

## One-NDS CONNECTIVITY CHECK

One-NDS is an indispensable part of the telecommunication infrastructure and therefore needs special attention when it comes to maintenance and care. The database is highly available and distributed across several sites. To ensure a smooth service, One-NDS processes must always be able to communicate with each other. Any communication interference can lead to limitations and even failures.

*One-NDS Connectivity Check* allows you to quickly check the end-2-end connections for One-NDS processes and can provide an overview of whether there are interruptions in communication paths (In a running One-NDS system some communication paths are only needed in case of failure or in exceptional situations).

The possibility to check the network of One-NDS at any time and quickly prevents network configuration errors. Using the *One-NDS Connectivity Check* is especially helpful with One-NDS introduction, One-NDS capacity upgrades, enabling new features, as well as during/after network configuration changes on routers, switches or firewalls.

Whether your One-NDS system is smaller or larger, replacing manual routine tasks with fully-automated verification and evaluation, allows your employees to fully concentrate on other important tasks. The well-designed output is provided with the necessary detail information, thus facilitating a quick overview of the existing risks and the identified problems.

*One-NDS Connectivity Check* facilitates maintenance tasks and significantly reduces delays in extensions, SW upgrades, and functional improvements to One-NDS. By minimizing demands on the target system and non-invasive tool, it is the right extension of the tools for your One-NDS system of your operations team.

### PRODUCT OVERVIEW

*One-NDS Connectivity Check* allows a thorough review of all necessary TCP connections directly on a One-NDS system. The software package includes the One-NDS communication matrix with all connectivity paths. Each connectivity path consists of a source and destination server types, the network interface, TCP port number, and a brief description of the type of communication.

For each run, the tool detects the exact One-NDS topology to test the network connection to each associated server, considering the specific circumstances of dedicated installation servers or B&R servers. In addition, the check provides filter options that make it possible to restrict the check only to specific server types or network interfaces so that you can quickly check only the desired connections.

*One-NDS Connectivity Checks* are recommended in the following situations:

- Preparation and execution of One-NDS Software Upgrade
- Preparing and activating additional One-NDS functions
- Preparation and implementation of One-NDS capacity extensions
- Checking the connectivity during or after maintenance work on the associated firewalls, routers or switches
- One-NDS Introduction

## CHECKING OF ONE-NDS CONNECTIVITY

Verification of all TCP connections from selected server(s) according to the communication matrix.

```
$ ndslink BED-SA1-01
### Checking One-NDS Communication Links
...
# Using communication matrix for One-NDS 17
# Hostnames to check: BED-SA1-01
# Checking links of: BED-SA1-01
# Host type: BE-DS
# Host site: A
# Filter: (NodeType='', NetworkInterface='', Site='', DSA-ID='')
# => Number of peers : 26
# => Applicable rules : 49
```

SOURCE	DESTINATION	GOOD	REACHED	NOT OK
BED-SA1-01	ISD-SA-01	10	0	0
BED-SA1-01	FED-SA-01	17	0	0
BED-SA1-01	BED-SA1-02	17	0	1
BED-SA1-01	BED-SA1-03	17	0	1
BED-SA1-01	PGD-SB-01	1	0	0
BED-SA1-01	BR-SA-01	97	5	7

```
# SUMMARY OF UNSUCCESSFUL CHECKS
# Hostname: BED-TA2-01
```

SOURCE	DESTINATION	NETWORK	PORT	STATUS Description
BED-SA1-01	BED-SA1-02	DSA	16700	NOT OK DS SOAP Client Port
BED-SA1-01	BED-SA1-03	DSA	16618	NOT OK Alias verification utility port
BED-SA1-01	BRD-SA-01	B&R	7937	REACHED Networker protocol
BED-SA1-01	BRD-SA-01	B&R	8231	NOT OK Networker protocol (RPC)
BED-SA1-01	BRD-SA-01	B&R	8244	NOT OK Networker protocol (RPC)
BED-SA1-01	BRD-SA-01	B&R	8245	NOT OK Networker protocol (RPC)
BED-SA1-01	BRD-SA-01	B&R	8249	REACHED Networker protocol (RPC)
BED-SA1-01	BRD-SA-01	B&R	8251	NOT OK Networker protocol (RPC)
BED-SA1-01	BRD-SA-01	B&R	8273	NOT OK Networker protocol (RPC)
BED-SA1-01	BRD-SA-01	B&R	8275	NOT OK Networker protocol (RPC)
BED-SA1-01	BRD-SA-01	B&R	8277	NOT OK Networker protocol (RPC)

```
$
```

## CHECKING OF ONE-NDS – NETACT CONNECTIVITY

Verification of all TCP connections from One-NDS to NetAct and from NetAct to One-NDS servers according to the communication matrix.

```
$ ndslink --netact
### Checking One-NDS Communication Links
...
# Checking links to/from NetAct
# => Applicable rules : 28
```

SOURCE	DESTINATION	GOOD	REACHED	NOT OK
ADM	NAC-LB-JBI (10.0.110.9)	1	0	0
ADM	NAC-LB-WAS (10.0.110.23)	1	0	0
ADM	NAC-LB-WAS (10.0.110.23)	1	0	0
NAC-LB-Socks (10.0.113.1)	PGW	0	0	0
NAC-LB-Socks (10.0.113.1)	ADM	1	0	0
NAC-Websphere (10.0.112.4)	R-DS	1	0	0
NAC-Websphere (10.0.112.4)	BE-DS	3	0	0
NAC-Websphere (10.0.112.4)	PGW-DS	1	0	0
NAC-Websphere (10.0.112.4)	PGW	0	0	0
...				
NAC-SBI-Comm (10.0.121.56)	BE-DS	3	0	0
NAC-SBI-Comm (10.0.121.56)	PGW-DS	1	0	0
NAC-SBI-Comm (10.0.121.56)	PGW-DS	1	0	0
NAC-SBI-Comm (10.0.121.56)	PGW-DS	1	0	0
NAC-SBI-Comm (10.0.121.56)	PGW	0	0	0
NAC-SBI-Comm (10.0.121.56)	ADM	1	0	0
NAC-SBI-Comm (10.0.121.56)	ADM	1	0	0
NAC-SBI-Comm (10.0.121.56)	INS	1	0	0

```
# SUMMARY OF UNSUCCESSFUL CHECKS
# NetAct <-> One-NDS
```

SOURCE	DESTINATION	NETWORK	PORT	STATUS Description
NAC-Websphere (10.0.112.4)	ISD-TA2-02	OAM	443	REACHED NEBR CLI

```
$
```

## REQUIREMENTS

*One-NDS Connectivity Check* defines only minimal requirements on the target system. The tool runs on any Linux-based server (x64). No additional software is required on the server or even on the One-NDS node. One-NDS connectivity checks only use SSH to connect to the One-NDS/NetAct nodes and check connections from there. The used Linux server must have SSH connectivity to One-NDS and NetAct servers.

*One-NDS Connectivity Check* does **not** make any changes to the system.

For an offer or more information, please contact us:

Max Bornschlegl ([Max.Bornschlegl@silverengine.de](mailto:Max.Bornschlegl@silverengine.de)) or

Marek Kocan ([Marek.Kocan@silverengine.de](mailto:Marek.Kocan@silverengine.de))



**München**  
SilverEngine GmbH  
Agnes-Pockels-Bogen 1  
80992 München

**Leipzig**  
SilverEngine GmbH  
BIC Business & Innovation Centre  
Karl-Heine-Str. 99  
04229 Leipzig