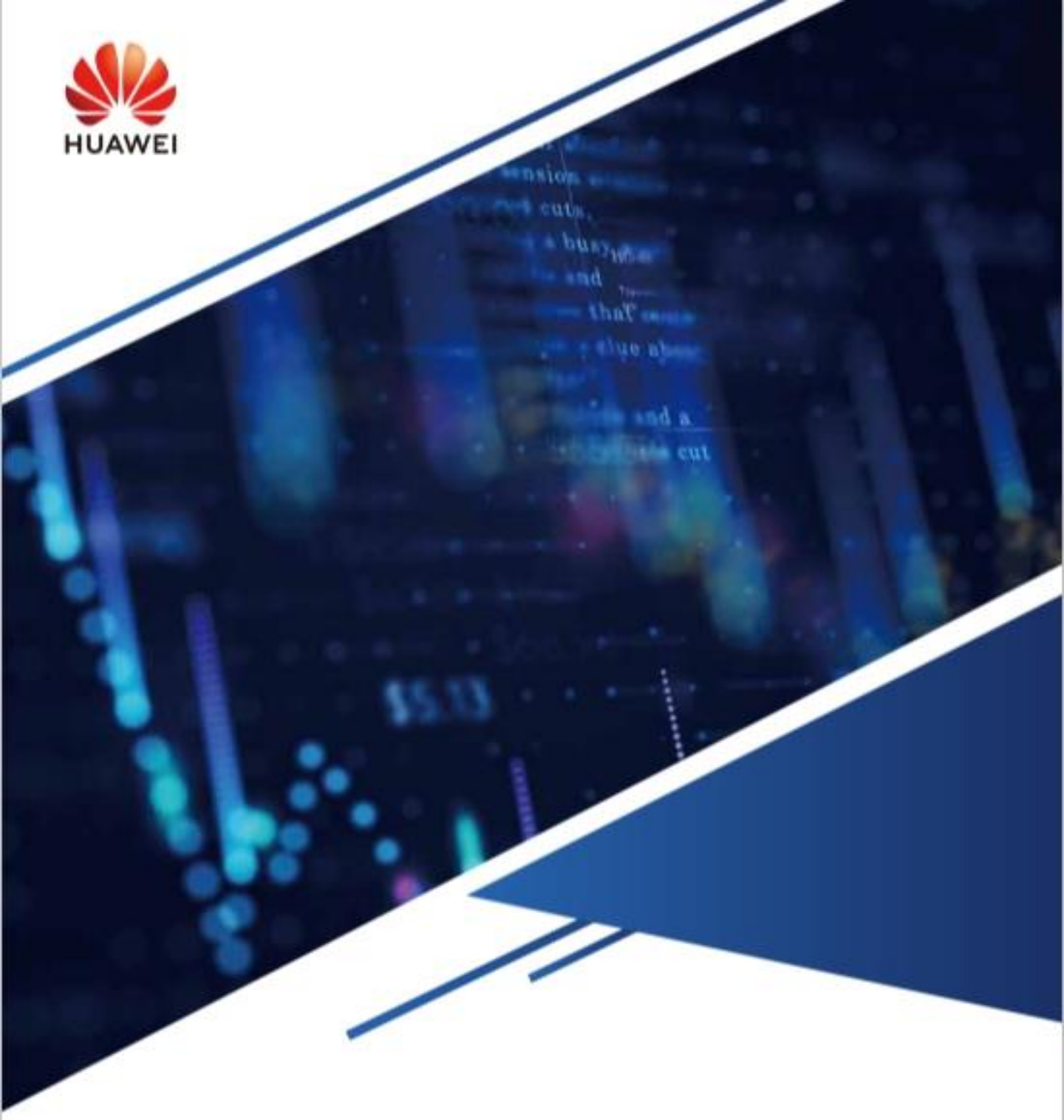

Huawei OceanProtect X3000/X6000/X8000/X9000 Backup Storage Data Sheet

Huawei Technologies Co., Ltd.

Data Sheet

Huawei OceanProtect X Series Backup Storage

Huawei OceanProtect X Series Backup Storage

Overview

Huawei OceanProtect Backup Storage adopts end-to-end (E2E) acceleration and an active-active high-reliability architecture and features rapid backup and recovery, efficient reduction, and solid resilience. It simplifies backup and recovery, slashes TCO, and excels in governments, finance, carriers, healthcare, manufacturing, and other fields.

Highlights

Rapid Backup, Rapid Recovery

- **E2E acceleration:** The front-end network protocol offload technology releases the CPU resources, whereas the back-end parallel scheduling of multiple CPU cores implements core grouping and task partitioning, to improve processing performance of nodes.
- **High bandwidth**: Built with backup features, multiple sequential data streams are aggregated to greatly improve bandwidth performance. Source deduplication reduces the amount of data transmitted over the network and shortens the backup time.
- **Instance access:** The system provides high IOPS and works with mainstream backup software to offer instant access to data in backup images, enabling quick utilization of backup data.

Efficient Reduction

- **Multilayer deduplication and feature-based reduction:** Precise chunking of backup data streams, aggregation preprocessing of backup data, and multi-layer inline variable-length deduplication are supported. Data stream features are identified. Combining compression, high-performance predictive coding, and byte-level compaction increase data reduction to an industry-leading ratio of up to 72:1.
- **E2E data reduction:** Source deduplication, global deduplication, and deduplicated replication reduce network bandwidth costs.
- **High-density design for energy savings:** Advanced hardware and all-flash high-capacity disks deliver four times higher capacity density, 37% lower power consumption, and optimal TCO.

Solid Resilience

- **Data resilience:** Link and array encryption, secure snapshot, write once read many (WORM), Air Gap, and detection and analysis technologies ensure secure and available copies.
- **Architecture resilience:** The active-active redundant hardware architecture ensures failover within seconds, without affecting backup services. The whole system can deliver up to 99.9999% reliability.

Data Sheet

Huawei OceanProtect X Series Backup Storage

Technical Specifications

Model	OceanProtect X3000		OceanProtect X6000			OceanProtect X8000			OceanProtect X9000		
	SSD	HDD	NVMe SSD	SAS SSD	HDD	NVMe SSD	SAS SSD	HDD	NVMe SSD	SAS SSD	HDD
Hardware Specifications											
Data Reduction Ratio*	Up to 72:1										
System Physical Backup Bandwidth	Up to 6.2 TB/hour		Up to 19 TB/hour			Up to 55 TB/hour			Up to 155 TB/hour		
System Logical Backup Bandwidth	Up to 18.5 TB/hour		Up to 45 TB/hour			Up to 117 TB/hour			Up to 310 TB/hour		
System Recovery Bandwidth	Up to 5.9 TB/hour	Up to 1 TB/hour	Up to 22 TB/hour		Up to 8 TB/hour	Up to 57 TB/hour		Up to 24 TB/hour	Up to 172 TB/hour		Up to 48 TB/hour
Number of Controllers per Node	2	2	2			2			4		
Maximum Number of Nodes	1	1	1			2			2		
System Usable Capacity	16 TB–300 TB		16 TB–800 TB			16 TB–2 PB			16 TB–3.6 PB		
Data Disk Types	3.84/7.68 TB SAS SSD	4/8/14/20 TB NL-SAS HDD	15.36/30.72 TB NVMe SSD	3.84/7.68 TB SAS SSD	4/6/8/10/14/20 TB NL-SAS; High-density disk: 14/20 TB	15.36/30.72 TB NVMe SSD	3.84/7.68 TB SAS SSD	4/6/8/10/14/20 TB NL-SAS; High-density disk: 14/20 TB	15.36/30.72 TB NVMe SSD	7.68 TB SAS SSD	4/6/8/10/14/20 TB NL-SAS; High-density disk: 14/20 TB
Front-End Port Types	8/16/32 Gb FC, 10/25/40/100 GbE		8/16/32 Gb FC, 10/25/40/100 GbE								
Front-End Storage Protocols	NFS, SMB/CIFS, FC, iSCSI, NDMP		NFS, SMB/CIFS, FC, iSCSI, S3, FTP/SFTP, NDMP								
Software Specifications											
RAID Type	RAID 2.0+										
RAID Levels	RAID 6 (default), RAID 5, and RAID-TP (tolerating simultaneous failure of three disks)										
Software Functions	Inline deduplication and compression, source deduplication and compression, multi-tenancy, quota management, snapshot, secure snapshot, remote replication, log audit, intelligent service quality control, data destruction, WORM, data encryption, detection and analysis**, and continuous data protection										
System Management	Device management (DeviceManager) and remote O&M and management (DME IQ)										
Electrical Specifications											
Power Supply	Node: 200 V to 240 V AC±10%, 192 V to 288 V DC; SAS SSD enclosure: 100 V to 240 V AC±10%, 192 V to 288 V DC; HDD enclosure: 100 V to 240 V AC±10%, 192 V to 288 V DC		Node: 200 V to 240 V AC±10%, 192 V to 288 V DC; NVMe SSD enclosure: 200 V to 240 V AC±10%, 192 V to 288 V DC; SAS SSD enclosure: 100 V to 240 V AC±10%, 192 V to 288 V DC; HDD enclosure: 100 V to 240 V AC±10%, 192 V to 288 V DC; High-density HDD enclosure: 100 V to 240 V AC±10%, –38.4 V to –72 V DC								
Dimensions (H × W × D)	2 U controller enclosure: 86.1 mm × 447 mm × 488 mm		2 U controller enclosure: 86.1 mm × 447 mm × 820 mm			2 U controller enclosure: 86.1 mm × 447 mm × 820 mm			4 U controller enclosure: 175 mm × 447 mm × 865 mm		
	2 U SSD enclosure: 86.1 mm × 447 mm × 410 mm; 4 U HDD enclosure: 175 mm × 447 mm × 488 mm		2 U SSD enclosure: 86.1 mm × 447 mm × 410 mm; 2 U NVMe disk enclosure: 86.1 mm × 447 mm × 620 mm; 4 U HDD enclosure: 175 mm × 447 mm × 488 mm; 4 U high-density HDD enclosure: 176.5 mm × 446 mm × 790 mm								
Weight (Incl. Disk Units)	Controller enclosure: ≤ 24 kg		Controller enclosure: ≤ 45 kg			Controller enclosure: ≤ 45 kg			Controller enclosure: ≤ 89 kg		
	SSD enclosure: ≤ 20 kg; HDD enclosure: ≤ 44 kg		SSD enclosure: ≤ 20 kg; NVMe SSD enclosure: ≤ 35 kg; HDD enclosure: ≤ 44 kg; High-density HDD enclosure: ≤ 92 kg								
Operating Temperature	–60 m to +1800 m altitude: 5°C to 35°C (cabinet) or 40°C (enclosure); 1800 m to 3000 m altitude: The max. temperature threshold decreases by 1°C for every altitude increase of 220 m.										
Operating Humidity	10% to 90% RH										

*The data reduction ratio depends on the application type and backup policy.
** The detection and analysis function of the X3000 and X6000 requires the security appliance.

To learn more about Huawei storage, please contact your local Huawei office or visit the Huawei Enterprise website: http://e.huawei.com/en/.

Huawei Enterprise APP

Huawei IT

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