

Blackboard Help

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Recommended Deployment Approach

Starting with Learn 9.1 SP 8, Blackboard no longer supports 32-bit deployments. As a result, you must use 64-bit operating systems and sub-components (Java and SQL Server or Oracle). With this change, Blackboard encourages clients to take advantage of larger Java Virtual Machines (JVMs) that range from 4GB to 32GB in size. Blackboard recommends 4GB to 8GB JVMs, but performance testing has been conducted with acceptable performance as high as 32GB JVMs.

Customers need to migrate away from single server Tomcat cluster deployment. Tomcat clustering on a single server was introduced for scalability purposes when the Blackboard Learn architecture was 32-bit and customers wanted the ability to increase their memory usage beyond the limitation of a single JVM capability. With the option to virtualize, Blackboard's benchmarking efforts have moved away from single server Tomcat cluster deployments. Customers can achieve similar performance in a virtual environment on the same physical server with multiple virtual instances as with a bare metal configuration with many Tomcat cluster nodes. The deployment of 64-bit JVM with larger heap sizes has suppressed the need for customers to run in a single server cluster option.

Blackboard recommends that customers consider distributing their Learn deployment across physical servers with the option to virtualize the servers to take advantage of the distributed hardware resources.
