Enabling Oracle EM12c-based Database-as-a-Service on VMware with the Blue Medora Plugin for VMware
EM12c Plugin for VMware – Solution details

- Developed by Blue Medora, key Oracle partner

- Extends Oracle EM12c capabilities to VMware
  - Monitoring
  - Power management of virtual machines
  - BI Publisher-based reporting
  - Virtual machine provisioning
  - Enables EM12c-based MWaaS on VMware
  - Enables EM12c-based DBaaS on VMware
How it enhances Oracle Enterprise Manager

Fully-automated provisioning of any # of VMware-based Oracle Database servers using EM12c
Key Benefits

- Extends Oracle Database-as-a-Service to VMware

- Provisioning of Database server on VMware virtual machines automated by plugin
  - Separate workflows for VM creation and Database creation no longer required

- Massive reduction in deployment times of Oracle Database on VMware
Enables Oracle DBaaS on VMware

- Adds new ‘VMware Management’ target to Oracle EM12c
- Power on, power off, suspend, etc VMware VMs from within EM12c
- Create Oracle Database on VMware provisioning profiles and link VMware VM templates to them
- Determine how many Database on VMware servers to deploy, which Oracle Cloud zone and pools they should go, and kick-off the deployment
- Clone VMware VMs or deploy from templates outside of the Oracle DBaaS process
- Create Oracle Database on VMware provisioning profiles and link VMware VM templates to them
- Full control of your VMware virtual machines: including power operations.
How Oracle on VMware DBaaS works

1. VMware plugin is installed and configured

2. 1 to 100s of Oracle Database servers requested and deployed from purpose built VMware template(s)

3. Host, Database, and Oracle Home targets automatically promoted within EM12c

4. New Database targets are placed into appropriate Oracle Cloud pools and zones for use within Self-Service portal
Oracle Database on VMware DBaaS Architecture

- Remote agentless connection to VMware environment via vSphere API
- Database Server can be deployed to multiple VMware environments from a single OMA
- No agents required on VMware ESX servers or VMs
- Uses standard VMware virtual machine templates customized for use with Oracle DBaaS
How the plugin eases Database on VMware deployment

Before the Plugin for VMware

After deploying the Plugin for VMware

Fully Automated with the VMware Plugin
Enables up to 95% reduction in deployment times

Without the plugin, VMware VMs must be provisioned ‘out-of-band’ by the VMware operations team

<table>
<thead>
<tr>
<th>Step</th>
<th>Without the EM12c Plugin for VMware</th>
<th>With the EM12c Plugin for VMware</th>
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</thead>
<tbody>
<tr>
<td>Request and deploy new VMware VM</td>
<td>Depends on demand: 1-3 Weeks</td>
<td>Depends on demand: 15 - 30 Minutes</td>
</tr>
<tr>
<td>Deploy Oracle Host/Agent Target</td>
<td>Every new server: 5 Minutes</td>
<td>Every new server: (Only 5 minutes of user time)</td>
</tr>
<tr>
<td>Deploy Oracle Home Target</td>
<td>Every new server: 5 Minutes</td>
<td>Every new server</td>
</tr>
<tr>
<td>Create new PaaS Zone</td>
<td>Depends on configuration: 5 Minutes</td>
<td>Depends on configuration: (required)</td>
</tr>
<tr>
<td>Create new Software Pool</td>
<td>Depends on configuration: 5 Minutes</td>
<td>Depends on configuration:</td>
</tr>
<tr>
<td>Add Host to specific PaaS Zone</td>
<td>Every new server: 5 Minutes</td>
<td>Every new server</td>
</tr>
<tr>
<td>Add Oracle Home to specific Software Pool</td>
<td>Every new server: 5 Minutes</td>
<td>Every new server</td>
</tr>
<tr>
<td>Monitor VMware VM running WebLogic</td>
<td>When an issue arises*: 1-5 Days</td>
<td>Every new server: TOTAL: 5 Minutes</td>
</tr>
<tr>
<td></td>
<td>TOTAL: Days to Weeks</td>
<td>TOTAL: Less than 1 hour</td>
</tr>
</tbody>
</table>

With the plugin, VMware VM provisioning is fully automated within the Database provisioning workflow.
Enables WebLogic scale-out on VMware

1. Select the Oracle Cloud ‘Zone’ and ‘Pool’ the new VMware-based Database Servers are to be deployed to

2. Define the # of Database servers on VMware to be deployed

3. Complete the process by clicking “Provision Resources”
What DBaaS on VMware looks like end-to-end

1. From the new VMware Management target in Oracle EM12c, choose DBaaS deployment and kick off a provisioning job.

2. Creates new VMware VM from Database VM Template.

3. Configures VM Networking and make available to Oracle EM.

4. Push and configure Oracle Management Agent (OMA).

5. Promote Oracle Homes within Oracle EM.

6. Add to Oracle EM DBaaS Zone and Pool.

7. Automated deployment of new Database Server on VMware, fully managed by Oracle EM12c, in 25 minutes.

From the new VMware Management target in Oracle EM12c, choose DBaaS deployment and kick off a provisioning job. Create new VMware VM from Database VM Template. Configures VM Networking and make available to Oracle EM. Push and configure Oracle Management Agent (OMA). Promote Oracle Homes within Oracle EM. Add to Oracle EM DBaaS Zone and Pool. Automated deployment of new Database Server on VMware, fully managed by Oracle EM12c, in 25 minutes.
Software Pre-requisites for Oracle DBaaS on VMware

- **Oracle EM12cR3 or greater**
  - Database Lifecycle Management Pack
  - Oracle Cloud plugins

- **VMware vSphere v4.1 or greater**
  - VMware virtual machine template
    - Linux-based
    - Containing WebLogic binaries
    - Configured for integration with EM12c

- **Blue Medora EM12c plugin for VMware v12.0.1.8 or greater**