

# SAPC Upgrade Information

Ericsson Service-Aware Policy Controller

## UPGRADE INFORMATION

## **Copyright**

© Ericsson España S A, 2017, 2018. 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>SAPC Upgrade Information Introduction</b>	<b>1</b>
1.1	SAPC Upgrade Information Prerequisites	1
1.1.1	Hardware Requirements	1
1.1.2	Software Requirements	1
1.2	Related Information	2
<b>2</b>	<b>Upgrade Overview</b>	<b>3</b>
2.1	Lead Times of Upgrade to SAPC 1.3	3
2.2	Downtime	4
2.3	Traffic Loss	5
2.4	Service Disturbances	6





# 1 SAPC Upgrade Information Introduction

This document contains information needed for upgrading to SAPC 1.3 .

This document is to be used when planning upgrades on customer sites and covers the following topics:

- Upgrade Prerequisites
- Upgrade Impact

This document is intended for personnel handling the planning of the upgrade of the SAPC.

## 1.1 SAPC Upgrade Information Prerequisites

This section describes the prerequisites which must be fulfilled before the SAPC can be upgraded to.

### 1.1.1 Hardware Requirements

- External Machine.
- At least 6 GB of free space in mounted hard disk at/cluster.

Following SAPC deployment layouts are supported for upgrade information:

- BSP 8100 (2SCs + 10PLs)
- NSP 6.1 (2SCs + 10PLs)
- VNF deployment (2SCs + 2PLs)
- VNF deployment (2SCs + 10PLs)

### 1.1.2 Software Requirements

The required SAPC SW components and versions are as follows:

- From: SAPC 1.0 (CXP 903 0138/7 R1B44) onwards, until SAPC 1.2 (CXP 903 0138/7 R3A)
- From: SAPC 1.2 (CXP 903 0138/7 R3A) onwards
- To: SAPC 1.3 (CXP 903 0138/7 R4A)



---

---

### **Attention!**

Except for SAPC 1.0 in NSP 6.1 deployments that must upgrade to SAPC 1.0.3 (CXP 903 0138/7 R1F) previously.

---

---

## 1.2 Related Information

The complete information of the upgrade process can be found in the following documents:

- SAPC 1 Network Impact Report
- SAPC Upgrade Instruction



## 2 Upgrade Overview

This section describes the upgrade procedure from an impact point of view.

### 2.1 Lead Times of Upgrade to SAPC 1.3

□ From previous SAPC releases to SAPC 1.2

For information on the lead time for upgrading the SAPC broken down into steps, see Table 1.

Table 1 Detailed Lead Times from Previous SAPC Releases to SAPC 1.2

SAPC	Estimated Time (Minutes)							Estimat ed Time during Mainte nance  Windo w (Hour s) <sup>(1)</sup>	Comm ent
	Pre Phase			Upgr ade	Post Phase				
	Back up	Pre Step s	Heal th Chec k		Heal th Chec k	Post Steps	Back up		
	Off Maintenance Window			During Maintenance Window					
BSP 8100  2+10 PLs	5	10	5	30	5		5	2	
NSP 6.1  2+10 PLs	5	10	5	55	5		5	2	
VNF  2+2P Ls <sup>(2)</sup>	5	10	5	30	5		5	2	
VNF  2+10 PLs <sup>(3)</sup>	5	10	5	30	5		5	2	

(1) Including a hypothetical RollBack procedure.

(2) PLs with 2 vCPU/10 GB.

(3) PLs with 8 vCPU/12 GB.

□ From SAPC 1.2 onward



For information on the lead time for upgrading the SAPC broken down into steps, see Table 2.

Table 2 Detailed Lead Times from SAPC 1.2 onward

SAPC	Estimated Time (Minutes)							Estimated Time during Maintenance Window (Hours) <sup>(1)</sup>	Comment
	Pre Phase			Upgrade <sup>(2)</sup>	Post Phase				
	Back up	Pre Steps	Health Check		Health Check	Post Steps	Back up		
Off Maintenance Window			During Maintenance Window						
BSP 8100 2+10 PLs	5	10	5	85	5		5	3	
NSP 6.1 2+10 PLs	5	10	5	140	5		5	4	
VNF 2+2PLs <sup>(3)</sup>	5	10	5	45	5		5	2	
VNF 2+10 PLs <sup>(4)</sup>	5	10	5	160	5		5	4	

(1) Including a hypothetical RollBack procedure.

(2) The upgrade time is directly proportional to amount of Pay Loads.

(3) PLs with 2 vCPU/10 GB.

(4) PLs with 8 vCPU/12 GB.

## 2.2 Downtime

- ☐ From previous SAPC releases to SAPC 1.2

During the upgrade the following down times are expected:

- Time without Service Accessibility:

Downtime is expected during the upgrade.





Access to VIPO is lost during the cluster reboot performed during the upgrade.

This downtime corresponds to the following output during the upgrade execution:

```
Error getting state of "SAPC-CXP9030138_7-7.2.0-16"
5 secs to retry [get_current_state
SAPC-CXP9030138_7-7.2.0-16] (100 attempts still remain)
```

— Time without Session Retainability:

Downtime is expected during the upgrade. Active sessions are lost during upgrade to SAPC 1.3.

**Note:** It is not recommended to execute Operational & Maintenance traffic during the upgrade process.

☐ From SAPC 1.2 onward

During the upgrade the following down times are expected:

— Time without Service Accessibility:

No Downtime is expected during the upgrade

Established connections with VIPO are disconnected for a moment.

— Time without Session Retainability:

Active sessions are not lost during upgrade to SAPC 1.3.

**Note:** It is not recommended to execute Operational & Maintenance traffic during the upgrade process.

## 2.3 Traffic Loss

☐ From previous SAPC releases to SAPC 1.2

During the upgrade the following traffic loss is expected:

Table 3 Detailed Traffic Loss Times from Previous SAPC Releases to SAPC 1.2

SAPC	Estimated traffic loss time (Minutes)	Comment
BSP 8100 2+10PLs	13	



SAPC	Estimated traffic loss time (Minutes)	Comment
NSP 6.1 2+10PLs	20	
VNF 2+2PLs <sup>(1)</sup>	12	
VNF 2+10PLs <sup>(2)</sup>	12	

(1) PLs with 2 vCPU/10 GB

(2) PLs with 8 vCPU/12 GB

☐ From SAPC 1.2 onward

Less than 2% traffic loss.

## 2.4 Service Disturbances

During the upgrade the following impact on services is expected:

- The Measurements handling by the Performance Manager are stopped during the Upgrade procedure.