global deduplication delivers more usable capacity and WAN efficiency. Beyond
backup, Actifio also automates disaster recovery and test and development environments with a workflow process for database administrators via virtual clone refreshes. Actifio’s offering ranges from physical appliances scaling to 8PB to a virtual appliance (Actifio Sky), which can be run on vSphere, Hyper-V and Amazon Web Services (AWS) compute nodes. In the past year, the vendor introduced Actifio One, a SaaS solution for cloud service providers to deploy in a hybrid cloud deployment model with a self-service portal. It also launched Resiliency Director, which orchestrates compute, network and data at a disaster recovery site and validates the results.

**Strengths**

- Actifio's "golden copy" architecture and instant in-place recovery have resonated well with customers.
- Users reported excellent customer support experiences.
- There has been improved total cost of ownership due to the elimination of multiple competitive products and a reduced number of storage acquisition.

**Cautions**

- Actifio only supports backup of the most popular OSs, hypervisors, email systems and database applications.
- While single file restores are now available on Linux, Unix and Windows, single object restores for Exchange and SharePoint require a third-party package.
- Some customers expressed desires to have better graphical and command line reporting options, such as more details on the appliance's performance and utilization.

**Arcserve**

In August 2014, Arcserve completed its spinout from CA Technologies as a private company, bringing with it all of CA's open-system recovery offerings. Arcserve has several products in its backup portfolio, but directionally the intent is to merge capabilities from several solutions into Unified Data Protection (UDP), with the features of replication and high availability next to be combined. Arcserve offers robust recovery verification, bare-metal restore (BMR), server failover and failback, and a space-saving, block-based incremental backup methodology with client- and target-side deduplication in the UDP product. VMware and Hyper-V are well-supported with a broad range of mostly agentless capabilities. In the last year, a redesigned UI, featuring workflow-based protection, has been added. In February 2015, Arcserve launched the UDP 7000 series appliances, which offer a VM standby option to run a server image from the backup software on the appliance, and announced a mid-2015 intention to deliver a cloud-hosted replication target capability for the appliances. Approaching the one-year mark after the split from CA, sales appear to be rising. Arcserve has the majority of its deployments in Japan and Europe, with plans to better penetrate North America via increased marketing, new functionality and the appliance delivery model.
### Strengths

- Arcserve offers a broad range of data protection capabilities for a large number of Windows applications, and supports many cloud targets, as well as physical tape.
- References cite affordability, ease of deployment and ongoing administration as positives.
- UDP is a major leap forward in capability and integration.

### Cautions

- Arcserve focuses on the Windows and Linux OS platforms and on VMware and Hyper-V hypervisors, with no or limited Mac and SaaS application protection.
- Arcserve backup products have been mostly deployed in the midmarket by SMBs and some managed service providers (MSPs); therefore, reference checking for new capabilities and applicability to larger environments becomes more important.
- End-user restore and object-level recovery from SharePoint 2013 are not yet supported.

### Asigra

For almost 30 years, Asigra has designed its backup software for service providers that offer backup as a service — mostly under their own labels — to SMBs and enterprise branch offices. The solution offers agentless backup and recovery of all the main OSs with block-level incremental-forever processing, which is made more WAN-efficient via local and global deduplication and compression. It also has strong capabilities desired by cloud backup providers, such as local caching, multitenancy and customer billing, encryption, a single management console, and the ability to run in a Docker container. Asigra stands out with the breadth of its backup offerings, including CDP, disaster recovery, endpoint backup, and SaaS backup for Google Apps, Salesforce and, most recently, Microsoft Office 365. The new v.13 release added hypervisor snapshot-based VM replication, VMware file-level restore, Docker container backup/recovery, remote data wipe for endpoint backup and a redesigned UI. The Backup Lifecycle Management concept provides four tiers of backup as data ages over time, with optional deletion and data destruction certificates. Asigra’s capacity-based pricing is based on the deduplicated and compressed storage in the back end, and the vendor is pioneering a recovery-based license model.

### Strengths

- Asigra is well-adopted by service providers, which have been offering good support.
- Asigra offers one of the most comprehensive backup and recovery feature sets within a single platform.
- The low-touch, agentless architecture is available for physical and virtual environments.
Cautions

- Asigra’s brand awareness is low among Gartner user clients, who also report finding it hard to locate a service provider without contacting the vendor first.

- Customers should do more diligent reference checks before using some of the advanced functions, such as endpoint, SaaS or snapshot-based backup, as these functions are not deployed as often as the mainline backup capabilities.

- If purchasing Asigra Cloud Backup as a service, know that product versions, enabled capabilities and first-level support experience can vary across service providers.

Barracuda Networks

Barracuda Networks has shipped a large number of integrated backup appliances in just a few years. The vendor is very visible with its portfolio of IT appliances, and many customers purchase solutions across storage, security and application delivery. Barracuda has been rounding out its support for specific backup features, but it predominantly focuses on ease of ordering and delivery (it builds its own appliances), ease of administration, and offering recovery capabilities for midsize Windows and Linux implementations running Microsoft and Oracle applications and VMware and Hyper-V virtualization. The ability to boot a backup VM on the Barracuda appliance or on the vendor’s cloud is offered, and it sends out a replacement appliance, prepopulated with customer data, if needed. Any number of appliances can be centrally managed with aggregated reporting from the Barracuda Cloud. Endpoint protection is offered via its Copy solution, with the ability to restore files and folders from the Barracuda Cloud. While the focus is on addressing the backup needs for the 50- to 1,000-user range, ROBO, departmental and project-based backup deployments in larger enterprises are also seen. Appliances scale down to 500GB, and today the largest solution has an 112TB capacity.

Strengths

- Barracuda is a complete end-to-end backup provider of integrated appliances and vendor-owned cloud.

- Strong customer support is provided, with short wait times and knowledgeable support personnel.

- Barracuda is a fast-growing vendor for midsize backup requirements; it is especially strong in the education, finance and local government verticals.

Cautions

- The vendor lacks support for a broad range of environments and large-scale deployments; NAS NDMP and physical tape are not offered with the Barracuda Backup Server.

- Mac backup support requires secure shell file system (SSHFS).

- Currently, no third-party cloud is supported; backup must be to the Barracuda Cloud.
Commvault

Commvault continues to meet a wide variety of backup needs with its single platform for data management, which includes comprehensive backup, archiving, reporting and analytics, and search capabilities. Commvault successfully made the jump to being deployed at very large scale, with many multipetabyte installations and by large service providers. In the last year, the vendor has launched four solution sets, including solutions focused on VM backup and endpoint recovery, and a branded integrated appliance. It has responded to two years of pricing and packaging concerns. Looking beyond basic backup, Commvault’s Simpana portfolio offers the ability to mine and repurpose backup for test/development, analytics and disaster recovery, as well as public cloud integration that offers the same rich set of data services. Commvault was early to broadly support array-based snapshots as part of the overall recovery hierarchy, and Simpana continues to add support for emerging storage providers. Customer support and satisfaction feedback is favorable as Commvault drives into typically larger environments. The vendor’s stated near-term vision for further data management and opening up its unified repository for broader use cases should resonate with market interests.

**Strengths**

- Commvault has a single administrative console and reporting/analytics engine for all backup (data center, remote office, SaaS application and endpoint), archiving, file sync and share, search, and data loss prevention functions.
- Focused solution sets, multiple new Simpana licensing bundles, and new branded and partner-integrated appliances make Commvault appropriate for niche to large heterogeneous backup requirements.
- Commvault offers 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.

**Cautions**

- Simpana can be costly at acquisition and for maintenance, especially at scale; look to deploy Simpana bundles other than the all-inclusive Data Protection Enterprise (DPE) package.
- Large deduplication operations, at 40TB or larger, require the usage of solid-state drives (SSDs) for the deduplication database to achieve optimal performance.
- Setup of non-NetApp storage arrays for IntelliSnap can require additional effort.

Dell

Dell’s backup portfolio includes software and appliances that target small and midsize environments, although it reported that its 2014 deal sizes doubled or even tripled over those in the prior year. In 2014, Dell bundled AppAssure, NetVault and vRanger into the Dell Backup & Disaster Recovery Suite (BDRS), with a new front-end, storage-capacity-based licensing model. BDRS customers can use various backup/recovery methods with different capabilities and scalability for
different host environments or SLA requirements. For example, AppAssure offers short recovery point objectives (RPOs; as frequent as five minutes) and recovery time objectives (RTOs; with near-instant Live Recovery) for the Windows environment; NetVault can back up more heterogeneous and larger host environments, including NAS with strong physical tape backup capabilities; and vRanger can focus on agentless virtual server backup. When sold separately, AppAssure is often deployed via the Dell PowerVault DL integrated appliance. In 2014, Dell also expanded AppAssure's cloud support to include AWS, Azure, Rackspace and OpenStack Swift-based cloud infrastructure. On the downside, despite the BDRS sales bundle, customers have to deal with the limitations of each backup technology within the bundle, such as no tape support for AppAssure.

Strengths

- Dell's BDRS, with its associated backup software and appliances, meets the vast majority of the needs of SMBs.
- For SMBs primarily protecting Windows environments, AppAssure provides advanced backup techniques for short RPOs and RTOs, as well as a simplified tapeless workflow.
- For midmarket to larger-enterprise organizations with a mix of OS platforms and tape requirements, NetVault continues to be a capable backup solution.

Cautions

- Customers planning to use multiple Dell backup applications should be aware that there is no single management console for the BDRS bundle, although the look and feel are similar among the different management tools.
- AppAssure requires high storage consumption when more-frequent recovery points than daily backup are implemented.
- Storage array snapshot integration and exploitation are not currently offered.

EMC

EMC has acquired many backup solutions in past years, including the recent Spanning SaaS backup acquisition. Its enterprise backup software focuses on Avamar and NetWorker, which are often sold together in the Data Protection Suite. EMC highly leverages Data Domain's sales momentum in bundles with those two backup products. In the past year, EMC introduced a new backup product called ProtectPoint, which represents a new backup architecture, allowing EMC's primary storage systems to send backup data directly to Data Domain, bypassing the traditional backup server bottleneck. In addition, Avamar introduced Isilon Fast Incremental, and NetWorker added block-based backup to reduce backup windows. EMC enhanced public cloud support, via the new Avamar Virtual Edition for Microsoft Azure, and CloudBoost, which enables customers to send monthly or yearly backups to the cloud for long-term retention. However, ProtectPoint and Spanning are creating additional challenges for EMC's backup integration and unification initiative, which has been slow to come to fruition. Some progress has been made with the most recent
introduction of a unified search engine across Avamar and NetWorker, and ProtectPoint can now be configured from the NetWorker UI and monitored by Data Protection Advisor (DPA).

Strengths

■ Avamar offers fast backup techniques for centralized large NAS file systems, as well as distributed file shares.
■ Avamar and NetWorker have tight integration with Data Domain, EMC’s deduplication backup target appliances.
■ EMC’s ProtectPoint offers a much faster database backup alternative to traditional backup for EMC storage array (VMAX³ today) users for supported environments.

Cautions

■ After years of promising customers, EMC still hasn’t unified Avamar and NetWorker, which remain somewhat discrete with separate catalogs, policy engines and management consoles.
■ Easier Avamar upgrades and simpler DPA reporting functions are needed.
■ Avamar doesn’t support storage platform snapshots, and NetWorker doesn’t index storage platform snapshots, which may result in time-consuming granular restores from snapshots.

FalconStor

FalconStor has been a company in transition for several years, with changes in executive staff, chief technology officers and overall strategy. However, in the last year, the vendor has stabilized these issues and delivered product proof points on its vision. The long-awaited service-oriented administrative interface has been made available with a revamped reporting engine. In addition to enhancements to the Continuous Data Protector (CDP) and Optimized Backup & Deduplication (OBD) products, a new rearchitected solution, FreeStor, has been released that is based on horizontal data services and a scale-out architecture, with a Web-based interface. FalconStor was early in the industry to embrace a different backup and recovery paradigm, utilizing its own snapshot and replication techniques (with disk-, partition- or volume-level granularity) to offer backup, high availability for failover and failback, and disaster recovery orchestration. Recovery is offered via a hierarchy of approaches that include fast-mounting read-only or writeable snapshots, point-in-time disk image rollback, or tertiary replicated copies of data. Long term, FreeStor would seem to be the strategic recovery solution; however, FalconStor says that it will offer the rest of the portfolio for many years into the future for existing customers.

Strengths

■ FalconStor offers application-aware snapshots and bandwidth-optimized replication for many platforms.
■ Users cite fast recovery via mountable snapshots for applications and file systems.
A variety of packaging options are offered — from traditional software, installation as a virtual appliance to branded appliance.

**Cautions**

- With many products in the portfolio, a brand-new strategic solution and the vendor still delivering on past objectives, proper product selection, verification of support matrices and reference checking are prudent.
- No object-level recovery of virtualized applications is offered, except for Microsoft SQL Server.
- There is no readily available self-service recovery.

**HP**

HP’s backup software and service portfolio includes three different technologies: Data Protector for data center server backup, HP LiveVault online backup services, and HP Connected Backup and Connected MX endpoint backup services. Data Protector is a contender for enterprise backup and has solid integration with HP storage, such as StoreOnce and 3PAR, as well as snapshot exploitation of third-party storage arrays. HP also released StoreOnce Recovery Manager Central to nondisruptively snapshot and backup VMware VMs between HP 3PAR and HP StoreOnce. Continuing on its multiphased Adaptive Backup and Recovery (ABR) initiative, HP introduced HP Backup Navigator in 2014, which provides job prioritization, resource forecasting and other analytics for the Data Protector environment. In the past year, Data Protector also added SmartCache as a fast recovery tier for instant access, snapshot plug-ins for third-party arrays, file archiving for lower-tier backup storage and integration with HP’s Helion Public Cloud as a backup target. For endpoint backup, HP introduced a new product (Connected MX), which has a single agent and back-end repository for both backup and file synchronization and sharing.

**Strengths**

- Data Protector is a single solution with support for a wide range of host environments, and native integration with many enterprise core applications, especially SAP.
- Backup Navigator offers Data Protector users insight into the backup infrastructure, allowing them to make fast decisions with confidence.
- Data Protector has tight integration with HP’s 3PAR snapshot process and HP’s StoreOnce deduplication backup target appliances, and can manage StoreOnce’s cloud replicas.

**Cautions**

- Customer support experiences are mixed.
- Data Protector’s Active Directory integration does not offer single item restore.
- Although Data Protector can manage array-based snapshots from many vendors, user adoption of this function remains low.
IBM

IBM’s backup portfolio has been largely based on its Tivoli Storage Manager (TSM) solution. This year, IBM announced renaming all of its storage offerings under the Spectrum brand, with TSM taking on the Spectrum Protect moniker. IBM’s backup software is packaged in bundles that range from the TSM Entry edition to protect a small number of servers to other bundles that manage multiple petabytes with a single instance. TSM’s robust policy engine, data reduction capabilities that are inherent in its architecture and scalability to the largest of enterprises are often cited as primary reasons why customers choose the solution. IBM has enhanced its third-party hardware snapshot exploitation, now supporting a broad range of vendors. Continued architectural enhancements for greater scale and performance, as well as revamped server virtualization support improvements in 2014, have been well-received. IBM has been active in courting new customers via service providers that deploy TSM in a hybrid cloud model. IBM's Butterfly software allows for migrations from other backup products and can demonstrate IBM’s favorable total cost of ownership (TCO) against competitors from real-world data. TSM’s greatest challenge has arguably been perception, with past concerns that seem to linger, despite seemingly having been addressed.

Strengths

- TSM offers broad platform support for protected systems and the ability to interface with many storage devices, and is capable of scaling to the very large enterprise.
- A broad range of IBM and non-IBM storage array snapshots are supported in the TSM recovery hierarchy, along with the ability to write data to disk, tape and cloud target devices.
- In addition to offering a broad range of backup capabilities, the TSM (Spectrum Protect) portfolio also offers file-level archiving and hierarchical space management across many OSs.

Cautions

- Despite more than a decade of releasing new layouts and underlying interface technologies, end users, including IBM’s own references, rate the TSM UI as being challenging to navigate.
- Pricing for existing customers that is based on processor value units (PVUs) is often an issue, and there can be confusion regarding the ability to change pricing models and which capacity-based method should be considered.
- Currently, VM protection requires administrator involvement for file-level recovery, and a separate management UI.

Seagate

Seagate’s wholly owned subsidiary, EVault, now part of the Seagate Cloud Systems and Solutions group, has a long history as a backup service provider with its own server backup technologies. It differentiates itself with its support for a wide range of OS platforms, support for hybrid cloud (on-site and off-site data backup and replication), and a worldwide presence through data centers it owns and those of regional partners, now supplemented by Microsoft Azure. Seagate has replaced EVault’s data center storage with its own technologies to drive down costs and enhance cloud
infrastructure diagnostics and durability. Its back-end vaults now scale up to multiple petabytes via a reference architecture, and its clustered vault supports two tiers of storage. Seagate's server backup architecture is agent-based, with "block delta forever" backup and target-side deduplication. Seagate sells a virtual appliance and a family of physical appliances scaling from 1TB up to 100TB per appliance, resulting in a 1PB total usable capacity for customers to deploy at their site for faster recovery. NetApp Ontap customers can replicate to a multitenant SnapVault system installed at Seagate's sites. In the past year, Seagate introduced a deduplication target appliance that supports Oracle Recovery Manager (RMAN) and other applications' native backup utilities. It also updated its support for all the latest Microsoft OS and application versions.

**Strengths**

- Seagate's EVault supports a broader number of OS platforms (including the IBM iSeries) and applications than most cloud backup providers.
- Its backup agents not only can write deduplicated backup data to its own cloud and partner clouds, including Microsoft Azure in worldwide locations, but also can back up workloads running on VMs within Azure.
- Seagate addresses data sovereignty, leakage and cloud security issues through multitenant architecture, available geographies and customer-held encryption keys.

**Cautions**

- Limited granular recovery capabilities are provided.
- There is no NDMP support, with backup agents supporting Windows-based NAS directly, support for other NAS using UNC, and optional NetApp backup and replication to a NetApp device at the Seagate cloud.
- Currently, instant access for VMs is supported for VMware, but not Hyper-V.

**Symantec**

Symantec announced in October 2014 that it would split back into a security company of the same name and a new, storage-focused company. The new company will be named Veritas Technologies Corporation, and the transition to a new legal enterprise is expected to be completed within one calendar year. NetBackup has retained a strong presence in the market and customer consideration has risen compared to the last several years, with very little market concern regarding the impending company change. Since the last Magic Quadrant, Symantec has released a new, larger and faster integrated appliance, further extending its integrated appliance adoption; has seen greater deployment of features such as NetBackup Accelerator for fast backups and Instant Recovery for VMware VMs; and has made strides in improving customer support. Replication Director added EMC storage arrays to its existing NetApp support. Symantec was early to exploit market interest in integrated appliances. Many existing customers found appliances an easy way to upgrade older media servers or to expand backup capabilities, with new customers finding easier initial deployment and deduplication exploitation. While this evaluation is primarily focused on
NetBackup, Backup Exec is also in the portfolio and is targeted at midsize enterprises, with a new v. 15 release that looks to have fully addressed the issues of the 2012 release.

**Strengths**

- NetBackup is scalable to very large enterprises, with protection across a wide range of OSs and applications, and a broad range of data protection capabilities.
- NetBackup features, such as Accelerator for fast backups and the OpenStorage Technology (OST) interface to back up disk devices, enabling better management of backup storage devices, are major product differentiators.
- NetBackup integrated appliances have been very successful with customers in terms of pricing, ease of deployment and ongoing management, and have had a good track record of performance and capacity improvements.

**Cautions**

- Gartner advises NetBackup customers with concerns over the two companies' futures to consider a one-year renewal while the vendor completes its stated transition.
- Since the last Magic Quadrant, there is rising evidence of improved customer support; however, references continue to rate Symantec low in this area.
- Backup Exec customers have had to overcome the residual impact of a challenging 2012 release (addressed in 2014) and the end of life of the Backup Exec appliances.

**Unitrends**

Unitrends offers a complete package of hybrid backup to the cloud and disaster recovery as a service (DRaaS), via integrated appliances or software-only offerings. The vendor supports a wide range of OSs (including iSeries, Mac and many variants of Unix), applications and hypervisors. The acquisitions of PHD Virtual and Yuruware have expanded virtualization and cloud functionality, and virtual hosts may be protected with or without agents, depending on requirements. The standard offering is an on-premises solution, with an additional hybrid option for uploading to the Unitrends Cloud or other cloud service providers. In addition to the incremental-forever backup methodology, a CDP function with data capture as often as every 60 seconds is offered. Companies can opt for DRaaS with services to assist with seeding, next-day appliance or disk carrier shipping, and disaster recovery connectivity for the failover cloud site or servers. The ReliableDR feature is offered to automate failover, failback and disaster recovery testing for physical and virtual Windows environments. Since the last Magic Quadrant, Unitrends has bolstered its Hyper-V capabilities, added NDMP support and a new line of appliances, and expanded its Unitrends Cloud to support ReliableDR and to offer a spin-up of Windows VMs. Currently, Unitrends offers multiple backup applications, with activity underway to combine them into a single solution.

**Strengths**

- Unitrends offers broad OS support, robust BMR capabilities and recently added NDMP for NAS.
The vendor ships all its appliances with tiered SSD flash storage to deliver higher performance.

ReliableDR provides fully automated, application-level-consistency sandbox testing of Hyper-V or vSphere VMs to ensure recoverability. This capability is available for on-site, Unitrends Cloud and service providers. There are plans to enhance support for physical servers.

Cautions

- New cloud geographies are planned in EMEA, but are not currently available. If Unitrends' encryption options do not meet data sovereignty requirements, international customers should verify where the backups will be stored.
- Storage array snapshot support is not currently offered.
- Organizations can delegate control based on organizational grouping, but end-user self-service is not available.

Veeam

Veeam has been recognized by customers as the leading VM backup vendor in the market, mostly due to its product simplicity, reliability and integration into VM management UIs, and partly due to a replication function included in the same product. Since many customers have virtualized more than 80% or even more than 90% of their entire data center server environment, VM backup has become a mainstream workload. Although most major competitors have caught up on some advanced functions, such as standing up new VMs from the backup repository, Veeam has maintained its competitive edge with its popular distinctive functions, such as the Veeam Explorer series and Snapshot Hunter. In the most recent release (v.8), Veeam made several enhancements important to enterprises, including end-to-end encryption; backup input/output control; support for EMC’s Data Domain Boost and NetApp’s Snapshot, SnapMirror and SnapVault; more capable and comprehensive physical tape; and Veeam Explorer for object-level restore granularity for all major Microsoft applications. Version 8 also added a self-restore portal for application owners and a set of capabilities for cloud service providers.

Strengths

- Veeam Backup and Replication is a reliable and function-rich data protection solution for VM environments.
- Veeam offers one of the least complex and least expensive enterprise backup products in the market.
- Customers comment favorably on general code reliability, agentless granular restores and instant recoveries.
Cautions

- Veeam support is limited to VMware and Hyper-V, thus other hypervisor and physical server backups are not offered.
- Veeam's native deduplication ratio is relatively low, requiring more backup storage or a dedicated backup appliance.
- While Veeam offers Universal Application-Item Recovery (U-AIR), explicit recovery support for solutions such as Domino, MySQL and Oracle is not yet offered.

Vendors Added and Dropped

We review and adjust our inclusion criteria for Magic Quadrants and MarketScopes as markets change. As a result of these adjustments, the mix of vendors in any Magic Quadrant or MarketScope may change over time. A vendor's appearance in a Magic Quadrant or MarketScope 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

No vendors were added to this Magic Quadrant.

Note that the previous vendor names of CA Technologies and EVault have changed. Arcserve is the name of the company that has spun out of CA Technologies and includes all of the open systems backup and recovery software solutions formerly from CA. EVault, which was a wholly owned subsidiary of Seagate, now has rebranded to use the parent name of Seagate, as it is now part of the newly formed Seagate Cloud Systems and Solutions group.

Dropped

Catalogic Software was dropped as it no longer met all of the inclusion criteria for this iteration of the Magic Quadrant.

Inclusion and Exclusion Criteria

In an attempt to ensure that the most market-relevant solutions were covered in this Magic Quadrant, the following 13 criteria needed to be met at the time that initial research and survey work commenced in order for a vendor to be included in the 2015 "Magic Quadrant for Enterprise Backup Software and Integrated Appliances":

1. The vendor’s portfolio must 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 software capabilities that meet the criteria below.
2. The vendor must possess some form of a backup catalog to track the protected (backed up) data, and potentially the many resulting copies of that data.

3. The solution must support files and multiple applications on Windows and either Linux or one or more Unix OS (IBM AIX, HP-UX, Solaris) in a physical and/or a virtual deployment supporting both VMware and Hyper-V.

4. The solution must natively support writing data to disk targets, and optionally support writing to a physical tape and/or a cloud destination.

5. The solution must be available for purchase as an on-premises owned/licensed program product, and not only available as a managed service offering.

6. The vendor must achieve greater than $35 million in annual new license backup software and license backup software maintenance revenue in the enterprise (greater than 500 employees) server backup market.

7. The vendor should have a growing base of customers and be actively expanding in the large-enterprise backup/recovery software market.

8. The vendor must have a disk-based backup/recovery software solution commercially available for at least one calendar year, and have at least 15 active references using the solution in a production scenario to protect heterogeneous (Windows and either Linux or one or more Unix OS) systems in a physical and/or server-virtualized environment.

9. The vendor must actively market its branded backup/recovery products in at least two major regions (for example, North America and Europe, the Middle East and Africa [EMEA], or Japan and the Asia/Pacific region).

10. If a vendor offers an integrated appliance (an appliance that contains the backup application’s master and/or media server components), this packaging and delivery model are accounted for in this evaluation. Note that, for consideration, the same vendor that provides the backup software must be the brand and point of service for the integrated appliance. This rules out third-party and/or meet-in-the-channel arrangements for consideration as an integrated appliance.

11. The provider must be the originator of the required capabilities and meet all of the above requirements via intellectual property that it owns, and not rely exclusively on third-party solutions to meet these criteria.

12. New emerging vendors should have significant market awareness among midsize and large enterprises, indicated by the number of unique Gartner user client searches from Gartner’s search analytics in the last 12 months.

13. The vendor must have briefed Gartner on its backup/recovery product within the last six months of the beginning of the Magic Quadrant activity (January 2015), and will have provided the required items and references to Gartner per this Magic Quadrant’s schedule in order to be eligible for inclusion.

Vendors were excluded if:
The backup/recovery products do not appear in the competitive shortlists of Gartner’s enterprise end-user organization clients.

The backup/recovery solution is delivered exclusively as an appliance, with no native backup application embedded in the solution.

The backup/recovery solution is delivered exclusively as a managed service.

We wish to emphasize two important criteria items:

Per inclusion criteria No. 4, to be eligible for this Magic Quadrant, a vendor must offer an enterprise backup/recovery software product, and not deliver only a disk target device. This was done to exclude those vendors that solely deliver a VTL and other disk-based backup appliances, but do not possess a backup application. Gartner evaluates these vendors in the "Magic Quadrant for Deduplication Backup Target Appliances" that covers deduplicating disk target devices to which backup software can write data.

While supporting physical tape devices is a valuable capability, tape support is not a requirement for this Magic Quadrant.

Gartner will continue to cover emerging vendors and vendors that do not yet meet the above inclusion criteria. Notable vendors that Gartner tracks include native OS and/or hypervisor providers, such as Microsoft with its Data Protection Manager and VMware with its vSphere Data Protection solution.

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 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 also be considered. The overall scalability of a single instance of the solution will also be taken into account. Also tracked is the level of customer interest and positive feedback.

Overall 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** also includes the transparency of pricing, including line item and list pricing in a bid.

- **Market Responsiveness/Record** heavily considers the provider’s three-year history of responsiveness in meeting or even being ahead of the market.

- **Marketing Execution** directly leads to unaided awareness (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.

- **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 technical requirements, differences in product support take on greater importance.

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product/Service</td>
<td>High</td>
</tr>
<tr>
<td>Overall Viability</td>
<td>High</td>
</tr>
<tr>
<td>Sales Execution/Pricing</td>
<td>High</td>
</tr>
<tr>
<td>Market Responsiveness/Record</td>
<td>High</td>
</tr>
<tr>
<td>Marketing Execution</td>
<td>High</td>
</tr>
<tr>
<td>Customer Experience</td>
<td>High</td>
</tr>
<tr>
<td>Operations</td>
<td>No Rating</td>
</tr>
</tbody>
</table>

Source: Gartner (June 2015)

**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:
For **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 shape or move the market in either a new direction or accelerate market activity and trends.

**Marketing Strategy** relates to what vendor and backup solution message is 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** is the ability for the sales team to effectively and clearly communicate the current capabilities, along with the future vision and roadmap, while also positively differentiating the vendors' offerings from the competition and alternative approaches.

For **Offering (Product) Strategy**, the vendor's offering needs to be capable of not just meeting the current and future tasks. 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** especially includes 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, along with the longer-term (three to five years) roadmap.

Table 2. Completeness of Vision Evaluation Criteria

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Understanding</td>
<td>High</td>
</tr>
<tr>
<td>Marketing Strategy</td>
<td>High</td>
</tr>
<tr>
<td>Sales Strategy</td>
<td>High</td>
</tr>
<tr>
<td>Offering (Product) Strategy</td>
<td>High</td>
</tr>
<tr>
<td>Business Model</td>
<td>No Rating</td>
</tr>
<tr>
<td>Vertical/Industry Strategy</td>
<td>No Rating</td>
</tr>
<tr>
<td>Innovation</td>
<td>High</td>
</tr>
<tr>
<td>Geographic Strategy</td>
<td>No Rating</td>
</tr>
</tbody>
</table>

Source: Gartner (June 2015)
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 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 snapshot and replication technologies. 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 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.

Challengers

Challengers can execute today, but they have a more limited vision than Leaders, or they have yet to fully bring to market, through product and marketing, their vision. They have capable products and can perform well for many enterprises. These vendors have the financial and market resources and 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 expand its market share, or does not have the same ability as Leaders to influence end-user expectations. These vendors may not devote sufficient development resources to delivering products with broad market appeal and differentiated features in a timely manner.

Visionaries

Visionaries are forward-thinking, advancing their portfolio capabilities ahead of the market, but their overall execution (often scalability or breadth of functionality and/or platform support) has not propelled them into being Challengers or possibly Leaders. These vendors are differentiated by product innovation and perceived customer benefits, but they have not achieved solution completeness or the sustained broad sales, marketing and mind share success required to give them the high 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 up to the Challengers quadrant, 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 large-enterprise scale or the overall success of competitors in other quadrants. In several cases, Niche Players are very strong in the 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 a specific vertical market or a focused recovery use case of the market and service it well, 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 develop complete functionality, or demonstrate an expansive vision or the Ability to Execute.

Context

Backup and recovery is one of the oldest 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 and a new, expanded set of vendors and approaches to consider) and challenges, such as how to protect server-virtualized environments, very large databases, remote offices, and desktops, and laptops. Gartner end-user inquiry call volume regarding backup has been rising by about 20% each year for the past seven 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/recovery providers to better meet their increasing service-level needs.

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, and 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 deduplication technology) are among the key items being sought. Ease of deployment with a rapid time to value and a greater ease of daily administration are key requirements. Mission-critical workloads are increasingly being deployed in server-virtualized environments, making VM backup a mainstream requirement. The scope of enterprise backup has expanded to sometimes include SaaS applications, ROBO locations, and desktop, laptop and tablet protection, sometimes initially or only for key company executives. 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 (endpoints,
remote office, VMs, SharePoint, etc.), to contain product costs, and/or to implement a solution that the staff will find easy to use.

Gartner Recommended Reading

Some documents may not be available as part of your current Gartner subscription.

"How Markets and Vendors Are Evaluated in Gartner Magic Quadrants"

"Best Practices for Repairing the Broken State of Backup"


"Magic Quadrant for Deduplication Backup Target Appliances"

"Cool Vendors in Business Continuity Management and IT Disaster Recovery Management, 2015"

"How to Address Three Key Challenges When Considering Endpoint Backup"

"You May Need Additional Backup to Prevent Data Loss From Your SaaS Solutions"

"Data Backup/Recovery Factors to Consider When Adopting SaaS"

"Predicts 2015: Business Continuity Management and IT Disaster Recovery Management"

"Symantec Split Provides Opportunity to Focus, but No Immediate Customer Benefit"

"Vendor Rating: EMC"

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 1,500 inquiries and conference one-on-one meetings conducted during the past 12 months with Gartner clients on the topic of backup/recovery software and integrated backup appliances. Gartner also utilizes worldwide end-user surveys, Gartner conference kiosk surveys and Gartner conference session polling data. The Magic Quadrant methodology includes the solicitation of references from each vendor; for this Magic Quadrant, Gartner conducted over 225 reference checks (via electronic survey and/or live interview) from a set of customers provided by each vendor. The included vendors submitted nearly 800 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, demos, and correspondence. Gartner also conducted an online Research Circle Poll of Gartner clients regarding backup application trends.
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.