



# Powerful guard against ransomware attacks

## Fujitsu CS800 RA (Reference Architecture)



Reports of ransomware attacks paralyzing companies and city administrations for months are now unfortunately commonplace. The extent of the threats has become alarming, forcing both small and large organizations to quickly establish strategies and solutions to effectively strengthen business resilience. The Fujitsu CS800 RA simplifies this task significantly. The cost-effective reference architecture provides advanced protection against ransomware and is very easy to deploy.

### **Our resilience strategy: reliable data protection for all business scenarios**

Fujitsu has built a comprehensive service and data protection portfolio that addresses a wide range of scenarios to cover all customer requirements. With target appliances, integrated reference architectures, tape solutions and our ecosystem with leading partner software, we always focus on maximum cost effectiveness and long-term investment protection.

The Fujitsu CS800 RA adds a reference architecture to the portfolio, providing advanced functionality against ransomware. The new building block features enhanced protection against ransomware and secures businesses with data replication, encryption, and secure snapshot technology.

This is combined with powerful deduplication capabilities that reduce storage requirements by up to 95%.

While the cost-effective reference architecture is relevant for any organization, it is primarily for channel partners to address small and medium-sized businesses (SMBs). For this reason, the CS800 RA was designed as a reference architecture that is very easy to deploy. This especially paves the way for SMBs, which typically have less comprehensive IT organizations, to effectively secure their business against ransomware attacks.

All levels of responsibility benefit from the design and various application options of the CS800 RA.



### IT architect/IT admin

- Reliable hardware platform from Fujitsu
- Efficient deduplication
- Easy-to-manage hypervisor and secure backup target



### IT purchasing

- Data reduction for certain data speeds up recovery
- Reduced infrastructure requirements as Veeam Data Mover Service (VDMS) does not require a gateway



### IT manager

- Secure snapshots protect data on virtual storage appliance
- Tape provides air gap as last line of defense



### Business manager

- Ransomware protection allows the manager to quickly decide whether a timely recovery is possible or whether paying a ransom makes sense

## Fujitsu CS800 RA – specific features



Immutable snapshots to isolate your data



Deduplication factor of up to 20



Quickly and successfully recover to meet SLAs



Support for NAS protocols and all leading backup software suites



No additional licensing fees required



# How the CS800 RA makes data protection cost-effective and easy to deploy

## Bundled data protection system

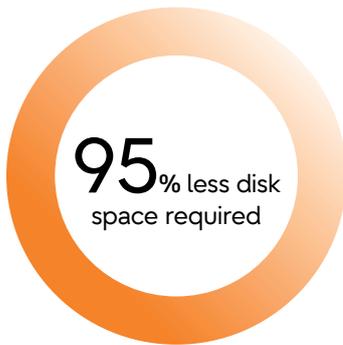
The Fujitsu CS800 RA is a virtualized data protection software stack on PRIMERGY servers with 6th generation Intel® Xeon® Scalable Processors, VMware® ESXi hypervisor and Veeam® Data Mover Services (VDMS). This makes ordering, licensing and deploying reliable protection against ransomware attacks a breeze.

## Super-fast backup and recovery

The CS800 RA can be flexibly equipped with high-speed disks to accelerate the deduplication process and overall system performance. At the same time, the integrated Veeam Data Mover Service (VDMS), which supports synthetic full backups on the CS800 RA from previous full and incremental backups, enables super-fast backup and recovery processes while reducing demands on client devices, backup servers and networks.

## Deduplication reduces backup volume by up to 95%

The Fujitsu CS800 RA uses a variable-length deduplication algorithm that reduces the backup storage by approximately 95%, depending on the data structure. You save disk capacity and gain time for more complete backups and fast restores, even of older data. Also, because replication uses deduplicated blocks, you need significantly less bandwidth for the network connection between the replication source and replication target.



## Flexible scalability enables cost-optimized growth

The Fujitsu CS800 RA is based on a PRIMERGY x86 server with two sockets in a compact 2U chassis, which is the first choice for demanding use cases such as collaboration, AI, business processing, graphics rendering or in-memory databases. The system offers outstanding performance, scalability, and expandability so you can economically meet future demands.



## Comprehensive ransomware protection

The Fujitsu CS800 RA offers flexible replication options, advanced encryption and secure snapshot. Using secure snapshot technology, snapshot data is stored in an isolated, secure location within the CS800 reference architecture. This data cannot be deleted or encrypted. Thus, backups (snapshots) are immutable and provide a high level of protection and fast recovery. Ultimately, secure snapshots make it easier for you to reliably meet the RTOs and RPOs required by SLAs.

## Easy integration into data protection infrastructures

The Fujitsu CS800 RA supports NAS protocols and all leading backup software suites. This greatly simplifies the consolidation of heterogeneous environments in our data-driven, hybrid world.

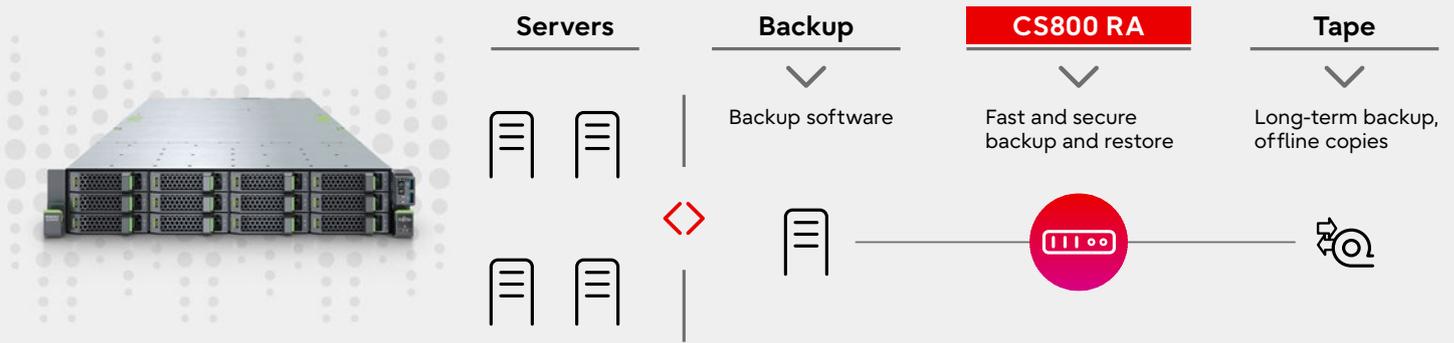
## Ransomware causes massive economic damage

Ransomware is a malware that encrypts important files making it inaccessible until a demanded ransom is paid to unlock the files. Ransomware directly leads to system downtime and thus loss of business, and it subsequently damages the reputation of the company, resulting in loss of confidence among customers and partners. Every 11 seconds, a business falls victim to a ransomware attack. Experts at Cybersecurity Ventures estimate that by 2031, ransomware attacks will occur every two seconds and annual damage will increase from about \$20 billion today to \$265 billion<sup>1</sup>.



<sup>1</sup> Source: <https://cybersecurityventures.com/global-ransomware-damage-costs-predicted-to-reach-250-billion-usd-by-2031/>

# How the Fujitsu CS800 RA fits into your IT infrastructure



The CS800 RA provides a powerful architecture for comprehensive data protection that integrates seamlessly into any IT infrastructure. Built on a PRIMERGY server RX2540 M6, the reference architecture offers market-leading virtualization and backup technologies with VMware ESXi hypervisor and Veeam Data Mover Service.

## Secure Snapshot provides a first layer of defense against ransomware:

Snapshots of shares are created on a customer-defined schedule and stored in a non-network addressable location on the CS800 RA. The snapshots are kept for a specified time and then automatically deleted (no manual deletion possible). To restore, the admin selects snapshot(s) via the management interface.



## Benefits at a glance



**Fast backup and restore**  
eliminates bottlenecks,  
ensures fast access to files



**Cost-effective backup through deduplication**  
saves time on backup and recovery, lowers media costs



**Easy to procure, easy to deploy**  
minimizes purchasing and implementation effort



**Disaster recovery through replication**  
makes unrivaled protection affordable



**Immutable snapshots**  
provide optimal protection against ransomware and other cyber attacks



**Support of all backup software suites**  
simplifies consolidation in one central solution



## Fujitsu CS800 RA – designed to meet a wide variety of requirements

The Fujitsu CS800 RA is an ideal solution for small and mid-sized enterprises due to its ability to replicate backup data. This paves the way for the realization of a wide range of applications:

- **Regular automated backups to the central data center:** This simplifies data backup in branch offices or subsidiaries, which typically have less IT expertise and often no dedicated IT resources to manage daily backup operations.
- **Backup infrastructure consolidation:** The CS800 RA enables small, mid-sized and large enterprises to sustainably reduce the complexity and cost of backups.
- **One reference architecture for all backup applications:** Many IT organizations run various backup apps, which can be deployed on a single CS800 RA.
- **Protection of hybrid environments:** The CS800 RA can thwart cyberattacks with immutable storage in physical, virtual and hyper-converged environments.

No matter what data protection challenges you face, Fujitsu provides a one-stop-shop for all data scenarios and storage needs. Combining Fujitsu storage systems with leading partner technologies, we safeguard data integrity and ensure always-on data availability – a key factor determining business success. With over 50 years of experience providing storage solutions, we master any challenge arising from digital transformation and data growth.

Visit us on [www.fujitsu.com/dataprotection](http://www.fujitsu.com/dataprotection) and discover more about Fujitsu data protection.

