

FUJITSU

FUJITSU
shaping tomorrow with you

Infrastructure Solutions to
Address Data Protection
Challenges

Manuel Namuth

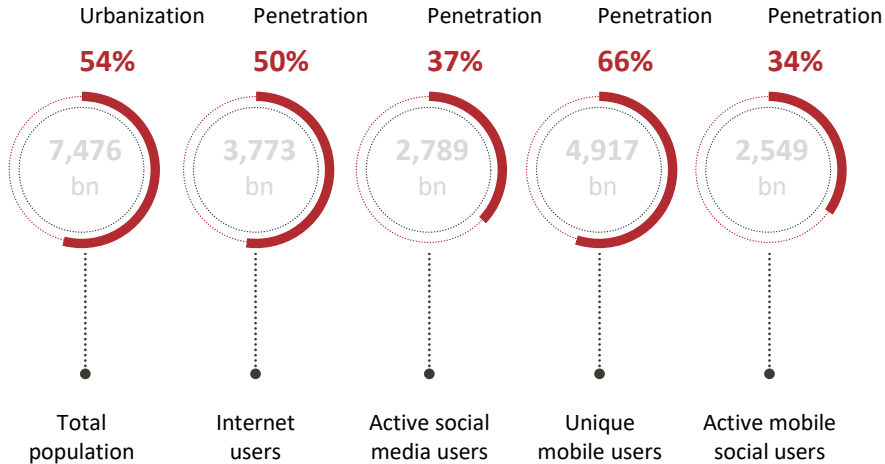
Product Manager ETERNUS CS
EMEIA Category Management Datacenter



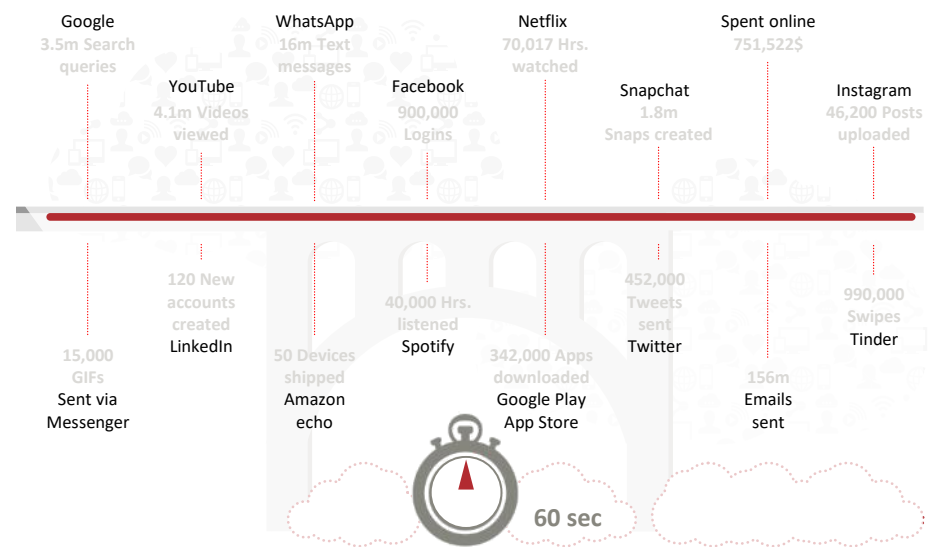
The Digital Explosion is here!

Global digital snapshot, January 2017

Key statistical indicators for the world's internet, mobile and social media users



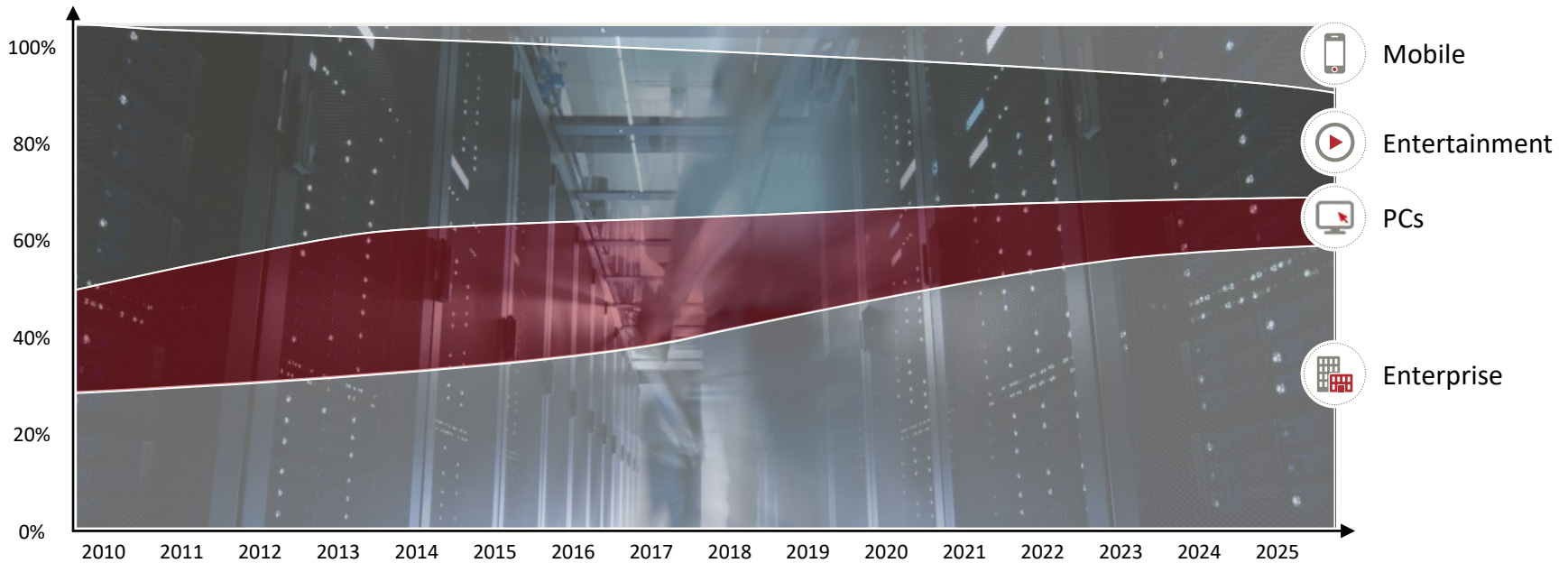
The real anatomy of an internet minute



Size of the digital universe will double at least every two years!

SOURCE: <http://www.businessinsider.de/everything-that-happens-in-one-minute-on-the-internet-2017-9?r=US&IR=T>
<https://hootsuite.com/newsroom/press-releases/digital-in-2017-report>

Where will all this data be stored?



By 2025 the global data sphere will grow to 163ZB (that is a trillion gigabytes)!
Majority of which will be stored in Enterprises.

Business Drivers and Storage Requirements



Digital Business Growth



Digital Business Continuity

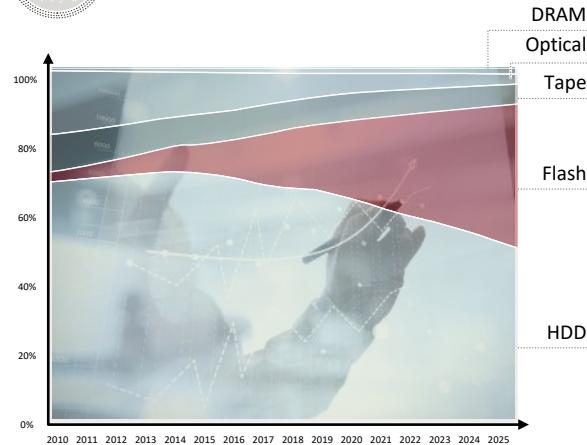


Digital Business Efficiency

Business Drivers and Storage Requirements



Digital Business Growth



Source: Data Age 2025, IDC Whitepaper

- Storage Requirements
- Extensive scalability @ reliable response time



Digital Business Continuity



Digital Business Efficiency

Business Drivers and Storage Requirements



Digital Business Growth

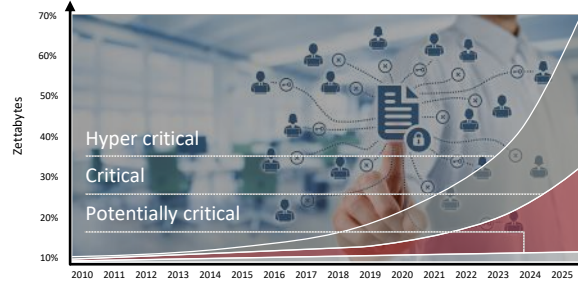


Source: Data Age 2025, IDC Whitepaper

- Storage Requirements
- Extensive scalability @ reliable response time



Digital Business Continuity



Estimates for average costs of downtime at an organization came in at around \$9,000 per minute¹ last year.

¹ 2016 Costs of Data Center Outages, Ponemon Institute, January 2016

- Storage Requirements
- Always access to business data



Digital Business Efficiency

Business Drivers and Storage Requirements



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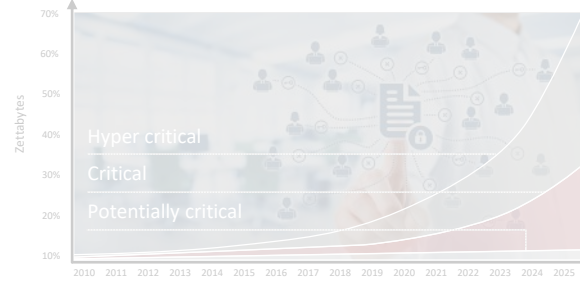


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Digital Business Continuity



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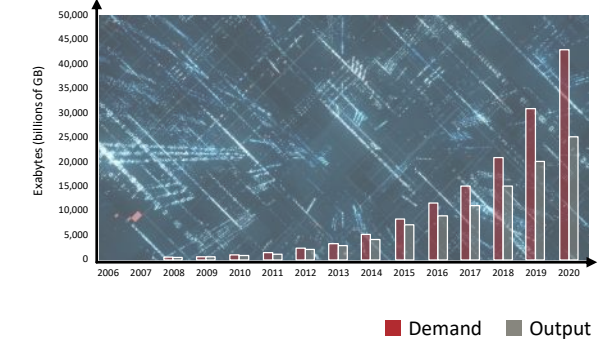
¹ 2016 Costs of Data Center Outages, Ponemon Institute, January 2016

- Storage Requirements
- Always access to business data



Digital Business Efficiency

Storage Supply & Demand



Source: Data Age 2025, IDC Whitepaper

- Storage Requirements
- Enable data growth without growing storage costs

Objectives of ETERNUS Storage Solutions



Business-Centric Storage

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Business-Centric Storage

Align storage resources with business priorities

Objectives of ETERNUS Storage Solutions



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Align storage resources with business priorities

Drive utilization and consolidation for reducing costs of storage

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**Better
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at lower
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**Better
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Business-Centric Storage for all usage scenarios

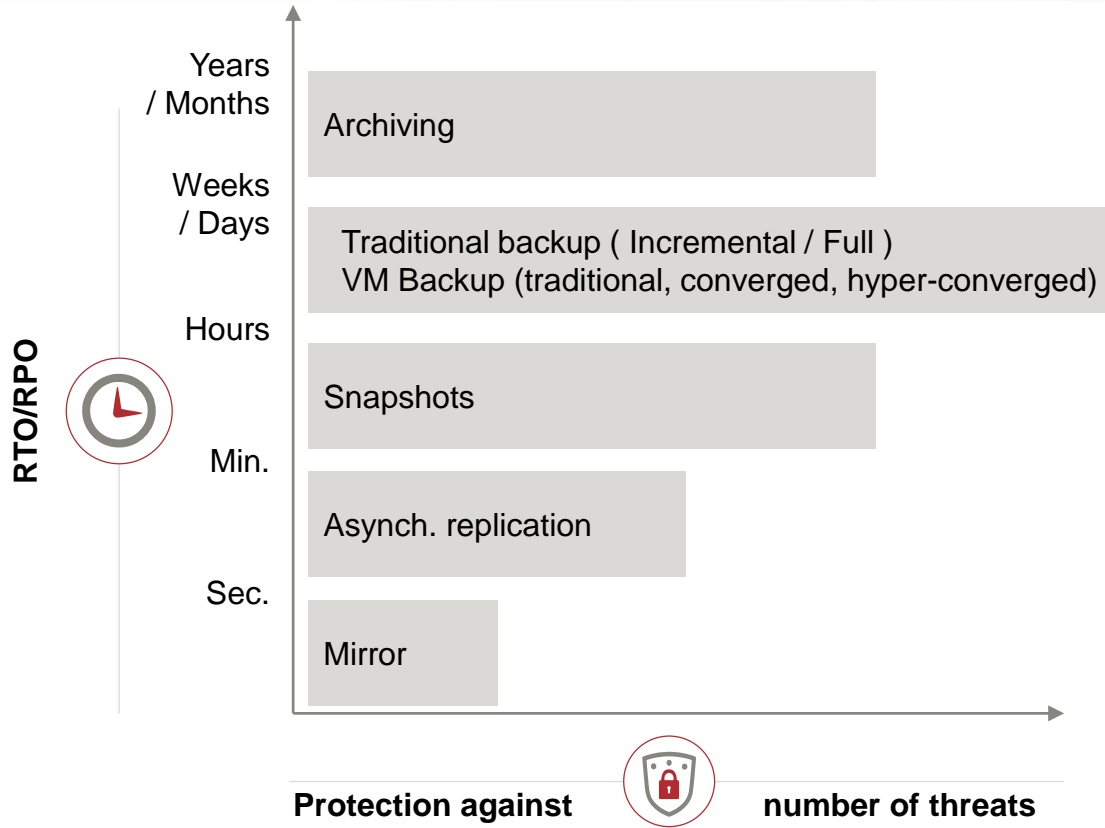
Accelerate Data

Consolidate Storage

Hyperscale Storage

Protect Data

Data Protection: What could be covered



 **Never forget the recovery aspect**

Simplify your Backup and Archive

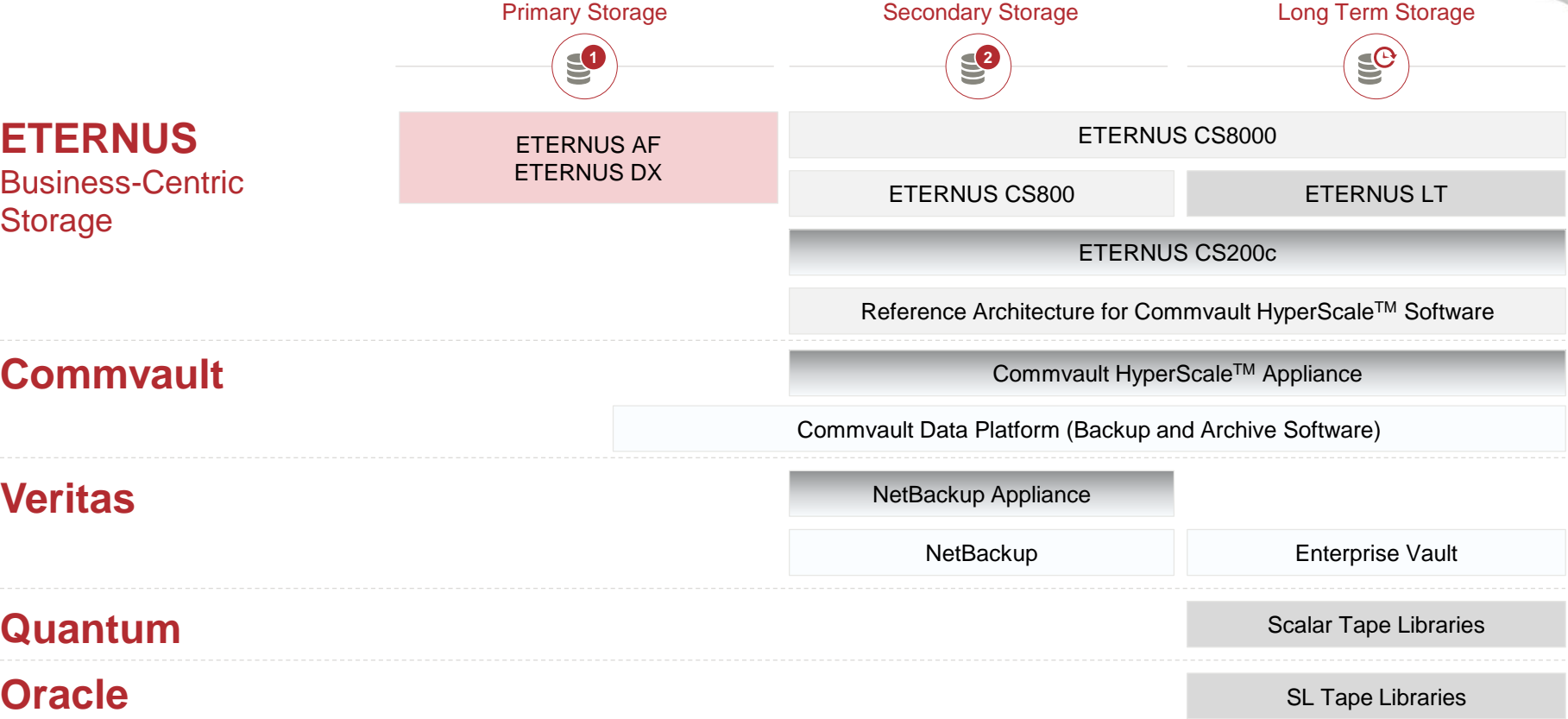


Businesses not able to
reopen after a disaster

25%-
45%



Eco-system for the entire data lifecycle



Data Protection Appliances



Out of the box,
pre-loaded,
pre-configured,
right-sized

Executes data handling
directly on storage,
**working together with
all backup software**

Optimize your data protection
environment according to your
individual business needs



Target appliances
ETERNUS CS800
ETERNUS CS8000



Integrated appliances
ETERNUS CS200c
NetBackup Appliance
Commvault Appliance

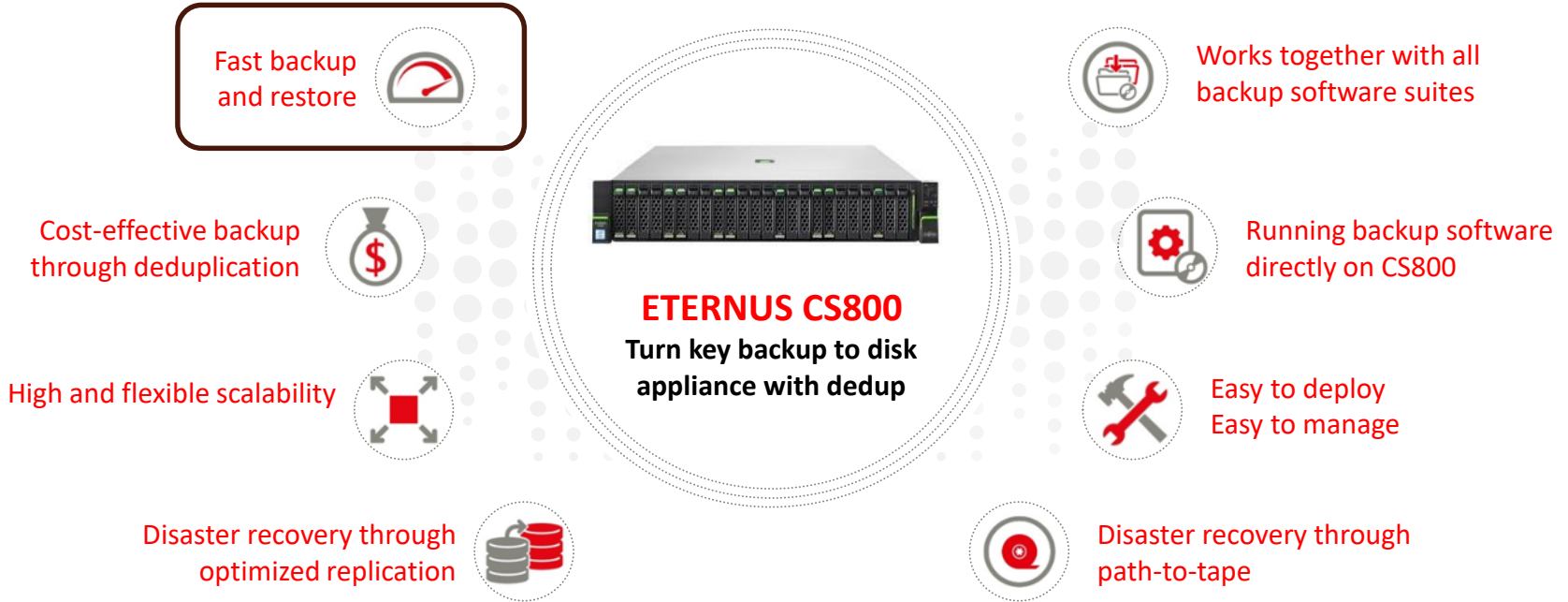


ECO System
Comprehensive portfolio
of appliances, tape
solutions, data protection
software and services

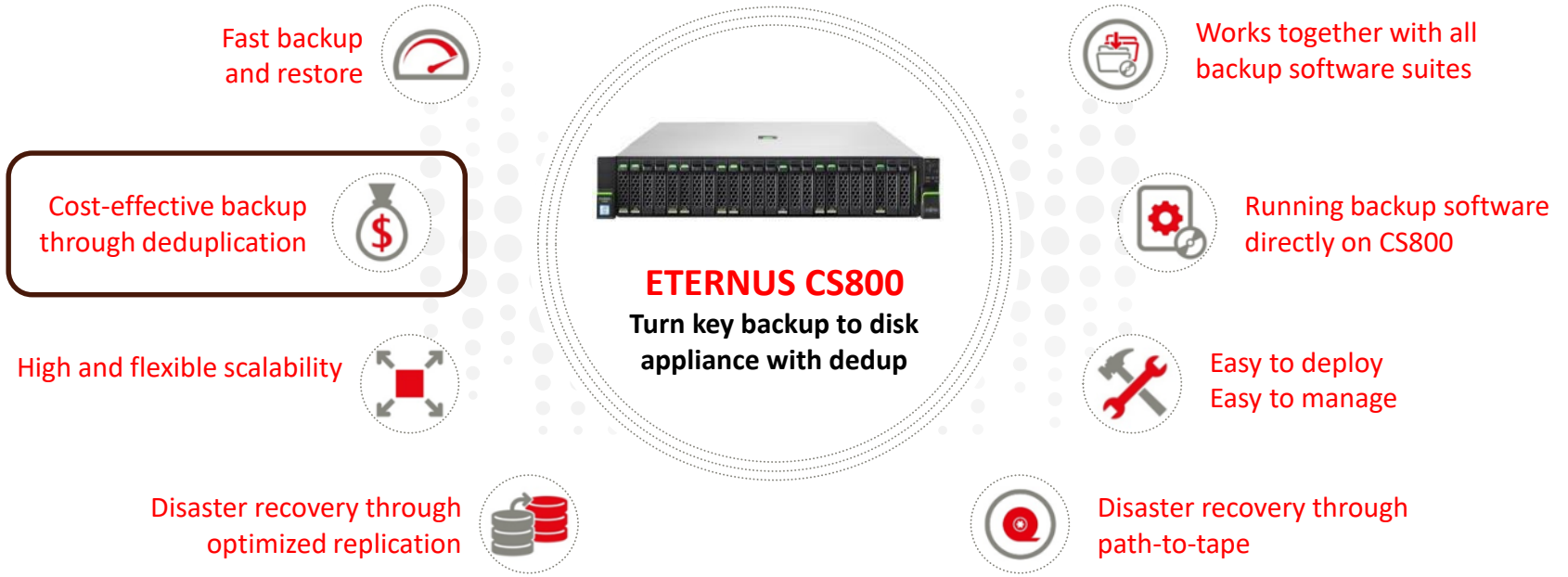
Purpose Built Backup Appliances

- Target Appliance Solution – ETERNUS CS800

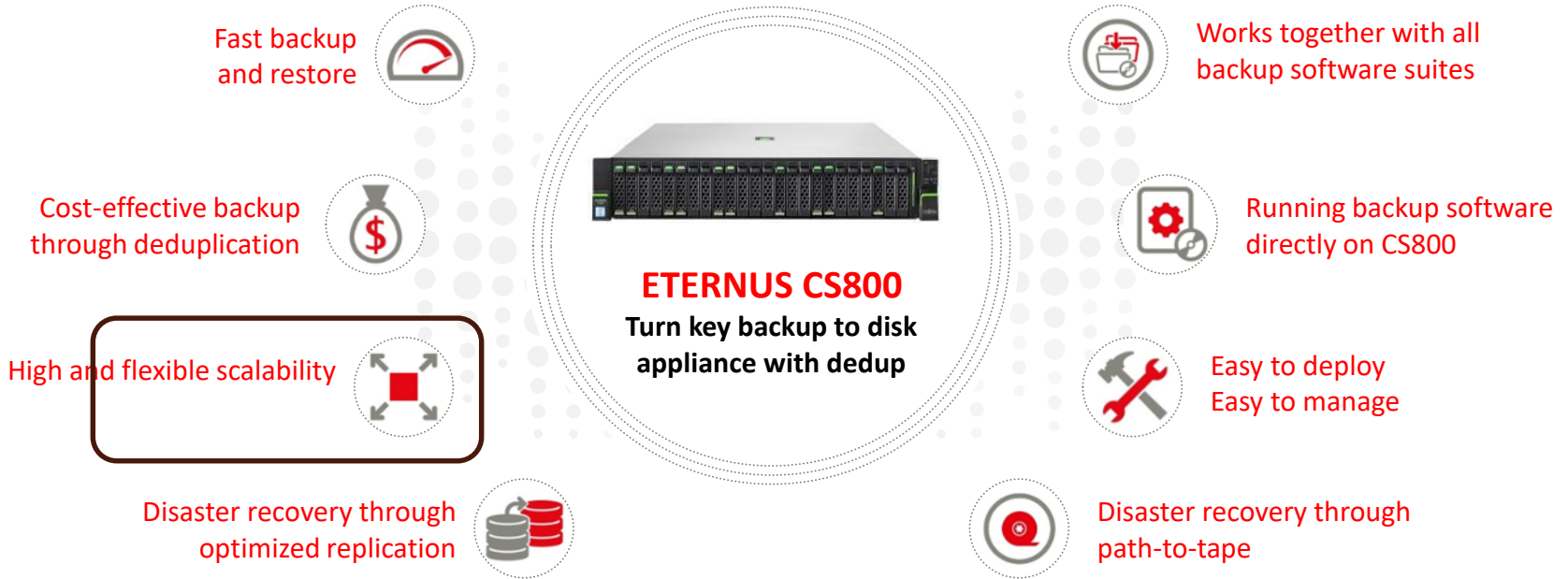
ETERNUS CS800: optimized backup storage



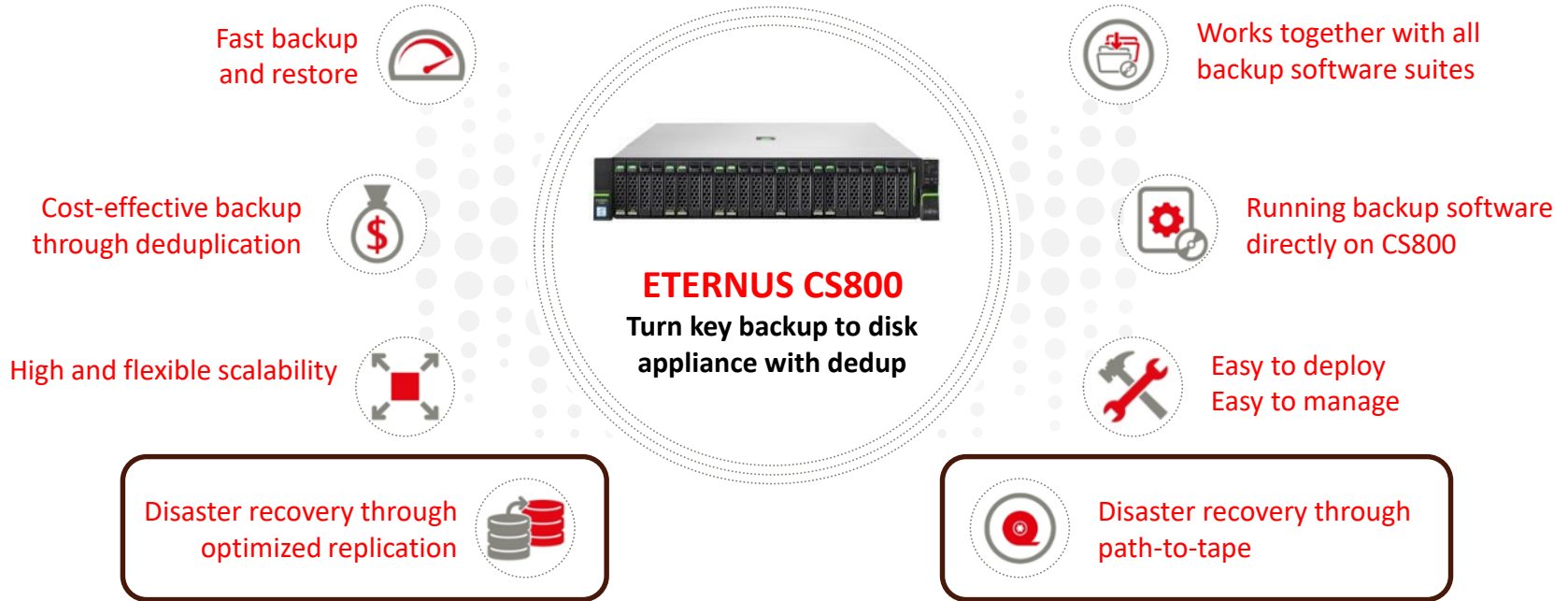
ETERNUS CS800: optimized backup storage



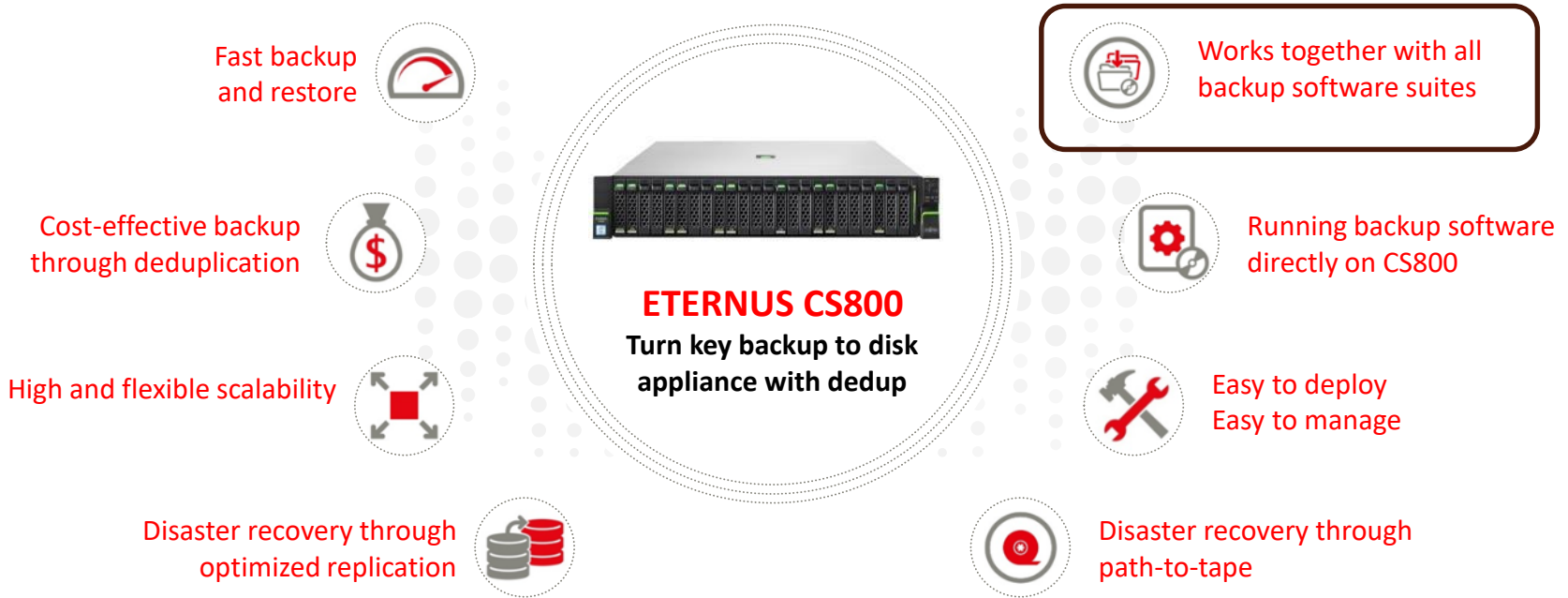
ETERNUS CS800: optimized backup storage



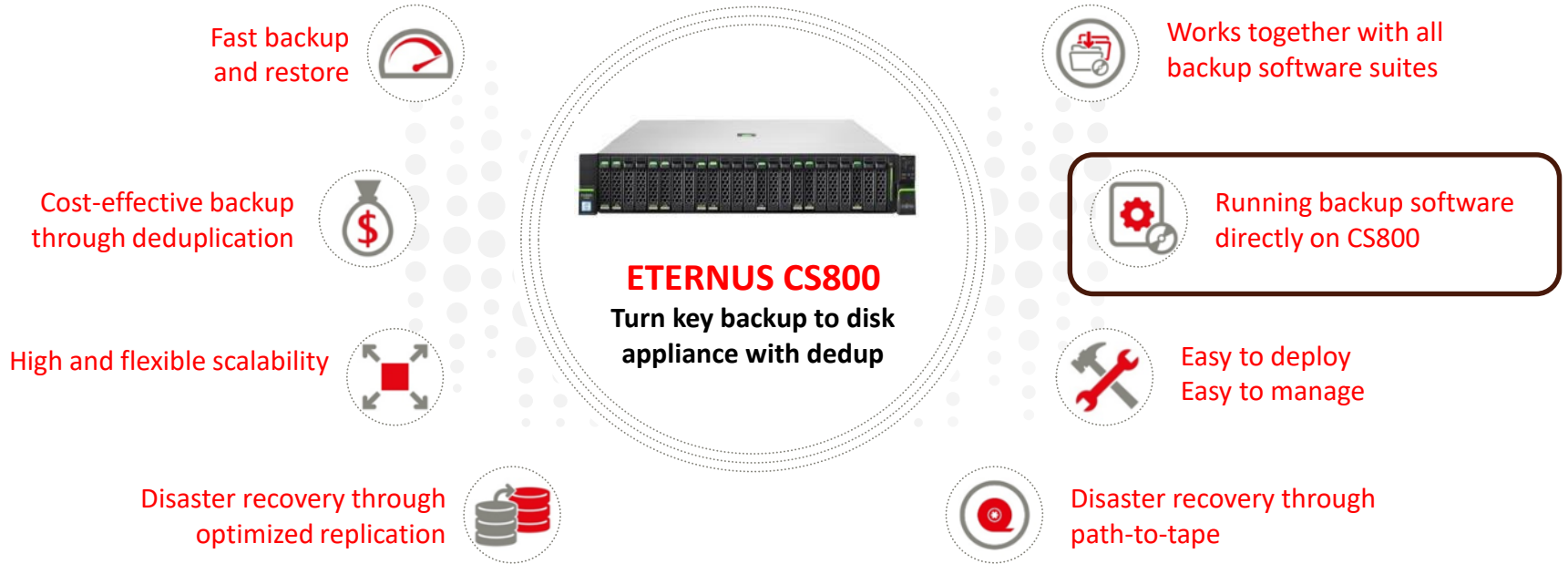
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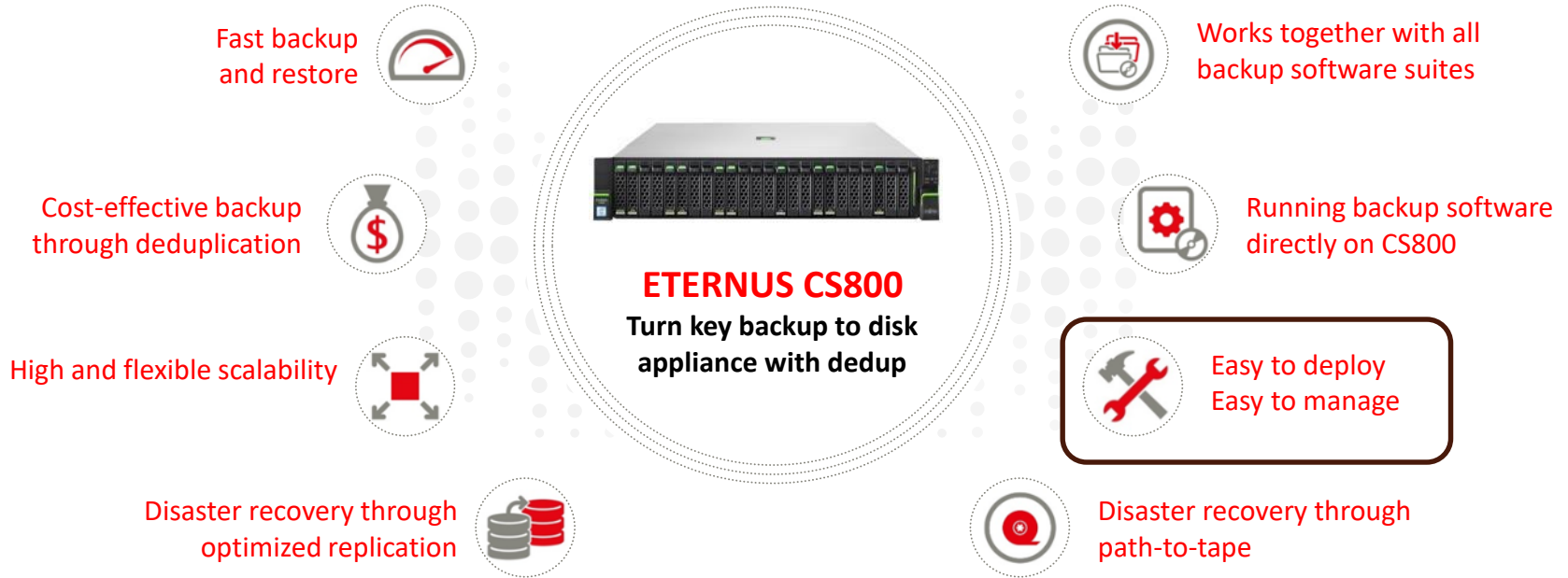
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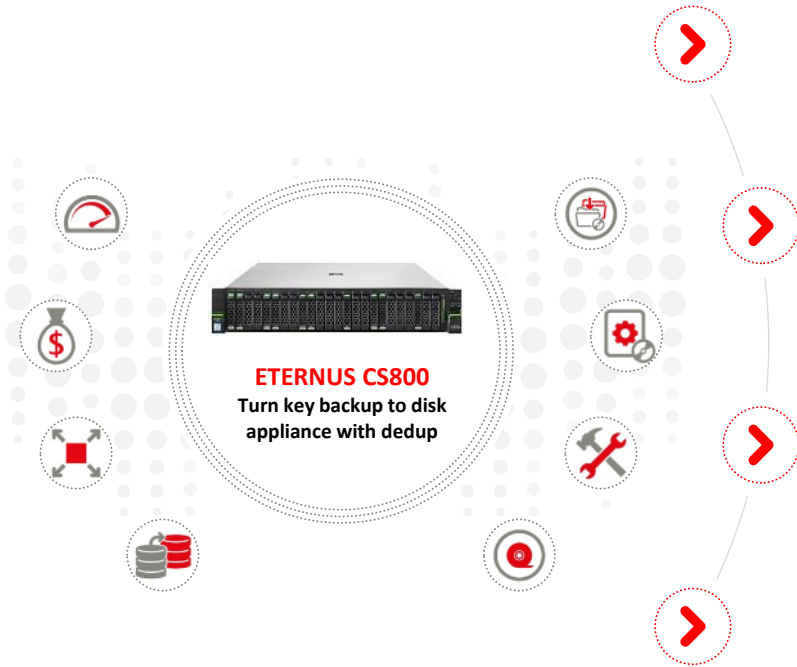
ETERNUS CS800: optimized backup storage



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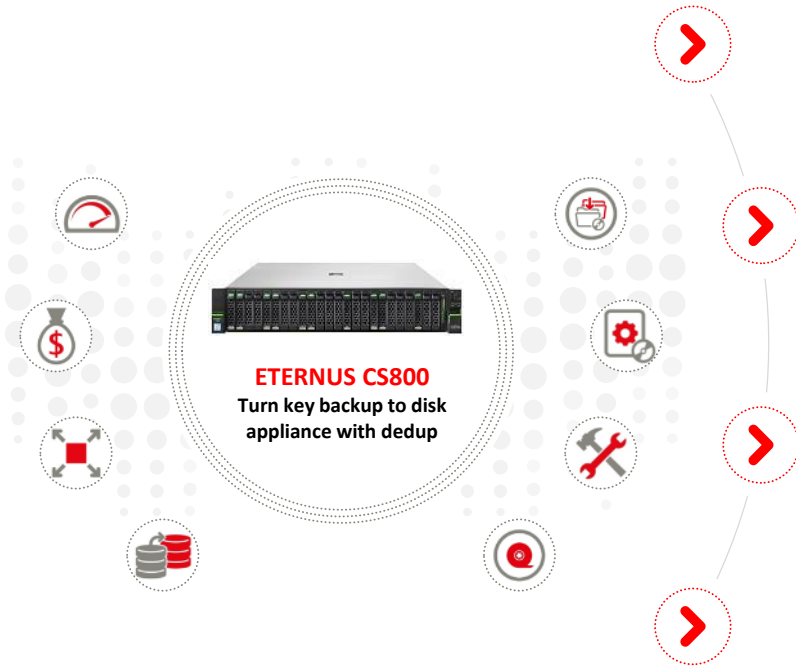
ETERNUS CS800 is ideal for



Medium and large enterprises

- Consolidation of backup IT for medium and large enterprises

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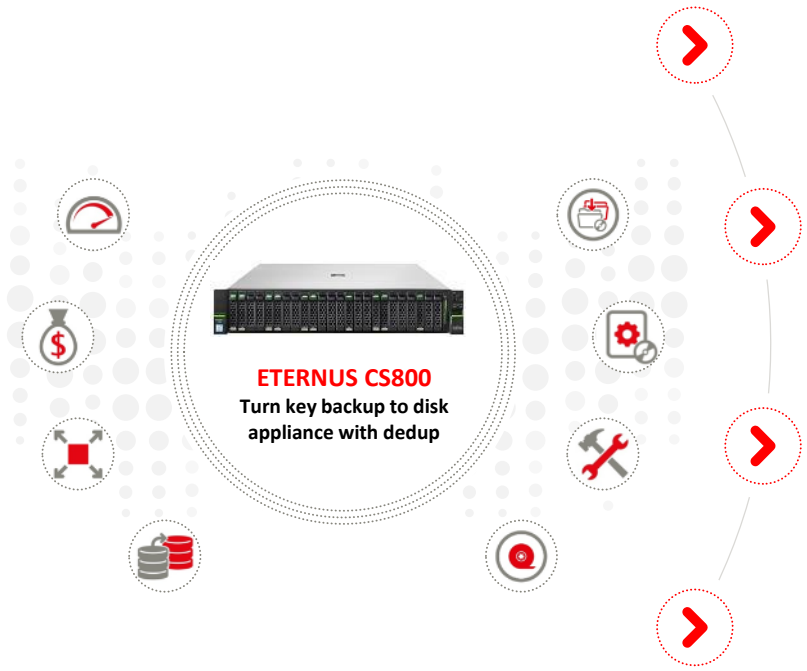
Medium and large enterprises

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Branch offices/subsidiaries

- With no or limited IT staff
- Replication of backups from branches to central IT

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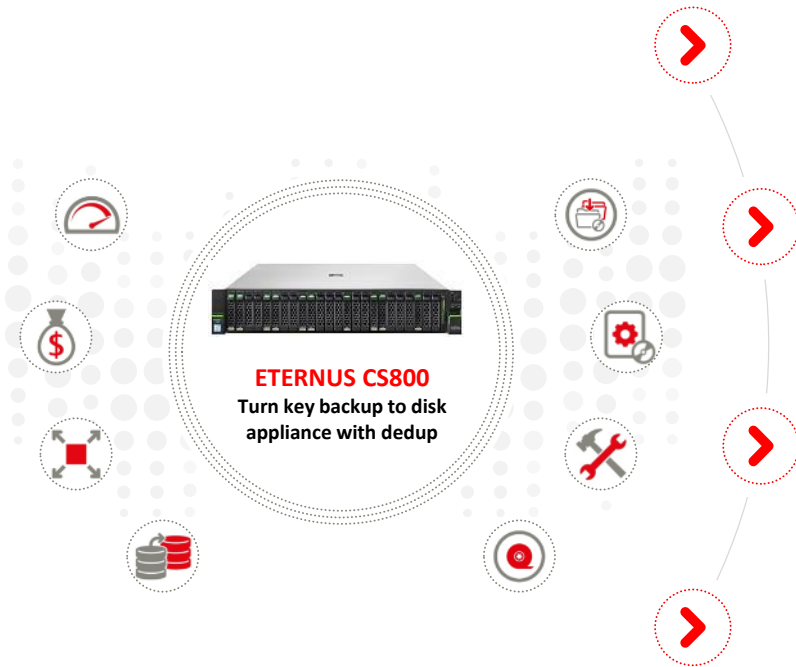
Branch offices/subsidiaries

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For IT organisations with multiple backup apps

- Single appliance for all backup applications

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Branch offices/subsidiaries

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For IT organisations with multiple backup apps

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Backup for

- Physical, virtual and hyper-convergent environments

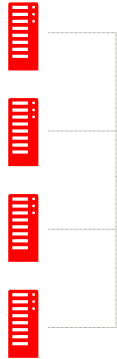
How ETERNUS CS fits into the IT infrastructure

Servers

Media Server

ETERNUS CS800

Tape



backup SW

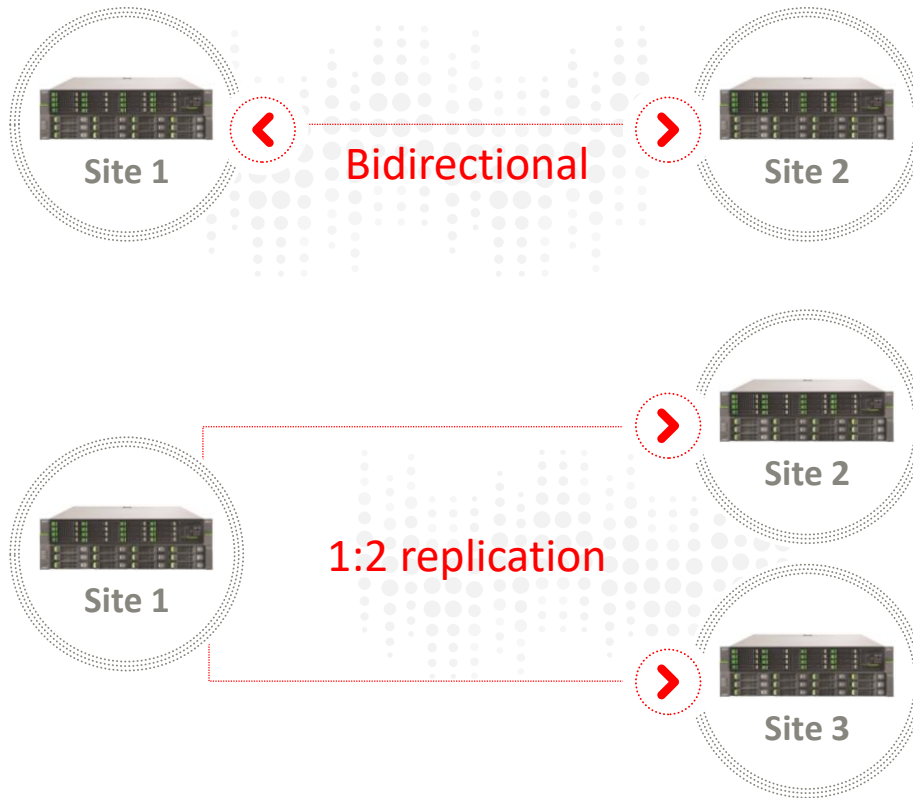


fast backup & restore



long term archiving,
offline copies

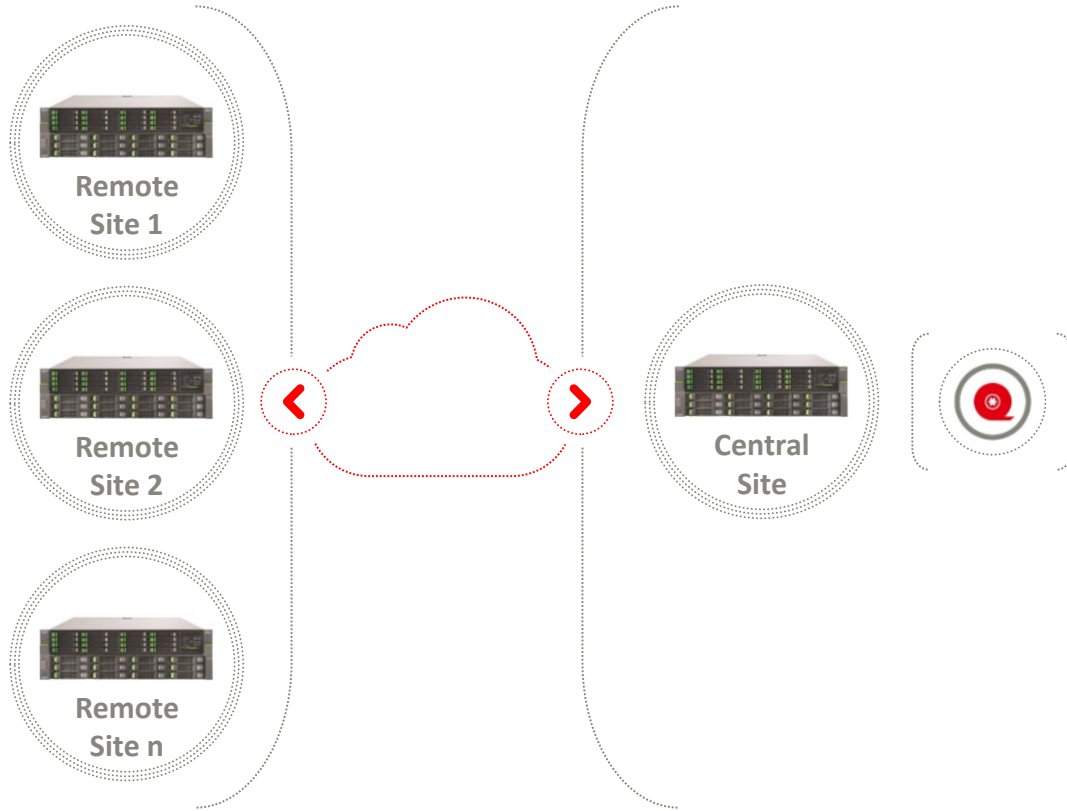
Proven disaster recovery



Benefits with ETERNUS CS800

- Integrated replication
 - Bidirectional
 - 1:2 replication
- Reduced network bandwidth
- 32 replication snapshots to recover any day of entire month

Distributed sites/branch office concept



Benefits with ETERNUS CS800

- Multi-site backup and disaster recovery strategy
- Local Backups with deduplication at branch offices
- Disaster recovery replication to central data center

ETERNUS CS800: key benefits 1/2



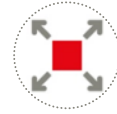
Fast backup and restore

- Fast backup up to 22 TB/h (SPEED mode)
- Enabling users to selectively access important files



Cost-effective backup through deduplication

- Reduce disk capacity up to 95% decreasing media cost
- Reduce network bandwidth requirements for replication



High and flexible scalability

- Scale up to 640 TB
- Pay as your business grows with flexible capacity
- Fair and proportional pricing



Easy to deploy, easy to manage

- Automated process eases daily operational tasks
- Graphical User Interface
- Integrated Wizards

ETERNUS CS800: key benefits 2/2



Disaster Recovery (DR) through replication

- Replication of backup data for disaster protection
- Enhances DR with bi-directional, many-to-one replication



Disaster Recovery through path to tape

- Create additional copies to tape for long term archiving
- Protection against ransomware by storing tape copies offline



Works together with all backup software suites

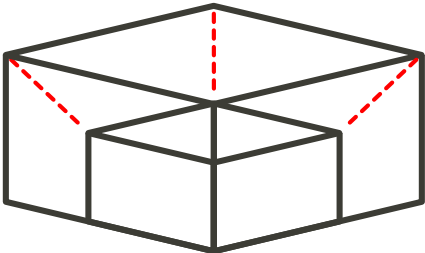
- Continue to use your backup-SW of choice
- Consolidate all backup copies, deduplicated on a single appliance



Running backup software directly on ETERNUS CS800

- Reduce additional hardware for media server/data movers

ETERNUS CS800: High and flexible scalability



ETERNUS CS800 ENTRY
8 – 24 TB

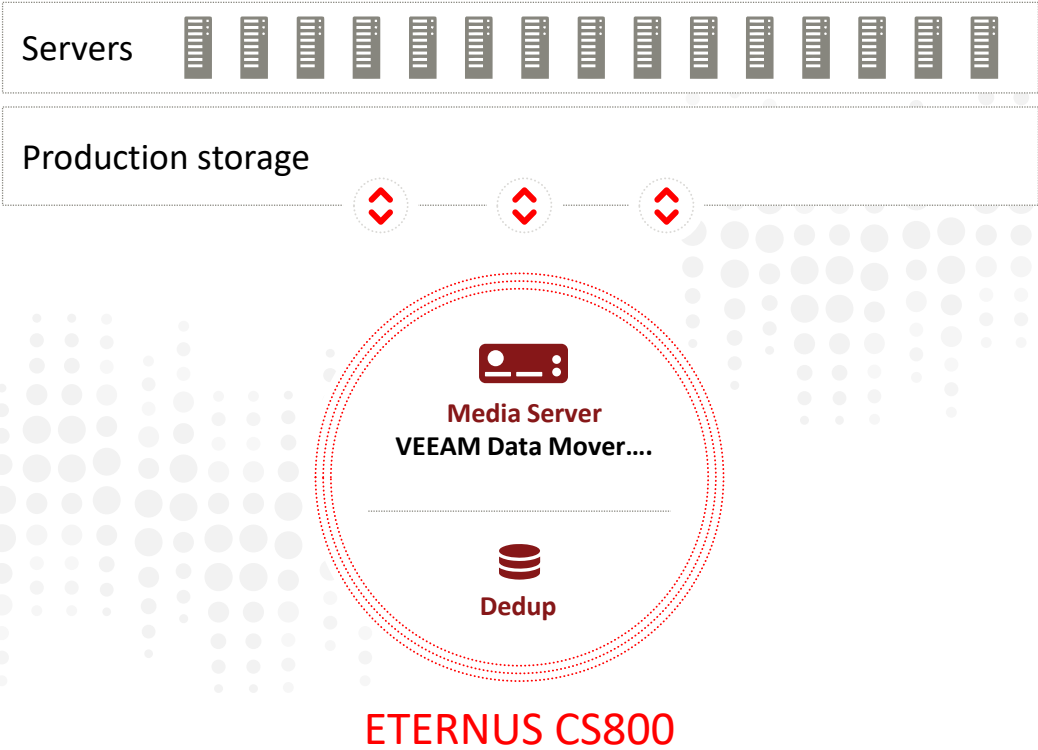


ETERNUS CS800 FLEX
16 – 280 TB



ETERNUS CS800 SCALE
16 – 640 TB

Running VDMS on ETERNUS CS800



Veeam integration

VDMS – Veeam Data Mover Service

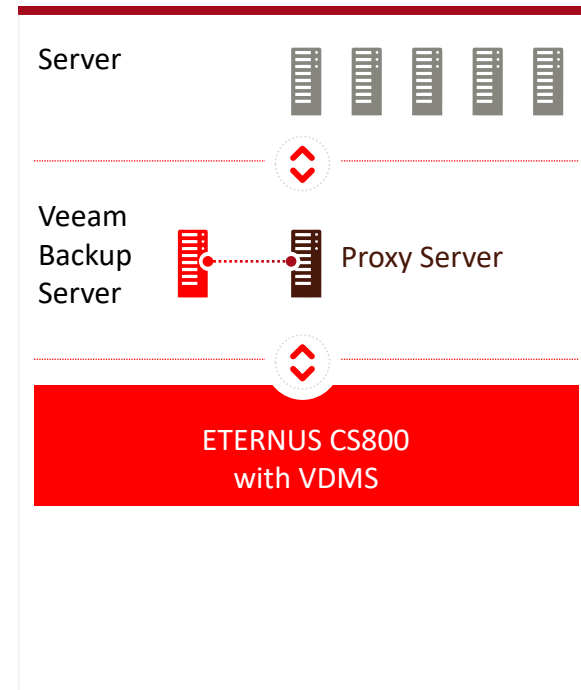
- Performs data processing tasks on behalf of Veeam Backup & Replication
- Veeam Agent (VAE) runs in the ETERNUS CS800 process space

Supporting advanced features

- Synthetic full
- IVMR – Instant Virtual Machine Recovery

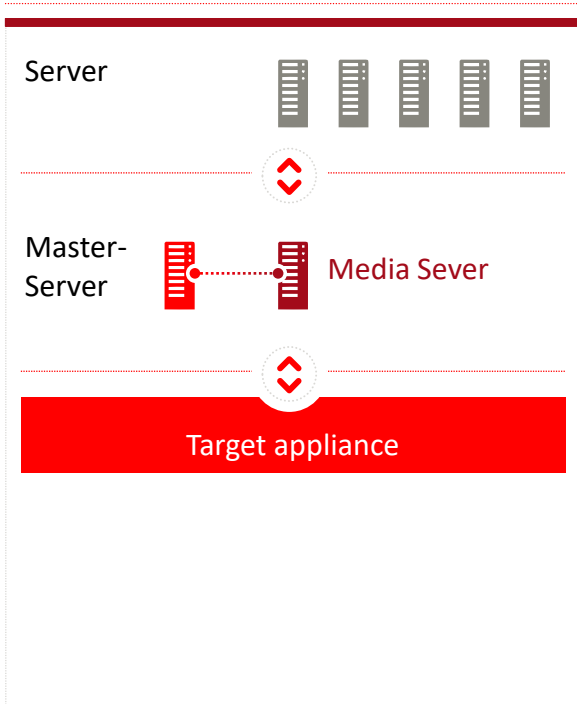
- No need for an extra Gateway server
- Lower network load/
Shorter backup window
- Global deduplication
(Compatible with Veeam deduplication)

ETERNUS CS800 with VDMS

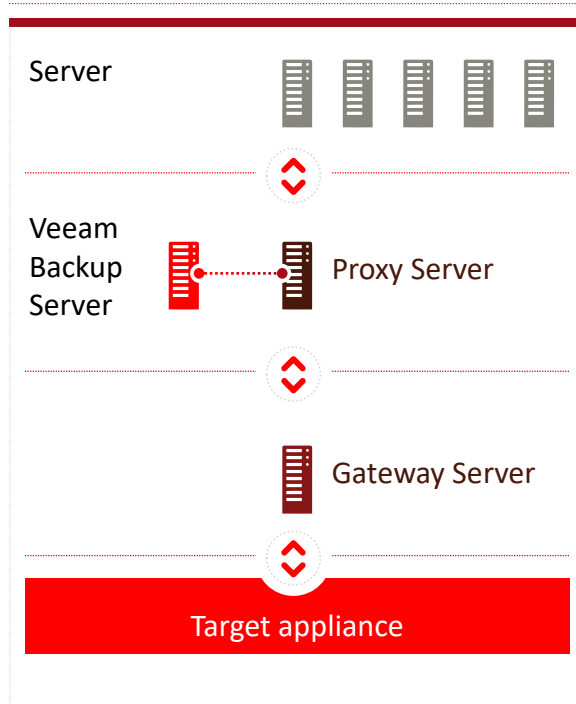


Integration with VEEAM SW

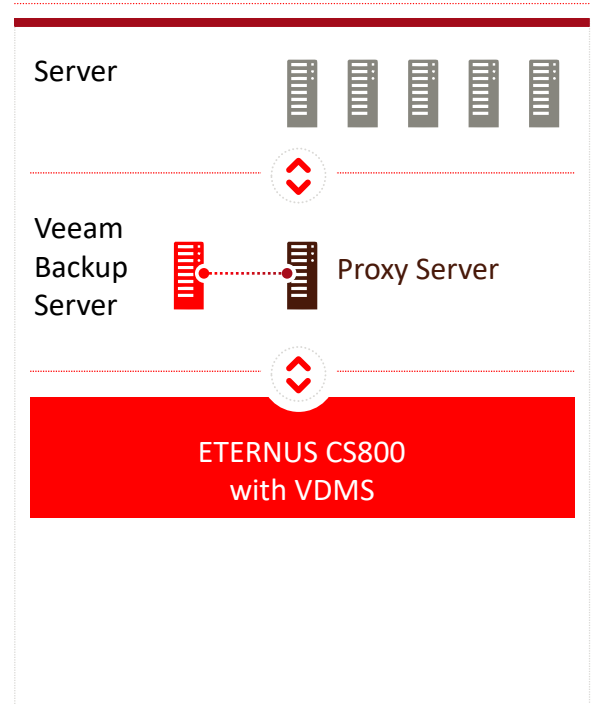
Typical Target appliance environment



Target appliance in Veeam environment

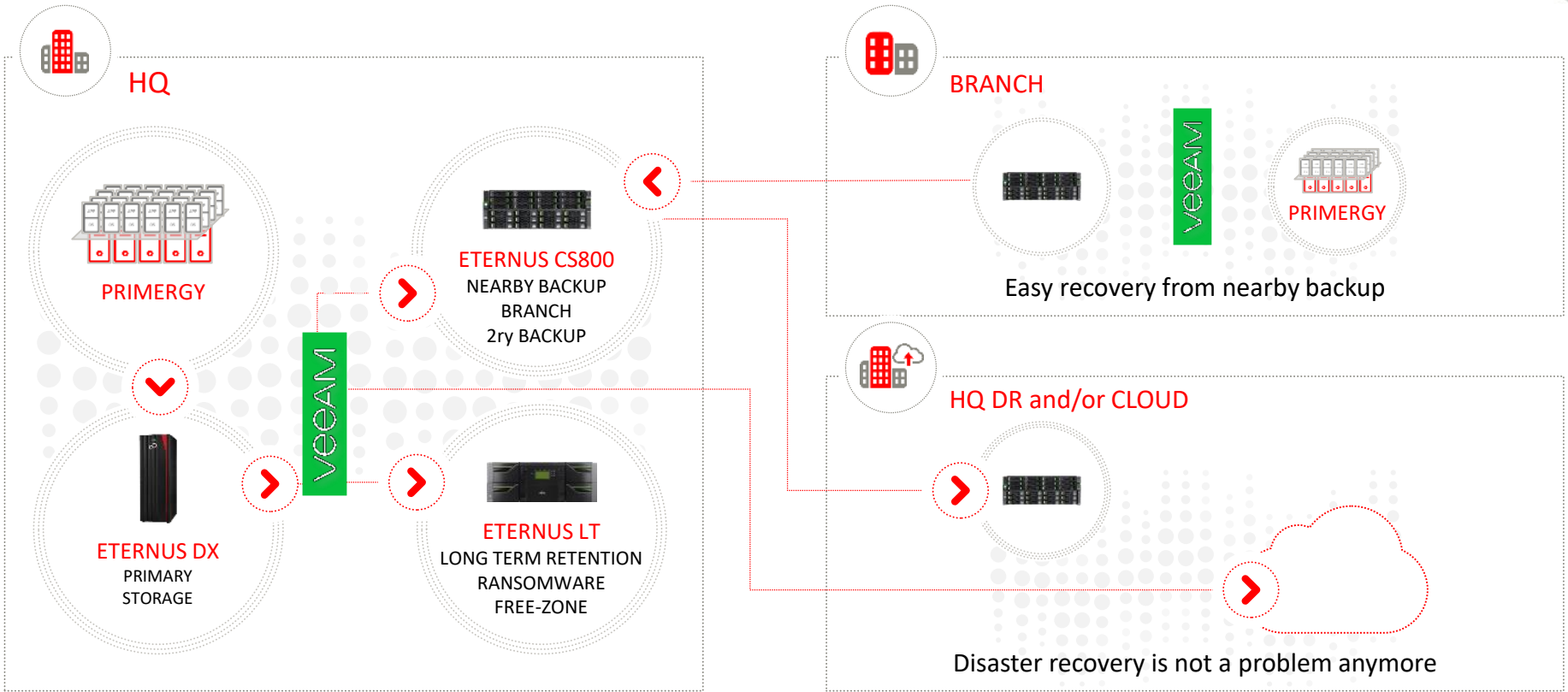


ETERNUS CS800 with VDMS*

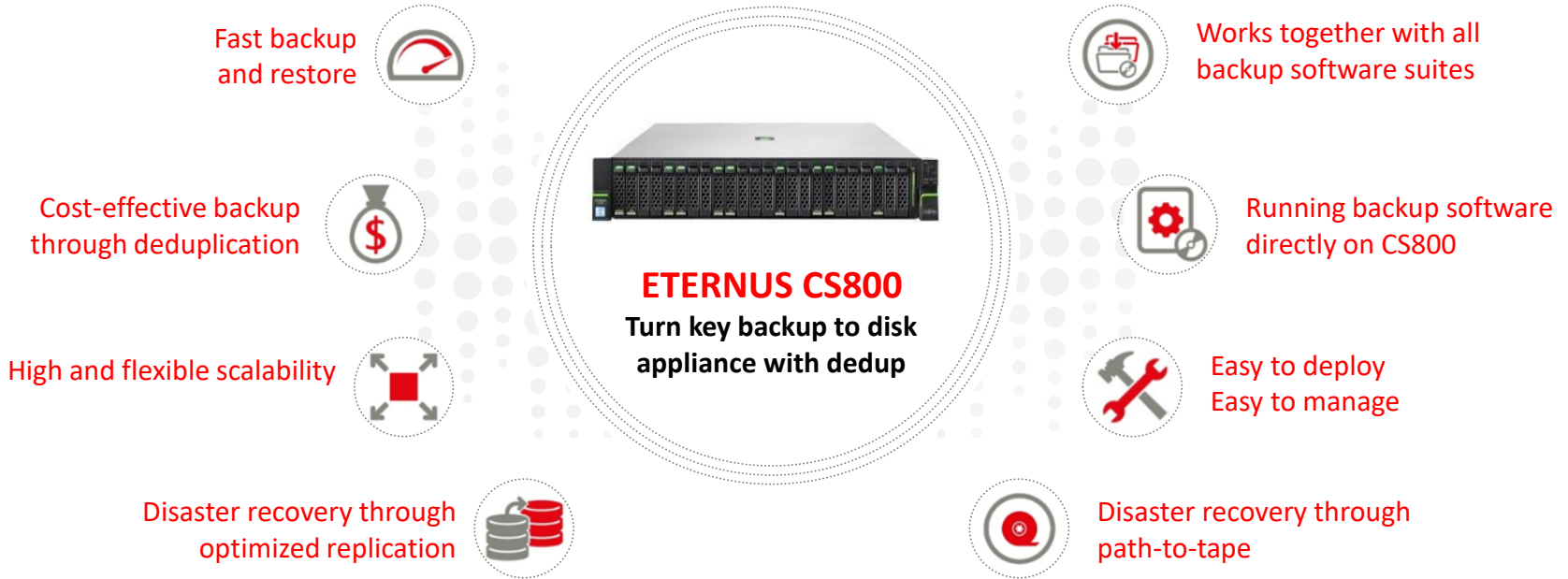


* VDMS – Veeam Data Mover Service

Example: VM backup solution with VEEAM



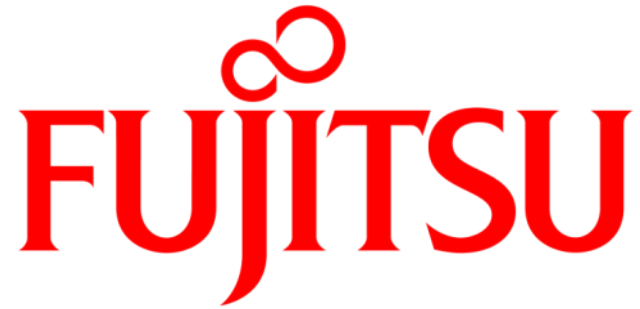
ETERNUS CS800: optimized backup storage



"It is not the smartest nor the strongest that survive – but those, most adaptive to change."

Charles Darwin



The logo features a red infinity symbol positioned above the word "FUJITSU". The word "FUJITSU" is rendered in a bold, red, serif typeface. The letter "J" is stylized with a curved tail that extends downwards and to the left.

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