



Huawei OceanProtect Backup Storage

Huawei Technologies Co., Ltd.



Huawei OceanProtect Backup Storage

Overview

Huawei OceanProtect Backup Storage is a robust storage system with the fastest recovery capability, which leads the dedicated backup storage industry into the flash-to-flash-to-anything (F2F2X) era. It helps you quickly and reliably back up and restore data at a low TCO, using E2E acceleration and an active-active architecture. It is also a trusted choice for demanding scenarios in government, finance, carrier, healthcare, and manufacturing sectors.

Highlights

Rapid Backup and Recovery

- **E2E acceleration:** The front-end Direct TCP/IP Offload Engine (DIOE) releases the CPU resources. The back-end parallel scheduling of multiple CPU cores implements core grouping and task partitioning to improve processing performance of nodes.
- **High bandwidth:** Based on backup service features, multiple sequential data streams are aggregated to greatly improve bandwidth performance. The backup and restoration bandwidths of the system reach up to 155 TB/hour and 172 TB/hour, respectively.
- **Instant access:** The system provides a performance of up to 480,000 IOPS and offers instant access to data in backup images, enabling quick utilization of backup data.

Efficient Reduction

- **Multi-layer deduplication:** Precise chunking of backup data streams, aggregation preprocessing of backup data, and multi-layer inline variable-length deduplication improve effective capacity and reduce TCO.
- **Feature-based reduction:** Identifying data stream features and combining compression, high-performance predictive coding, and byte-level compaction increase the data reduction ratio.
- **Expansion on demand:** Users can start with small capacity and scale in small increments to reduce their system investment.

High Reliability

- **Architecture:** The active-active hardware architecture ensures failover within seconds without affecting backup services.
- **Data:** The RAID-TP technology tolerates simultaneous failures of up to three disks.
- **Silent data consistency check:** Protects data integrity and validity.



Technical Specifications

Model	OceanProtect X6000		OceanProtect X8000		OceanProtect X9000	
	All-Flash Form	HDD Form	All-Flash Form	HDD Form	All-Flash Form	HDD Form
Hardware specifications						
Data reduction ratio*	Up to 72:1					
System backup bandwidth	Up to 19 TB/hour		Up to 55 TB/hour		Up to 155 TB/hour	
System restore bandwidth	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		4	
Max. number of nodes	1		2		2	
System usable capacity	16 TB-300 TB		150 TB-2.0 PB		480 TB-3.6 PB	
Data disk types	3.84 TB/7.68 TB SAS SSD	4 TB NL-SAS disk	7.68 TB SAS SSD	4 TB/8 TB NL-SAS disk	7.68 TB SAS SSD	8 TB NL-SAS disk
Front-end port types	8/16/32 Gbit/s FC, 10/25/40/100 GbE					
Front-end storage protocols	NFS, SMB, FC, iSCSI					
Software specifications						
RAID type	RAID 2.0+					
Supported RAID levels	RAID 6 (default), RAID 5 (optional)**, and RAID-TP (optional)					
Software functions	Inline deduplication, inline compression, multi-tenancy, quota management, snapshot, remote replication, audit logs, intelligent service quality control, and data erase					
System management	Device O&M(DeviceManager), Remote O&M (eService)					
Electrical specifications						
Power supply	Node: 200 V-240 V AC±10%, 192 V-288 V DC; SSD enclosure: 100 V-240 V AC±10%, 192 V-288 V DC; HDD enclosure: 100 V-240 V AC±10%, 240 V DC±20% (HDD form)					
Dimensions(H x W x D)	Node: 86.1 mm×447 mm× 820 mm	Node: 86.1 mm×447 mm× 820 mm		Node: 175 mm×447 mm× 865 mm		
	SSD enclosure: 86.1 mm x 447 mm x 410 mm HDD enclosure: 175 mm x 447 mm x 488 mm (HDD form)					
Weight	Node: ≤ 45 kg	Node: ≤ 45 kg		Node: ≤ 89 kg		
	SSD enclosure: ≤ 20 kg, HDD enclosure: ≤ 44 kg (HDD form)					
Operating temperature	-60 m to+1800 m altitude: 5°C to 35°C (bay) 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%~90%R.H.					

* The data reduction ratio depends on the application type and backup policy.

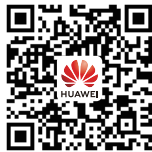
** For further details on the specifications, please contact Huawei sales.

For More Information

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 Business App



Huawei IT Products & Solutions - LinkedIn



Huawei IT Products & Solutions - YouTube



Copyright © Huawei Technologies Co., Ltd. 2022. All rights reserved.

No part of this document may be reproduced or transmitted in any form or by any means without the prior written consent of Huawei Technologies Co., Ltd.

Huawei Technologies Co., Ltd.

Bantian Longgang District
Shenzhen 518129, P.R. China
Tel: +86-755-28780808

Trademarks and Permissions

HUAWEI, HUAWEI, and are trademarks or registered trademarks of Huawei Technologies Co., Ltd.

Other trademarks, product, service and company names mentioned are the property of their respective holders.

www.huawei.com

Disclaimer

The content of this manual is provided "as is". Except as required by applicable laws, no warranties of any kind, either express or implied, including but not limited to, the implied warranties of merchantability and fitness for a particular purpose, are made in relation to the accuracy, reliability or contents of this manual.

To the maximum extent permitted by applicable law, in no case shall Huawei Technologies Co., Ltd. be liable for any special, incidental, indirect, or consequential damages, or lost profits, business, revenue, data, goodwill or anticipated savings arising out of, or in connection with, the use of this manual.