

CIRRUS SAP CLOUD COMPUTING: SAP ROUTER CONFIGURATION

Version e-x-1-0
Date August 2009
Status approved

Cirrus Services AG
Hodlerstrasse 16
CH-3011 Bern
T +41 58 455 04 40
F +41 58 455 04 41
www.cirrus-group.com

Proprietary Notice

© 2009 Cirrus Group. All rights reserved.

This document is private and confidential. Without written confirmation by Cirrus the content may not be disclosed to any other legal entity or third party. The right to copy or reproduce this document - or part of it - is denied.

Cirrus disclaims confirmation or promise of completeness and correctness of the information herein stated. Cirrus cannot be made responsible for damage caused on actions based on the information stated in this document.

This document contains no supplementary assurance that exceeds the contractual agreement.

Cirrus Services AG
Hodlerstrasse 16
CH-3011 Bern

Phone: +41(0)58 455 0 400

Fax: +41(0)58 455 0 401

<http://www.cirrus-group.com>

Index

- 1 INTRODUCTION 4
 - 1.1 Target of this document 4
- 2 GENERAL INFORMATIONS FOR SAPROUTER..... 4
 - 2.1 SAProuter in a SAP systemlandscape..... 4
 - 2.2 What ports to open for a SAProuter ? 4
 - 2.3 How to download the latest version?..... 5
 - 2.4 SAProuter Online Help 5
 - 2.4.1 Command Line Options 5
 - 2.4.2 Sample SAPrountab..... 6
- 3 SAPROUTER INSTALLATION WITH SNC 6
- 4 CONNECTION TO SAPROUTER ON CIRRUS SAP CLOUDCOMPUTING..... 7
 - 4.1 Customer SAProuter Configuration 7
 - 4.2 Platform SAProuter Configuration 7

1 INTRODUCTION

1.1 Target of this document

The following explanations aim at describing the installation and configuration of the SAP router at the customer environment to enable it for the use of Cirrus SAP Cloud Computing.

2 GENERAL INFORMATIONS FOR SAPROUTER

2.1 SAProuter in a SAP systemlandscape

The tool SAProuter is designed to connect different IP Networks even when the IP addresses are in conflict to each other. The SAProuter does the network address translation.

The tool does this translation for the connection from SAP to the customer's and as well for logging on to the Cirrus SAP Cloud computing platforms from customer's site. If the customer uses the SAP GUI, he has to use the SAProuter on his site.

Further basic information is available in the [SAP-Note 30289](#) and in the attached pdfs to this note.

2.2 What ports to open for a SAProuter ?

From external to the SAProuter (mostly from Internet to DMZ)

The SAProuter is running (listening) on port 3299 by default. When you change this with the option "-S" you have to open a different service. But, by default it is just the port 3299 inbound that needs to be available from external partners. The SAProuter now changes the ports to the "original" ones on the computer where the SAProuter is running. So, it looks like for the target system, as if the request would always come from the computer where the SAProuter is running.

From the SAProuter to the internal systems (mostly from DMZ to intranet)

The SAProuter rerouts all requests from the port 3299 where it is receiving the data to the original ports. Therefore, it is necessary, that you open all ports from the SAProuter to your intranet that are used in your environment.

This is normally at least the SAP system. The SAP systems dispatcher is running on port 32nn where nn is the system number. So, you might have to open port 3200 - keep in mind, that 3299 to the intranet normally is NOT necessary.

Overview of a few typical applications and their port needs (especially for the access from SAP to your system):

22: ssh
80: http
443: https
32nn: Abap-Stack Dispatcher Ports
500nn: Java-Stack Dispatcher Ports

2.3 How to download the latest version?

You can **download the latest version** of all the SAP Executables in the SAP Service Marketplace. As the binaries are different for each platform, you should have a look at the following link: [Download Executable Patches on the SAP Service Marketplace](#)

2.4 SAProuter Online Help

2.4.1 Command Line Options

start router : saprouter -r
stop router : saprouter -s
soft shutdown: saprouter -p
router info : saprouter -l (-L)
new routtab : saprouter -n
toggle trace : saprouter -t
cancel route : saprouter -c id
dump buffers : saprouter -d
flush " : saprouter -f
start router with third-party library: saprouter -a library

additional options

-R routtab : name of route-permission-file (default ./saprouttab)
-G logfile : name of log file (default no logging)
-T tracefile : name of trace file (default dev_rout)
-V tracelev : trace level to run with (default 1)
-H hostname : of running saprouter (default localhost)
-S service : service-name / number (default 3299)
-P infopass : password for info requests
-C clients : maximum no of clients (default 801)
-Y servers : maximum no of servers to start (default 1)
-K [myname] : activate SNC; if given, use 'myname' as own sec-id
-A initstring: initialization options for third-party library
-D: switch DNS reverse lookup off

expert options

-B quelength : max. no. of queued packets per client (default 1)
-Q queuesize : max. total size for all queues (default 20000000 bytes)
-W waittime : timeout for blocking net-calls (default 5000 millisecc)
-M min.max : portrange for outgoing connects, like -M 1.1023
-U abs_path : absolute path for Unix Domain Sockets,
default is "/tmp/.sapstream%d"

2.4.2 Sample SAProustab

```
# this is a sample routtab : -----
D host1          host2  serviceX
D host3
P *              *      serviceX
P 155.56.*.*     155.56
P 155.57.1011xxxx.*
P host4          host5  *      xxx
P host6          localhost 3299
P host7          host8  telnet
S host9
P0,* host10
KP sncname1      *      *
KS *             host11 *
KD "sncname "abc" *      *
KT sncname3      host11 *

# deny routes from host1 to host2 serviceX
# deny all routes from host3
# permit routes from anywhere to any host using serviceX
# permit all routes from/to addresses matching 155.56
# permit ... with 3rd byte matching 1011xxxx
# permit routes from host4 to host5 if password xxx supplied
# permit information requests from host6
# permit native-protocol-routes to non-SAP-server telnet
# permit ... excluding native-protocol-routes (SAP-servers only)
# permit ... if number of preceding/succeeding hops (saprouters) <= 0/*
# permit SNC-connection with partnerid = 'sncname1' to any host
# permit all SAP-SAP SNC-connections to host11
# deny all SNC-connections with partnerid = 'sncname "abc"'
# open connects to host11 with SNC enabled and partnerid = 'sncname3'

# first match [host/sncname host service] is used
# permission is denied if no entry matches
# service wildcard (*) does not apply to native-protocol-routes
# -----
```

3 SAPROUTER INSTALLATION WITH SNC

- Most of the customers do have permanent Internet access with high bandwidth.
- For the communication between the customer and Cirrus SAP Cloud Computing in the majority of cases lines with a high bandwidth, that are really fast, are used.
- Security via the internet will be ensured by SNC.

In the following you can see a **sample saproustab** definition to SAPSERVx with SNC:

```
# SNC is used to sapserv2 because of the following line for each protocol
KT "p:CN=sapserv2, OU=SAProuter, O=SAP, C=DE" 194.39.131.34 *

# Access from all locations in the customer Network to the
# SAPNet - R/3 Frontend (SAP Support System) via sapserv2
KP * "p:CN=sapserv2, OU=SAProuter, O=SAP, C=DE" 3299
```