DELLEMC

ELASTIC CLOUD STORAGE (ECS) APPLIANCE

Dell EMC® Elastic Cloud Storage (ECS™) Appliance is a multi-purpose, software-defined cloud-storage platform. This 3rd Generation object-based solution from Dell EMC delivers enterprise class smart storage built for the next generation of applications and workloads. The ECS Appliance U Series offer flexible configurations that start at 320TB and can scale infinitely. The D-Series offers dense configurations providing with up to 7.8PB in a single rack.

ECS APPLIANCE GEN-2 U-SERIES	
Features	**Technical Specification**
Node architecture	• Intel x86 servers • JBOD direct attached storage • Up to 60 disk drives per node
10 GbE Node network connectivity	• 10 GbE HA network connectivity within rack • Up to 80 Gb/s via 10 GbE uplinks to customer network
Dell EMC 40U Rack based solution	• 4 and 8 node configurations • HA Power
Multiple Storage Configurations	• Unstructured storage up to 3,840 TB per rack

ECS Appliance Gen-2 U-Series Detailed Specifications

Features	ECS-U400	ECS-U400E	ECS-U480E	ECS-U400T
ARCHITECTURE	• Standard 40U deep cabinet • 2U 4-node server enclosure • 4U 60-disk drawer based disk enclosure • High density disk enclosure holds up to 480x8TB disks per rack • Fully accessible – field serviceable components • Conventional front to back cooling • HA Power cabling and cooling			
CONFIGURATION	4 Nodes = 4 servers + 4 disk enclosures	5 Nodes = 5 servers + 5 disk enclosures	6 Nodes = 6 servers + 6 disk enclosures	8 Nodes = 8 servers + 8 disk enclosures
NODE:DISK RATIO	1:10	1:10	1:10	1:10
DISK TYPE	8TB 7200	8TB 7200	8 TB 7200	8TB 7200
RAW CAPACITY	320 T	400 T	480 T	640 T
DIMENSIONS	Height: 75 in/ 190.8 cm Width: 24 in/ 60.96 cm Depth: 44 in/ 111.76 cm Weight: 910 lbs	Height: 75 in/ 190.8 cm Width: 24 in/ 60.96 cm Depth: 44 in/ 111.76 cm Weight: 1050 lbs	Height: 75 in/ 190.8 cm Width: 24 in/ 60.96 cm Depth: 44 in/ 111.76 cm Weight: 1150 lbs	Height: 75 in/ 190.8 cm Width: 24 in/ 60.96 cm Depth: 44 in/ 111.76 cm Weight: 1360 lbs
MAX POWER	3.5kVA	4.2kVA	4.9kVA	6.3kVA
MAX HEATLOAD	11,813 BTU/hr	14,175 BTU/hr	16,538 BTU/hr	21,263 BTU/hr
POWER SPECIFICATIONS	• Connection: 4 single Phase L6-30 (REDUNDANT POWER) • 2 Three-Phase WYE S52.30 (REDUNDANT POWER) • 2 Three-Phase Delta CS-8365C (REDUNDANT POWER) • Input Voltage (VAC): 200 - 240 • Circuit Breaker (A) max. per AC Power Source: 30A / PDU Frequency (Hz): 60 (North America), 50 - 60 (International)			
CONNECTIVITY	• Uplink Connectivity: up to 8x10 GbE uplinks to customer network (80 Gb/s maximum bandwidth), including high availability (HA) configuration • Network: dual 10 GbE data switches (TOR) and single 1 GbE management switch (internal traffic) per rack • Disk: Dual SAS cable connection between servers and disk enclosures			
PROTOCOL	• TCP/IP			
ENVIRONMENTAL SPECIFICATIONS	• Operating Temperature (°F/°C): 41 - 90/ 5 - 32 • Max. Altitude: 7,500 ft/ 2,286 m @ 90°F/32°C • Relative Humidity: 20 - 80% non-condensing • Raised Floor: Not Required			
OPTIONS	• ES5-40-T8T 40 8TB Drive Upgrade Kit (320TB) • Four Node Expansion (Server + 4 DAEs)			

10 DRIVE UPGRADE

Features	ECS-U400	ECS-U400E	ECS-U480E	ECS-U400T
ADDITIONAL CAPACITY	320 T	400 T	480 T	640 T
ADDITIONAL WEIGHT	120 lbs	150 lbs	180 lbs	240 lbs
ADDITIONAL POWER	333VA	417VA	500VA	667VA
ADDITIONAL HEAT LOAD	1,125 BTU/hr	1,406 BTU/hr	1,688 BTU/hr	2,250 BTU/hr

ECS Appliance Gen-2 U-Series Detailed Specifications

Features	ECS-U2000	ECS-U2800	ECS-U4000
ARCHITECTURE	- Standard 40U deep cabinet 2U 4-node server enclosure 4U 60-disk drawer based disk enclosure - High density disk enclosure holds up to 480x8TB disks per rack - Fully accessible – field serviceable components - Conventional front to back cooling - HA Power cabling and cooling		
CONFIGURATION	8 Nodes = 8 servers + 8 disk enclosures	8 Nodes = 8 servers + 8 disk enclosures	8 Nodes = 8 servers + 8 disk enclosures
NODE:DISK RATIO	1:30	`1:45	1:60
DISK TYPE	8TB 7200	8TB 7200	8TB 7200
RAW CAPACITY	1,920 TB	2,880 TB	3,840 TB
DIMENSIONS	Height: 75 in/ 190.8 cm Width: 24 in/ 60.96 cm Depth: 44 in/ 111.76 cm Weight: 1,840 lbs	Height: 75 in/ 190.8 cm Width: 24 in/ 60.96 cm Depth: 44 in/ 111.76 cm Weight: 2,200 lbs	Height: 75 in/ 190.8 cm Width: 24 in/ 60.96 cm Depth: 44 in/ 111.76 cm Weight: 2,560 lbs
MAX POWER	7.6kVA	8.6kVA	9.6kVA
MAX HEATLOAD	25,650 BTU/hr	29,025 BTU/hr	32,400 BTU/hr
POWER SPECIFICATIONS	- Connection: 4 single Phase L6-30 (REDUNDANT POWER) 2 Three-Phase WYE S52.30 (REDUNDANT POWER) 2 Three-Phase Delta CS-8365C (REDUNDANT POWER) - Input Voltage (VAC): 200 - 240 - Circuit Breaker (A) max. per AC Power Source: 30A / PDU Frequency (Hz): 60 (North America), 50 - 60 (International)		
CONNECTIVITY	- Uplink Connectivity: up to 8x10 GbE uplinks to customer network (80 Gb/s maximum bandwidth), including high availability (HA) configuration - Network: dual 10 GbE data switches (TOR) and single 1 GbE management switch (internal traffic) per rack - Disk: Dual SAS cable connection between servers and disk enclosures		
PROTOCOL	TCP/IP		

ENVIRONMENTAL SPECIFICATIONS	• Operating Temperature (°F/°C): 41 - 90/ 5 - 32 • Max. Altitude: 7,500ft/ 2,286m @ 90°F/32°C • Relative Humidity: 20 - 80% non-condensing • Raised Floor: Not Required
OPTIONS	• ES5-40-T8T 40 8TB Drive Upgrade Kit (320TB) • Four Node Expansion (Server + 4 DAEs)

ECS APPLIANCE GEN-2 D-SERIES

Features	Technical Specification
Node architecture	• Intel x86 servers • JBOD direct attached storage • Up to 98 disk drives per node
10 GbE Node network connectivity	• 10 GbE HA network connectivity within rack • Up to 80 Gb/s via 10 GbE uplinks to customer network
Dell EMC 40U Rack based solution	• 8 node configurations • HA Power
Multiple Storage Configurations	• Unstructured storage up to 7,840 TB per rack

ECS Appliance Gen-2 D-Series Detailed Specifications

Features	ECS-D4500	ECS-D5600	ECS-D6200	ECS-D7800
ARCHITECTURE	• Standard 40U deep cabinet • 2U 4-node server enclosure • 4U 98-disk drawer based disk enclosure • High density disk enclosure holds up to 784x8TB disks per rack • Conventional front to back cooling • HA Power cabling and cooling			
CONFIGURATION	8 Nodes = 8 servers + 8 disk enclosures	8 Nodes = 8 servers + 8 disk enclosures	8 Nodes = 8 servers + 8 disk enclosures	8 Nodes = 8 servers + 8 disk enclosures
NODE:DISK RATIO	1:70	1:70	1:98	1:98
DISK TYPE	8TB 7200	10TB 7200	8 TB 7200	10 TB 7200
RAW CAPACITY	4,480 TB	5,600 TB	6,272 TB	7,840 TB
DIMENSIONS	Height: 75 in/ 190.8 cm Width: 24 in/ 60.96 cm Depth: 44 in/ 111.76 cm Weight: 2100 lbs	Height: 75 in/ 190.8 cm Width: 24 in/ 60.96 cm Depth: 44 in/ 111.76 cm Weight: 2100 lbs	Height: 75 in/ 190.8 cm Width: 24 in/ 60.96 cm Depth: 44 in/ 111.76 cm Weight: 2750 lbs	Height: 75 in/ 190.8 cm Width: 24 in/ 60.96 cm Depth: 44 in/ 111.76 cm Weight: 2750 lbs
MAX POWER	10.0kVA	10.0kVA	11.8kVA	11.8kVA
MAX HEATLOAD	33,750 BTU/hr	33,750 BTU/hr	39,825 BTU/hr	39,825 BTU/hr

POWER SPECIFICATIONS	• Connection: 6 single Phase L6-30 (REDUNDANT POWER) • 2 Three-Phase WYE S52.30 (REDUNDANT POWER) • 2 Three-Phase Delta CS-8365C (REDUNDANT POWER) • Input Voltage (VAC): 200 - 240 • Frequency (Hz): 60 (North America), 50 - 60 (International)
CONNECTIVITY	• Uplink Connectivity: up to 8x10 GbE uplinks to customer network (80 Gb/s maximum bandwidth), including high availability (HA) configuration
PROTOCOL	• Network: dual 10 GbE data switches (TOR) and single 1 GbE management switch (internal traffic) per rack • Disk: Dual SAS cable connection between servers and disk enclosures • TCP/IP
ENVIRONMENTAL SPECIFICATIONS	• Operating Temperature (°F/°C): 41 - 90/ 5 - 32 • Max. Altitude: 7,500 ft/ 2,286 m @ 90°F/32°C • Relative Humidity: 20 - 80% non-condensing • Raised Floor: Not Required
OPTIONS	• ES5-112-T8T (112 8TB Drive Upgrade Kit - 896TB)