

# Grid Control 10g im Praxiseinsatz

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## 20. Deutsche ORACLE-Anwenderkonferenz

SIG Database

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# Vorstellung

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**Frank Berger, IT-Dienstleistungen  
spezialisiert auf Querschnittsaufgaben  
in den Bereichen:**

- Systemadministration für Linux / Solaris
- Oracle-Datenbank und Oracle-Application-Server
- Erfahrung im RZ-Betrieb mit 1000+ Server

# Agenda

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- **Überblick zu Grid Control**
- **Installation Oracle Management Service**
- **Deployment von Management Agents**
- **Tipps & Tricks zum Praxiseinsatz**
- **Bare Metal Provisioning für Linux**
- **Grid Control Management-Plugins**

# Database Control

```
-bash-3.1$ emctl start dbconsole
```

**ORACLE Enterprise Manager 10g** Database Control

Setup Preferences Help Logout

Database

Logged in As SYS

## Database Instance: B01

Home Performance Administration Maintenance

Page Refreshed **Nov 18, 2007 11:34:15 AM** Refresh View Data Automatically (60 sec)

### General

↑ Shutdown

Status Up  
Up Since **Nov 18, 2007 11:31:14 AM CET**  
Instance Name **B01**  
Version **10.2.0.1.0**  
Host localhost.localdomain  
Listener LISTENER\_localhost.localdomain

[View All Properties](#)

### Host CPU

100%  
75  
50  
25  
0

Other  
B01

Load 2.93 Paging 0.22

### Active Sessions

1.9  
1.4  
1.0  
0.5  
0.0

Wait  
User  
I/O  
CPU

### SQL Response Time

⚠ Baseline empty.  
[Reset Baseline](#)

# Grid Control

ORACLE Enterprise Manager 10g  
Grid Control

Setup Preferences Help Logout  
Home **Targets** Deployments Alerts Compliance Jobs Reports

Hosts | Databases | Application Servers | Web Applications | Services | Systems | Groups | All Targets

## Hosts

Page Refreshed Nov 16, 2007 11:03:59 PM CET

Search   [Advanced Search](#)

Select	Name	Status	Alerts	Policy Violations	Compliance Score (%)	CPU Util %	Mem Util %	Total IO/sec
<input checked="" type="checkbox"/>	<a href="#">centos4-t01.fm-berger.de</a>			5 0 0	82			
<input type="checkbox"/>	<a href="#">centos4-t02.fm-berger.de</a>			5 0 0	82			
<input type="checkbox"/>	<a href="#">grid-vip01.fm-berger.de</a>			5 0 0	82			
<input type="checkbox"/>	<a href="#">ora-grid.fm-berger.de</a>		0 0	5 0 0	82	6.61	97.91	42.9

**TIP** For an explanation of the icons and symbols used in this page, see the [Icon Key](#).

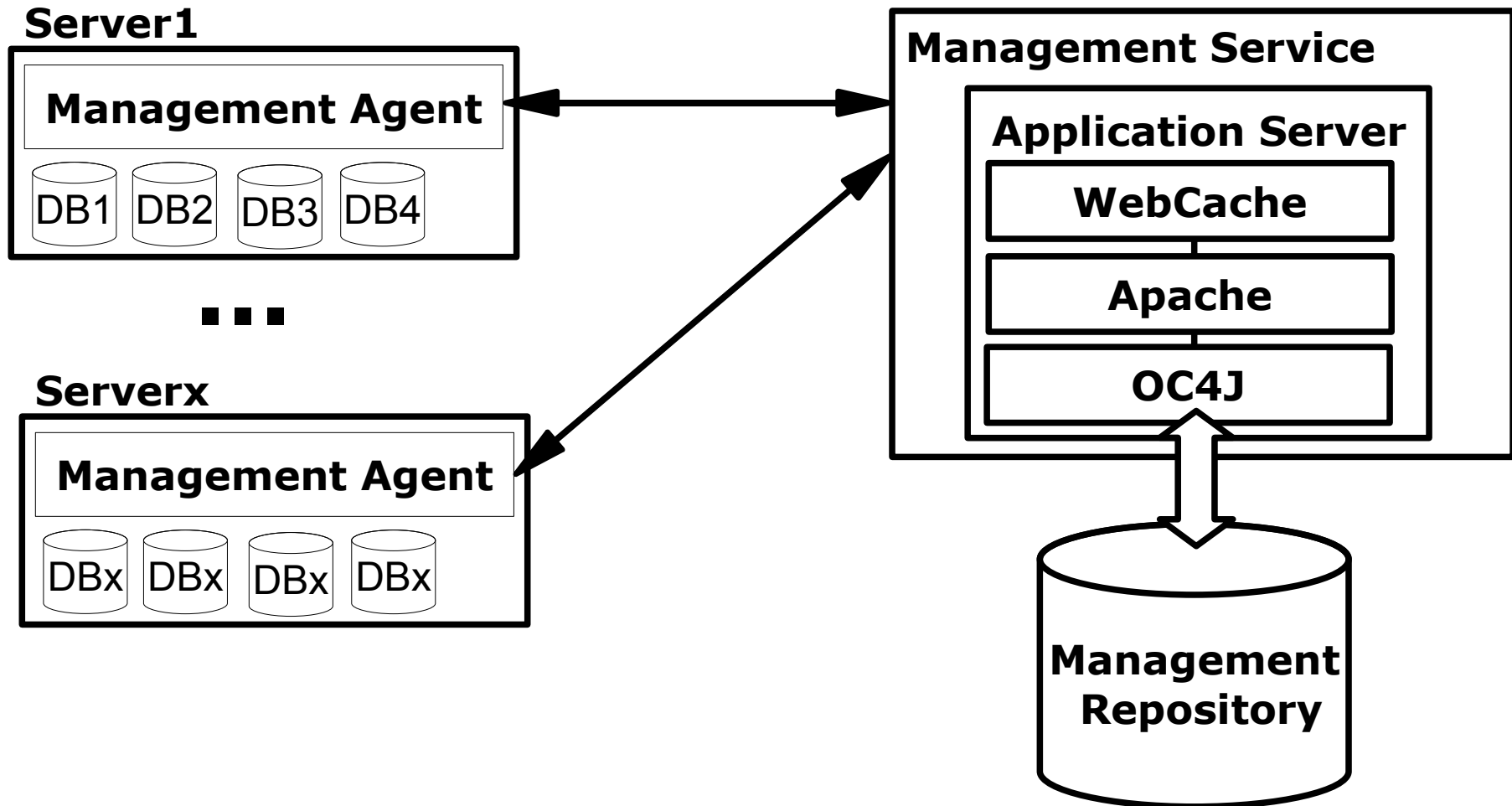
### Related Links

[Customize Table Columns](#) [Execute Host Command](#)

Home | **Targets** | [Deployments](#) | [Alerts](#) | [Compliance](#) | [Jobs](#) | [Reports](#) | [Setup](#) | [Preferences](#) | [Help](#) | [Logout](#)

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[About Oracle Enterprise Manager](#)

# Grid Control - Architektur



# Installation Oracle Management Service

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**Installation Oracle Datenbank Software 10gR2  
+ aktuelles PatchSet**



**Erzeugen einer Datenbank Instanz  
für OMS-Repository**



**Installation Grid Control OMS Version 10.2.0.2**




**Patch Update auf 10.2.0.3 / 10.2.0.4  
mit PatchSet 3731593**

# Grid Control Certification Matrix




Metalink Note: **412431.1**

Agent-10gR4 Agent-10gR3 10gR2 10gR1

 Supported 10gR3 Agents : 10.2.0.3 ▾

Platform	OS versions	Status
Linux x86	EL 4 Update 4, RHEL 3.0, 4.0; SLES 9, 10, Asianux 2.0	Available
Linux x64 (AMD64/EM64T)	RHEL 3.0, 4.0; SLES 9, 10	Available
Linux Itanium	RHEL 3.0, 4.0; SLES 9	Available
Linux on Power	RHEL 4.0; SLES 9	Available
HP-UX PA-RISC (64-BIT)	11.11, 11.23, 11.31	Available
HP-UX Itanium	11.23, 11.31	Available
Solaris SPARC (64-BIT)	Solaris 8,9,10, Solaris 10 Local container	Available
AIX 5L (64-BIT)	5.2, 5.3	Available
Windows x86	Win2k SP4; Win XP Professional Ed. SP2; Win Server 2003 SP1, R2; Windows Vista (Professional, Business and Ultimate Ed.), Win NT 4.0	Available
Windows x64 (AMD & Xeon (EM64T))	Win XP Prof. Ed. Win Server 2003 (SP1 only), All Editions	Available
Windows Itanium (64-BIT)	Win Server 2003 (64-bit OS and SP1 only), All Editions	Available

**Managed Targets (select OMS & Agent Version)**

 DB Targets	 AS Targets	 CS Targets
8.1.7.4 9.0.1.5 (*) 9.2.0.6 + 10.1.0.4 + 10.2.0.1 + RAC 9.2.0.6 +, 10.1.0.4 +, 10.2.0.1 + (* )9.0.1.5 is supported with fips enabled only (i.e. the DB release that is part of AS 9.0.4	9.0.4.2 + 10.1.2.0.1 10.1.2.0.2(Ph 2), 10.1.2.1 PS, 10.1.2.2 PS 10.1.3.0.0, 10.1.3.1(SOA), 10.1.3.2(Portal) 10.1.4.0.1 IM Standalone Oracle WebCache 9.0.4.0 +, 10.1.2.0 + Standalone Oracle HTTP Server 10.1.2.0 + (Based on Apache 1.3) Apache HTTP Server 2.0 + NOTE: Oracle HTTP Servers based on Apache 2.0 are not supported	9.0.4.2 + 10.1.1 10.1.2.0.0 + 10.1.3



# Staging von Agents

---

## Layout Staging-Bereich:

```
<OMS_HOME>/sysman/agent_download/  
  10.2.0.2.0/  
    solaris_x86/  
  10.2.0.3.0/  
    linux/  
    linux_x64/  
  10.2.0.4.0/  
    win32/
```

## Response-File für Silent-Installation

```
10.2.0.3.0/agent_download.rsp:  
  s_OMSHost="OMS-HOSTNAME"  
  s_OMSPort="4889"
```

# Deployment von Management Agents

---

## Mögliche Deployment Methoden:

- Manuelle Installation
- PUSH Verfahren
- PULL Verfahren
- Shared Installation
- Cloning

OTN: 10g R2 Management Agent Deployment Best Practices

# Agent PUSH-Deployment

## Version

Select the agent source software version.

Version

This list is determined by the staged software available on Management Server.

## Hosts

The list of hosts, specified here, should be separated by comma, spaces or newline. You can use either the Name, or IP Address to specify Hosts.

Platform

This list is determined by the staged software available on Management Server.

\* Provide Host List

Example: host1,host2,168.78.5.118, ...

[Get Host Names From File](#)

## Wichtig: SSH-Zugriff muss funktionieren!

```
<OMS_HOME>/sysman/prov/resources/scripts/sshConnectivity.sh
```

# Agent PULL-Deployment

---

## Voraussetzung:

**wget muss auf dem System vorhanden sein!**

```
-bash-3.1$ wget http://OMS-HOSTNAME:4889  
/agent_download/10.2.0.3.0/linux/agentDownload.linux
```

```
-bash-3.1$ sh agentDownload.linux \  
-b /opt/oracle -m OMS-HOSTNAME -r 4889
```

## Hintergrund:

**agentDownload Script startet eine Silent-Installation des Agent**

**Die Methode eignet sich daher gut als Vorlage für eigene Anpassungen!**

# Installations Hinweise

---

## → Mehrere ORACLE\_HOME auf einem System

ORACLE\_HOME in .profile gesetzt?

besser:

```
if [ -o interactive ]; then
    ...
fi
```

## Windows:

Ist das Default ORACLE\_HOME nach der Installation des Agent richtig gesetzt?

## → Solaris 10

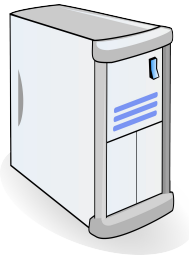
ulimit -n 4096 führt zu 100% CPU Auslastung durch Agent-Prozesse

## → Enthalten /etc/oratab und /etc/oraInst.loc

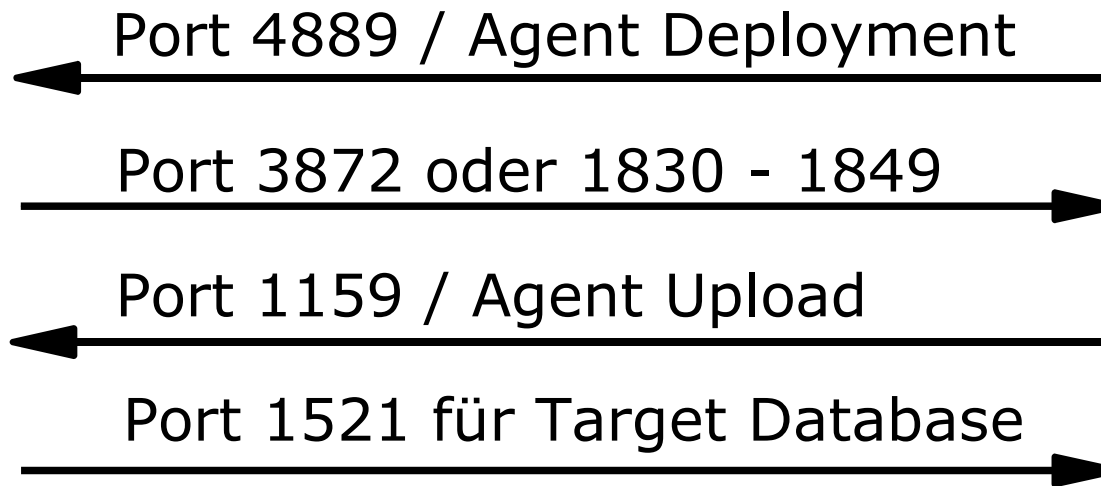
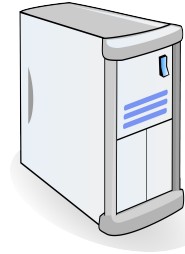
die richtigen Werte? Agent finden evtl. nicht alle DB-Instanzen

# Grid Control - Kommunikation

**Management Service**



**Management Agent**



```
<OMS_HOME>  
/sysman/config/  
emoms.properties:
```

```
oracle.sysman.emSDK.svlt.ConsoleServerPort  
oracle.sysman.emSDK.svlt.ConsoleServerHTTPSPort  
proxyHost  
proxyPort
```

```
<AGENT_HOME>  
/sysman/config/  
emd.properties:
```

```
REPOSITORY_URL  
EMD_URL  
proxyHost  
proxyPort
```

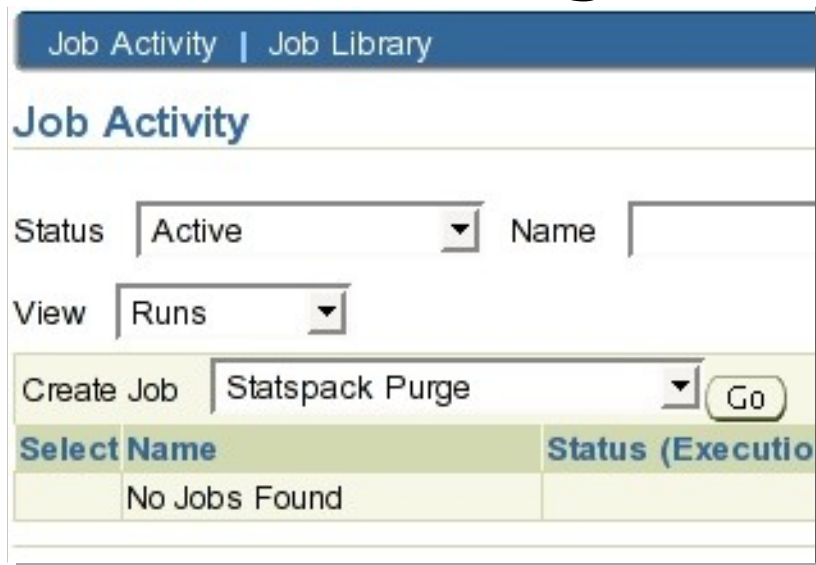
# Zusammenspiel mit 9i Datenbanken

Bei der Aufnahme von 9i-Datenbanken wird ein Job für stündliche STATSPACK-Snapshots angelegt:

```
SQL> select job, schema_user, interval, what from dba_jobs;
```

```
      JOB  SCHEMA_USE  INTERVAL                                WHAT
-----
      1  PERFSTAT    trunc(SYSDATE+1/24, 'HH')  statspack.snap;
```

## STATSPACK Purge:



Job Activity | Job Library

Job Activity

Status: Active Name:

View: Runs

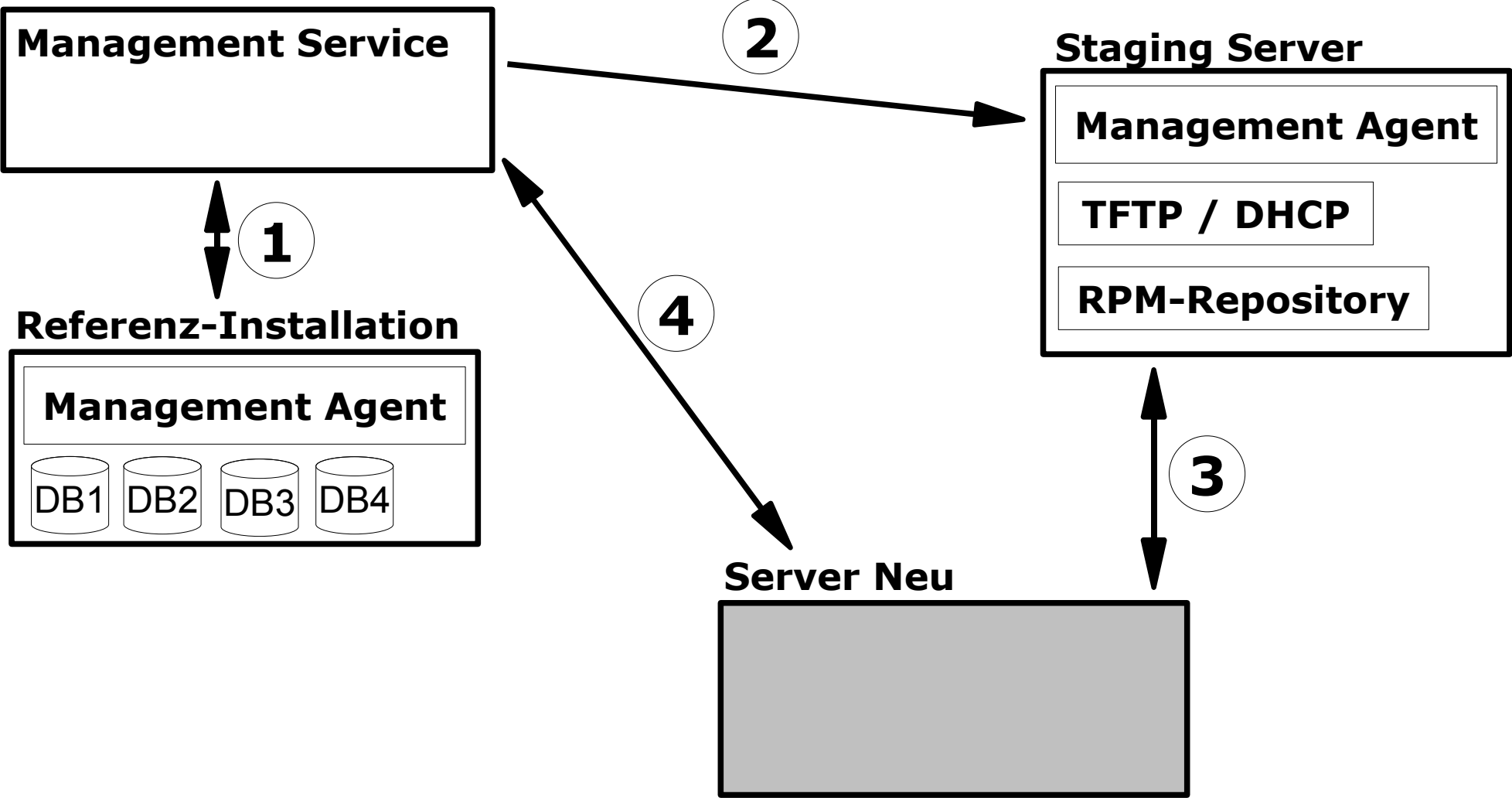
Create Job: Statspack Purge Go

Select Name	Status (Execution)
No Jobs Found	

## Bug 1798853 - sppurge.sql does not run in batch mode:

```
35
36 set feedback off verify off pages 999
37 undefine dbid inst_num
   losnapid hisnapid
38 whenever sqlerror exit rollback
39
```

# Bare Metal Provisioning für Linux





# Grid Control Management-Plugins

## Management-Plugins ermöglichen in der Regel nur Monitoring!



Enterprise Manager Configuration | Management Services and Repository | Agents

Management Plug-ins >

### Import Management Plug-ins

Specify the Management Plug-in archive file that contains one or more Management Plug-ins, then click List Archive, then select the Management Plug-in that you want to import. Please note that you are only able to select Management Plug-ins which are compatible with the current OMS version. Cancel OK

#### Select Management Plug-in Archive

Management Plug-in Archive:  Browse...

List Archive

**TIP** Only Management Plug-ins delivered from Oracle via a secure mechanism should be imported.

#### Management Plug-ins for Archive: emc\_symmetrix\_storage.jar

Select All | Select None

Select	Name	Version	Minimum OMS Version	Description	Deployment Requirements
<input type="checkbox"/>	emc_symmetrix_storage	1.0.3.1.0	10.2.0.3.0	EMC Symmetrix DMX System Monitoring.	Requires EMC Solutions Enabler (SYMCLI) installed on agent host. Please refer to Prerequisites section in the Installation Guide.

### Eigene Plugins sind ebenfalls möglich:

Siehe Vortrag von Alex Gorbachev

<http://www.pythian.com/documents/IOUG07-Extending10gGC.zip>

**Fragen?**

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