

Compuverde vNAS

Technical Specifications

KEY FEATURES	
Storage modes	<ul style="list-style-type: none"> - Scale-out NAS (bare metal) - Hyper-converged - Metro Storage Cluster - Async Replication
Access Protocols	<ul style="list-style-type: none"> - SMB (1 / 2.0 / 2.1 / 3) - NFS (3 / 4.0 / 4.1) - iSCSI (with MPIO) - OpenStack Swift + Cinder - Amazon S3 - NNTP back end storage
All-Flash	Yes
Tiering	Yes
Multi-tenancy	Yes (multiple file systems)
Network	
Virtual IP	Yes
Multiple NICs	Yes
VLAN	Yes
Bonding / Link Aggregation	<ul style="list-style-type: none"> - Round Robin - Active/Backup - XOR - Broadcast - LACP - Adaptive Transmit Load Balancing - Adaptive Load Balancing
Rolling upgrade	Yes
Cache support	NVMe / SSD / RAM
Cache mode	<ul style="list-style-type: none"> - Read/Write - Write Only
Mirrored write cache	1-4 copies
RAM write cache	On / Off
Authentication	<ul style="list-style-type: none"> - Active Directory - LDAP - Kerberos KDC - NIS - Local database

MANAGEMENT FEATURES	
Management tool	Yes (Windows based) <ul style="list-style-type: none"> - Performance - Configuration - Health - Alerts
Alarms	<ul style="list-style-type: none"> - SNMP - E-mail
Logging	<ul style="list-style-type: none"> - Yes, management tool - Remote syslog (rsyslog) - SNMP v2c
API	<ul style="list-style-type: none"> - REST API - Usage statistics
Backup	NDMP
OpenStack Cinder	Yes

FILES AND FOLDERS													
File Policy	Yes (at folder level)												
Filters	<ul style="list-style-type: none"> - Pattern (ex: *.jpg) - Age (days/weeks/months/years) 												
Actions	<ul style="list-style-type: none"> - Change file coding - Change tier - Data encryption - Retention (remove files after set time) - WORM (write once read many) 												
Snapshot Policy	Yes (at folder level)												
Schedule	<ul style="list-style-type: none"> - Automated: Every hour/day/week - Manual 												
Snapshots retained	Up to 253 (circular overwriting when threshold is reached)												
Quota Policy	Yes (at folder level)												
Folder size limit	GB / TB / PB												
Antivirus support	Symantec Protection Engine												
File coding	<ul style="list-style-type: none"> - Copies - Erasure coding 												
Copies	3 or 5 copies												
Erasure coding	<table border="0"> <tr> <td>2+1</td><td>2+2</td><td>3+1</td><td>3+2</td><td>4+1</td><td>4+2</td> </tr> <tr> <td>5+1</td><td>5+2</td><td>6+1</td><td>6+2</td><td>8+1</td><td>8+2</td> </tr> </table>	2+1	2+2	3+1	3+2	4+1	4+2	5+1	5+2	6+1	6+2	8+1	8+2
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5+1	5+2	6+1	6+2	8+1	8+2								

CLUSTER FEATURES	
Scalability	<ul style="list-style-type: none"> - Linear, by adding new nodes - Petabytes of data, billions of files
Elasticity	Runtime change of cluster size
Self-healing	Yes (Automatic)
Automatic detection	<ul style="list-style-type: none"> - Node failure - Disk failure - Data inconsistency
Healing mode	Prioritized automatic repair
Availability	> 99.999 %
Data addressing	<ul style="list-style-type: none"> - File system - Block - Objects
Encryption	Data at rest: AES 256 bit XTS <ul style="list-style-type: none"> - one key for each file system