

# Nimsoft® Unified Management Portal

## Multiple Server Configuration Guide

2.6



## Document Revision History

Document Version	Date	Changes
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# Chapter 1: Configuring Multiple UMP Servers

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This section describes how to configure multiple Unified Management Portal (UMP) servers to run behind a load balancer and use the same Nimsoft NIS database.

This section contains the following topics:

[Introduction](#) (see page 7)

[SDP Not Supported with Multiple UMP Servers](#) (see page 7)

## Introduction

The UMP installer supports installing one UMP server under a hub.

However, you may want to run multiple UMP servers under a hub. For example, you may want to configure two UMP servers to run behind a load balancer for increased scalability and capacity. This guide explains how to configure multiple UMP servers under a hub. The UMP servers use the same NIS database.

## SDP Not Supported with Multiple UMP Servers

The process described in this guide is supported only if Service Delivery Portal (SDP) is not installed in your environment. If SDP is installed, you must uninstall it before running multiple UMP servers under a hub.

For instructions on uninstalling SDP, see the *Service Delivery Portal Installation Guide*.



# Chapter 2: Configuring the Load Balancer

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This section tells you the high-level steps to configure your load balancer to run with UMP.

Load balancers vary. Refer to your load balancer documentation for configuration details.

1. Configure the load balancer with virtual IP addresses for the two UMP servers.
2. Configure the load balancer to use sticky sessions.

Sticky sessions is a feature of many commercial load balancing solutions that allows web farms to route requests for a particular session to the same machine that serviced the first request for that session. This ensures that a session is not disrupted as a result of requests related to that session being routed to different servers.

3. Configure your load balancer to use a load balancing algorithm.

A load balancing algorithm tells the load balancer how to distribute incoming requests. The most common load balancing algorithm is the round robin, where one connection is sent to each server on the list in turn.



# Chapter 3: Configuring Multiple UMP Servers

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As an example, this guide assumes that you have a Nimsoft robot named `primary` running under a hub named `/Domain/Hub`. The robot `primary` is a hub robot running `data_engine`, `nas`, etc. You configure it to run a UMP server by executing a standard UMP installation on `/Domain/Hub/primary`.

The steps in the following sections describe how to configure an additional UMP server on a robot named `secondary` running under the hub `/Domain/Hub`.

This section contains the following topics:

[Configuring the Primary UMP Server](#) (see page 11)

[Configuring a Secondary UMP Server](#) (see page 12)

[Configuring Portal Clustering](#) (see page 16)

[Testing the Installation](#) (see page 16)

## Configuring the Primary UMP Server

Use the UMP installer to install a UMP server to the hub robot `/Domain/Hub/primary`.

A UMP server consists of these packages:

- `jre`
- `dap`
- `dashboard_engine`
- `wasp`
- `ump`
- `ump portlets`

You must define the keys `enable_multi_instance` and `multi_instance_check_interval` for each `dashboard_engine` using the same NIS database.

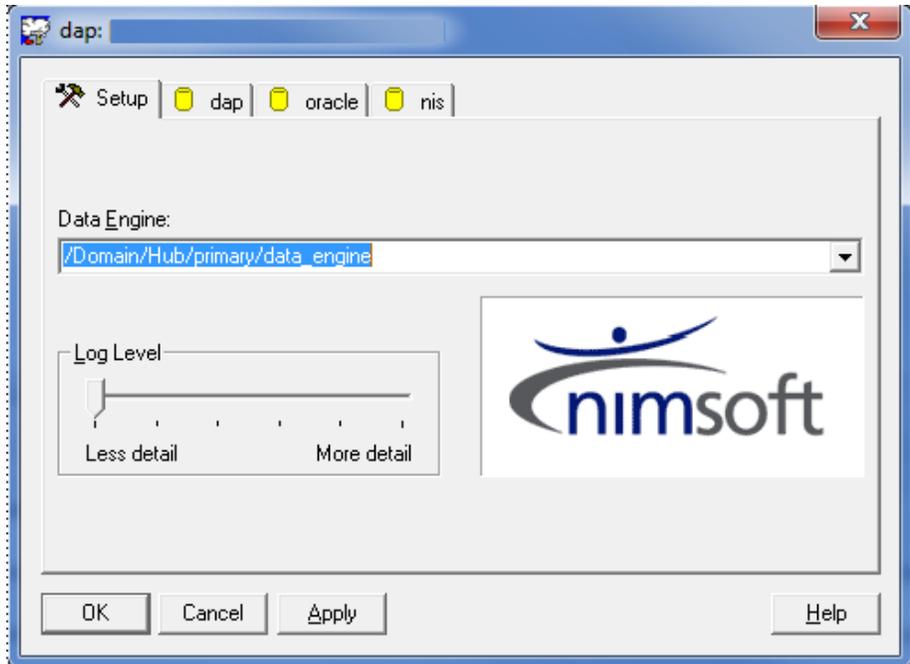
After installing UMP, use the Raw Configure dialog to modify the dashboard engine's configuration. Within the **data** section, change the **Value** field of the **enable\_multi\_instance** key to **1**.

The `multi_instance_check_interval` key is located in the **updateintervals** section in the Raw Configure dialog.

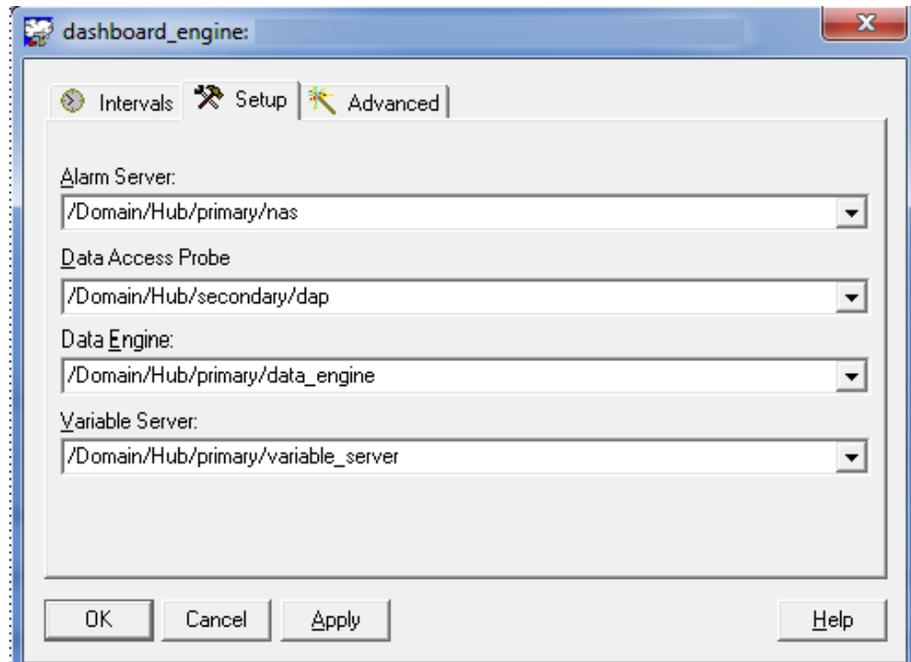
## Configuring a Secondary UMP Server

**Note:** The operating system platform of the primary and secondary UMP servers has to be the same; however, the operating system *version* does not have to be the same. For example, you can use Windows 2008 and Windows 2003 for the primary and secondary UMP servers.

1. Distribute the UMP server packages:
  - jre
  - dap
  - dashboard\_engine
  - wasp
  - ump
  - ump portlets
2. Configure dap. Use either the configuration UI, as shown below, or Raw Configure to change the dap **Data Engine** setting to /Domain/Hub/primary/data\_engine.

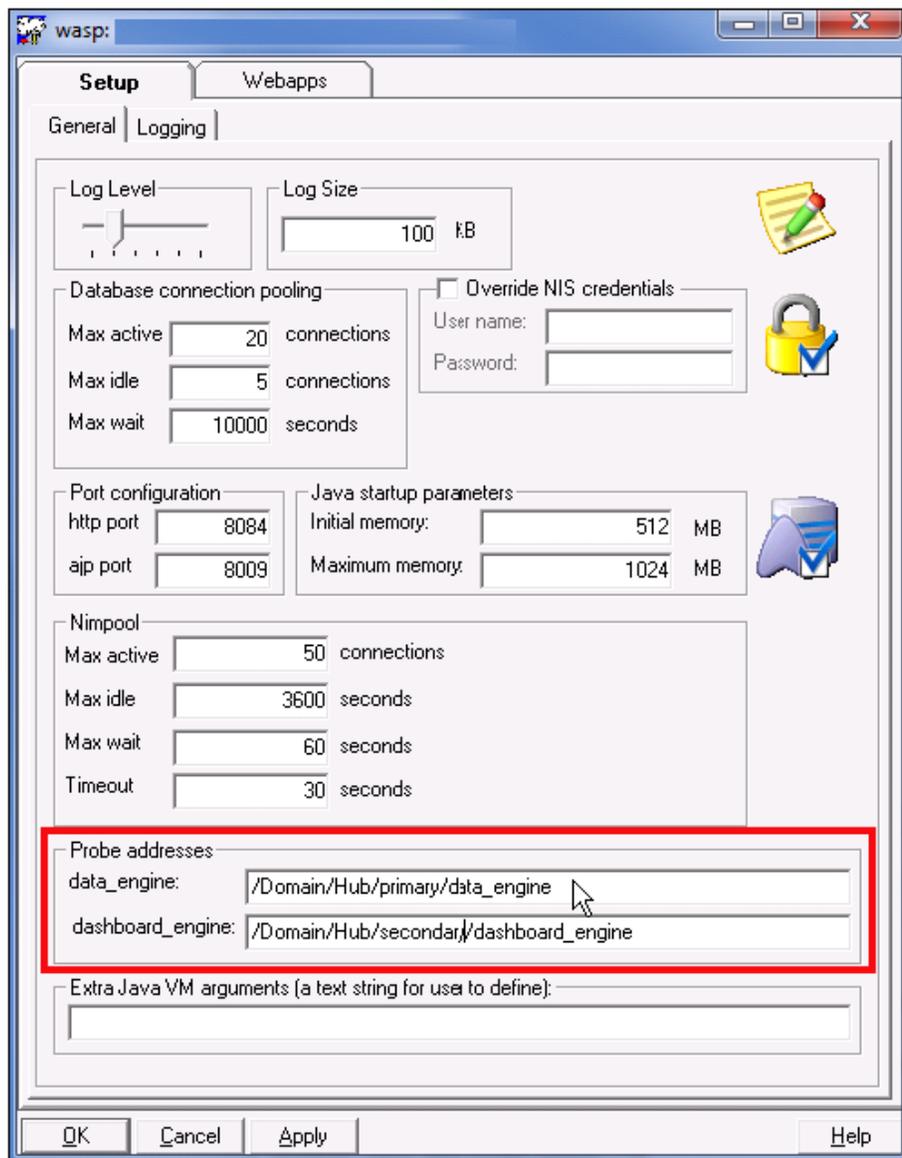


3. Configure `dashboard_engine`. Use either the configuration UI, as shown below, or Raw Configure to change the following addresses:
  - Alarm Server
  - Data Access Probe
  - Data Engine
  - Variable Server



4. Use Raw Configure to modify the additional `dashboard_engine` configuration items:
  - In the **data** section add the key **enable\_multi\_instance** and set its value to **1**.
  - In the **update\_intervals** section add the key **multi\_instance\_check\_interval** and set its value to **30**.

5. Configure wasp. Use the configuration UI to set the following variables in the **Setup** tab under the **Probe Addresses** heading:
  - data\_engine
  - dashboard\_engine



6. Open the wasp.cfg file and add the following lines:

**Note:** The wasp.cfg file is usually in the Program Files\Nimsoft\probes\service\wasp directory.

```
<ump_common>
  dap = /Domain/Hub/secondary/dap
  nas = /Domain/Hub/primary/nas
  sla_engine =/Domain/Hub/primary/sla_engine
  ace = /Domain/Hub/primary/ace
  nis_server = /Domain/Hub/primary/nis_server
</ump_common>
```

7. Configure the UMP portlets. Several web applications (webapps) and portlets have variables that you must change. Using the WASP configuration UI on the **Webapps** tab, double-click the webapp or portlet. Navigate to the **Custom** tab and change the value for each of the following portlet/key combinations:

#### Variable Values for UMP Portlets

Portlet	Key	Value
AlarmConsole	nas	/Domain/Hub/primary/nas
CustomDashboards	nas	/Domain/Hub/primary/nas
DiscoveryStatus	ace	/Domain/Hub/primary/ace
Reports	report_engine	/Domain/Hub/primary/report_engine
DynamicViews	nas	/Domain/Hub/primary/nas
	report_engine	/Domain/Hub/primary/report_engine
DashboardDesigner	dap	/Domain/Hub/secondary/dap
	variable_server	/Domain/Hub/primary/variable_server

8. Enable synchronization of media files.

**Note:** You must use UmpMedia 1.5.0.1 or later.

Configure all participating UMP servers to synchronize the local set of media files with the central repository in the NIS database. This is done by using Raw Configure to add the following keys to each wasp probe:

- enable\_multi\_instance - Set to **1** to enable synchronization
- media\_update\_interval - Set to the desired number of seconds between updates

9. Activate dap, dashboard\_engine, and wasp probes on the secondary server.

## Configuring Portal Clustering

1. Deactivate the wasp probe on both UMP servers.
2. On both UMP servers add or uncomment the following three lines in <Nimsoft Install>/probes/service/wasp/webapps/ROOT/WEB-INF/classes/portal-ext.properties:  

```
net.sf.ehcache.configurationResourceName=/ehcache/hibernate-clustered.xml
ehcache.multi.vm.config.location=/ehcache/liferay-multi-vm-clustered.xml
comm.link.properties=UDP(bind_addr=127.0.0.1;mcast_addr=231.12.21.102;mcast_port=45566;ip_ttl=32;mcast_send_buf_size=150000;mcast_rcv_buf_size=80000):PING(timeout=2000;num_initial_members=3):MERGE2(min_interval=5000;max_interval=10000):FD_SOCKET_VERIFY_SUSPECT(timeout=1500):pbcast.NAKACK(gc_lag=50;retransmit_timeout=300,600,1200,2400,4800;max_xmit_size=8192):UNICAST(timeout=300,600,1200,2400):pbcast.STABLE(desired_avg_gossip=20000):FRAG(fragment_size=8096;down_thread=false;up_thread=false):pbcast.GMS(join_timeout=5000;join_retry_timeout=2000;shun=false;print_local_addr=true)
```
3. On the primary UMP server share the directory <Nimsoft Install>/probes/service/data.
4. On the secondary UMP server replace the directory <Nimsoft Install>/probes/service/data with a link to the primary data share. Use the mklink command with the /D option for Windows.
5. In the Windows services manager on the secondary UMP server, change the Log On for the Nimsoft Robot Watcher service. The user on the secondary UMP server needs to have system privileges to write to the data directory on the primary UMP server. Restart the Nimsoft Robot Watcher service.
6. Activate wasp on the primary UMP server.
7. Once wasp is running on the primary UMP server, activate wasp on the secondary UMP server.

## Testing the Installation

You should now have two UMP servers running under a single hub and using the same NIS database. You can access these servers using either of these URLs:

- <http://primary>
- <http://secondary:8084>