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## INSTALLATION

**SAP®** Certified  
Powered by SAP NetWeaver®

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# EPO CONNECTOR INSTALLATION

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# 1 INTRODUCTION

This documentation is intended to provide:

- The settings for the Web Application Server (WAS) from SAP®
- The steps needed to install the EPO Connector

The configuration of services is not described in this document. You will find it in the “Configuration & Development Documentation”.

## 1.1 ACRONYMS

The following acronyms are used in this documentation.

Term	Meaning
WAS	Web Application Server from SAP
ABAP™	Programming language of SAP
ICF	Interface Communication Framework from SAP
ICM	Interface Communication Monitor from SAP

## 2 EPO CONNECTOR INSTALLATION INSTRUCTIONS

### 2.1 REQUIREMENTS

**Your SAP system needs to be WAS 6.20, 6.40, WAS 7.00 or newer.**

You can find the information in SAP GUI menu: *System - Status - SAP System data [Panel] - Component information [Button] - Software components SAP\_BASIS and SAP\_ABA* and their release numbers.

### 2.2 EPO CONNECTOR

**The EPO Connector is an official SAP component.**

You will install it like any other SAP product and the corresponding support packages. After installation you will find the software component EPO1 in the same place as SAP\_BASIS or SAP\_ABA described above.

#### 2.2.1 PREPARATION AND INSTALLATION USING SAINT

**For the initial installation you need to use transaction SAINT in client 000. Support packages can be installed later using transaction SPAM.**

The installation is not different to any SAP product installation. SAP administrators should have no difficulties performing the installation. The installation process should only take a few minutes.


The EPO Connector package must be visible in SAINT. To achieve this you need to either copy the .PAT file(s) to the directory ".../trans/EPS/in" or use transaction SAINT to upload .SAR or .CAR file from your front end. In latter case you first need to compress the .PAT file using SAPCAR utility from SAP.

After uploading the package(s) into the /EPS/in directory you can start the installation.

Follow the instructions given by transaction SAINT:

The initial screen of SAINT transaction shows installed Add-ons.


## Add-On Installation Tool - Version 7.00/0023




Add-On Installation Tool : Installed Add-ons


Add-ons and Preconfigured Systems installed in the system


Add-on/PCS	Release	Level	Description	Import cl.
PI_BASIS	2005_1_700	0011	PI_BASIS 2005_1_700	00
SAP_BW	700	0012	SAP NetWeaver BI 7.0	00







Status/Remarks

 The overview shows you the installed Add-ons and Preconfigured systems  
 - Choose [START] to start an installation or an upgrade

 Back

 Start

 Cancel

The pressed load button picture below shows does the same as menu entry *Installation packages – Load packages – From Application Server*.

## Add-On Installation Tool - Version 7.00/0023

Add-on Installation Tool: Add-on selection

Installable Add-on packages for your system

Add-On	Release	Description	Package type
		No Installation Packages are available	

◀ ▶

◀ ▶

Status/Remarks


Select a package from the installable Add-on packages

- Choose [CONTINUE] to start the calculation of the installation queue
- Choose [BACK] to go back to the overview of the installed Add-ons
- Choose [LOAD] to load additional packages from the application server

Back
 Continue
 Load

Screen 1 / 5
 Cancel

You will likely press yes if you want to upload the files from `.../trans/EPS/in` directory.



SAINT: Confirm upload









Path of EPS inbox: \\server\SAP\_share\trans\EPS\in

Do you want to upload OCS Packages from the EPS inbox?

Yes No

Next screen will show you all the uploaded files.

## SAINT: Uploading Packages from the File System

OCS File Name	Package	Result	RC	Message Text
AT10020214785_0000001.PAT	SAPK-31A04INEP01		0000	Uploaded successfully
AT10020214785_0000004.PAT	SAPK-31A05INEP01		0000	Uploaded successfully
AT10020214785_0000006.PAT	SAPK-31A06INEP01		0000	Uploaded successfully
AT10020214785_0000009.PAT	SAPK-31A07INEP01		0000	Uploaded successfully
AT10020214785_0000016.PAT	SAPK-31A08INEP01		0000	Uploaded successfully
AT10020214785_0000023.PAT	SAPK-31A09INEP01		0000	Uploaded successfully
AT10320043045_0000075.PAT	SAPK-31A01INEP01		0000	Uploaded successfully
AT10320043045_0000077.PAT	SAPK-31A03INEP01		0000	Uploaded successfully

Select the EPO1 Add-On and continue with installation.

## Add-On Installation Tool - Version 7.00/0023

Add-on Installation Tool: Add-on selection

Installable Add-on packages for your system

Add-On	Release	Description	Package type
EPO1	31A	EPO XML Connector	Installation

◀ ▶

◀ ▶

Status/Remarks

Select a package from the installable Add-on packages

- Choose [CONTINUE] to start the calculation of the installation queue
- Choose [BACK] to go back to the overview of the installed Add-ons
- Choose [LOAD] to load additional packages from the application server

Back
 Continue
 Load

Screen 1 / 5
 Cancel

Support package selection screen of SAINT. This screen allows you to select support patch installation with the add-on installation. I have selected EPO Connector 31A SP7 here.

## Add-On Installation Tool - Version 7.00/0023

Installation of Add-on EP01 Rel.31A : Support Package selection

Installation queue    Support Package selection

Software Comp.	Target Support Package	Level	Calculated Package	Level
EPO1	SAPK-31A09INEPO1	0007	SAPK-31A01INEPO1	0000
SAP_ABA				
SAP_BASIS				
PI_BASIS				
SAP_BW				

Status/Remarks

**i** You can extend the installation queue with further Support Packages

- Choose the required target Support Package for each component
- Choose [CONTINUE] to start the calculation of the extended installation queue
- Choose [BACK] to go back to the Add-on selection
- The tab page "Installation queue" displays the preliminary installation queue

Back    Continue    Logs    Screen 2 / 5    Cancel

From this screen on you don't need to change anything in the transaction. All following screens in the document are informative only.



## Add-On Installation Tool - Version 7.00/0023

Installation of Add-on EP01 Rel.31A : Calculated queue

Installation queue
Software Components

✓ OCS packages for import

OCS Package	Package type	Software Compo...	Release	Short descrip
SAPK-31A01INEPO1	Installation	EPO1	31A	EPO XML Co
SAPK-31A03INEPO1	Support Package	EPO1	31A	EPO1 31A: P
SAPK-31A04INEPO1	Support Package	EPO1	31A	EPO1 31A: P
SAPK-31A05INEPO1	Support Package	EPO1	31A	EPO1 31A: P
SAPK-31A06INEPO1	Support Package	EPO1	31A	EPO1 31A: P
SAPK-31A07INEPO1	Support Package	EPO1	31A	EPO1 31A: P
SAPK-31A08INEPO1	Support Package	EPO1	31A	EPO1 31A: P

**Status/Remarks**

The extended queue is consistent and matches the selected target packages

- Choose [CONTINUE] to import this queue
- Choose [BACK] to go back to the Support Package selection
- The tab page "Software Components" displays the result for every software component

Back
 Continue
 Logs

Screen 3 / 5

Cancel

SAINT: Add-on installation
X

The Add-On EP01 rel.31A is being installed.

To avoid already known problems, read SAP Note [822380](#) "Known Problems with Add-On Inst/Upgr in SAP NW 2004s AS ABAP".





The installation queue is imported using the following start options for the individual modules:

Preparation:		Start in dialog
Import 1:		Continue in dialog
Import 2:		Continue in dialog
Clean Up:		Continue in dialog

✓
 Note
 Start options

After the installation you can review the logs and finish the operation. Then you will be able to see a software component called EPO1 in your system status and in transaction SAINT.


## Add-On Installation Tool - Version 7.00/0023



Installation of Add-on EP01 Rel.31A : Imported queue



Installation queue

Software Components


 Imported OCS packages

OCS Package	Package type	Software Compo...	Release	Short descrip
SAPK-31A01INEPO1	Installation	EPO1	31A	EPO XML Co
SAPK-31A03INEPO1	Support Package	EPO1	31A	EPO1 31A: P
SAPK-31A04INEPO1	Support Package	EPO1	31A	EPO1 31A: P
SAPK-31A05INEPO1	Support Package	EPO1	31A	EPO1 31A: P
SAPK-31A06INEPO1	Support Package	EPO1	31A	EPO1 31A: P
SAPK-31A07INEPO1	Support Package	EPO1	31A	EPO1 31A: P
SAPK-31A08INEPO1	Support Package	EPO1	31A	EPO1 31A: P






Status/Remarks




The Add-on was successfully imported with the displayed queue


- Choose [LOGS] to display the import logs
- Choose [FINISH] to complete the installation

 Back

 Finish





 Logs

Screen 5 / 5

 Cancel



The last screen confirms the installation success. All other settings you need to do in your active client.



## Add-On Installation Tool - Version 7.00/0023


Add-On Installation Tool : Installed Add-ons




Add-ons and Preconfigured Systems installed in the system				
Add-on/PCS	Release	Level	Description	Import cl.
EPO1	31A	0007	EPO XML Connector	00
PI_BASIS	2005_1_700	0011	PI_BASIS 2005_1_700	00
SAP_BW	700	0012	SAP NetWeaver BI 7.0	00

**Status/Remarks**

 The Add-on EPO1 rel.31A was installed successfully  
 - Choose [START] to start another installation or another upgrade

 Back
  Start
  Cancel

## 3 SAP NETWEAVER APPLICATION SERVER (WAS) SETTINGS

### 3.1 SAP WAS – SUGGESTED CONFIGURATION

WAS = Web Application Server = the former SAP Basis, now a central part of SAP NetWeaver application server.

With a default installation of a SAP system, the WAS is already running. The only thing needed is setting the port number for HTTP.

**The documentation for SAP 47 can be found at the following links. This documentation is valid for other SAP releases, too. Also you can find the documentation for your SAP release on <http://help.sap.com>.**

**In English:**

[http://help.sap.com/saphelp\\_47x200/helpdata/en/86/25183a3bef2669e10000000a114084/frameset.htm](http://help.sap.com/saphelp_47x200/helpdata/en/86/25183a3bef2669e10000000a114084/frameset.htm)

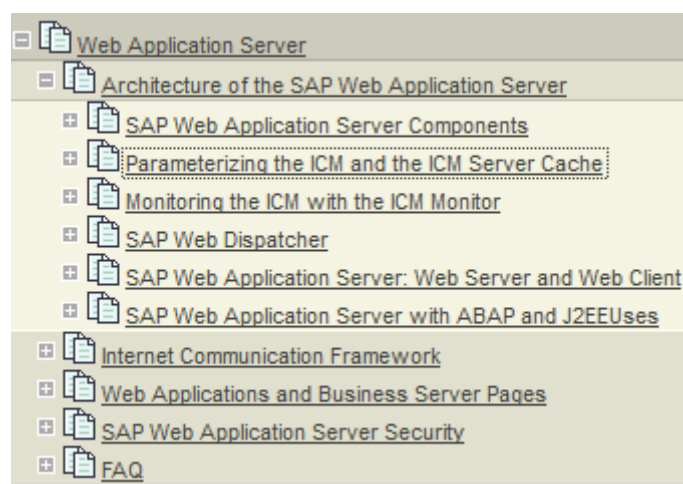
**In German:**

[http://help.sap.com/saphelp\\_47x200/helpdata/de/86/25183a3bef2669e10000000a114084/frameset.htm](http://help.sap.com/saphelp_47x200/helpdata/de/86/25183a3bef2669e10000000a114084/frameset.htm)

#### 3.1.1 THE MOST IMPORTANT SAP PROFILE PARAMETERS

Please ask your SAP Basis consultant for the setting of these profile parameters. The settings will be valid permanently only after a restart of the SAP server.

You can find all relevant profile parameters in the documentation of the WAS (see link above – open the subfolder as shown in the screenshot below).



**Parameter: `icm/server_port_<xx>`**

This parameter defines the port number for a protocol. <xx> must be specified in ascending order from 0.

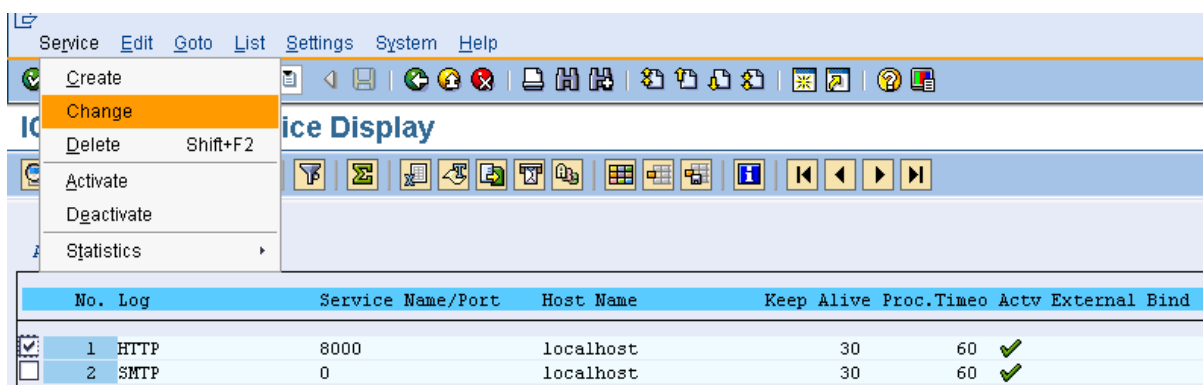
**icm/server\_port\_0 = PROT=HTTP, PORT=8000**

#icm/server\_port\_1 = PROT=HTTPS, PORT=8443

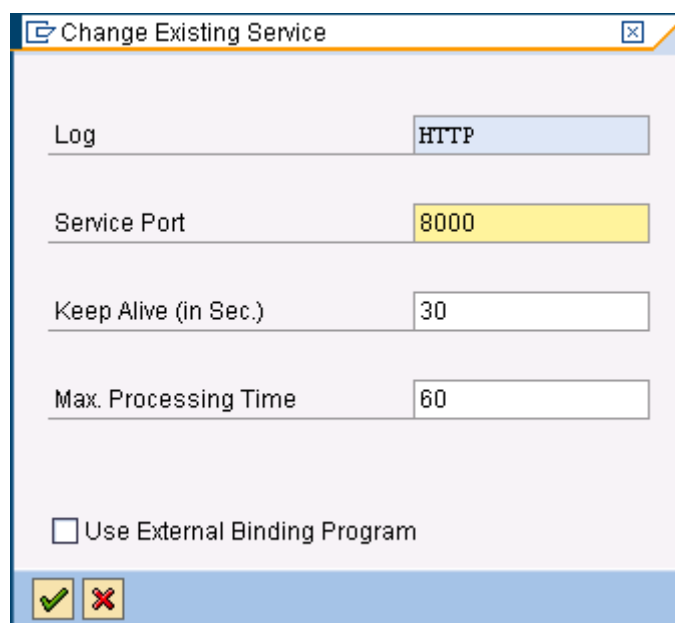
#icm/server\_port\_2 = PROT=SMTP, PORT=8025

When setting this parameter, the ICF should already be ready to use. For testing purposes you can set this parameter temporarily directly in SAP.

Use transaction SMICM and go to the service display. Selecting the “Change” menu entry allows you changing the port and the timeout setting for a service temporarily:



No.	Log	Service Name/Port	Host Name	Keep Alive	Proc.Timeo	Actv	External Bind
1	HTTP	8000	localhost	30	60	✓	
2	SMTP	0	localhost	30	60	✓	



Change Existing Service

Log: HTTP

Service Port: 8000

Keep Alive (in Sec.): 30

Max. Processing Time: 60

☐ Use External Binding Program

OK Cancel

### Parameter: icm/plugin\_<xx>

This parameter specifies the protocols supported by the ICM. The HTTP and SMTP services are often already installed on the system. In this case you do not need to set this parameter.

### 3.1.2 OTHER PROFILE PARAMETERS

All other profile parameters are described also in detail in the SAP documentation (see link above). They will only be important in a production environment and if there is heavy workload expected. Otherwise the default parameters will do the job.

You should check all these parameters before using the WAS in a production environment.

### 3.1.3 TESTING THE WAS

The WAS server has a PING function. You can test it with the SAP standard PING function or after installation of the EPO Connector with the PING function in there.

Open a web browser and enter the following URL:

#### 3.1.3.1 SAP STANDARD PING:

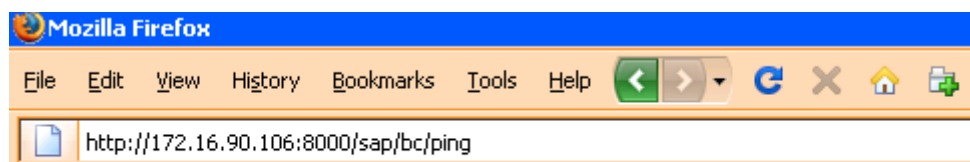
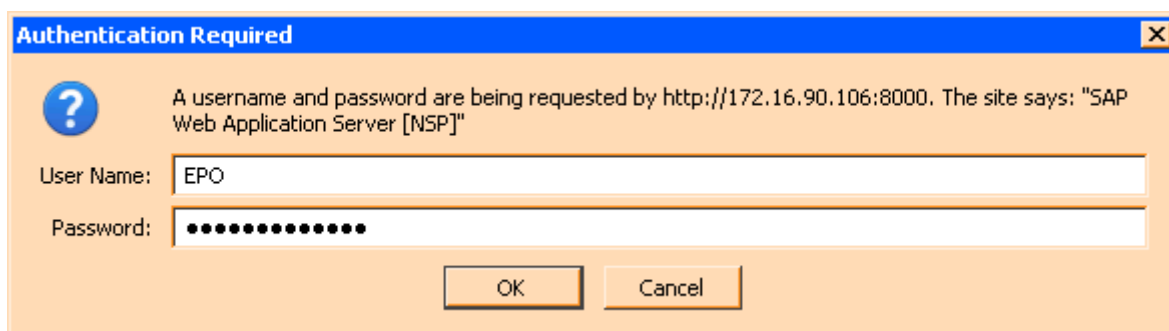
Prerequisite:

- The ping service must be activated (check in the ICF; SAP transaction SICF)

URL: [http://\[hostnameip\]:\[port\]/sap/bc/ping](http://[hostnameip]:[port]/sap/bc/ping)

Example: <http://172.16.90.106:8000/sap/bc/ping>

User and password must be a valid SAP user and password



Server reached successfully

### 3.1.3.2 EPO CONNECTOR PING:

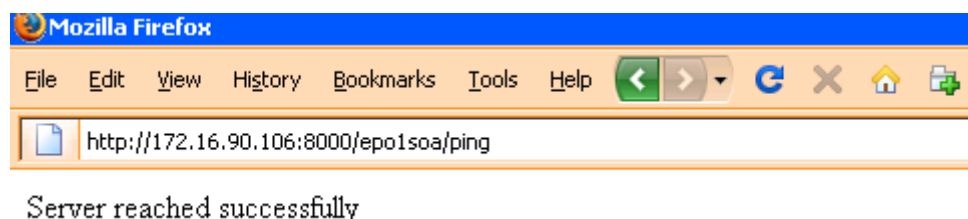
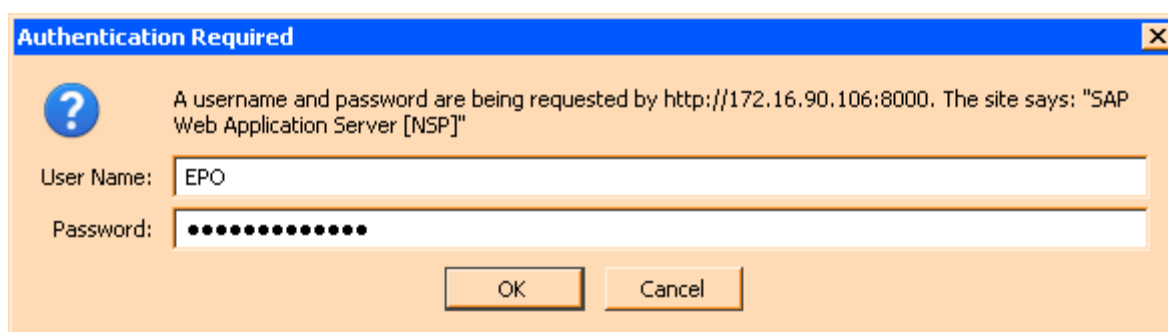
Prerequisite:

- EPO Connector must be installed
- The ping service must be activated (check in the ICF; SAP transaction SICF)

URL: [http://hostname\[ip\]:\[port\]/epo1soa/ping](http://hostname[ip]:[port]/epo1soa/ping)

Example: <http://172.16.90.106:8000/epo1soa/ping>

User and password must be a valid SAP user and password



### 3.1.4 SUMMARY OF THE WAS SETUP FOR THE EPO CONNECTOR

**a) Make sure the HTTP service is running:**

Set the port with parameter icm/server\_port\_0 = PROT=HTTP, PORT=8000

Check in the ICM Monitor that the HTTP service is running (transaction SMICM)

**b) Make sure the default\_host and the sub service sap/bc/ping are activated.**

You can do this in the ICM (transaction SICF)

After installation of the EPO Connector activate those services

**c) Test the HTTP connection from your server to the WAS server port**

Open a web browser and check the ping function like [http://\[hostname\]:\[port\]/sap/bc/ping](http://[hostname]:[port]/sap/bc/ping).

The EPO Connector for SAP should work when successfully calling the ping function.

## 3.2 SAP WAS CONFIGURATION AND ADMINISTRATION

The EPO Connector is administered by means of SAP transactions SICF and SMICM. . Using these two transactions allows changing almost any setting of the WAS.

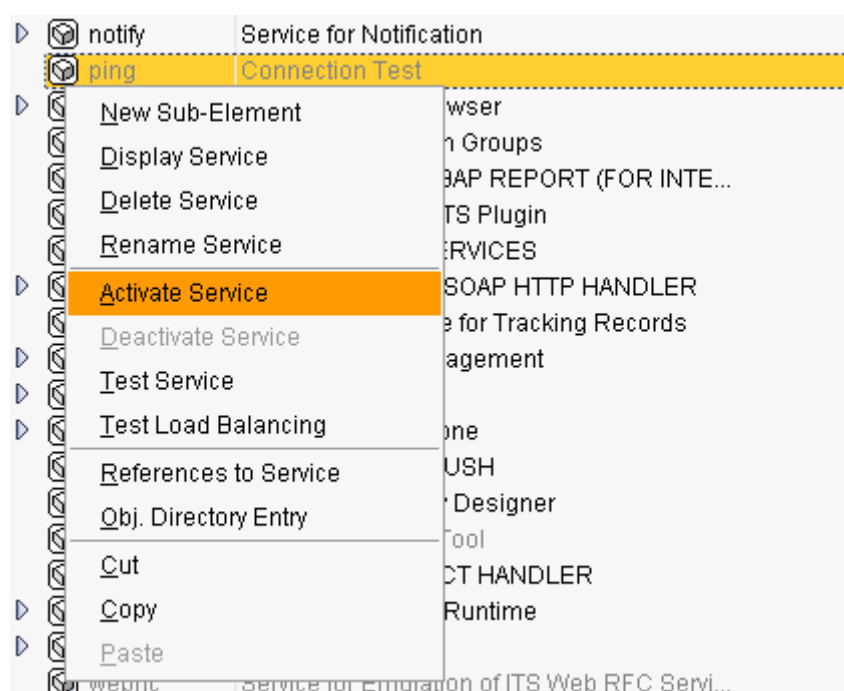
### 3.2.1 SAP TRANSACTION SICF – INTERNET COMMUNICATION FRAMEWORK

The transaction can be found in the menu:

Tools – Administration – Administration – Network - SICF

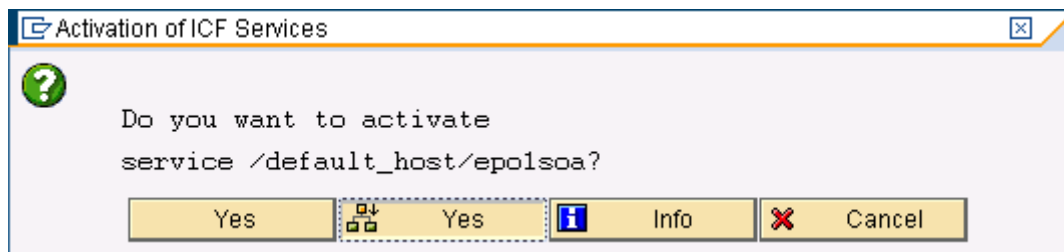
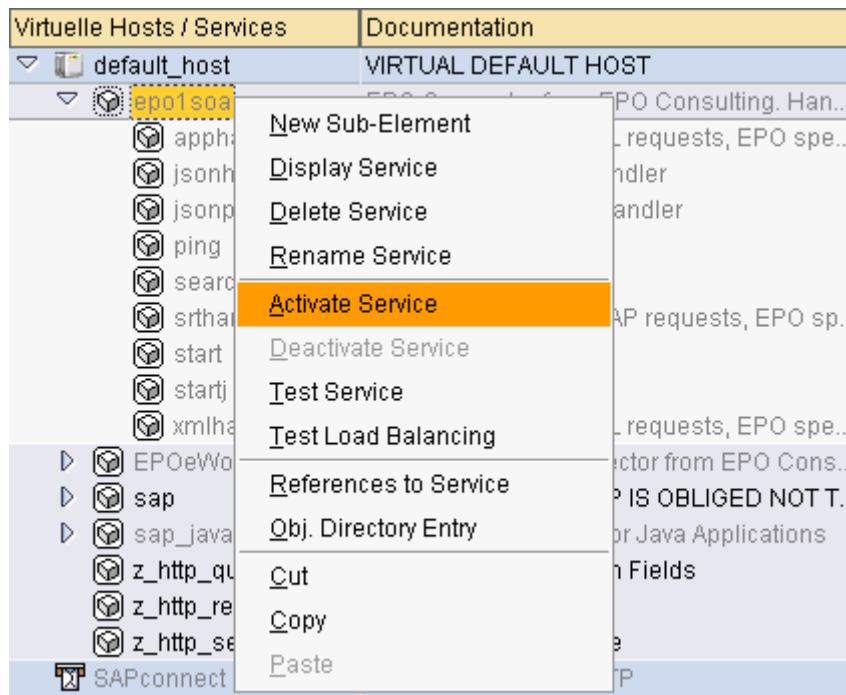
#### 3.2.1.1 ACTIVATING AND DEACTIVATION SERVICES

You should activate the ping service in the default\_host (right click on the service and activate, the ping service is located in path /sap/bc).





Make sure the EPO1SOA service and its sub services are activated. These are the EPO Connector services for receiving and responding HTTP messages.



### 3.2.1.2 FULL DOCUMENTATION FROM SAP FOR THE ICF

See <http://help.sap.com/>

For SAP 47 in English:

[http://help.sap.com/saphelp\\_47x200/helpdata/en/36/020d3a0154b909e10000000a114084/frameset.htm](http://help.sap.com/saphelp_47x200/helpdata/en/36/020d3a0154b909e10000000a114084/frameset.htm)

For SAP 47 in German:





[http://help.sap.com/saphelp\\_47x200/helpdata/de/36/020d3a0154b909e10000000a114084/frameset.htm](http://help.sap.com/saphelp_47x200/helpdata/de/36/020d3a0154b909e10000000a114084/frameset.htm)

### 3.2.2 SAP TRANSACTION SMICM – INTERNET COMMUNICATION MONITOR












The transaction can be found in the menu:

Tools – Administration – Monitor – System Monitoring – Network - SMICM

ICM Monitor



Release Notes



ICM Status:

Running

Restart After Error

true

Trace Level (0-3):

1

Created Worker Threads:

5 / 5 / 10 ( Current / Peak / Maximum )

Connections Used:

0 / 2 / 20 ( Current / Peak / Maximum )

Queue Entries Used:

0 / 1 / 500 ( Current / Peak / Maximum )

No.	Thread ID	Number	Status	Processed Request
<input type="checkbox"/>	1	4000	141	Available
<input type="checkbox"/>	2	4004	127	Running
<input type="checkbox"/>	3	4008	141	Available
<input type="checkbox"/>	4	4012	126	Available
<input type="checkbox"/>	5	4016	138	Available

Administration

By selecting “go to Services” the running services are prompted:

Typically the HTTP service runs on port 8000. However, the port number may be assigned individually.

#### 3.2.2.1 FULL DOCUMENTATION FROM SAP FOR THE ICM MONITOR

See <http://help.sap.com/>

For SAP ECC 6.0 in English:

[http://help.sap.com/saphelp\\_nw04s/helpdata/en/ac/8f813a34872769e10000000a114084/frameset.htm](http://help.sap.com/saphelp_nw04s/helpdata/en/ac/8f813a34872769e10000000a114084/frameset.htm)

For SAP ECC 6.0 in German:

[http://help.sap.com/saphelp\\_nw04s/helpdata/de/ac/8f813a34872769e10000000a114084/frameset.htm](http://help.sap.com/saphelp_nw04s/helpdata/de/ac/8f813a34872769e10000000a114084/frameset.htm)

For SAP 4.7 in English:

[http://help.sap.com/saphelp\\_47x200/helpdata/en/ac/8f813a34872769e10000000a114084/frameset.htm](http://help.sap.com/saphelp_47x200/helpdata/en/ac/8f813a34872769e10000000a114084/frameset.htm)

For SAP 4.7 in German:

[http://help.sap.com/saphelp\\_47x200/helpdata/de/ac/8f813a34872769e10000000a114084/frameset.htm](http://help.sap.com/saphelp_47x200/helpdata/de/ac/8f813a34872769e10000000a114084/frameset.htm)

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