



Enomaly ECP - Architecture and Configuration Notes

Servers:

- Hardware: ECP was designed to be used on almost any x86 hardware -- any hardware supported by RHEL or CentOS is fine. Most sites select Intel single-chip or dual-chip quad-core servers (e.g HP DL360) with 16-32GB of RAM each.
- Software: CentOS 5.2 x86_64 or RHEL 5.2 x86_64 installed on each host, barebones install (un-check all packages, and do not install any additional packages before the ECP install process).
- ECP installed on each host, configured as a cluster (one master, remainder as slaves)

Network:

- 1Gbps or better. Single-segment configurations are reasonable for smaller sites, but multiple segments and a dedicated overlay network for shared storage access should be considered for larger installations.

Architecture:

- ECP clusters: up to 250 ECP servers per cluster. Multiple clusters can be interconnected and managed as one.
- Shared storage: for sites with high availability requirements we recommend GFS or another cluster file system, or for sites with lower availability requirements CIFS or NFS sharing from either a dedicated NAS with redundancy (recommended), or (for very small sites) from the master ECP server. High performance is desirable: large file-based VMs are accessed from this location. Consider using a dedicated network segment for file storage access. SAN storage can be used to provide local block devices. Future ECP releases will have broader SAN support.

Two mounted volumes are required, mounted on each ECP host as `/var/lib/xen` and `/opt/enomalism2/repo` respectively.

- Database: MySQL, (recommended: multi-master cluster for redundancy). ECP uses MySQL for data sharing, but does not place high performance demands on the MySQL server.

Recommended VM sizing:

- Small VMs (simple LAMP stack) - 256MB RAM, single virtual CPU, 10GB system image

- Medium VMs (multi-purpose appliances) - 512MB RAM, single virtual CPU, 10GB system image + 20GB supplemental storage
- Large VMs (more capable servers) - 1GB RAM, 2 x virtual CPU, 10GB system image + 80GB supplemental storage.
- X-Large VMs (uses 1/2 to 1 host resources) - 4GB RAM, 4 x virtual CPU, 10GB system image + 250GB supplemental storage.