

Server Hardware

Minimum Requirements

Windows:

Recommended Requirements: 2 GHz or higher multiprocessors; 4 GB memory; 10 GB operational disk space

Minimum Requirements: 800 MHz or higher single processor; 1 GB memory; 2.5 GB operational disk space

Server Operating System

One of the following:

- Windows 2000 Server (SP4) - 32-bit , x86
- Windows 2003 Server (SP2), Enterprise Edition - 32-bit , x86
- Windows 2003 Server (R2), Enterprise Edition - 32-bit , x86

Web Server

- Microsoft Internet Information Service (IIS), version 5.0 or 6.0

Client Operating Systems

One of the following:

- Windows 2000 Professional (SP4) – 32-bit, x86 (Web-based clients only)
- Windows XP Professional (SP2) – 32-bit, x86
- Windows Vista (Web-based clients and Mashup Composer)
- Mac OS X (Web-based clients only)
- Blackberry 4.1 (Web-based clients only)

Database

One of the following:

- Microsoft SQL Server, 2000 or 2005
- Microsoft SQL Server 2005 Express
- Oracle 10.2.0.2

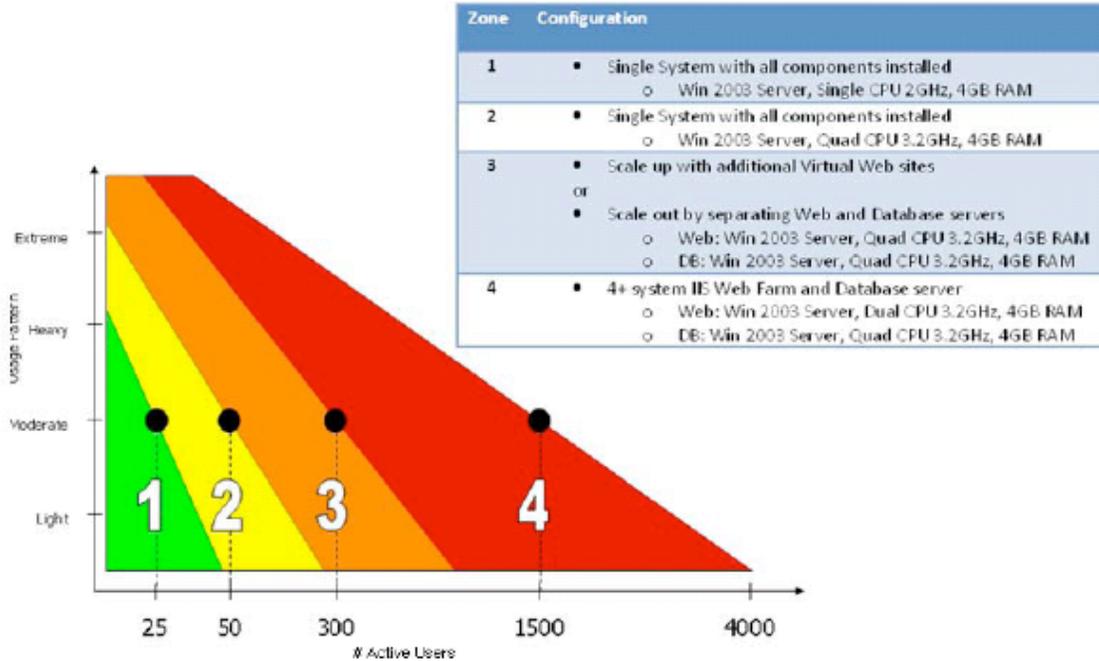
Web Browsers

One of the following:

- Microsoft Internet Explorer, version 6 SP1 and version 7
- FireFox 2.0

General Approach for Scalability

When optimizing performance, focus first on getting servers with the fastest possible CPUs. Second, look closely at memory utilization and ensure there is enough. Then, consider multiple processor configurations. These principles should be applied to servers when both scaling vertically and scaling horizontally. In the end, any single Serena Business Mashups operation happens fastest when CPU speed, network bandwidth, and available memory are high. Using the fastest possible CPU at the client, server, and database tiers result in the best end user experience. The following chart illustrates scalability zones for Serena Business Mashups.



In this chart there are four zones. Zone 1 represents low activity and simple configuration and usage patterns. Zone 4 is at the highest end of the spectrum. It represents high user load and complex data and usage patterns.

This table can be used to determine appropriate server configurations based on usage patterns and expected number of active users. The configuration recommendations are the result of analysis of data collected as part of the rigorous Serena Business Mashups acceptance and certification process. The data set used was of Enterprise size and reflected configurations common to many of our customers.

An active user is defined by a user in the system who is actively performing work (e.g., two users running a report at the same time). More users can be logged into the system but are not considered active until they are performing some activity. With this definition you can determine your usage pattern and the number of processes that you anticipate to consider a hardware configuration that might fit your needs. If for example, if you want to support a population of 250 users and you believe at any one time you will have 25 users performing moderate operations (submitting new requests, updating records, reporting, querying for a record, etc.) then Zone 1 would be the starting point for the hardware you might consider. If you had a 20,000 user population to support, Zone 3 at 300 concurrent users might be appropriate for you.