CRU 0211
Compute Rack Unit
Ericsson Software Defined Infrastructure

Ericsson Compute Rack Unit 0211 (CRU 0211) is a general-purpose rackmount server equipped with dual CPU based on Intel® Xeon® Scalable processor product families together with up to 3TB (128Gx24) memory in a 2U form factor. It can be managed independently as a POD or allocated to a central pool of resources from which they can be configured into software-defined virtual performance-optimized datacenters (vPODs).
Features and benefits

Latest Intel® processor technology
CRU 0211 will use the Intel® Xeon® Scalable processor family to provide the latest features on the market.

Open and redundant management
CRU 0211 uses Redfish compliant PSME RestAPI which is an Intel® Rack Scale Design compliant and open interface.

The Ericsson Command Center management system accesses the CRU 0211 through the 1GE management ports.

High speed memory for demanding virtualization and cloud workloads
Up to 3 TB in 24 dual in-line memory module (DIMM) slots support memory-hungry virtualization environments with low latency.

Expansion slots
The CRU 0211 sled has PCIe Gen3 expansion slots that accepts both standard FHHL & LP-MD2 PCIe cards. There is also a mezzanine slot for 16-port HBA-card. See specification for details. In addition, there is two 1Gbit Ethernet ports on a PHY card.

Flexible storage options
CRU 0211 provides twenty-four hot pluggable 2.5-inch slots in front which can be populated with SAS/SATA drives and 2 in rear. The 2 fixed in rear could also be populated with SATA drives specification for HBA alternatives.

In addition, it is possible to attach one or more Ericsson Storage Units (SRU) to the CRU through a high-speed SAS HBA 16*12Gbps. If you have configured the compute resources of the CRU into the common pool, you can add storage resources as part of a vPOD configuration.

Redundancy
The CRU 0211 is designed to support redundant configurations e.g. dual power supplies and control network ports.

More powerful with lower cooling costs
The CRU 0211 is designed for the extended temperature range 5-40 degrees Celsius. This in combination with the Intel® Xeon® Scalable processor family technology which increases performance and enhancing the power efficiency, makes it possible to overall lower the OPEX.

Faster networking across longer distances
Possibility to have single-mode optics gives CRU 0211 the capability to support networking across 25GE. It supports distances between resources longer than 500 meters with no significant latency.

CRU 0211 and Ericsson Software Defined Infrastructure
CRU 0211 is a hardware component 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. CRU 0211 is 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.

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

Form factor — 2U rack unit

Dimensions sled
Width — 440 mm (full width)
— 17.3 inches (full width)
Height — 2U (87.5 mm)
— 2U (3.4 inches)
Depth — 780 mm
— 30.7 inches
Weight — About 35 kg/77 lbs. for maximum configuration

Environmental
— Operating temperature: 5˚C to 40˚C (41˚F to 104˚F)
— Non-operating temperature: -40˚C to 70˚C (-40˚F to 158˚F)
— Operating relative humidity: 20% to 85% RH
— Non-operating relative humidity: 10% to 95% RH

Processor
Processor type — Intel® Xeon® Scalable processor family
Number of processors — 2

Internal interconnect — 10.4GT/s, 9.6GT/s
L3 Cache — Depends CPU SKU
Maximum TDP support — 205W

Memory
Total slots — 24 DIMM slots (12 per socket)
Capacity — Up to 3.0 TB
Memory Type — DDR4 RDIMM or LRDIMM

Storage
Type — Twenty-four hot pluggable 2.5-inch SAS/SATA slots in front and 2 hot pluggable fixed SATA slots in rear.
Interface — SATA 6 Gbps for HDD and SSD
— SAS 12GBps for HDD and SSD

System management — IPMI v2.0-compliant
— DCMI 1.0
— PSME
Remote system management — IPMI v2.0-compliant
— DCMI 1.0
— SOL (Serial over LAN) over 1 GbE interface
— KVM (keyboard, video, mouse) over IP

Expansion slots
— There is an internal mezzanine card slot for internal HBA card.
— The standard cord PCIe Gen3 slots with following possible slot maximum allocation
— Riser 3 — CPU1

Riser 3 — CPU1
Case | LP2-MD2 | FHHL | 1x Gen3 x16 + 1x Gen3 x8 | Not available
— 3x Gen3 x8
— Not available

Riser 2 — CPU1
Case | LP2-MD2 | FHHL | 1x Gen3 x8 & 1x Gen3 x16
— 3x Gen3 x8
— 1x Gen3 x8

Examples of configurable NICs and HBAs through expansion slots
— Eth NIC 2 x 10 GbE SFP+
— Eth NIC 2 x 40 GbE (limited to 50 GbE traffic flow) QSFP+
— Eth NIC 2 x 25 GbE SFP28
— SAS HBA 16 x 12 Gbps, SAS mini HD connections
— SAS mezzanine HBA 16 x 12 Gbps, internal connections

Power supply
Redundant power supply — 100-240 VAC 2x 800 W PSU
— -48 VDC 2x 1100 W PSU

Cooling — 6 dual rotor fans (11 + 1 redundant)
## Standards and regulations

### EMC
- EMC Directive, ETSI EN 300 386, Electromagnetic compatibility and Radio Spectrum Matters (ERM); Telecommunications network equipment Electromagnetic Compatibility (EMC) requirements

### Emission

### Immunity
- CISPR 24/EN 55 024:2015
- CISPR 35/EN 55 035:2016

### FCC 47 Part 15: subpart B Class A
- Unintentional radiators

### Safety

### 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