

# Parameter List for Native Deployment

## Ericsson Dynamic Activation 1

---

ENGINEERING DATA

**Copyright**

© Ericsson AB 2017. All rights reserved. No part of this document may be reproduced in any form without the written permission of the copyright owner.

**Disclaimer**

The contents of this document are subject to revision without notice due to continued progress in methodology, design and manufacturing. Ericsson shall have no liability for any error or damage of any kind resulting from the use of this document.

**Trademark List**

All trademarks mentioned herein are the property of their respective owners. These are shown in the document Trademark Information.



# Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
1.1	Target Groups	1
1.2	Typographic Conventions	1
1.2.1	Parameters	1
<b>2</b>	<b>Configuring Nodes and Installing LDEwS</b>	<b>3</b>
2.1	Configuring Routers	3
2.2	Configuring Switches, BSP Common	6
2.3	Configuring cluster.conf	6
2.4	Disk Partitioning	8
2.4.1	Control Node Setup	9
2.4.2	Payload Node Setup	10
2.5	Configuring evip.xml	11
	<b>Reference List</b>	<b>13</b>





# 1 Introduction

This document contains the basic information when installing Linux™ Distribution Extensions with SUSE (LDEwS). It also contains information about partition the disks, the third-party software, and, the Ericsson Dynamic Activation (EDA) installation on GEP3, or GEP5 blades. By using this document, readers are able to get necessary information about the parameters used in the installation.

## 1.1 Target Groups

The target groups for this document are as follows:

- Network Administrator
- System Administrators
- System Integrator
- Technicians who perform hardware installation and the first power-on

Basic knowledge about Linux and general information about Dynamic Activation is needed for installation of the software.

## 1.2 Typographic Conventions

Typographic conventions are described in the document *Library Overview*, Reference [2].

For information about abbreviations used throughout this document refer to *Glossary of Terms and Acronyms*, Reference [1].

### 1.2.1 Parameters

The parameters in this document can be of three types:

P - Predefined, not possible to change.

C - Customer configured after discussions with Ericsson.

S - Site-specific parameters. The site-specific parameters can be identified in *Customer Questionnaire for Native Deployment*, Reference [6].





## 2 Configuring Nodes and Installing LDEwS

This chapter lists parameters for configuring the nodes and installing LDEwS.

For more detailed information regarding network configuration of Dynamic Activation native deployment, refer to *Network Description and Configuration for Native Deployment*, Reference [5].

### 2.1 Configuring Routers

The following tables list parameters used when configuring the first routers.

*Table 1 Configuring Router CMX-0-26 VRRP*

Parameter	Description	Type
PROV_OM_CN	VLAN name for provisioning traffic network to customer network.	P, VLAN name
<PROV_OM_CN_VID>	VLAN Id for PROV_CN_SP to be defined both in internal network and customer network router.	S, VLAN tag
<PROV_OM_CN_CMX_0_26_IP>	Uplink provisioning traffic address for E7/GE2 port on CMX-0-26	S, IP address
<PROV_OM_CN_VRRP_GW_IP>	VRRP address used as gateway for provisioning traffic toward Network Elements.	S, IP address
<PROV_OM_CN_VRRP_IP>	Gateway for customer network for provisioning traffic towards Dynamic Activation	S, IP address
<PROV_OM_CN_VRRP_VRID>	Virtual Router Identifier. Must not be the same as the VRRP-VRID in customer equipment.	S, VRID tag
OM_CN_SP	VLAN name for OAM network to customer network.	P, VLAN name
<OM_CN_SP_VID>	VLAN tag to be defined both in internal network and customer network router.	S, VLAN tag
<OM_CN_SP_CMX_0_26_IP>	Uplink OAM address for E7/GE4 port on CMX-0-26.	S, IP address
<OM_CN_SP_VRRP_IP>	Gateway for customer network for OAM towards Dynamic Activation.	S, IP address
<OM_CN_SP_VRRP_VRID>	Virtual Router Identifier. Must not be the same as the VRRP-VRID in customer equipment.	S, VRID tag
<OM_CN_SP_VRRP_GW_IP>	External gateway for OAM on OM_CN_SP from both routers.	S, IP address



Parameter	Description	Type
<PG_OM_SP1_VRRP_IP>	VRRP address for outgoing SYSOAM traffic.	S, IP address
<PG_OM_SP1_CMX_0_26_IP>	External address for CMX-0-26.	S, IP address
<E7 GE2>	Uplink Traffic, E7 or GE2 port type	S, Port type
<E7 GE4>	Uplink OAM, E7 or GE4 port type	S, Port type

Table 2 Configuring Router CMX-0-28 VRRP

Parameter	Description	Type
PROV_OM_CN	VLAN name for provisioning traffic network to customer network	P, VLAN name
<PROV_OM_CN_VID>	VLAN id for PROV_CN_SP to be defined both in internal network and customer network router.	S, VLAN tag
<PROV_OM_CN_CMX_0_28_IP>	Uplink provisioning traffic address for E7/GE2 port on CMX-0-28.	S, IP address
<PROV_OM_CN_VRRP_GW_IP>	VRRP address used as gateway for provisioning traffic toward Network Elements.	S, IP address
<PROV_OM_CN_VRRP_IP>	Gateway for customer network for provisioning traffic towards Dynamic Activation.	S, IP address
<PROV_OM_CN_VRRP_VRID>	Virtual Router Identifier Must not be the same as the VRRP-VRID in customer equipment.	S, VRID tag
OM_CN_SP	VLAN name for OAM network to customer network.	P, VLAN name
<OM_CN_SP_VID>	VLAN tag to be defined both in internal network and customer network router.	S, VLAN tag
<OM_CN_SP_CMX_0_28_IP>	Uplink OAM address for E7/GE4 port on CMX-0-28.	S, IP address
<OM_CN_SP_VRRP_IP>	VRRP address used as Gateway for customer network for OAM traffic towards Dynamic Activation system.	S, IP address
<OM_CN_SP_VRRP_VRID>	Virtual Router Identifier. Must not be the same as the VRRP-VRID in customer equipment.	S, VRID tag
<OM_CN_SP_VRRP_GW_IP>	External gateway for OAM on OM_CN_SP from both routers.	S, IP address
<PG_OM_SP1_VRRP_IP>	VRRP address for outgoing SYSOAM traffic.	S, IP address
<PG_OM_SP1_CMX_0_28_IP>	Router CMX-0-28 external IP address.	S, IP address
<E7 GE2>	Uplink Traffic, E7 or GE2 port type	S, Port type
<E7 GE4>	Uplink OAM, E7 or GE4 port type	S, Port type





**Table 3** *Configuring Router CMX-0-26 BFD*

Parameter	Description	Type
PROV_OM_CN	VLAN name for provisioning traffic network to customer network.	P, VLAN name
<PROV_OM_CN_CMX_0_26_CE0_GW_IP>	Default gateway used for outgoing provisioning traffic toward Network Elements.	S, IP address
<PROV_OM_CN_VID>	VLAN id for PROV_OM_CN to be defined both in internal network and customer network router.	S, VLAN tag
<PROV_OM_CN_CMX_0_26_IP>	Gateway for customer network for provisioning traffic towards Dynamic Activation on CMX-0-26 port E7/GE2.	S, IP address
OM_CN_SP	VLAN name for OAM network to customer network	P, VLAN name
<OM_CN_SP_CMX_0_26_CE0_GW_IP>	Default gateway used as gateway for OAM Traffic.	S, IP address
<OM_CN_SP_VID>	VLAN tag to be defined both in internal network and customer network router.	S, VLAN tag
<OM_CN_SP_CMX_0_26_IP>	Gateway for customer network for OAM towards Dynamic Activation on CMX-0-26. Cable is connected to CMX-0-26 port E7/GE4.	S, IP address
<PG_OM_SP1_VRRP_IP>	VRRP address for outgoing SYSOAM traffic.	S, IP address
<PG_OM_SP1_CMX_0_26_IP>	Router CMX-0-26 external IP address	S, IP address
<E7/GE2>	Uplink Traffic, E7 or GE2 port type	S, Port type
<E7/GE4>	Uplink OAM, E7 or GE4 port type	S, Port type

**Table 4** *Configuring Router CMX-0-28 BFD*

Parameter	Description	Type
PROV_OM_CN	VLAN name for provisioning traffic network to customer network.	P, VLAN name
<PROV_OM_CN_CMX_0_28_CE1_GW_IP>	Default Gateway used for outgoing provisioning traffic toward Network Elements.	S, IP address
<PROV_OM_CN_VID>	VLAN id for PROV_OM_CN to be defined both in internal network and customer network router.	S, VLAN tag
<PROV_OM_CN_CMX_0_28_IP>	Gateway for customer network for provisioning traffic towards Dynamic Activation on CMX-0-28 port E7/GE2.	S, IP address
OM_CN_SP	VLAN name for OAM network to customer network	P, VLAN name
<OM_CN_SP_CMX_0_28_CE1_GW_IP>	Default gateway used as gateway for OAM traffic.	S, IP address



Parameter	Description	Type
<OM_CN_SP_VID>	VLAN Id for OM_CN_SP_CMX_0_28 to be defined both in internal network and customer network router.	S, VLAN tag
<OM_CN_SP_CMX_0_28_CE1_GW_IP>	Default gateway used as gateway for OAM Traffic.	S, IP address
<PG_OM_SP1_VRRP_IP>	VRRP address for outgoing SYSOAM traffic.	S, IP address
<PG_OM_SP1_CMX_0_28_IP>	Router CMX-0-28 external IP address	S, IP address
<E7 GE2>	Uplink Traffic, E7 or GE2 port type	S, Port type
<E7 GE4>	Uplink OAM, E7 or GE4 port type	S, Port type

## 2.2 Configuring Switches, BSP Common

The following table lists parameters used when configuring the switches, BSP Common.

*Table 5 Configuring Switches*

Parameter	Description	Type
<BSP_NBI_NW>	Network for collapsed northbound, BSP access.	S, IP address
<BSP_NBI_VRRP_IP>	VRRP address for outgoing BSP management traffic.	S, IP address
<BSP_NBI_IP>	External collapsed northbound BSP IP.	S, IP address
<BSP_NBI_CMX_0_26_IP>	IP-address CMX-0-26 in VLAN BSP_NBI	S, IP address
<BSP_NBI_CMX_0_28_IP>	IP-address CMX-0-26 in VLAN BSP_NBI	S, IP address
<NTP-SERVER-1-IP>	NTP server in customer network	S, IP address
<NTP-SERVER-2-IP>	NTP server in customer network	S, IP address

## 2.3 Configuring cluster.conf

The following table lists configurable parameters included in the `cluster.conf` file:

The `cluster.conf` file is configured according to the file presented in *Hardware Installation and IP Infrastructure Setup for Native Deployment GEP5*, Reference [3] if using GEP5, or *Hardware Installation and IP Infrastructure Setup for Native Deployment GEP3*, if using GEP3.



**Table 6** Configurable Parameters in *cluster.conf*

Parameter	Description	Type
<DNS-SERVER-1>	DNS server in customer network	S, IP address
<DNS-SERVER-2>	DNS server in customer network	S, IP address
<TIMEZONE>	Timezone, for example Europe/Stockholm	text/string
<MAC-ADDRESS-1>	SC1 MAC address for eth3.	S, MAC address
<MAC-ADDRESS-2>	SC1 MAC address for eth4.	S, MAC address
<MAC-ADDRESS-3>	SC1 MAC address for eth5.	S, MAC address
<MAC-ADDRESS-4>	SC1 MAC address for eth6.	S, MAC address
<MAC-ADDRESS-5>	SC2 MAC address for eth3.	S, MAC address
<MAC-ADDRESS-6>	SC2 MAC address for eth4.	S, MAC address
<MAC-ADDRESS-7>	SC2 MAC address for eth5.	S, MAC address
<MAC-ADDRESS-8>	SC2 MAC address for eth6.	S, MAC address
<MAC-ADDRESS-9>	PL3 MAC address for eth3.	S, MAC address
<MAC-ADDRESS-10>	PL3 MAC address for eth4.	S, MAC address
<MAC-ADDRESS-11>	PL3 MAC address for eth5.	S, MAC address
<MAC-ADDRESS-12>	PL3 MAC address for eth6.	S, MAC address
<MAC-ADDRESS-13>	PL4 MAC address for eth3.	S, MAC address
<MAC-ADDRESS-14>	PL4 MAC address for eth4.	S, MAC address
<MAC-ADDRESS-15>	PL4 MAC address for eth5.	S, MAC address
<MAC-ADDRESS-16>	PL4 MAC address for eth6.	S, MAC address
<MAC-ADDRESS-17>	PL5 MAC address for eth3.	S, MAC address
<MAC-ADDRESS-18>	PL5 MAC address for eth4.	S, MAC address
<MAC-ADDRESS-19>	PL5 MAC address for eth5.	S, MAC address
<MAC-ADDRESS-20>	PL5 MAC address for eth6.	S, MAC address
<MAC-ADDRESS-21>	PL6 MAC address for eth3.	S, MAC address
<MAC-ADDRESS-22>	PL6 MAC address for eth4.	S, MAC address
<MAC-ADDRESS-23>	PL6 MAC address for eth5.	S, MAC address
<MAC-ADDRESS-24>	PL6 MAC address for eth6.	S, MAC address
<MAC-ADDRESS-25>	PL7 MAC address for eth3.	S, MAC address
<MAC-ADDRESS-26>	PL7 MAC address for eth4.	S, MAC address
<MAC-ADDRESS-27>	PL7 MAC address for eth5.	S, MAC address
<MAC-ADDRESS-28>	PL7 MAC address for eth6.	S, MAC address
<MAC-ADDRESS-29>	PL8 MAC address for eth3.	S, MAC address
<MAC-ADDRESS-30>	PL8 MAC address for eth4.	S, MAC address
<MAC-ADDRESS-31>	PL8 MAC address for eth5.	S, MAC address
<MAC-ADDRESS-32>	PL8 MAC address for eth6.	S, MAC address
<MAC-ADDRESS-33>	PL9 MAC address for eth3.	S, MAC address



Parameter	Description	Type
<MAC-ADDRESS-34>	PL9 MAC address for eth4.	S, MAC address
<MAC-ADDRESS-35>	PL9 MAC address for eth5.	S, MAC address
<MAC-ADDRESS-36>	PL9 MAC address for eth6.	S, MAC address
<MAC-ADDRESS-37>	PL10 MAC address for eth3.	S, MAC address
<MAC-ADDRESS-38>	PL10 MAC address for eth4.	S, MAC address
<MAC-ADDRESS-39>	PL10 MAC address for eth5.	S, MAC address
<MAC-ADDRESS-40>	PL10 MAC address for eth6.	S, MAC address
<MAC-ADDRESS-41>	PL11 MAC address for eth3.	S, MAC address
<MAC-ADDRESS-42>	PL11 MAC address for eth4.	S, MAC address
<MAC-ADDRESS-43>	PL11 MAC address for eth5.	S, MAC address
<MAC-ADDRESS-44>	PL11 MAC address for eth6.	S, MAC address
<MAC-ADDRESS-45>	PL12 MAC address for eth3.	S, MAC address
<MAC-ADDRESS-46>	PL12 MAC address for eth4.	S, MAC address
<MAC-ADDRESS-47>	PL12 MAC address for eth5.	S, MAC address
<MAC-ADDRESS-48>	PL12 MAC address for eth6.	S, MAC address
<PG_OM_SP1_NW>	The PG_OM_SP1 network that handles OAM traffic such as SSH and SNMP	S, IP address
<PG_OM_SP1_SC_1_IP>	External address SC-1 <sup>(1)</sup>	S, IP address
<PG_OM_SP1_SC_2_IP>	External address SC-2 <sup>(1)</sup>	S, IP address
<PG_OM_SP1_VRRP_IP>	VRRP address for outgoing OAM traffic such as SSH and SNMP.	S, IP address
<HOSTNAME-SC-1>	Hostname of SC-1	S
<HOSTNAME-SC-2>	Hostname of SC-2	S
<HOSTNAME-PL-3>	Hostname of PL-3	S
<HOSTNAME-PL-4>	Hostname of PL-4	S
<HOSTNAME-PL-5>	Hostname of PL-5	S
<HOSTNAME-PL-6>	Hostname of PL-6	S
<HOSTNAME-PL-7>	Hostname of PL-7	S
<HOSTNAME-PL-8>	Hostname of PL-8	S
<HOSTNAME-PL-9>	Hostname of PL-9	S
<HOSTNAME-PL-10>	Hostname of PL-10	S
<HOSTNAME-PL-11>	Hostname of PL-11	S
<HOSTNAME-PL-12>	Hostname of PL-12	S

(1) External corresponds to PG\_OM\_SP1

## 2.4 Disk Partitioning

The following table lists configurable parameters for disk partitioning:



Table 7 Disk Partitioning

Label	Description	Type
DVE_LOGS	Log storage on local disks. Currently used for ESA logs	P
CAS_COMLOG	Cassandra Commit log storage.	P
CAS_DATA	Cassandra Data storage.	P

### 2.4.1 Control Node Setup

This section includes information about the partitions, partition sizes, mount points and more on the control nodes, for both GEP3 and GEP5 blades.

If using GEP3, see Table 8.

If using GEP5, see Table 9.

Table 8 Control Node &lt;Device&gt; - GEP3

<Device>				
300 GB Disk.				
Partition	Size	File System	Mount Point	Comment
/dev/<device 1>	4 GB	ext3	/boot	-
/dev/<device 2>	10 GB	ext3	/var/log	-
/dev/<device 3>	8 GB	swap	-	-
/dev/<device 4>	-	-	-	Used by LDEwS
/dev/<device 5>	-	-	-	Used by LDEwS
/dev/<device 6>	40 GB	NFS	/cluster	Used as device /dev/drbd0  The size of this partition is 80 GB, but 40 GB is reserved for snapshots.
/dev/<device 7>	10 GB	ext3	/var/cassandra/commitlog	Used by processing logs
/dev/<device 8>	179 GB	ext3	/var/cassandra/data	Used by processing logs
/dev/drbd0	40 GB	ext3	./cluster	The size of this partition is 80 GB, but 40 GB is reserved for snapshots.

*Table 9 Control Node <Device> - GEP5*

<Device>				
3* 400 GB Disk.				
Partition	Size	File System	Mount Point	Comment
/dev/<device 1>	4 GB	ext3	/boot	-
/dev/<device 2>	10 GB	ext3	/var/log	-
/dev/<device 3>	8 GB	swap	-	-
/dev/<device 4>	-	-	-	Used by LDEwS
/dev/<device 5>	-	-	-	Used by LDEwS
/dev/<device 6>	40 GB	NFS	/cluster	Used as device /dev/drbd0  The size of this partition is 80 GB, but 40 GB is reserved for snapshots.
/dev/<device 7>	10 GB	ext3	/var/cassandra/commitlog	Used by processing logs
/dev/<device 8>	1000 GB	ext3	/var/cassandra/data	Used by processing logs
/dev/drbd0	40 GB	ext3	./cluster	The size of this partition is 80 GB, but 40 GB is reserved for snapshots.

## 2.4.2

### Payload Node Setup

This section includes information about the partitions, partition sizes, mount points and more on the payload nodes, for both GEP3 and GEP5 blades.

If using GEP3, see Table 10.

If using GEP5, see Table 11.

*Table 10 Payload Node <Device>*

<Device>				
300 GB Disk.				
Partition	Size	File System	Mount Point	Comment
/dev/<device 1>	10 GB	ext3	/var/dve	Reserved for persistent node-specific data, for example, logs. DVE_LOGS label is used for this partition.



<Device>				
300 GB Disk.				
Partition	Size	File System	Mount Point	Comment
/dev/<device 2>	10 GB	ext3	/var/cassandra/commitlog	Reserved for persistent node-specific data. CAS_COMLOG label is used for this partition.
/dev/<device 3>	179 GB	ext3	/var/cassandra/data	Reserved for persistent node-specific data. CAS_DATA label is used for this partition.

*Table 11 Payload Node <Device>*

<Device>				
3* 400 GB Disk.				
Partition	Size	File System	Mount Point	Comment
/dev/<device 1>	10 GB	ext3	/var/dve	Reserved for persistent node-specific data, for example, logs. DVE_LOGS label is used for this partition.
/dev/<device 2>	10 GB	ext3	/var/cassandra/commitlog	Reserved for persistent node-specific data. CAS_COMLOG label is used for this partition.
/dev/<device 3>	1000 GB	ext3	/var/cassandra/data	Reserved for persistent node-specific data. CAS_DATA label is used for this partition.

## 2.5 Configuring evip.xml

The following table lists configurable parameters included in the `evip.xml` file:

*Table 12 Configurable Parameters in evip.xml*

Parameter	Description	Type	Comment
<VIP-TRAFFIC-IP>	IP Address of provisioning traffic VLAN	S	Source and destination IP address for all provisioning traffic.
<VIP-OAM-IP>	IP Address of OAM VLAN	S	Source and destination IP address for all GUI traffic. Source for external NTP and DNS traffic.
<PG_OM_SP1_NW>	The SYSOAM network that handles OAM traffic such as SSH and SNMP.	S	Configured for all blades in the system.
<PG_OM_SP1_VRRP_IP>	VRRP address for outgoing SYSOAM traffic.	S	
<DNS-SERVER-1-IP>	DNS Address	S	
<DNS-SERVER-2-IP>	DNS Address	S	



Parameter	Description	Type	Comment
<OSS-IP>	OSS IP address for sending alarms	S	Configured for all blades in the system.
<HOSTNAME-SC-1>	Hostname of SC-1	S	
<HOSTNAME-SC-2>	Hostname of SC-2	S	
<HOSTNAME-PL-3>	Hostname of PL-3	S	
<HOSTNAME-PL-4>	Hostname of PL-4	S	
<HOSTNAME-PL-5>	Hostname of PL-5	S	
<HOSTNAME-PL-6>	Hostname of PL-6	S	
<HOSTNAME-PL-7>	Hostname of PL-7	S	
<HOSTNAME-PL-8>	Hostname of PL-8	S	
<HOSTNAME-PL-9>	Hostname of PL-9	S	
<HOSTNAME-PL-10>	Hostname of PL-10	S	
<HOSTNAME-PL-11>	Hostname of PL-11	S	
<HOSTNAME-PL-12>	Hostname of PL-12	S	





## Reference List

- [1] *Glossary of Terms and Acronyms*, 0033-CSH 109 628 Uen
- [2] *Library Overview*, 18/1553-CSH 109 628 Uen
- [3] *Hardware Installation and IP Infrastructure Setup for Native Deployment GEP5*, 3/1531-CSH 109 628 Uen
- [4] *Hardware Installation and IP Infrastructure Setup for Native Deployment GEP3*, 2/1531-CSH 109 628 Uen
- [5] *Network Description and Configuration for Native Deployment*, 2/1551-CSH 109 628 Uen
- [6] *Customer Questionnaire for Native Deployment*, 4/1057-CSH 109 628 Uen