Oracle® Web Conferencing

Sizing Guide

Release 2 (2.0.4.2)

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1 Introduction

The purpose of this guide is to help you plan and size your Oracle Web Conferencing deployment. The metrics provided here are for a single installation of Oracle Web Conferencing.

This document contains the following sections:
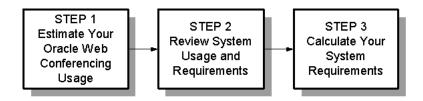
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2 Overview of Sizing Steps

Follow these steps to determine your system's sizing needs.

Figure 1   Steps to Determine System Sizing

3 Estimating Your Oracle Web Conferencing Usage

To determine your company's sizing requirements, you need to estimate how Oracle Web Conferencing will be used. The key questions are:

- What is the maximum number of concurrent users?

- What is the maximum number of concurrent conferences?

The questionnaire below will help you answer these key questions.

1. What time of day do most conferences occur?____

2. How many conferences occur at this time? _____

3. How many users participate in the largest of these conferences?_____

4. Multiply #2 by #3: _____

5. At what time of day does your company's largest conference occur? ___
   __

6. How many users participate in this conference? _____

7. How many other conferences occur at this time? _____

8. How many users participate in the largest of these conferences?_____

9. Multiply #7 by #8, and then add #6: _____

10. Compare the numbers you get in numbers #4 and #9. The larger number is: _____ This is the maximum number of concurrent users.

11. #2 is the maximum number of concurrent conferences.

4 Oracle Web Conferencing Usage Statistics

The following sections contain Oracle Web Conferencing usage statistics and minimum requirements.

4.1 Web Conferencing Server Hardware Usage

The first column of each of the tables below shows hardware usage for one conference on the Web Conferencing Server. This machine also contains Oracle9*i* Application Server, the Oracle Web Conferencing Application module, and so on. The second column shows usage for a conference in which 20 clients participate. These metrics were obtained with content containing minimal graphics. System usage increases for video and other graphically-rich content.

This table shows system usage for a Solaris platform.

Table 1   System Usage for Solaris[1]

Hardware	Hardware Usage for One Conference	Hardware Usage for 20 Clients
Physical Memory	7 MB	6 MB
Virtual Memory	12 MB	10 MB
CPU Usage (%)	0.8%	1%
CPU Usage with SSL Encryption	2.4%-3.2%	3%-4%
Network In	10 kB/s	10 kB/s
Network Out	8 kB/s	100 kB/s

[1]   These data were obtained using a Sun Ultra 60 with two UltraSPARC-II 450MHz CPUs, 2 GB RAM, Solaris Operating System 5.8

This table shows system usage for a Linux platform.

Table 2   System Usage for Linux[1]

Hardware	Hardware Usage for One Conference	Hardware Usage for 20 Clients
Physical Memory	14 MB	6 MB
Virtual Memory	15 MB	6 MB
CPU Usage (%)	0.5%	0.8%
CPU Usage with SSL Encryption	1.5%-2%	2.6%-3.8%
Network In	15 kB/sec	15 kB/sec
Network Out	8 kB/sec	100 kB/sec

4.2 Voice Conversion Server Hardware Requirements

Oracle Web Conferencing requires separate hardware to support voice streaming. A voice conference is a conference where the host uses the Oracle Web Conferencing voice feature either for recording or for voice streaming. The requirements outlined in the table below are based on the number of concurrent voice conferences. Use these numbers as guidelines only to set Oracle Web Conferencing Voice Conversion Server flow.

Table 3   Minimum Hardware Recommendations for Voice Conversion Server

Number of Concurrent Voice Conferences	Number of T1 Lines	Number of Computers	Memory	Example Set of Required Dialogic Cards (per box)
24	1	1	24 MB	1xD/240SC-T1, 1xD/240SC
48	2	1	48 MB	1xD/480SC-2T1, 2xD/240SC
96	4	2	96 MB	1xD/480SC-2T1, 2xD/240SC
192	8	2	192 MB	2xD/480SC-2T1, 4xD/240SC

The computer usage is based on computers with a 2.4 GHz Intel processor. Use BRI T1 lines. One GB of disk space is recommended.

4.3 Document Conversion Server Hardware Requirements

Unlike the other types of Oracle Web Conferencing servers, Document Conversion Server tasks are CPU-intensive, usually reaching 100% CPU usage for most conversion tasks. Oracle Web Conferencing currently supports only one Document Conversion Server, so for faster conversion, you must scale up.

The sizing of document conversion hardware depends on the load on the Document Conversion Server. The load is determined by the nature of the conversion tasks, for example, size of document and amount of graphics.

The following table lists document conversion times for various types of documents. These results were obtained using a Pentium III, 866 MHz, 256 MB, Windows 2000 machine with a 100 Mbps ethernet connection and 15 GB EIDE disk.

Table 4   Document Conversion Time

Document Type	Length	Size	Complexity	Conversion Time
PowerPoint	11 pages	267 KB	Simple graphics	12 seconds
PowerPoint	35 pages	1.1 MB	Complex graphics	35 seconds
PowerPoint	29 pages	8.2 MB	Moderate graphics	41 seconds
Excel	3 sheets	19 KB	Text only	2 seconds
Word	40	150 KB	Text only	8 seconds
Word	11 pages	1 MB	Complex graphics	24 seconds
Word	10	2.8	Simple graphics	5 seconds

For best results, Oracle Corporation recommends using a fast CPU (such as 2.4 GHz) and a reasonable amount of memory (such as 512 MB).

5 Other Requirements

Oracle Web Conferencing also relies on Oracle9*i*AS Infrastructure and the Oracle9*i* Database. Please consult the documentation for these products for hardware requirements. Oracle Web Conferencing requires at least 30 GB of disk space in the machine on which the database is located, so add this requirement to the Oracle9*i* Database requirements. When calculating database disk space, consider the number and size of materials that will be stored in the Materials and Archives tabs.

6 Calculating Your System Requirements

Use the information in the previous sections to estimate your system requirements.

6.1 Determining Your CPU Requirements

1. Select a table from Section 4, "Oracle Web Conferencing Usage Statistics" that represents your deployment platform: Table __

2. From the questionnaire in Section 3, "Estimating Your Oracle Web Conferencing Usage", divide #10 by 20 and round up. Multiply the result by the "Hardware Usage for 20 Clients" column of the CPU row_

3. Multiply #11 by the "Hardware Usage for One Conference" column in the "CPU Usage" row. _____

4. Add the results from #2 and #3 of this section and divide by 100. Round up the result: _____ This is the number of CPUs you will need.

Repeat the steps in this section to determine your memory and network requirements.

7 Caveats

There are several variables when determining system usage, not all of which are accounted for in this manual. For example, the type of content that is presented influences system usage. Graphically-rich content and video use more system resources than PowerPoint slides with minimal graphics.

8 Conclusion

Based on your estimated Oracle Web Conferencing workload and the usage statistics and requirements in this document, determine your system configuration.

Your Web Conferencing Server configuration is:_____

Your Voice Conversion Server configuration is:_____

Your Document Conversion Server configuration is:_____

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