



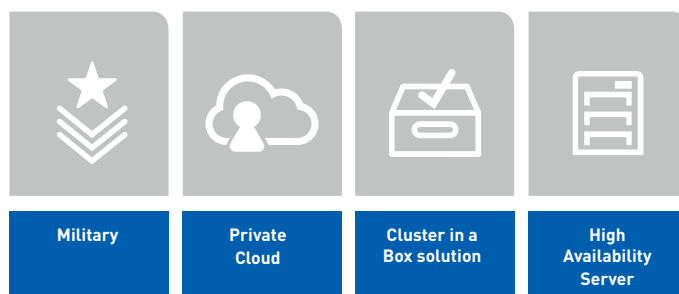
## DuraStreams-Mission Critical Servers

### Why make your Data Wait? Have 24/7 Access with Zero Downtime

At a time when the digitization of data is ever so critical for business applications, EchoStreams continues to deliver innovative storage solutions that solve the many industry challenges for managing and delivering data effortlessly. Especially in mission critical environments where downtime can be costly or even devastating for many businesses – a durable yet highly redundant server is required for many data-intensive applications.

The EchoStreams DuraStreams family line of servers is meticulously built to be some of the most stable and easiest to service rackmount servers available on the market today. Designed to eliminate your downtime to zero, each unit features hot-swappable bays for 24/7 runtime, ensuring critical redundancy and continuous performance delivery when it matters most! Especially when it comes down to upgrading next-gen components, IT technicians are able to easily hotswap DuraStreams’ motherboard nodes quickly and efficiently, leaving absolutely no room for downtime. In addition to its fault tolerant redundant design, the DuraStreams servers also feature a patented tool-less drive tray design that makes service and maintenance effortless. If storage drives (SSD /HDD) in our DuraStreams servers ever require service or need replacing, our tool-less design provides both the speed and efficiency to keep your business running smoothly all year round.

### KEY APPLICATIONS:



### KEY ECHOSTREAMS BENEFITS:

#### REDUNDANCY

DuraStreams is the perfect choice for mission critical applications because of its redundant hot-swappable functions for a majority of the components. A key benefit is the feature that allows components to be hot-swappable while the system is still running – eliminating the chances for costly downtime. The system is also equipped with an internal PCIe3 x8 NTB link for applications that requires fast and low latency redundancy while also using 1Gbit Ethernet for heartbeat.

#### 12Gb/S SAS3 TECHNOLOGY

DuraStreams is designed with the latest generation of SAS technology and achieves 12Gb/s for each port. It also supports end-to-end 12Gb/s storage devices such as HDD/SSD through 12G SAS expanders, 12G SAS HBAs, and RAID controllers. DuraStreams can also support 36 physical 12G SAS expanders by providing dual ported SAS to enable redundancy for shared-storage devices.

#### FUTURE-PROOF UPGRADES

As technology continues to evolve at a rapid rate, it is important to plan for the possibility to upgrade and scale. DuraStreams provides great design architecture because of its ease and functionality for next gen upgrades. For example, the motherboard nodes can be easily swapped for the newest platform, thus cutting any lengthy lead times in the development cycle.

#### PATENTED TOOL-LESS AND TRAY-LESS

DuraStreams provides a tool-less and tray-less design that allows for superior ease of maintenance and serviceability on faulty drives. This innovative feature allows system integrator technicians, IT administrators, and Service Technicians the ability to save on integration/ service times, which ultimately helps with lowering the overall total cost of ownership (TCO).

#### HIGH EFFICIENCY POWER SUPPLIES

In order to help achieve efficient power management, DuraStreams servers are designed with 92% power-efficient redundant power supplies. All the models in the DuraStreams family are also certified with 80 Plus Platinum Power Supplies with an additional feature such as PMBUS 1.2 for better management monitoring and control.



COMPLETE LINE OF STORAGE OPTIONS ALSO AVAILABLE :



Server & Storage Product Briefs:

- Flash Storage Server- FlacheStreams
- High Availability Servers- DuraStreams
- General Purpose Servers- OmniStreams
- High Density Servers- ScaleStreams

### AMD EPYC EMPOWERS SINGLE SOCKET SERVERS

As IT / enterprise infrastructures expand and begin virtualizing their data into the cloud, data centers are faced with the challenges of managing complex customer workloads and being hyper-efficient with every IT dollar spent. Especially for many data-intensive applications today, a key value for data management is the ability to evaluate and architect solutions that deliver both a balance of high performance compute and also scalable memory bandwidth through its I/O's.

In addition, as hardware innovations continue to give way to better and more optimized platforms, AMD's EPYC processors competitively situates itself in the needs of existing and emerging data center workloads. With industry leading Core Counts, scalable Memory Bandwidth, and unprecedented I/O's, AMD's EPYC sets a new standard for performance, scalability, and balance for the modern datacenter.

For enterprise applications, scientific research models, big data clusters, cloud computing, software-defined storage, machine learning, and the digital business transformation, AMD EPYC delivers:

- Up to 32 high-performance "Zen" cores
- Eight DDR4 channels per CPU
- Up to 2TB RAM per CPU
- 128 PCIe lanes
- Dedicated security subsystem
- Integrated chipset
- Socket-compatible with next-gen EPYC processors

DuraStreams	DuraStreams DSS224S-UN	DuraStreams DSS212S-UN	DuraStreams DSS316S-UN	DuraStreams DSS424S-UN
	2U 24 BAYS 2.5" 12G SAS REDUNDANT NODE SINGLE EPYC 1200W HRP	2U 12 BAYS 3.5" HDD 12G SAS REDUNDANT NODE SINGLE EPYC 1200W HRP	3U 16 BAYS 3.5" HDD 12G SAS REDUNDANT NODE SINGLE EPYC 1200W HRP	4U 24 BAYS 3.5" HDD 12G SAS REDUNDANT NODE SINGLE EPYC 1200W HRP
Ordering P/N	BD22432UNTY18-A	BD21233UNTY18-A	BD31633UNTY18-A	BD42433UNGB18-A
CPU	1x AMD EPYC	1x AMD EPYC	1x AMD EPYC	1x AMD EPYC
Memory	16x DDR4 slots (Max 2TB)	16x DDR4 slots (Max 2TB)	16x DDR4 slots (Max 2TB)	16x DDR4 slots (Max 2TB)
Drive Bays	24x 2.5" 12G SAS (Hot-Swap) 2x2.5" (internal) / Node	12x3.5" 12G SAS (Hot-Swap) 2x2.5" (internal) / Node	16x3.5" 12G SAS (Hot-Swap) 2x2.5" (internal) / Node	24x3.5" 12G SAS (Hot-Swap) 2x2.5" (internal) / Node
Storage Expander	12Gb/s Expander	12Gb/s Expander	12Gb/s Expander	12Gb/s Expander
Onboard Network	2x GbE & OCP V2.0 x16 Mezz. / Node	2x GbE & OCP V2.0 x16 Mezz. / Node	2x GbE & OCP V2.0 x16 Mezz. / Node	2xGbE / Node
Expansion Slots	1x Gen3x16 (LP) 1x Gen3x16 (FH) / Node	1x Gen3x16 (LP) 1x Gen3x16 (FH) / Node	1x Gen3x16 (LP) 1x Gen3x16 (FH) / Node	4x Gen3x16 & 3x Gen3x8 (LP) / Node
IPMI	✓	✓	✓	✓