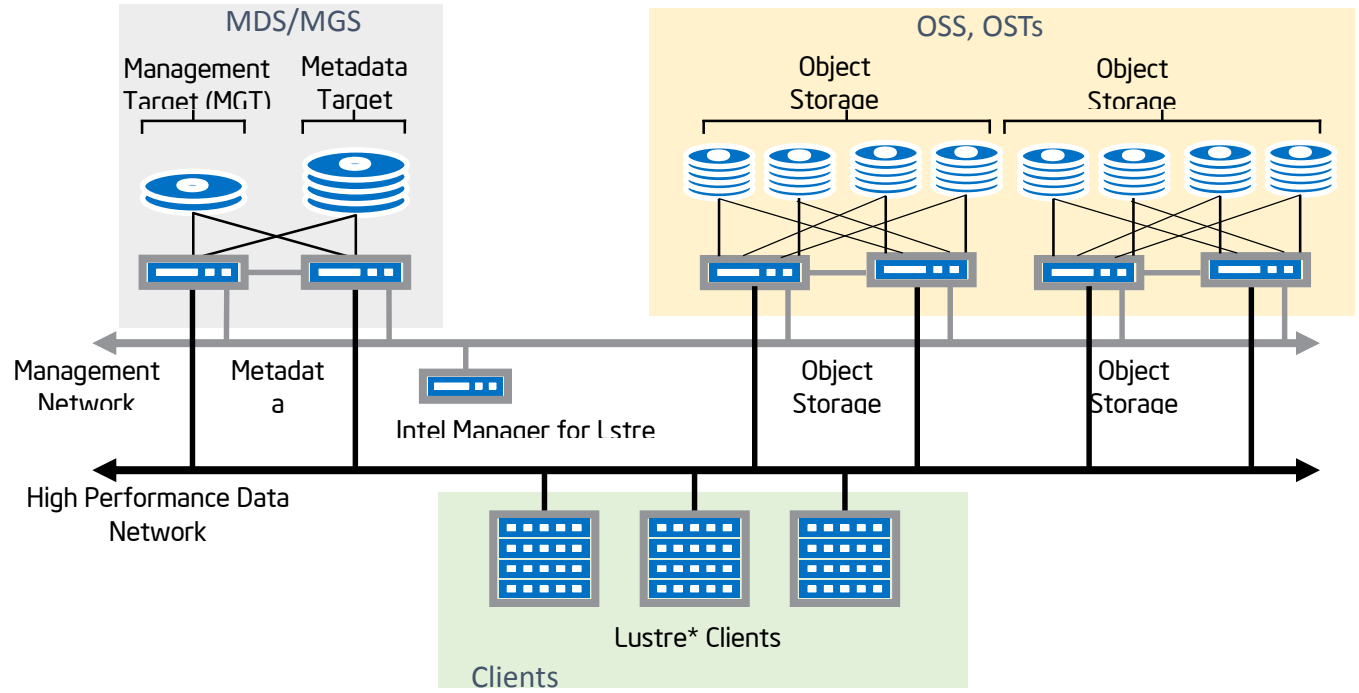

Introduction

For the online training you will need to setup the hardware configuration shown above as detailed in the following “Hardware Setup” section. For installing the software, this is detailed in the Software setup” section. You will not have to compile and build any Lustre* images or RPMs. There are supplied as part of Intel® Enterprise Edition for Lustre* Software product. Other than a script to run to install the management GUI, all installation of the servers is automated by using the GUI. The GUI will also setup and cofigurec the HA (High availability) software using Corosync and Pacemaker.

Hardware Setup

The diagram shows the configuration needed for the on-line instruction.

There are 10 systems. 6 of them are in 3 High Availability (HA) pairs. The HA pair configuration is a requirement for using the Intel Manager for Lustre* tool. The two systems, the MGS (management server) and the MDS (Medatdata server) in the shaded blue area is an example of a HA pair. Each pair has a crossover connection that goes only between the two systems in the pair. One of the 10 systems is to host the Intel® Manager for Lustre* Software and 3 remaining are for Lustre* clients. The 6 servers need 3 Ethernet ports. One for the management network, one for the data network and one for the crossover. The first two connection need IP addresses assigned to them. The crossover connection should not have an assigned IP address. Intel® Manager for Lustre* Software will assign this during the cluster setup.

As shown in the diagram, the MDS and MGS each have one disk for Lustre* usage. Each OSS has 2 disks. The client systems do not need any disks for Lustre*. All of these disks/luns can be small. They only need to be 10GB for greater for the training. The MGT can be even smaller but should be at least 100MB. If

you would also like them for perform, the see Chapter 5 “hardware Considerations” in the Lustre Users Manual that shows how to size each target.

The most difficult requirement that you will have is that the MGT, MDT and each OST (usually each just a LUN) must be dual ported. This is for the HA requirement as for each HA pair the OSTs need to be accessible by both servers in the pair. This is usually accomplished by using a RAID or JBOD with dual controllers. In the RAID example, each target would be a lun on the RAID and for a JBOD could be just one disk. The important point is that each of the servers in the HA pair must be able to access each of the OSTs, Its own 2 and the 2 of its HA partner.

Software Install

One the hardware is configured and the network setup, take the Enterprise Edition tarball and copy it to the system that will host Intel* Manager for Lustre* Software and follow the direction in the Partners Installation guide in the section “Installing Intel® EE for Lustre* software”. To begin, as shown in the guide,, un-tar the tarball, cd into the directory it creates and run “./install” and answer the questions. When complete you should be able to access the Intel® Manager for Lustre* Software GUI to provision and setup the cluster by adding the servers and OSTs. The Partner Install guide has the details. There is no need to install any RPMs yourself for the servers. Intel® Manager for Lustre* Software will install all the Lustre* software on the 6 servers. You will have to install Lustre* and the Lustre* kernel modules on each client as documented in the guide in the section “Installing Intel® EE for Lustre* software on Clients”.