ServiceCenter 6 Reference Configurations

Sizing Guide

HP® Management Software **ServiceCenter**

Introduction

The reference configuration data supplied in this document is based solely on the usage of the ServiceCenter 6 (SC) Out of the Box (OOTB) environment, including the Web Tier, and the Knowledge Management Search Engine running on top of the ServiceCenter 6.2.4 Runtime Environment (RTE).

Individual implementations can and will most likely cause an increase in the amount of resources that are utilized or needed by the application to perform in an acceptable manner to include running on an earlier version of the RTE.

Failure to test the application with the concurrent user load and transaction rate that is expected at the height of the daily system usage and utilizing the tailored application may result in an undersized environment to support the requirements.

These recommendations should be considered the minimum required to run ServiceCenter 6 effectively.

ServiceCenter 6 Application Server

Minimum Required Reference Configurations

- Small (<200 concurrent users)

  Windows:

  ServiceCenter 6: HP DL360-G4p – Windows Server 2003, 2 CPU cores, 8GB RAM, 36GB HD

  RDBMS: HP DL360-G4p – Windows Server 2003, 2 CPU cores, 4GB RAM, 2 x 36GB RAID

- Medium (201 – 600 concurrent users)

  Windows:

  ServiceCenter 6: HP DL585 – Windows Server 2003, 4 CPU cores, 16GB RAM, 36GB HD

  RDBMS: HP DL585 – Windows Server 2003, 2-4 CPU cores, 8GB RAM, 3 x 36GB RAID

  Unix:

  ServiceCenter 6: HP rx6600 – HP-UX 11i, 4 CPU cores, 16GB RAM, 36GB HD

  RDBMS: HP rx6600 – HP-UX 11i, 2-4 CPU cores, 8GB RAM, 3 x 36GB RAID

- Large (601 – 1,000 concurrent users)

  Windows:

  ServiceCenter 6: HP DL585 – Windows Server 2003, 8 CPU cores, 32GB RAM, 36GB HD

  RDBMS: HP DL585 – Windows Server 2003, 4-8 CPU cores, 16GB RAM, 3 x 36GB RAID

  Unix:

  ServiceCenter 6: HP rx6600 – HP-UX 11i, 8 CPU cores, 32GB RAM, 36GB HD

  RDBMS: HP rx6600 – HP-UX 11i, 4-8 CPU cores, 16GB RAM, 5 x 36GB RAID

ServiceCenter 6 Web Tier

- Web Tier (400 concurrent users) *see Rules of Thumb*
  - HP DL360-G4p – Windows Server 2003, 2 CPU cores, 4GB RAM, 36GB HD

ServiceCenter 6 Help Server

- *see Rules of Thumb*

ServiceCenter 6 Load Balancer Server

- HP DL360-G4p – Windows Server 2003, 2 CPU cores, 2GB RAM, 36GB HD *see Rules of Thumb*

ServiceCenter 6 Knowledge Search Engine Server

- Small (<200 concurrent users) *see Rules of Thumb*
  - *Windows:*
  - HP DL360-G4p – Windows Server 2003, 1 CPU cores, 2GB RAM, 36GB HD

- Medium and Large (>200 concurrent users)
  - *Windows:*
  - HP DL360-G4p – Windows Server 2003, 2 CPU cores, 4GB RAM, 36GB HD

Rules of Thumb

ServiceCenter 6 Application Server (servlet container)

A servlet container requires approximately 2 GB of Ram

- o 500 MB JVM requirement including the 256MB of Default JAVA heap
- o 50 MB for the process overhead
- o 10 MB – 20 MB per users session (thread) (see **Note *** below)
- o Plus shared_memory setting value in the sm.ini file. (counted only once for all Servlet containers on a single machine)

Recommend starting with **50 threads** (users) per process (servlet container) in the **Unix** environment and then increase based on process memory usage being experienced in your environment.

Recommend starting with **30 threads** (users) per process (servlet container) in the **Windows** environment and then increase based on process memory usage being experienced in your environment.

Note * Increases in user session memory usage can be caused by inappropriately large global lists, usage of global variables that are not cleaned up and multiple application threads being opened simultaneously. This will have a direct effect on the number of user threads that can be supported per servlet container.

ServiceCenter 6 Web Tier

The Web Tier was configured based upon Tomcat with **3** JVM's running **1 GB** of RAM Java Heap per JVM, and an Apache Web Server for connection distribution to the JVM's, add machines as required with additional Tomcat JVM's to create a Web Farm in order to support additional user load.

ServiceCenter 6 Help Server

The Help Server can be configured to run on one of the machines configured or accessible via the Web Tier. It can also be configured to be on a stand alone machine using a small machine configuration.

ServiceCenter 6 Load Balancer

The Load Balancer should be located on a separate machine and should always be sized as a small machine since it performs no other function than connection redirection to available servlets.

This is the one component of the configuration that can be considered a single point of failure, should be replicated and placed in a clustered environment for high availability. Failure of this component will only affect new user connections that are attempting to initially connect into the environment until such time as the Load Balancer is restarted or failed over. All currently active users connected to the environment would be unaffected by the loss of the Load Balancer.

Load balanced machines and servlet machines should use the server sizing given in this document and the number of nodes would depend on size of machine chosen and total number of concurrent production users

Knowledge Management Search Engine

The Hard Drive space required will vary based upon the amount of information that is indexed, the 36 GB specified above will be sufficient to support the installed software and the base operating system.

Note: Additional processors will provide no performance gain as the Search Engine is bound to a single CPU.

RDBMS server

The RDBMS server sizing specified above are the configurations that were used during the benchmarking runs for the ServiceCenter 6 product. The actual servers that will be used in a production environment should plan their storage needs based upon expected data volumes including attachments, etc. The CPU and memory requirements for the selected database should be based upon the recommendations of the Database vendor for supporting the expected transaction volumes.

Virtualized Environment (VMWare)

An addition of approximately 30% above the recommended ServiceCenter 6 sizing must be made in order to efficiently run that ServiceCenter 6 component in a Virtual environment.

For more information

Please visit the HP Management Software support Web site at:

http://www.hp.com/managementsoftware/support

This Web site provides contact information and details about the products, services, and support that HP Management Software offers.

HP Management Software online software support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued customer, you can benefit by being able to:

- Search for knowledge documents of interest
- Submit and track progress on support cases
- Submit enhancement requests online
- Download software patches
- Manage a support contract
- Look up HP support contacts
- Review information about available services
- Enter discussions with other software customers
- Research and register for software training

Note: Most of the support areas require that you register as an HP Passport user and sign in. Many also require an active support contract.

To find more information about support access levels, go to the following URL:

http://www.hp.com/managementsoftware/access_level

To register for an HP Passport ID, go to the following URL:

http://www.managementsoftware.hp.com/passport-registration.html