The Ericsson Storage Sled Unit (SSU) is a high performance JBOD solution. Based on a mix of standard form factor SSDs and HDDs, the solution provides superior capacity per volume. The pull-out drawer enables individual drive hot swap, while the other drives are still in operation. Optical SAS connections facilitate extensions and large storage arrays with low latency. The external flexible SAS interface structure for compute connections, supports a multitude of configurations including redundancy and daisy chaining. The SSU provides out-of-band iSCSI management which makes in-band functions like SAS zoning and secure erase possible to manage more efficiently from a central point.
Features and benefits

- Flexible and scalable
- Software defined storage from the start
- Superior performance and flexibility
- Reduced TCO due to higher efficiency and utilization

Storage Drives
Ericsson SSU 011x supports standard 2.5” and 3.5” form factors of HDD and SSD drives with single/dual SAS interfaces or SATA. These options enable a wide range of storage configurations, supporting both performance and cost optimized needs. For example, high IOPS bandwidth storage and cost sensitive bulk storage.

Optical Interconnect
The SSU 011x has multiple optical 12 Gbps SAS connections to the controlling compute unit. Optical SAS extension to other JBOD drive chassis, enables easy extensions and large storage arrays. An individual drive can be replaced while the others are in operation.

Flexible SAS Interface and SAS topologies
The JBOD has an external flexible SAS interface structure for compute connections, supporting a multitude of configurations, such as single, dual or multiple storage controllers towards single or daisy chained JBODs. All with selectable bandwidth options.

Storage Pooling
The SSU 011x supports SAS zoning. By utilizing the SAS zoning features, the user can assign individual storage drives to different compute systems.

Hardware Management
By having an on-board BMC and a chassis manager, the SSU 011x provides out-of-band management capabilities through a REST API. This allows the unit to restrict in-band functionality in favor of out-of-band, thus allowing a higher degree of sharing its resources between different datacenter customers.

Out of band storage management
The SSU 011x provides out of band iSCSI management which makes it possible to perform typical in band functions like SAS zoning and secure erase of drives.

Easy replacement of drives
The mechanical implementation of the SSU 011x is a sled with a pull-out drawer which enables an individual drive to be hot swapped while the other drives are still in operation. Each drive in the SSU 011x can be monitored and if a drive must be replaced, it can be stopped. A LED indicates which drive should be replaced.

SSU 0111 & SSU 0112 and Ericsson Software Defined Infrastructure

SSU 0111 and SSU 0112 are hardware components in Ericsson Software Defined Infrastructure, which provides a common managed hardware pool for all workloads. The pool can be dynamically scaled and used to create multiple environments to enable fast service rollout, performance optimization and efficient hardware utilization.

Ericsson Software Defined Infrastructure key features include multi virtual-POD (vPOD), hardware management across the common hardware pool with an open, single integration point and independent of vendor. SSU 0111 and SSU 0112 are suitable to be integrated in a Software Defined Infrastructure system where the vPODs are using the common hardware pool to dynamically create sets of compute and storage hardware logically isolated from each other. The SSU 0111 and SSU 0112, together with a storage software verified by Ericsson, creates a software defined storage solution which can either provided as a dedicated storage solution within a vPOD, or as a centralized storage resource.

Based on the common hardware pool, vPODs can be used to deploy applications in cloud-, appliance-, container-, or bare metal environments. The pool can also be shared across organizations with tenant separation where each department has its own environment. The vPODs are used by operators to quickly set up multiple hardware environments to support various flavors of NFVI with optimized performance and utilization. This capability makes it possible to support the implementation of pre-development environments replicating the production environment, e.g. when introducing new applications. The benefits are fast deployment of new services, improved operational efficiency and better utilization of the hardware.
## Specifications

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<tr>
<th><strong>Form factor</strong></th>
<th>— 1U sled mounted in 2U CPA chassis</th>
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| **Dimensions**  | — 17.32 W x 1.65 H x 26.77 D (inches)  
|                 | — 440 W x 42 H x 680 D (mm)         |
| **Weight**      | — 10.5 kg excluding drives           |
| **Power supply**| — Dual 360W 200-240VAC               |
| **User interface** | — 5 status indicators per storage sled  
|                 | — 2 internal indicators per drive    |
| **Drives**      | — SSU 0111: 12x 3.5”/2.5” SSD/HDD drives  
|                 | — SSU 0112: 20x 2.5” SSD/HDD drives    
|                 | — SAS single or dual ports up to 12 Gbps  
|                 | — SATA support                       |
| **Firmware**    | — Firmware upgradable over REST API. |
| **System management** | — REST API available through Chassis Manager. 
|                 | — REST API provides access to hardware management and configuration of the SSU 011x. |
| **Interface**   | — Data Network: SAS over single mode optical links 2x8 12 Gbps MPO  
|                 | — Redundant Control Network: 2x1 GbE/Chassis  
|                 | — Power from chassis backplane        |
| **Expander**    | — 2 x 48 ports PMC Sierra, PM8055   |

Disclaimer: Specifications subject to change without notice.
## Standards and regulations

<table>
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<th>Functionality</th>
<th>Description</th>
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| **EMC**       | — EMC Directive, 2014/30/EU  
— ETSI EN 300 386, Electromagnetic compatibility and Radio spectrum Matters (ERM); Telecommunications network equipment; ElectroMagnetic Compatibility (EMC) requirements |
| **Emission**  | — CISPR 22 /EN 55 022,‘Limits and Methods of Measurement of Radio Interference Characteristics on Information Technology Equipment, Class A  
— IEC 61000-3-2, Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)  
— IEC 61000-3-3, Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤16 A per phase and not subject to conditional connection |
| **Immunity**  | — EN 61 000-4-2: Electrostatic Discharge Test  
— EN 61 000-4-3: Radiated Immunity Test  
— EN 61 000-4-4: Electrical Fast Transient / Burst Test  
— EN 61 000-4-5: Surge Immunity test  
— EN 61 000-4-6: Conducted Immunity Test  
— EN 61 000-4-11: Voltage dips, short interruptions, and voltage variations immunity tests |
| **Fcc 47 part 15: subpart b** | — Unintentional radiators Class A |
| **Safety**    | — Low Voltage Directive 2014/35/EU  
— IEC/EN 60 950-1: Safety of information technology equipment  
— ANSI/UL 60 950-1/C CSA C22. No. 60 950-1, Safety of Information technology equipment |
| **RoHS**      | — RoHS Directive, 2011/65/EU  
— EN 50 821, Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances |