Note Language: English   **Version: 3 Validity:**   Valid Since 11.05.2005

Summary

Symptom
An RFC connection to an R/3 system cannot be established.

Other terms
RFC, SAP Gateway, Firewall, IP address conversion, NAT

Reason and Prerequisites
When an RFC connection is being established, the client already attempts to determine the IP address of the target and sends this IP address to the gateway which manages the connection. With the IP address, the gateway then establishes the connection to the actual target.

If there is a firewall between the client and gateway that converts external IP addresses into internal addresses, the gateway receives an invalid external IP address and, as a result, cannot establish a connection to the actual target.

This problem described here also occurs if a BEx Analyzer is started from transaction RRMX and NAT is used.

The following entry then appears in the dev_rfc trace file:

```
T:3560 ======> Connect from SAP gateway to RFC server failed
Connect_PM GWHOST=X.X.X.X, GWSERV=sapgw00,
ASHOST=X.X.X.X, SYSNR=00

LOCATION     SAP Gateway on host hostname/sapgw00
ERROR        partner not reached (host X.X.X.X, service sapgw00)
```

Since the specified IP address is not known to the gateway, the Analyzer cannot communicate with the gateway.

Solution
The gateway host and the actual target are usually identical. In this case, you can use parameter gw/alternative_hostnames to indicate to the gateway than the external IP address received identifies the host.

Caution: gw/alternative_hostnames may only be set in the instance profile and under no circumstances in the DEFAULT.PFL!!!

Header Data

Release Status: Released for Customer
Released on: 11.05.2005   10:09:59
Master Language: German
Priority: Correction with medium priority
Category: Advance development

Primary Component: BC-CST-GW Gateway/CPIC

The Note is release-independent