

Glossary of Terms and Acronyms

Cloud Execution Environment

TERMINOLOGY

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1 Introduction

This document lists the terms and acronyms used in the documentation for the Ericsson Cloud Execution Environment (CEE). Some of these terms serve cross-reference purposes.

The arrow symbol \Rightarrow indicates a reference to another entry.

2 Terms

2.1 A-E

Ansible playbook	Ansible playbooks are used to orchestrate the deployment of Ericsson components after the deployment of OpenStack core components.
Atlas	Atlas is a set of management tools, that provides a web-based user interface to CEE services, and application life cycle management. Atlas is based on existing open source OpenStack components, Horizon and Heat. Atlas is connected to the CIC's northbound interface and has no connectivity to the internal control networks. From CEE point of view, Atlas is a single VM, running in each region, without High Availability, and enables management of multiple CEE regions. Cloud Manager can centrally manage the infrastructure through the Atlas northbound interface and also directly the network infrastructure that is not managed by CEE, for example, DC-GW and DC-FW.
CIC	Cloud Infrastructure Controller. The CIC domain. See vCIC.
CLI	Command-Line Interface. A text-based user interface for management, as opposed to a GUI. Conveniences like command history, command completion, and context-sensitive help are provided.
Cobbler	Fuel component, provisioning service.
Compute	Compute provides compute capabilities to virtual applications.
Compute host	A physical host dedicated to run compute nodes.



Compute node	A node that runs the compute daemon, a VM instance that provides a wide range of services such as a web service and analytics.
CSC	Cloud SDN Controller. The CSC provides an overlaid network connectivity for virtual or physical network functions within a data center. Service providers can use this product to set up logical overlay networks within the data center, automating network service provisioning and optimizing the use of their data center compute and networking investments. CSC is integrated with vCIC and consequently there are three instances of CSC in the CEE. CSC is based on ODL.
CSS	Cloud SDN Switch. Cloud SDN Switch release 4.
DC-GW	<p>Data Center Gateway. Connectivity from the data center internal networks to data center external networks is realized through DC-GW. DC-GW acts as a gateway to the external networks. DC-GW in the datacenter resolves the local Ethernet connectivity to either an L2 or L3 VPN across the external networks, either through simple encapsulation, or interworking of encapsulations. DC-GW can provide both L2 and L3 connectivity to the enterprise VPN or private datacenter and L3 connectivity to the public internet, or virtualized L2 connectivity between cloud physical sites, that is, other data centers. Also, L3 VPN for data plane and control plane can be extended over DC-GW.</p> <p>DC-GW is not included in CEE.</p>
DM-MPIO	Linux Device Mapper iSCSI multipath.
enclosure	See shelf.
ephemeral storage	Non-persistent block storage.
F-K	
Fuel	Fuel is an open source component for OpenStack software life cycle management, adding installation, update, and equipment management support for a CEE instance.
HAProxy	Service used to provide a single north-bound IP address from the CIC cluster.
host	A physical unit referring to the hardware, the operating system, or the hypervisor.



2.3	host OS	An operating system running on a physical processor.
	hostname	A label assigned to a device on a computer network.
	Identity Service	Provide identity, token, catalog, and policy services.
	kickstart	Computer used to install CEE.
	L-P	
	LIA	Light Installation Agent. LIA is installed on each dedicated ScaleIO server and compute host with SDC. It enables the performance of various maintenance operations.
	ML2	Modular Layer 2. The Modular Layer 2 plugin for Neutron in OpenStack.
	Nailgun	Python-based main Fuel component. Nailgun implements REST APIs and the deployment of data management, and manages the configuration data necessary for deployment.
	node	A logical device or operational unit in the network.
	object storage	Replicated storage of files. Only used internally, not exposed as a service to tenants.
2.4	PCI	Peripheral Component Interconnect. The format is “DDDD:BB:SS.F” where: <ul style="list-style-type: none"> — D stands for the domain — B stands for the bus — S stands for the slot — F stands for the function
	playbook	See Ansible playbook.
	pod	A pre-integrated building block of HW and SW components.
	Puppet	The deployment service used to install OpenStack core components.
	Q-T	
	QSFP+	Quad Small Form-factor Pluggable transceiver. QSFP+ supports data transfers up to 40Gb/s.
	region	A discrete OpenStack environment with dedicated API endpoints, that typically shares only the Identity Service with other regions.



ScaleIO	Distributed storage solution from EMC ² .
SDC	ScaleIO Data Client. SDC is a lightweight device driver that exposes ScaleIO volumes as block devices to the application residing on the compute host.
SDS	ScaleIO Data Server. SDS manages the capacity of a dedicated ScaleIO server.
shelf	Describes placement in a cabinet. Also called subrack or enclosure.
stratum	Level defining the distance from the network reference clock. A lower stratum value implies a more reliable time source.
subrack	See shelf.
Telemetry	Collect measurements about the use of the physical and virtual resources comprising deployed clouds.
ToR	Top of Rack. Top of Rack switch (deprecated term, replaced by “traffic switch” or “physical switch”).

2.5

U-Z

Units of measurement

Due to conflicting standards JESD100B.01 and ISO/IEC 80000:13 and colloquial use, OpenStack and 3PP documentation uses the K, M and G prefixes inconsistently. Also, the host and guest OSs and individual OpenStack components use units of measurement and prefixes inconsistently. To conform to relevant 3PP and OpenStack documentation, the units of measurement and prefixes are used in the following manner in CEE documents:

— With regard to storage and memory, unless indicated otherwise, the unit of measurement is **bytes** and the following prefixes are used:

- KiB: kibibytes, 2^{10} bytes. According to ISO/IEC 80000:13.
- MiB: mebibytes, 2^{20} bytes. According to ISO/IEC 80000:13.
- GiB: gibibytes, 2^{30} bytes. According to ISO/IEC 80000:13.
- TiB: tebibytes, 2^{40} bytes. According to ISO/IEC 80000:13.



- With regard to networking, unless indicated otherwise, the unit of measurement is **bits** and the following prefixes are used:
 - Kbps: kilobits per second, 10^3 bits per second. According to ISO/IEC 80000:13.
 - Mbps: megabits per second, 10^6 bits per second. According to ISO/IEC 80000:13.
 - Gbps: gigabits per second, 10^9 bits per second. According to ISO/IEC 80000:13.
- In CEE documents related to OpenStack Nova and Atlas, the following prefixes are also used:
 - KB: kilobytes, 2^{10} bytes. According to JESD100B.01.
 - MB: megabytes, 2^{20} bytes. According to JESD100B.01.
 - GB: gigabytes, 2^{30} bytes. According to JESD100B.01.
 - TB: terabytes, 2^{40} bytes. According to JESD100B.01.

Deviation from the definition described in this term is indicated in the affected document.

Note: Reference documentation, such as OpenStack and EMC documentation included in CEE CPI can deviate from the use described in this term.

vCIC	Virtual Cloud Infrastructure Controller. The vCIC provides the infrastructure for running a cloud environment on supported hardware configurations.
vCIC host	Physical host running a vCIC node.
vFuel	vFuel is an Ericsson component based on Fuel, running as a VM, providing the runtime environment for Fuel services.



VLAN	Virtual LAN. A logical LAN that is implemented on a physical LAN and carries a subset of the traffic, interconnecting a group of stations, so that they can communicate directly with each other, but not with stations on other VLANs. VLANs are used for traffic separation and efficient decoupling of broadcast domains. The separation of traffic in a VLAN is based on categorization of packets. In their headers, the packets on the LAN contain a VLAN identifier, which is unique to each VLAN.
VNX	Family of central storage solutions from EMC ² .
VXLAN	Virtual eXtensible Local Area Network. VXLAN is a network virtualization technology that creates an overlay network by encapsulating the Ethernet packets of the customer into IP packets on the DC network infrastructure. VXLAN tunnels refer to VXLAN traffic between VTEPs, which are typically carried over an IPv4 network. VXLAN tunnels need to be created between the VTEPs. The VXLAN tunnels can be created through OVSDb, as typically used by CSC.



Glossary

3GPP

3rd Generation Partnership Project

ACL

Access Control List

AEF

Additional Environment File

ALUA

Asymmetric Logical Unit Access

AMQP

Advanced Message Queuing Protocol

API

Application Programming Interface

ARP

Address Resolution Protocol

ASP

Application Service Provider

BBSC

Broadband Service Controller

BGCI

Blade Group Control Interface

BGP

Border Gateway Protocol

BGW

Border Gateway (deprecated term, replaced by ⇒DC-GW)

BIOS

Basic Input/Output System

BM

Bare Metal

BOM

Bill Of Material

BoQ

Bill of Quantity

BSP

Ericsson Blade Server Platform

C-VLAN

Customer VLAN

CA

Certificate Authority

cApp

Cloud Application

CAX

Cabinet Aggregated Switch

CCM

Continuity Check Message

Command Center Manager

CEE

Cloud Execution Environment

CEEADM

Cloud Execution Environment Administrator

CFM

Connectivity Fault Management

CIC

Cloud Infrastructure Controller

CIDR

Classless Inter-Domain Routing

CLI

Command-Line Interface

CM-HA

Continuous Monitoring High Availability

CMS

Console Management Server



CMU
Chassis Management Unit

CMX
Component Main Switch

CMXB
Component Main Switch Board

COTS
Commercial off the Shelf

CPU
Central Processing Unit

CRU
Compute Rack Unit

CSAR
Cloud Service Archive

CSC
Cloud SDN Controller

CSR
Certificate Signing Request
Customer Service Request

CSS
Cloud SDN Switch

CSU
Compute Sled Unit

CU
Capturing Unit

DB
Database

DAS
Direct-Access Storage

DC
Data Center

DC-FW
Data Center Firewall

DC-GW
Data Center Gateway

DDoS
Distributed Denial of Service

DHCP
Dynamic Host Configuration Protocol

DMTF
Distributed Management Task Force

DMX
Distributed Main Switch

DMXC
Distributed Main Switch Controller

DMZ
Demilitarized Zone

DN
Distinguished Name

DNAT
Destination NAT

DNS
Domain Name System

DoS
Denial of Service

DPDK
Data Plane Development Kit

EAS
Equipment Access Switch

EBS
Ericsson Blade System

ECM
Ericsson Cloud Manager

ECMP
Equal-Cost Multi-Path

EGEM2
Enhanced Generic Ericsson Magazine, type 2

E-LAN
Ethernet Local Area Network

EMC
Storage service provider EMC²

**EPG**

Evolved Packet Gateway

EqM

Equipment Management

ESC

Edge Switch Cluster

ESD

Electrostatic Discharge

ETSI

European Telecommunications Standards Institute

EVS

Ericsson Virtual Switch (deprecated term, replaced by \Rightarrow CSS)

EXOS

ExtremeXOS

FAST

Fully Automated Storage Tiering

FM

Fault Management

FTPS

File Transfer Protocol Secure

FW

Firmware

Firewall

FWaaS

Firewall as a Service

GA

General Availability

GB

Gigabyte, 2^{30} bytes. According to JESD100B.01.

Refer to “Units of measurement” in Glossary of Terms and Acronyms

Gbps

Gigabits per second, 10^9 bits per second. According to ISO/IEC 80000:13.

Refer to “Units of measurement” in Glossary of Terms and Acronyms

GE

Gigabit Ethernet

GEP

Generic Ericsson Processor

GiB

Gibibyte, 2^{30} bytes. According to ISO/IEC 80000:13.

Refer to “Units of measurement” in Glossary of Terms and Acronyms

GID

Group Identifier

GPG

GNU Privacy Guard

GRE

Generic Routing Encapsulation

GUI

Graphical User Interface

GW

Gateway

HA

High Availability

HDD

Hard Disk Drive

HDS

Ericsson Hyperscale Datacenter System

HOT

Heat Orchestration Template

HP

Hewlett-Packard, used for personal computing and printing
 \Rightarrow HPE, for enterprise solutions

**HPE**

Hewlett Packard Enterprise

HT

Hyper-Thread

HTTP

Hypertext Transfer Protocol

HTTPS

Hypertext Transfer Protocol Secure

HW-VTEP

Hardware VTEP

IM

Installation Manager

I/O

Input/output

IaaS

Infrastructure as a Service

ICMP

Internet Control Management Protocol

IdAM

Identity and Access Management

iDRAC

Integrated Dell Remote Access Control

IDS

Intrusion Detection System

IEC

International Electrotechnical Commission

iLO

Integrated Lights Out

IOC

I/O Cards

IPMI

Intelligent Platform Management Interface

ISC

Inter Switch Connection

iSCSI

Internet Small Computer System Interface

IPS

Intrusion Prevention System

IRP

Intermediate Release Package

ISL

InterSwitch link

ISP

In-Service Performance

JSON

JavaScript Object Notation

KB

Kilobyte, 2^{10} bytes. According to JESD100B.01.

Refer to “Units of measurement” in Glossary of Terms and Acronyms

Kbps

Kilobits per second, 10^3 bits per second. According to ISO/IEC 80000:13.

Refer to “Units of measurement” in Glossary of Terms and Acronyms

KiB

Kibibyte, 2^{10} bytes. According to ISO/IEC 80000:13.

Refer to “Units of measurement” in Glossary of Terms and Acronyms

KPI

Key Performance Indicator

KVM

Kernel-based Virtual Machine

L2-GW

Layer 2 Gateway

L3VPN

Layer 3 Virtual Private Network

LACP

Link Aggregation Control Protocol

**LACPDU**

Link Aggregation Control Protocol Data Unit

LAG

Link Aggregation

Link Aggregation Group

LAN

Local Area Network

LBaaS

Load Balancer as a Service

LC

Lucent Connector

LCT

Local Craft Terminal

Locally Connected Terminal

LDAP

Lightweight Directory Access Protocol

LIA

Light Installation Agent

LOM

Lights-Out Management

LUN

Logical Unit Number

MA

Maintenance Association

MAC

Media Access Control

MB

Megabyte, 2^{20} bytes. According to JESD100B.01.

Refer to “Units of measurement” in Glossary of Terms and Acronyms

Mbps

Megabits per second, 10^6 bits per second. According to ISO/IEC 80000:13.

Refer to “Units of measurement” in Glossary of Terms and Acronyms

MC-LAG

Multi-Chassis Link Aggregation Group

MLAG

Multi-Chassis Link Aggregation Group

MDM

Meta Data Manager

MEP

Maintenance End Point

MHF

Maintenance Intermediate Point Half Function

MiB

Mebibyte, 2^{20} bytes. According to ISO/IEC 80000:13.

Refer to “Units of measurement” in Glossary of Terms and Acronyms

MIB

Management Information Base

MII

Media Independent Interface

ML2

Modular Layer 2

MO

Managed Object

MOS

Mirantis OpenStack

MP

Maintenance Point

MPLS

Multiprotocol Label Switching

MPLSoGRE

Multiprotocol Label Switching over Generic Routing Encapsulation

MPO/MTP

Multiple-Fiber Push-On/Pull-off

MTU

Maximum Transmission Unit



NAPT
Network Address Port Translation

NAT
Network Address Translation

NB
Northbound

NBI
Northbound Interface

NE
Network Element

NeLS
Network License Server

NETCONF
Network Configuration Protocol

NFS
Network File System

NFV
Network Function Virtualization

NFVi
Network Function Virtualization Infrastructure

NFVO
Network Function Virtualization Orchestrator

NIC
Network Interface Controller

NIR
Network Impact Report

NMI
Non-Maskable Interrupt

NMS
Network Management Station

NOC
Network Operations Center

Network Operator Control

Network Operator Control domain

NPC
Network Processing Card

NTP
Network Time Protocol

NUMA
Non-Uniform Memory Access

NVM
Non-Volatile Memory

NVMe
Non-Volatile Memory Express

O&M
Operation and Maintenance

O/E
Optical / Electrical

OA
Onboard Administrator

OAM
Operation, Administration, and Maintenance

ODL
OpenDaylight

OF
OpenFlow

OMC
Operation and Maintenance Center

OOB
Out-of-band

OPEB
Optical Port Extender Board

OPI
Operational Instruction

OS
Operating System

OSTF
OpenStack Testing Framework

**OVA**

Open Virtualization Alliance

Open Virtualization Appliance

OVDK

Open vSwitch with Intel Dataplane Development Kit

OVF

Open Virtualization Format

OVFT

Open Virtualization Format Translator

OVS

Open Virtual Switch

OVSDB

Open vSwitch Database

PaaS

Platform as a Service

PAPI

Producer API

PC

Personal Computer

PCI

Peripheral Component Interconnect

PCIe

PCI Express

PCI-PT

PCI Passthrough

PCP

Priority Code Point

PDU

Power Distribution Unit

Protocol Data Unit

Product Development Unit

PF

Physical Function

PID

Process ID

PM

Performance Management

PMAPI

Performance Metrics API

PMD

Poll Mode Driver

PSIRT

Product Security Incident Response Team

PSU

Power Supply Unit

PXE

Preboot Execution Environment

QBGP

Quagga Border Gateway Protocol

QEMU

Quick Emulator

QPI

Quick Patch Interconnect

QSFP+

Quad Small Form-Factor Pluggable

RA

Router Advertisement

RAID

Redundant Array of Independent Disks

RBAC

Role-Based Access Control

RELP

Reliable Event Logging Protocol

REST

Representational State Transfer

RHEL

Red Hat Enterprise Linux

RSPAN

Remote Switched Port Analyzer



RPC
Remote Procedure Call

RX
Receiver Mode

SAN
Storage Area Network

SaaS
Software as a Service

SBI
Southbound Interface

SC
System Controller

SCP
Secure Copy

SCX
System Control Switch

SCXB
System Control Switch Board

SD
Security Domain

SDC
ScaleIO Data Client

SDK
Software Development Kit

SDN
Software Defined Networking

SDS
ScaleIO Data Server

SFP
Small Form-Factor Pluggable

SFTP
Secure File Transfer Protocol

SI
System Integration

SIEM
Security Information and Event Management

Security Information and Event Manager

SIO
ScaleIO

SLAAC
Stateless Address Autoconfiguration

SLES
SUSE Linux Enterprise Server

SM
Security Management

SNAT
Source NAT

SNMP
Simple Network Management Protocol

SOA
Service-Oriented Architecture

SP
Storage Processor

SPAN
Switched Port Analyzer

SPC
Services Processing Card

SPoF
Single Point of Failure

SR-IOV
Single Root-IOV, Input/Output Virtualization

SQL
Structured Query Language

SSD
Solid State Drive

SSH
Secure Shell

SSH-2
SSH version two



SSR Smart Services Router	TR Trouble Report
stdin standard input	TX Transmitter Mode
STP Spanning Tree Protocol	TXNR Transaction Number
SUS Shared Uplink Set	UDP User Datagram Protocol
SW-VTEP Software VTEP	UG User Guide
TB Tie-Breaker	UI User Interface
Terabyte, 2^{40} bytes, According to JESD100B.01.	UID User Identifier
Refer to “Units of measurement” in Glossary of Terms and Acronyms	ULC Undisciplined Local Clock
TCP Transmission Control Protocol	UNI User-to-Network Interface
TEAL Telco Enhancements Adaptation Layer	USM Unisphere Service Manager
TFTP Trivial File Transfer Protocol	URI Uniform Resource Identifier
TiB Tebibytes, 2^{40} bytes. According to ISO/IEC 80000:13.	URL Uniform Resource Locator
Refer to “Units of measurement” in Glossary of Terms and Acronyms	USB Universal Serial Bus
TLS Transport Layer Security	UTC Coordinated Universal Time
ToR Top of Rack (deprecated term, replaced by “traffic switch” or “physical switch”)	UUID Universally Unique Identifier
TOSCA Topology and Orchestration Specification for Cloud Applications	VC Virtual Connect
	vCIC Virtual Cloud Infrastructure Controller
	vCPU Virtual Central Processing Unit



VF

Virtual Function

vFuel

Virtual Fuel

VID

VLAN Identifier

VIM

Virtual Infrastructure Manager

Versatile Interface Module

VIP

Virtual IP

VLAN

Virtual Local Area Network

vDC

Virtual Data Center

VM

Virtual Machine

VNC

Virtual Network Control

Virtual Network Computing

VNF

Virtual Network Function

VNFM

Virtualized Network Function Manager

VNI

VXLAN Network Identifier

vNIC

Virtual Network Interface Card

Virtual Network Interface Controller

VP

Value Pack

VPN

Virtual Private Network

vPOD

Virtualized Performance Optimized Datacenter

VPNaaS

Virtual Private Network as a Service

VR

Virtual Router

VRF

Virtual Routing Function

Virtual Routing and Forwarding

VRID

Virtual Router Identifier

VRRP

Virtual Router Redundancy Protocol

vSwitch

Virtual Switch

VT-d

Intel Virtualization Technology for Directed I/O

VTEP

VXLAN Tunnel End Points

VXLAN

Virtual eXtensible Local Area Network

WAN

Wide Area Network

WSGI

Web Server Gateway Interface

XML

eXtensible Markup Language