

COLAMA™ - Univ Edition hardware requirements

Overview

Colama™ - Univ Edition is a state of the art virtual lab management software that has been specially designed for the Indian university environment and provides for a unified content and platform delivery capabilities using patent pending technology to present an immersive learning experience.

Colama™ can work with off-the-shelf learning management systems and support multiple virtualization technologies to provide a unique environment that can be customised for specific course requirements.

Installation options

The preferred way to install Colama™ - Univ. Edition is to configure a few servers and use them to service a network of thin clients. Optionally, Colama™ - Univ. Edition can be installed on a collection of pre-existing desktops that will be configured to work both as servers and thin clients simultaneously.

Hardware compatibility

In general, Colama can be installed on machines with x86 architecture. However, for optimal performance, we recommend the following hardware configurations. While these specifications should be treated as guidelines for the server configuration, please feel to revert with specific alternatives you are considering.

Server configuration:

Rationale

1. The CPU and motherboard combination should support hardware virtualization. Intel CPUs give better performance, while AMD CPUs are significantly cheaper.
2. RAM is typically the first resource we expect to run out of in a university environment and 8GB provides a good trade off for most functions. Increasing installed memory beyond 16GB is not cost effective.
3. The i/o throughput of the system is directly proportional to the number of spindles available to us for striping. While increasing the number of spindles further would be nice, please ensure that the power supply is suitably upgraded as well. In our use case, i/o does not scale linearly with disk rpm.

Sample configuration

CPU AMD All X4 945 (Quad core CPU)
Mother Board Asus M4A78-EM
RAM 8GB or more
Hard Disk 4 X 320GB or greater @ 7200 RPM
SMPS at least 650 Watts

Note

1. Please ensure the power supply is adequately (700VA) sized
2. Please ensure that the cabinet is designed well for forced cooling of the hard disks.
3. Please budget 1 server per 8-12 seats + 1 additional for a site

Client configuration

Any machine trying to access Colama™ should have the following software installed:

- Firefox version 3.0 or later with flash plugin installed.
- JRE 1.5 or later (1.6 preferred) .
- The security policy should allow applet use.
- Audio out capability is preferable, though not necessary.

Either dedicated thin clients, or old PCs can be used as user access points. Response of the system will depend on the ability of the client to run a vnc applet to capture the virtual machine screen. If you intend to use thin clients, please check with the supplier if they can re-flash the system with some custom software to optimize its use with Colama™ - Univ Edition.

Network

- The site should have at least 100Mbps LAN. 1Gbps is preferable.
- The lab should be on an isolated VLAN or subnet
- External network access is desirable, but not necessary.