

pStor Light-Weight Storage Server V2.2.0
Datasheet

Overview

iDataCloud Storage-pStor is a lightweight Windows-based storage software, which features cluster management, capacity virtualization, and direct storage of streaming data. It can store data with local HDDs and access to multiple third-party storage devices. Targeted at the integrated security monitoring scenarios, it provides both video and picture storage and applications, offering users highly reliable and scalable professional video storage services.

Key Features

1. Video storage and playback.
2. Picture storage and download.
3. SAN/NAS supported.
4. Forming a virtualized resource pool by integrating all storage nodes, with capacity allocation on demand.
5. Provides a storage cluster, in which multiple devices share the same IP address that can be accessed externally.
6. In cluster mode, the video storage service is highly reliable. It can still provide video storage services even if some nodes fail.
7. In cluster mode, you can expand the capacity of a cluster by adding up to 10 storage nodes.

Operating System Requirement

Operating System Requirement	Microsoft® Windows 10 Standard/Enterprise (64-bit) Microsoft® Windows 11 Standard/Enterprise (64-bit) Microsoft® Windows Server 2012 R2 (64-bit) Microsoft® Windows Server 2016 (64-bit) Microsoft® Windows Server 2019 (64-bit) Microsoft® Windows Server 2022 (64-bit) Microsoft® Windows Server 2025 (64-bit)

Hardware Requirements

Configuration			
Name	**Picture Storage**	**Video + Picture Storage**	**Video + Picture Storage**
CPU Cores	Intel® Xeon® E-2434 Intel® Xeon® E-2324G	Intel® Xeon® 5416S Intel® Xeon® E-2468 Intel® Xeon® Silver 4410T Intel® Xeon® E-2378	Intel® Xeon® 5416S Intel® Xeon® 4410Y
RAM	16 GB	32 GB	32 GB
NIC	1 GbE NIC * 2	1 GbE NIC * 6	1 GbE NIC * 6
Disk for OS	2 TB 7200 SATA RPM Enterprise Class Hard Drives * 2	2 TB 7200 SATA RPM Enterprise Class Hard Drives * 2	960 GB SSD * 2
Disk for Storage	● Total disk bays: 2 ● Preset disks: 20 TB 7200 SATA * 2	● Total disk bays: 10 ● Preset disks: 0	● Total disk bays: 26 ● Preset disks： 16 TB 7200 SATA * 10
Video Storage Performance			
2 Mbps Video Files	N/A	Max. Accessible Video Channels: 400 Max. Access Bandwidth: 800 Mbps	
4 Mbps Video Files	N/A	Max. Accessible Video Channels: 200 Max. Access Bandwidth: 800 Mbps	
Picture Performance			
500 KB Pictures	Writing 160 Pictures Per Second to HDD or 160 Pictures Per Second Downloading From Clients		

Note:

1. If you plan to configure other types of servers with identical disk for OS, allocate at least 512 GB of space for OS.
2. For cluster configurations, it is recommended to maintain consistent disk capacity across all storage nodes for better performance.
3. For general video storage, at least 4 disks are recommended for better performance and reliability; for video storage with RAID5, at least 5 disks are recommended.
4. Recording Drive(s) must not be the same as the system installation drive.
5. Maximum Performance is tested under local storage drive. If you are using the SAN/NAS solution, this performance depends on the data transfer rate of the SAN/NAS system.
6. The capacity of the largest storage space (single folder) attached to pStor should be less than 16 TB.
7. To ensure the performance and security of data storage, it is recommended that the capacity of a single resource pool should not be less than 40 GB.
8. We do not suggest installing anti-virus programs together with pStor. If you need to install antivirus programs, please add pStor to the trusted software list. However, antivirus programs may still affect pStor performance.

Specification

<table>
<tr><th>Name</th><th>Features/Functions</th><th colspan="2">Standalone</th><th>Cluster</th></tr>
<tr><td rowspan="4">Management capacity</td><td>Cluster Management</td><td colspan="2">N/A</td><td>10 storage nodes for each cluster</td></tr>
<tr><td>Cameras (Video Stream ≤ 2 Mbps)</td><td colspan="2">400/Device</td><td>4,000/Cluster</td></tr>
<tr><td>Maximum Bandwidth Traffic (Video Stream > 2 Mbps)</td><td colspan="2">800 Mbps Per Device</td><td>8,000 Mbps / Cluster</td></tr>
<tr><td>Max. Storage Capacity</td><td colspan="2">Default: 400 TB per server, upgradable to 800 TB per server by purchasing the capacity expansion sales item.</td><td>Default: 4,000 TB per cluster, upgradable to 8,000 TB per cluster by purchasing the capacity expansion sales item.</td></tr>
<tr><td colspan="2">Supported Protocols</td><td colspan="3">Supports ONVIF and RTSP.
Supports adding cameras via E-Home, Hikvision SDK, and ISUP protocol.</td></tr>
<tr><td colspan="2">Video Security</td><td colspan="3">• Real-time recording storage: scheduled recording, manual recording, event recording, dual-stream scheduled recording, etc.
• Historical Video Recording: Manual Recording, Video Copy-Back, Automatic Network Replenishment, etc.
• Playback: Playback (Ascend/Descend), Location-Based Playback, I-Frame Playback
• Video search, video download, video lock, video thumbnail, and VCA search</td></tr>
<tr><td colspan="2">Picture Management</td><td colspan="3">• Picture Storage: picture direct storage, picture transfer storage, picture download, etc.
• Picture process: Add Watermark, Zoom In/Out, Apply Mosaic, Compress, and Crop</td></tr>
<tr><td colspan="2">System</td><td colspan="3">• Storage Management: overwrite strategy management, elastic scaling, storage space management, and access to third-party storage resources, etc.
• System Security: automatic database backup, security protection, etc.
• System Management: device time calibration, integration deployment, multi-domain, etc.</td></tr>
<tr><td colspan="2">Cluster Management</td><td>N/A</td><td colspan="2">• Cluster Management: cluster deployment, cluster storage space</td></tr>
</table>

		virtualization, management node HA mode deployment, cluster capacity expansion, etc. • System Security: dynamic switch upon fault, high availability of management nodes and storage nodes, etc.
Language and Time Zone	DST, Multiple Time Zones, and Multiple Languages	
Authentication and Authorization	Activate devices / deactivate devices / activate online / activate offline / grant permission / grant permission by multiple activation codes	
Operation and Maintenance	Displaying recording schedules, inspecting recordings, monitoring basic health status, managing nodes, accessing services, displaying capacity and storage resources, and monitoring exceptions	

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