

Sun Ray™ Technology Server Sizing Recommendations

A Quick Reference Guide
May 2008

Introduction

This document provides basic sizing recommendations for deploying Sun Ray™ virtual display clients, based on realistic configurations for two distinct types of workloads: Microsoft Windows users and UNIX® users.

The recommendations provided are based on actual customer experiences and deployments. These recommendations are intentionally conservative and should be considered a reasonable starting point. Of course, each implementation will be unique and it is recommended that you work with your Sun Microsystems representative or an authorized reseller to meet your specific sizing requirements and solution needs.

Workload Definitions

- Workload type 1 – Microsoft Windows user

A user accessing a fullscreen Windows desktop environment. This user's set of applications has minimal impact on the Sun Ray technology sizing calculation because the Sun Ray server does not directly execute the applications. Instead, the Sun Ray server is running the Sun Ray Connector for Windows OS and simply provides a high quality display connection to a back-end Windows desktop instance, where the applications are executed.

- Workload type 2 – UNIX desktop user

A user accessing a fullscreen Solaris™ OS or Linux desktop, typically working in a GNOME or KDE desktop environment. In this case, all applications that are run have a direct impact on the sizing calculation, as they are executed directly on the Sun Ray server.

Scaling & High Availability

Sun Ray Software provides load-balancing services across multiple Sun Ray servers in a high-availability (HA) group. It is important to consider the potential number of users each server may need to support should one server in the HA group become unavailable. Should this occur, best practices recommend the remaining servers in the HA group must be powerful enough to support that server's workload in addition to their own. For example, here are two possible ways to deploy a 200-user implementation:

- Two servers sized for 100 users each (option A)

Here, it is recommended that each server should be powerful enough to support all 200 users, should one server become unavailable.

- Four servers sized for 50 users each (option B)

Here, the load normally carried by the unavailable server can be shared among the remaining 3 servers in the HA group. In this example, the additional load is approximately 16 additional users for each remaining server (50 users divided by the 3 remaining servers).

Depending on your company requirements and policies, you may need to consider these or other scaling options.

Recommended Sizing Configurations

These sample recommendations should be considered as a starting point and can be viewed as modules or building blocks to create larger groupings or HA groups.

All metrics indicated are based on the use of Sun Ray Software 4 09/07.

Table 1. Workload Type 1 – Microsoft Windows User

User Quantity	Processor	Processor Quantity	Processor Cores	Processor Frequency	System Memory
75 – 150	UltraSPARC® with CoolThreads™ Technology	1	8	1.0 GHz	8 – 16 GB

Note: Although the UltraSPARC processor was used as the example for this workload type, both UltraSPARC and x86/x64 based processors are recommended for a workload type 1 environment.

Table 2. Workload Type 2 – UNIX Desktop User

User Quantity	Processor	Processor Quantity	Processor Cores	Processor Frequency	System Memory
75 – 150	x86/x64	4 – 8	2	2.6 – 2.8 GHz	16 – 32 GB

Additional Sun Ray Technology Resources:

- Product information website: <http://www.sun.com/sunray/>
- Software system requirements: <http://www.sun.com/software/sunray/techspecs.jsp>
- Sun Ray Technology data sheet: http://www.sun.com/software/sunray/SunRay_Software4ds.pdf

Additional Solaris™ 10 Operating System (OS) Resources:

- Product information website: <http://www.sun.com/software/solaris/index.jsp>
- Software system requirements: <http://www.sun.com/software/solaris/specs.jsp>
- Solaris data sheets: http://www.sun.com/software/solaris/reference_resources.jsp

