Overview

This chapter contains the following sections:

About Cisco UCS Director EMC VMAX Management

Cisco UCS Director supports EMC Symmetrix VMAX and EMC Symmetrix VMAX3. Specific information on supported models, supported software, and supported management interfaces can be found in the Cisco UCS Director Compatibility Matrix, Release 5.4. A VMAX license supports one engine (two directors).

Cisco UCS Director connects to EMC VMAX using the EMC Solutions Enabler.

To manage VMAX in Cisco UCS Director, you use a Linux-based Symmetrix Performance Analyzer (SPA) or Symmetrix Management Console (SMC) server. We recommend Linux version 7.5.1+.

After building the Linux image and installing the EMC Solutions Enabler, you create an **EMC VMAX** account.

VMAX Reports

You can see at a glance the following VMAX Summary reports:

- System capacity—Free vs. used (GB) pie chart
- System overview—Symmetrix version ID, Enginuity build version, model, Solutions Enabler IP address, and number of engines, directors, thin devices, data devices, director ports, and disks.
- Storage—Total capacity, used capacity, and free capacity

Note   Always click **Refresh** on the **Summary** tab to see updated information.

You can access tabs to create the following VMAX devices, views, pools, and groups. You can drill down to view details for each feature:

- **Thin Pools**—Name.

- **Data Devices**—Device count, capacity (GB), emulation, configuration, and disk group. **Note:** This device is not used in VMAX3.

- **Regular Devices**—Device count, disk group, emulation, configuration, capacity type, capacity. **Note:** This device is not used in VMAX3.

- **Thin Devices**—Device count, capacity (GB), emulation, bind to thin pool (on or off), and option to preallocate 100 percent.

- **Meta Devices**—Device type, select regular or thin device, meta type, select member device. **Note:** This device is not used in VMAX3.

- **Initiator Groups**—Group type (standard or cascaded), group name, type (iSCSI, FCP), and initiator name. Consistent logical unit number (LUN) can be set to on or off.

- **Storage Groups**—Storage group, storage group count, volume count, masking view, storage capacity, isparent/isccild, parent storage, child storage, masking view, FAST managed, SRP, SLO, workload type.

- **Port Groups**—Group name and director port selection (all, none, or selected).

- **Masking Views**—View name, storage group selection, host LUN ID (specified or autogenerated), initiator group selection, and port group selection.

- **Fast SRP**— Has Associated Disk Group, Storage Group Demand, and SLO Demand Report as drilldown reports.

- **Fast SLO**—This report contains a 'Rename' action that renames the SLO name. Has FAST SLO workload report as a drilldown report

- **Tiers**—Tier name, tier type, emulation, target protection, number of ports and directors, technology, disk location, and type.

- **FAST Policies**—Policy name, tiers, number of tiers, number of storage groups, and emulation. **Note:** This object is not used in VMAX3.

The read-only report detail on VMAX system tabs includes the following information:

- **Front-End Directors**—Symmetrix ID, director module, status, type, identification, and number of ports, directors, mapped volumes, and engine ID.

- **Back-End Directors**—Symmetrix ID, director module, status, type, identification, and number of ports, directors, mapped volumes, and engine ID.

- **Director Ports**—Director module, type, port, port ID, maximum speed, node WWN, and ACLX option for each port.

- **Disk Groups**—Disk group name, technology, disk location, disks, total capacity, used capacity, free capacity, tags.

- **Features**—Name, type, capacity (GB), and Serial Advanced Technology Attachment (SATA) drive capacity (GB).

- **Licenses**—Feature name, license type, and capacity type.

- **Initiators**—Initiator group, Challenge Handshake Authentication Protocol (CHAP) enablement, user port name, user node name, initiator, type, iSCSI name, common serial number, SPC2 protocol, SCSI support, environment, volume set addressing, and other data.

• **Memory**—Slot number and capacity.