

# Data Sheet

## FUJITSU Storage Reference Architecture for Commvault HyperScale™ Software

Data Protection for Scale-Out Infrastructure



### ETERNUS CS Data Protection Appliances

Data protection appliances from Fujitsu simplify and consolidate backup and archive infrastructures. Fujitsu specializes in mapping the right technology for individual needs depending on your business size. Our appliances offer advanced capabilities such as deduplication, replication, archiving and cross media mix, thus mitigating risk, minimizing downtime and protecting business against cyber-attack.

### Reference Architecture for Commvault HyperScale™ Software

The FUJITSU Storage Reference Architecture for Commvault HyperScale™ Software brings the benefits of the cloud - in terms of service, agility, resilience, scale and cost - to on-premises backup storage.

This data protection solution is based on pre-tested configurations and built with Commvault HyperScale™ Software and Fujitsu PRIMERGY servers, enabling organizations to build a unified, modern data protection and management platform on a scale-out infrastructure. Customers gain a fully-tested, easy-to-set-up data protection solution for backing up and archiving data in physical, virtual or cloud-based data centers.

The Reference Architecture is the data protection solution for larger scale environments (to complement the smaller ETERNUS CS200c and mid-sized Commvault HyperScale™ Appliance) developed by Fujitsu in collaboration with Commvault, a leader in storage and data protection software.



# Features & Benefits

Main Features	Benefits
Pre-tested and validated data protection architecture based on performance-leading Fujitsu hardware	<ul style="list-style-type: none"><li>■ Decreases complexity and cost significantly</li><li>■ Improves operational efficiency</li><li>■ Easy and fast deployment, simple to setup and upgrade</li></ul>
High flexibility and modular scalability with non-disruptive capacity and performance expansion	<ul style="list-style-type: none"><li>■ Increase IT agility, resiliency and availability</li><li>■ Budget security with pay what you need</li><li>■ Seamlessly grow through a scale-out infrastructure</li></ul>
Unified, modern data protection delivering cloud-like services on-premises	<ul style="list-style-type: none"><li>■ Consolidation of point solutions dramatically lowers infrastructure cost</li><li>■ Standardizes your primary, secondary, and backup environments on a common hardware platform</li><li>■ Maximizes resources by reducing complexity and administration effort</li></ul>

# Key characteristics

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## Powerful Scale-Out Data Protection

- The Fujitsu Reference Architecture is the validated reference design for the Commvault HyperScale™ Software based on Fujitsu Server PRIMERGY industry-standard server systems.
- Each reference design is validated, tested, and documented to simplify ordering, installation, administration, and support. In addition, this helps enterprises match hardware configurations and capacity to their secondary storage needs, while accelerating ROI, reducing complexity and adding greater customer value through a scale-out infrastructure.
- Fujitsu provides maintenance services for hardware and software acting as a single point of contact.

## FUJITSU PRIMERGY Rack Server

- The Fujitsu Reference Architecture is based on the PRIMERGY RX2540 representing a suited platform for Commvault HyperScale™ Software to expand and transform capabilities for customers in today's evolving software-defined world.
- FUJITSU Server PRIMERGY RX rack systems are versatile rack-optimized servers providing best in-class performance and energy efficiency. PRIMERGY servers deliver more than 20 years of development and production know-how resulting in extremely low failure rates below market average, and lead to continuous operations and outstanding hardware availability.
- The PRIMERGY RX2540 is a 2U dual-socket rack server ideal for running enterprise applications, collaboration and messaging workloads as well as traditional databases. Plus, it substantially simplifies carrying out infrastructure-related tasks like server virtualization and consolidation.

## Commvault HyperScale™ Software

- Commvault HyperScale™ Software is a powerful, cloud-ready solution bringing scale-out infrastructure to the Commvault Data Platform. The unified, modern data protection and management platform delivers cloud-like services on-premises.
- The software consolidates all the roles performed by discrete servers in the traditional data protection architecture into a single software defined stack running on a scale-out infrastructure. It spans multiple storage nodes running on Fujitsu PRIMERGY RX servers, creating a massively addressable storage pool with built-in enterprise class data management capabilities.
- All data management and storage optimization operations are distributed across the nodes, with each node capable of taking on multiple roles on demand, including moving data to cloud. Software defined resiliency and availability allows enterprises to fix failed components or nodes, mix and match different types of nodes as needed and replace or upgrade nodes seamlessly without disrupting operations or data availability.
- This simplified approach provides customers with on-premises simplicity, greater availability, resiliency, flexibility and scale for data protection or managing secondary data.

## Components of the FUJITSU Reference Architecture

- The initial configuration of the Fujitsu Reference Architecture consists of three nodes, also referred to as a block, with one PRIMERGY server as a node. Multiple blocks can be combined in the same grid providing scalability into petabytes of data. The server design is based on the four main sections:
- The core components like Chassis, CPU, Memory, RAID controller represent features of the Fujitsu Reference Architecture that do not change.
- Boot storage houses the operating system and core Commvault HyperScale™ Software binaries, while the metadata storage provides caching areas for such operations as deduplication, indexing, and extents. Boot and metadata can be either configured combined as a single storage unit or housed separately.
- Data storage houses the data footprint for the customer environment. There are several disk capacities to configure the required data storage, but use the same capacity for each node within a block.
- Optional network cards with SAS or Fibre Channel interface for tape integration or Commvault IntelliSnap® operations are validated and customizable.

# Technical details

## General Specification

Model	Fujitsu Reference Architecture for Commvault HyperScale™ Software
Capacity (net usable)	up to 288 TB per block
Supported backup and archiving software for open systems	Commvault HyperScale™ Software Commvault® Data Platform Software
Supported Environments	Physical, virtual and NAS / NDMP systems
<b>Components</b>	
Base unit	PRIMERGY RX2540 M4 LFF
Product Type	Dual Socket Rack Server
Chipset	Intel® C624
Processor	Intel® Xeon® Silver 4110 processor (8C, 2.10 GHz, TLC: 11 MB, Turbo: 2.40 GHz, 9.6 GT/s, Mem bus: 2,400 MHz, 85 W, AVX Base 1.70 GHz, AVX Turbo 2.10 GHz)
Memory	256 GB (8 modules with 32 GB), DDR4, registered, ECC, 2,666 MHz, PC4-2666, DIMM, 2Rx4
RAID controller	Fujitsu PRAID EP540i LP, RAID 5/6 Ctrl., SAS/SATA 12 Gbit/s
Hard Disk Drives	HDD SATA, 6 Gb/s, 4 TB, 7,200 rpm, 512n, hot-plug, 3.5-inch, business critical HDD SATA, 6 Gb/s, 6 TB, 7,200 rpm, 512e, hot-plug, 3.5-inch, business critical HDD SATA, 6 Gb/s, 8 TB, 7,200 rpm, 512e, hot-plug, 3.5-inch, business critical HDD SATA, 6 Gb/s, 10 TB, 7,200 rpm, 512e, hot-plug, 3.5-inch, business critical HDD SATA, 6 Gb/s, 12 TB, 7,200 rpm, 512e, hot-plug, 3.5-inch, business critical HDD SAS, 12 Gb/s, 4 TB, 7,200 rpm, hot-plug, 3.5-inch, business critical HDD SAS, 12 Gb/s, 6 TB, 7,200 rpm, 512e, hot-plug, 3.5-inch, business critical HDD SAS, 12 Gb/s, 8 TB, 7,200 rpm, 512e, hot-plug, 3.5-inch, business critical HDD SAS, 12 Gb/s, 10 TB, 7,200 rpm, 512e, hot-plug, 3.5-inch, business critical HDD SAS, 12 Gb/s, 12 TB, 7,200 rpm, 512e, hot-plug, 3.5-inch, business critical
Boot and Metadata Storage	4.8 TB (4 x SSD SATA, 6 Gb/s, 1.2 TB, Read-Intensive, hot-plug, 2.5-inch, enterprise) 960 GB (2 x SSD SATA, 6 Gb/s, 480 GB, Mixed-use, hot-plug, 2.5-inch, enterprise) PCIe-SSD AIC, 4 TB, Mixed-use, HHHL, Flash drive
Networking	PLAN EM 4 x 10 Gbit/s SFP+
Optional Add-in cards	Fibre Channel Host Bus Adapter 2 x 16 Gbit/s Qlogic QLE2692 LC-style Fujitsu PSAS CP400e FH SAS Ctrl. 12 Gbit/s 8 ports ext. PCIe 3.0 x8
Note	Mix and match options (HDD/SSD)

## Installation specification

Dimension notes	482.4 mm (Bezel) / 445 mm (Body) x 770 x 259.8 mm
19" rackmount	Yes
Note	Actual weight may vary depending on configuration
Height Unit standard	6 U
Weight	up to 75 kg
Power supply	800W hot-plug, 94% (Platinum efficiency), 100-240V, 50 / 60Hz

## Environment

Operating ambient temperature	5 - 45 °C (41 - 113 °F)
Sound pressure (LpAm)	Minimum noise : 33 dB(A) (idle) / 33 dB(A) (operating) Typical noise : 44 dB(A) (idle) / 44 dB(A) (operating)
Sound power (LWAd; 1B = 10dB)	Minimum noise : 5.6 B (idle) / 5.6 B (operating) Typical noise : 7.5 B (idle) / 7.5 B (operating)
Noise notes	Noise emissions depends on operation modes, system configuration and ambient temperature. Typical hardware configuration which is the base for measurement according to ISO 7779: 2x PSU 450W. 2x CPU Xeon E5-2630 v4 2.20 GHz, 4x RAM 8GB, HDD 2x 500GB SATA
Operating environment	FTS 04230 – Guideline for Data Center (installation specification)
Operating environment link	<a href="http://docs.ts.fujitsu.com/dl.aspx?id=589915e9-1bf8-40f7-8ba4-7cac9371f2f0">http://docs.ts.fujitsu.com/dl.aspx?id=589915e9-1bf8-40f7-8ba4-7cac9371f2f0</a>

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**Warranty**

Warranty period	3 years
Warranty type	Onsite warranty
Warranty Terms & Conditions	<a href="http://www.fujitsu.com/support">www.fujitsu.com/support</a>

**Product Related Services - the perfect extension**

Support Pack Options	Available in major business areas: 24x7, 4h Onsite Response Time (depending on country) 9x5, 4h Onsite Response Time (depending on country) 9x5, Next Business Day Onsite Response Time
Recommended Service	24x7 Onsite Service with 4h Onsite Response Time
Service Lifecycle	5 years after end of product life
Service Weblink	<a href="http://www.fujitsu.com/fts/products/product-support-services">www.fujitsu.com/fts/products/product-support-services</a>

**Compliance**

Compliance notes	There is general compliance with the safety requirements of all European countries and North America. National approvals required in order to satisfy statutory regulations or for other reasons can be applied for on request.
Compliance link	<a href="https://sp.ts.fujitsu.com/sites/certificates">https://sp.ts.fujitsu.com/sites/certificates</a>

### Fujitsu products, solutions & services

In addition to FUJITSU Reference Architecture for Commvault HyperScale™ Software, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

#### Fujitsu Portfolio

Built on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offerings. This allows customers to select from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

#### Computing Products

[www.fujitsu.com/global/products/computing/](http://www.fujitsu.com/global/products/computing/)

#### Software

[www.fujitsu.com/software/](http://www.fujitsu.com/software/)

### More information

Learn more about Fujitsu Reference Architecture for Commvault HyperScale™ Software, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.  
[www.fujitsu.com/eternus](http://www.fujitsu.com/eternus)

### Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment. Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT. Please find further information at <http://www.fujitsu.com/global/about/environment>



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