



DELL EMC ECS APPLIANCES

Dell EMC® 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. It enables businesses to embrace digital transformation and realize faster time to market. With ECS, customers can add cloud storage capabilities to their environments while realizing 48% TCO improvement over leading public cloud storage providers. The ECS Appliance U Series offer flexible configurations that start at 400TB 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	<ul style="list-style-type: none"> • Intel x86 servers • JBOD direct attached storage • Up to 60 disk drives per node
10 GbE Node network connectivity	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 5, 6, and 8 node configurations • HA Power
Multiple Storage Configurations	<ul style="list-style-type: none"> • Unstructured storage up to 5,760 TB per rack

ECS Appliance Gen-2 U-Series Detailed Specifications

Features	ECS-U400E	ECS-U480	ECS-U400T
ARCHITECTURE	<ul style="list-style-type: none"> • Standard 40U deep cabinet • 2U 4-node server enclosures <ul style="list-style-type: none"> ◦ One fully populated and one partially populated enclosures for ECS-U400E and ECS-U480E ◦ Two fully populated enclosures for ECS-U400T • 4U 60-disk capacity drawer based disk enclosure • High density disk enclosure holds up to 480 disks per rack • Fully accessible – field serviceable components • Conventional front to back cooling • HA Power cabling and cooling 		
CONFIGURATION	5 Nodes = 5 servers + 5 disk enclosures	6 Nodes = 6 servers + 6 disk enclosures	8 Nodes = 8 servers + 8 disk enclosures
MIN NODE:DISK RATIO	1:10		
MAX NODE:DISK RATIO	1:60		
DISK TYPE	8TB 7200 or 12TB 7200	8 TB 7200 or 12TB 7200	8TB 7200 or 12TB 7200
MIN RAW CAPACITY (10 DISKS PER NODE)	400 TB with 8TB drives	480 TB with 8TB drives	640 TB with 8TB drives
MAX RAW CAPACITY (60 DISKS PER NODE)	3600 TB with 12 TB drives	4320 TB with 12 TB drives	5760 TB with 12 TB drives
DIMENSIONS	Height: 75 in/ 190.8 cm Width: 24 in/ 60.96 cm Depth: 44 in/ 111.76 cm Weight: 1050 lbs with 10 disk enclosures	Height: 75 in/ 190.8 cm Width: 24 in/ 60.96 cm Depth: 44 in/ 111.76 cm Weight: 1150 lbs with 10 disk enclosures	Height: 75 in/ 190.8 cm Width: 24 in/ 60.96 cm Depth: 44 in/ 111.76 cm Weight: 1360 lbs with 10 disk enclosures
MAX POWER WITH SINGLE 10 DISK ENCLOSURE PER NODE	4.2kVA	4.9kVA	6.3kVA
MAX HEATLOAD WITH SINGLE 10 DISK ENCLOSURE PER NODE	14,175 BTU/hr	16,538 BTU/hr	21,263 BTU/hr
POWER SPECIFICATIONS	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • TCP/IP 		

ENVIRONMENTAL SPECIFICATIONS	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 5 Drive Upgrade Kit 10 Drive Upgrade Kit Node Upgrade Kit (includes disk enclosure)

10 DRIVE UPGRADE KIT			
Features	5-node	6-node	8-node
ADDITIONAL CAPACITY (8TB DRIVES)	400 TB	480 TB	640 TB
ADDITIONAL CAPACITY (12TB DRIVES)	600TB	720TB	960TB
ADDITIONAL WEIGHT	150 lbs	180 lbs	240 lbs
ADDITIONAL POWER	417VA	500VA	667VA
ADDITIONAL HEAT LOAD	1,406 BTU/hr	1,688 BTU/hr	2,250 BTU/hr

5 DRIVE UPGRADE KIT			
Features	5-node	6-node	8-node
ADDITIONAL CAPACITY (8TB DRIVES)	200 TB	240 TB	320 TB
ADDITIONAL CAPACITY (12TB DRIVES)	300TB	360 TB	480TB

ECS APPLIANCE GEN-2 D-SERIES	
Features	Technical Specification
Node architecture	<ul style="list-style-type: none"> Intel x86 servers JBOD direct attached storage Up to 98 disk drives per node
10 GbE Node network connectivity	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 8 node configurations HA Power
Multiple Storage Configurations	<ul style="list-style-type: none"> Unstructured storage up to 7,840 TB per rack

ECS Appliance Gen-2 D-Series Detailed Specifications

Features	ECS-D5600	ECS-D7800
ARCHITECTURE	<ul style="list-style-type: none"> • 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
NODE:DISK RATIO	1:70	1:98
DISK TYPE	10TB 7200	10 TB 7200
RAW CAPACITY	5,600 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: 2750 lbs
MAX POWER	10.0kVA	11.8kVA
MAX HEATLOAD	33,750 BTU/hr	39,825 BTU/hr
POWER SPECIFICATIONS	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Uplink Connectivity: up to 8x10 GbE uplinks to customer network (80 Gb/s maximum bandwidth), including high availability (HA) configuration 	
PROTOCOL	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • ES5-112-T8T (112 8TB Drive Upgrade Kit - 896TB) 	