As digitization continues, chaos in the management of infrastructures, application landscapes and exponentially growing data volumes seem inevitable. To prevent this, IT organizations need to rethink their approach – moving away from traditional architectures and toward flexible concepts that allow challenges in different areas to be met simultaneously. With more than 72% of large enterprises committing to software-defined storage for their future data infrastructure*, software-defined storage (SDS) is emerging as a key to better managing data.

ETERNUS Data Service Platform (DSP) provides the SDS approach in an end-to-end solution that also intelligently combines the strengths of on-premise IT with those of the cloud, so that companies are best prepared for the challenges of the digital world. ETERNUS DSP is a software-based data services platform that powers high-performance application environments at a global scale with game-changing data orchestration and automation, all at a 70% lower total cost of ownership and operation. The platform delivers a cloud-like data infrastructure for your most important applications running in containers, virtual machines or even on bare metal.

With ETERNUS DSP you invest once in your storage platform and be prepared for all future requirements - no matter if new applications, new locations or new data.

Learn more about ETERNUS Storage: www.fujitsu.com/eternus

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Benefit throughout the life cycle with ETERNUS DSP

- Deploy with minimal configuration, add resources at any time
- Automate everyday storage operations with app templates
- Automatically expand, flexibly configure nodes
- Simplify maintenance with redundancy/high availability
- Easily and safely perform technological renewals

*ESG Master Survey Results: 2019 Data Storage Trends
Live the data dream!

Data is becoming increasingly valuable for businesses. Data is revolutionizing healthcare, supply chains and production in almost every industry. In sectors such as food, fashion or entertainment, data makes it possible to predict the next big trend. In fact, data is the strongest weapon to be successful in competition.

However, data-driven business requires the right environment. One reason for this is that in the digital world, the value of data no longer decreases with age, it is rather the case that data today becomes more valuable over time. Meanwhile, the volume of data continues to grow exponentially, and mainly unstructured data is generated in an increasingly distributed infrastructure at the edge, core and cloud. What’s more, the application landscape is also becoming more complex. Thus the digital business is ultimately at risk of leading to data, infrastructure and application chaos. Software-defined storage (SDS) is the approach to successfully counteract the looming chaos:

- Any type of storage can be assigned to any application at any time.
- The right storage is always available for every type of data.
- The storage infrastructure can be operated, expanded and modernized cost-effectively.

SDS is the key to avoiding chaos in distributed infrastructures and application landscapes and managing unchecked data growth – so you can successfully live your data dream!

ETERNUS Data Services Platform: flexible and powerful

In the digital world, flexibility is a decisive factor for success. ETERNUS DSP meets this requirement in an impressive way. For example, the platform is ideal for the following applications:

- **Private Cloud**
  - Scale out storage provides maximum flexibility and operational longevity
  - Policy-based composability provides management at scale

- **Virtual Machines**
  - Open protocols and disaggregated approach simplify operations
  - Predictive analytics drive optimized infrastructure

- **Container workloads**
  - API first design and rapid provisioning provide flexibility to manage high velocity environments
  - Application templates drive label-based provisioning

- **Storage as a Service**
  - Strong multi-tenancy and advanced networking provide secure flexibility
  - Per volume controls allow for broad SLA from single platform

- **Database acceleration**
  - High performance and low latency enterprise-class performance
  - System wide consistency group snapshots
ERNUS Data Services Platform delivers an efficient scale-out architecture with latencies of less than 200 microseconds, comprehensive data services, quality of service and a throughput of up to 5.7 million IOPS in a 32 node configuration that can be scaled on demand. With state-of-the-art enterprise-class data services, the platform also combines the best features of enterprise storage and cloud storage in one solution. For example, ETERNUS Data Services Platform provides fast self-healing, continuously optimizes all internal data placements, supports live data migrations, and enables policy changes on the fly.

Intelligent data orchestration and advanced automation eliminates tedious manual tasks, saving you valuable time and money in storage administration. By using machine learning and policy-based automation, predictive operation becomes possible, reducing overall costs by up to 70% and ensuring continuous availability. Through telemetry we make it possible for the platform to learn from the insights gathered from thousands of installations globally. The data from the entire system uncovers potential for improvement and enables you to optimize policies for maximum efficiency. In addition, ETERNUS DSP improves infrastructure awareness through a flexible self-service portal for up to several petabytes of block and object storage, virtual machines and containers.

ETERNUS Data Services Platform is completely future-proof. You can run multiple service pools of 32 storage nodes each, and use any combination of storage device types including Flash, NVMe Flash, NV-DIMM-N, and persistent storage devices, as well as any new storage devices that come to market in the future from any storage vendor. Even the deployment of heterogeneous nodes with different hardware generations is possible. The dynamic, policy-driven storage model enables the immediate adoption of data services at the volume level. And comprehensive, easy-to-manage functionality enables you to reduce overall costs by 70%. For example, you can scale over ethernet and save significant costs for dedicated storage arrays. Predefined service levels and the DSP engine save you a lot of time when defining and implementing QoS levels. Another option is flexible data tiering with the ability to run different price/performance tiers in one cluster.
ETERNUS Data Service Platform at a glance

Storage nodes for ETERNUS DSP

<table>
<thead>
<tr>
<th>Model number</th>
<th>EDSP201AF</th>
<th>EDSP201BF</th>
<th>EDSP201CF</th>
<th>EDSP201DF</th>
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<tbody>
<tr>
<td>Node model</td>
<td>19.2 TB</td>
<td>38.4 TB</td>
<td>69.1 TB</td>
<td>92.2 TB</td>
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<td>Node type</td>
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<td>All-Flash</td>
<td>All-Flash</td>
<td>All-Flash</td>
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<tr>
<td>Number of nodes</td>
<td>4 to 32</td>
<td>4 to 32</td>
<td>4 to 32</td>
<td>4 to 32</td>
</tr>
<tr>
<td>Minimum expansion</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Memory (RDIMM)</td>
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<td>384 GB</td>
<td>384 GB</td>
<td>384 GB</td>
</tr>
<tr>
<td>Cache (NV-DIMM-N)</td>
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<td>16 GB</td>
<td>16 GB</td>
<td>16 GB</td>
</tr>
<tr>
<td>Rack units</td>
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<td>1 U</td>
<td>2 U</td>
<td>2 U</td>
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<tr>
<td>NIC</td>
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<td></td>
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<tr>
<td>Host interface</td>
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<td>2 ports 10 GBASE</td>
<td>2 ports 10 GBASE</td>
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<tr>
<td>Interconnect</td>
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<td>2 ports 40 GBASE</td>
<td>2 ports 40 GBASE</td>
<td>2 ports 40 GBASE</td>
</tr>
<tr>
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<td>1 port 1000 BASE-T</td>
<td>1 port 1000 BASE-T</td>
<td>1 port 1000 BASE-T</td>
</tr>
</tbody>
</table>

For information on the management software, please see the data sheet.

TYPICAL SDS SHOPPING

- Tedious procurement of the individual components
- Difficulties in harmonization and security

ETERNUS DSP

- Fujitsu offers superior support for all components of SDS systems from one single source
- Pre-tested and validated offering
- Faster time to market

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