EMC ORACLE VM STORAGE CONNECT INTEGRATION MODULE SIMPLIFIES VIRTUAL INFRASTRUCTURE MANAGEMENT

Greatly enhance the ease of managing and provisioning storage in an Oracle VM environment

Overview
Customers are virtualizing business critical database and application workloads as they consistently look for the best way to leverage existing resources and simplify the management of their virtual infrastructures. The Oracle VM Storage Connect framework using the EMC Oracle Storage Connect Integration Module provides a solution for simplifying virtual infrastructure management and delivering faster virtual machine configuration and control.

EMC® E-Lab™ performed numerous tests using EMC Oracle Storage Connect Integration Module in an EMC VMAX™ environment to ensure this solution enhanced the ease with which storage can be managed and provisioned in an Oracle VM environment.

EMC Symmetrix VMAX
Based on the Virtual Matrix™ Architecture and EMC Enginuity™ capabilities, Symmetrix VMAX systems deliver scalable performance that meets the most demanding access, protection, and distribution requirements. VMAX delivers non-disruptive operations and greatly simplifies and automates the management and protection of information.

EMC Oracle Storage Connect Integration Module
Oracle VM Storage Connect provides administrators the ability to use Oracle VM manager to create, delete, and provision storage directly on the storage device or file system. Through integration of the features provided by Oracle and the EMC Oracle Storage Connect Integration Module, Oracle Storage Connect plug-ins permit storage administrators to use the Oracle VM manager GUI to provision and manage the EMC VMAX array. This functionality includes LUN inquiry and discovery, thin LUN creation and removal, Auto-provisioning (LUN mapping/masking), and clone device creation and removal.

Testing: Validating the EMC Oracle Storage Connect Integration Module
In order to validate the functionality of the EMC Oracle Storage Connect Integration Module, E-Lab created and deployed an Oracle VM virtualization solution consisting of business class blade servers. The configuration was comprised of:

- Clustered Oracle VM servers
- One Oracle VM manager server
- Two Oracle VM 3.0.2 servers
- One SMI-S provider server utilizing the EMC SMI-S provider

Testing was performed by discovering and registering the VMAX storage array and discovering the pre-created thin pools (volume groups in Oracle terminology) and devices. After the discovery, LUN information such as device size, device WWNs, status, LUN ID, and any associated volume groups, was verified.

Once the initial discovery and inquiries were completed, new thin LUNS of multiple sizes were created. After creating these new LUNs, access groups were created using the Oracle VM GUI functionality. Then these new LUNs were assigned to the access groups. These access groups were used to allocate storage to the Oracle VM servers in order to install the guest VMs.

One of the key features of this solution was the creation and deletion of clones. Clones were created, deleted, and accessed by the guest VMs to ensure that the newly created clones could be utilized with no issues, all accomplished by using the Oracle VM manager GUI.
The objective of this validation was to ensure that using the Oracle VM manager interface, in combination with the EMC Oracle Storage Connect Integration Module, would easily and successfully allow customers to manage VMAX thin pools and simplify the deployment of Oracle VM virtual environments.

Results
With the EMC Oracle Storage Connect Integration Module, customers will benefit from simpler management and accelerated provisioning, enabling lower cost and greater agility. The EMC Oracle Storage Connect Integration Module, using the Oracle VM Storage Connect framework, provides customers with new opportunities to take advantage of advanced storage features in a more simplified method using the Oracle VM manager GUI interface.

The EMC E-lab validation of the EMC Oracle Storage Connect Integration Module has shown the deployment, management, and administration of an Oracle VM environment with VMAX.

Any customer that currently has an Oracle VM environment deployed, or wants to deploy a new Oracle VM environment with EMC VMAX, can do so more easily by using the functionality of the Oracle VM manager with the EMC Oracle Storage Connect Integration Module. This solution increases the ease of use and enhances the total customer experience.

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