

ORACLE®

Enterprise Manager Cloud Control 12c Release 1 (12.1.0.1)

Agent Deployment

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Agenda

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- Agent Push Application (Add Host Targets Wizard)
 - What's new in 12.1
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 - Key customer Use cases
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- Agent Cloning/ Shared Agent (Add Host Targets Wizard)
 - What's new in 12.1
 - Demo
 - Q&A
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Various Agent Installation Methods

Agent Deployment Method	11g	EM 12.1
Agent Push Application	Yes	Yes (called as add host wizard)
	Various Agent Install supported through this method: 1.Fresh Install 2.Clone Agent 3.Shared Agent(NFS) 4.Agent Upgrade	Various Agent Install supported through this method: 1.Fresh Install 2.Clone Agent 3.Shared Agent(NFS) 4.Agent Upgrade (not supported and is done via upgrade console) Yes Done into 2 parts:
Using Response File (Silent Agent Install)	Yes	Yes, Done into 2 parts: 1.Login to emcli in OMS home to get the agent image 2.Unzip the image to install the agent using agentDeploy.sh with the response file from target box
Using agentDownload Script (Agent Pull)	Yes	Yes, Done in 2 parts: 1. Login to emcli in OMS home to get the agent image 2. Install the agent using agentDeploy.sh from target box
Agent Software only Configure later	No	Yes
RPM	No (available only for BMP/OVM customers)	Yes
NFS	Yes, GUI (Agent add host wizard) and command line(nfsagentinstall)	Yes, GUI (Agent add host wizard) and command line(AgentNFS.pI)

ADD HOST TARGETS WIZARD (AGENT PUSH APPLICATION)

FRESH AGENT INSTALL

Add Host Targets Wizard- Agent Deployment Types

You can use the Agent Push application to deploy the EM 12.1 agent in following ways from EM 12.1 Console:

Fresh Agent Install

Installs the vanilla version of the agent.

Clone Existing Agent

Installs an agent using an existing source agent that is well tested and patched.

Shared Agent Install

Installs an agent using an existing master agent that is installed on a NFS mounted drive.

Add Host Targets Wizard- What's new in Enterprise Manager 12.1

- Agent Push Wizard is also referred as Add Host Targets Wizard because it promotes an unmanaged host target to a managed one by installing an Management Agent on that host.
- Oracle recommended way to perform Mass agent Deployment
- Multi-platform agent deployment in a single deployment session
- Integrated with Discovery, Self Update and Named Credentials
- Sudo/Powerbroker or any privilege delegation tool integrated, user can input it in the console.
- Switch from SSH public key authentication (10g and 11g) to password based authentication (EM 12.1).

Add Host Targets Wizard- What's new in Enterprise Manager 12.1 (Cont ..1)

- Fine tuned Retry and Continue options in case of failure
- Simplified UI Most of the inputs are auto computed(agent registration password, load balancer host port, virtual host name etc.)
- Per Host Status Tracking in case of Mass deployment
- Session Information persisted in database for tracking in future.
- Supports Locked account feature
- If you have 2 node RAC and want to install the agent then you have to install the standalone agents on both the nodes. In Add host targets wizard you will provide both the nodes and it will do the agent install

Add Host Targets Wizard -What's new in Enterprise Manager 12.1 (Cont ..2)

- Agent Securing (auto generated one time passwords) and Root scripts are run automatically by detecting privileges.
- Automatic Platform defaulting if user is coming from discovery flow then we compute the platform based on the target discovery
- Approved patches can be pushed to the agent during initial deployment by placing the patches under \$OMS_HOME/install/oneoffs/
- Cause/Error/Recommendations provided in cause of failure
- Discovery and OH monitoring plugins are pushed with the agent

Add Host Targets Wizard - List of Remote Validations

- 1) Check if remote node is up and running
- Check if the SSH daemon is up and running
- 3) Check if the username/password is valid.
- 4) Check if the SHELL PATH is valid
- 5) Check if any banner messages are present in the ssh channel
- 6) Install base directory is writable and empty
- 7) Instance base directory is writable and empty
- 8) Remote path are valid (scp, ssh, etc).
- 9) Umask is valid.
- 10) Remote tmp directory exists and is writable.
- 11) Check if preinstallation script and post installation is present and has execute permissions.
- 12) OS Compatibility checks (eg pushing 64 bit software on 32 bit Linux host)/
- 13) Source Agent (Clone) and Master Agent (NFS) are valid
- 14) Check if Privilege Delegation Tool exists and user has privileges to switch user.

Add Host Targets Wizard - List of Remote Prerequisites

- 1) Is the Oracle software certified on the current operating system?
- 2) Are the required software packages installed on the operating system?
- 3) Is the Oracle software compatible with the current operating system?
- 4) Is there sufficient disk space in the TEMP location?
- 5) Is there sufficient disk space in the inventory location?
- 6) Is the host name valid?
- 7) Is there a free port in the specified range?
- 8) Is the Oracle Inventory directory and its subdirectories writable?
- 9) Is there any existing agent home on the host?
- 10) Is the installation base directory or the Oracle home of the Management Agent already registered with the inventory?
- 11) Can the host communicate with the OMS using HTTP(S)?
- 12) Does pdp binary exist on the host?
- 13) Does the install user have root privileges?

Add Host Targets Wizard - Requirements

- SSH daemon must run on the target host.
- SSH Vendors supported are OpenSSH and Tectia (certification in progress)
- Target host must be pingable from the OMS
- Cygwin 1.7 must be installed in case of Windows

Add Host Targets Wizard - Key Customer Use-cases

Locked Account

You can give the named credential for **UserX** (username/password) and set RunAs in the named credentials as **oracle**(locked user account). Now the application will login to the remote host as **UserX** and perform the agent installation as **oracle**.

Using existing SSH public key Authentication:

Some customers want to use an existing ssh public key authentication and don't want to expose any passwords. In this case they can give a dummy password in the named credentials and the application will use the underlying public key infrastructure to perform the agent install.

Add Host Targets Wizard - Launch Point from EM 12.1 console

Direct

Setup → Add Target → Add Targets Manually → Add Host Targets → Add Host

From Discovery

Setup →Add Target →Auto Discovery Results → Host Targets → Promote

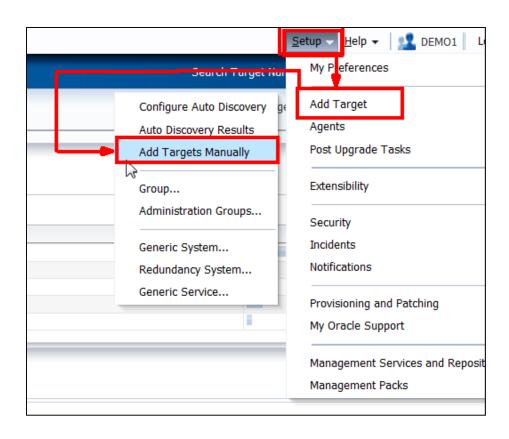


DEMO

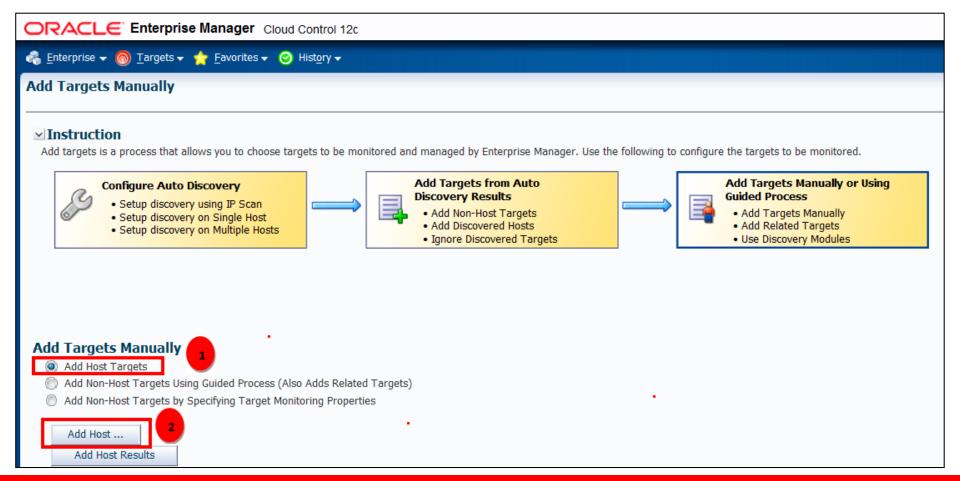
We will do a fresh EM 12.1 Agent Install using the Add host wizard

Step 1:

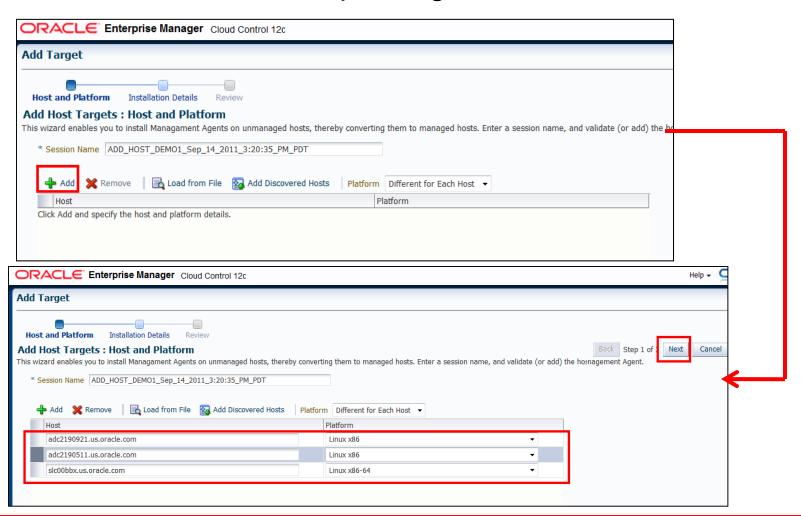
Click Setup -> Add Target -> Add Targets Manually



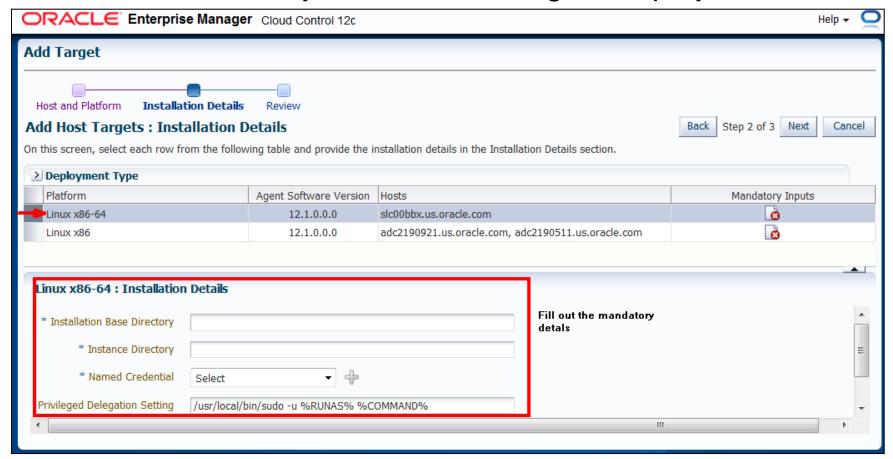
Select "Add Host Targets" and click "Add Host"



Click "Add" to add multiple target host. Click Next

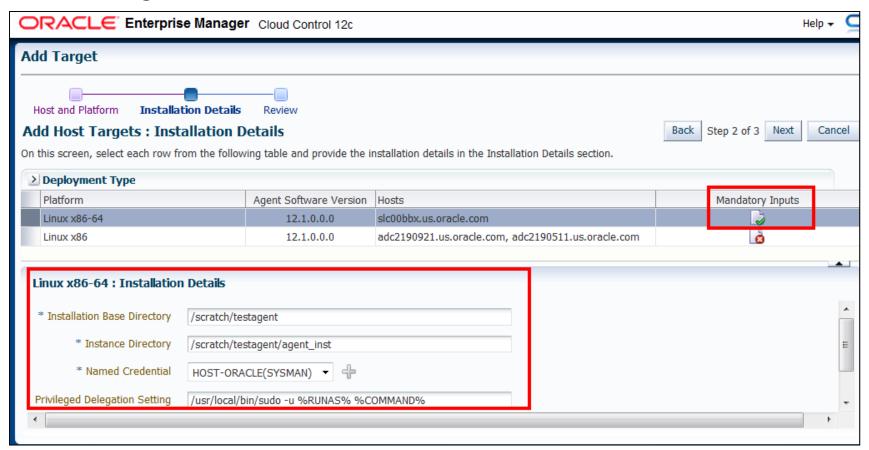


 Select the row for the platform Linux x86-64 and fill out the mandatory details for the agent deployment



Step 4: continued

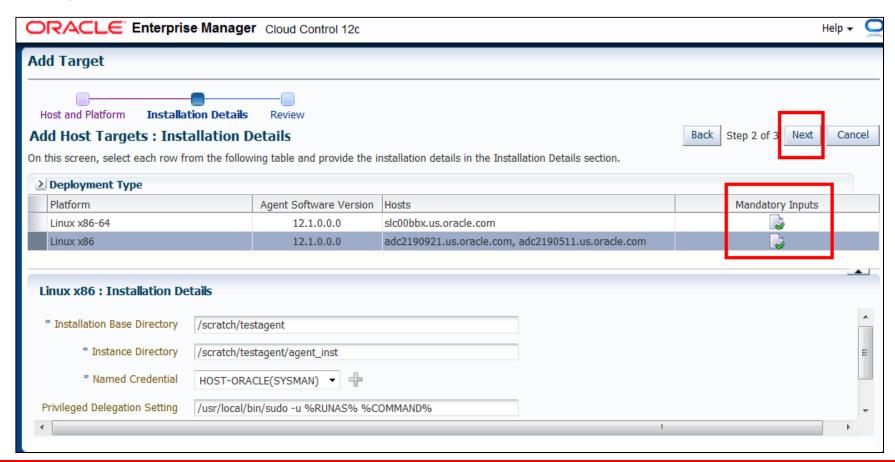
 Once the details are provided then mandatory tag turns green



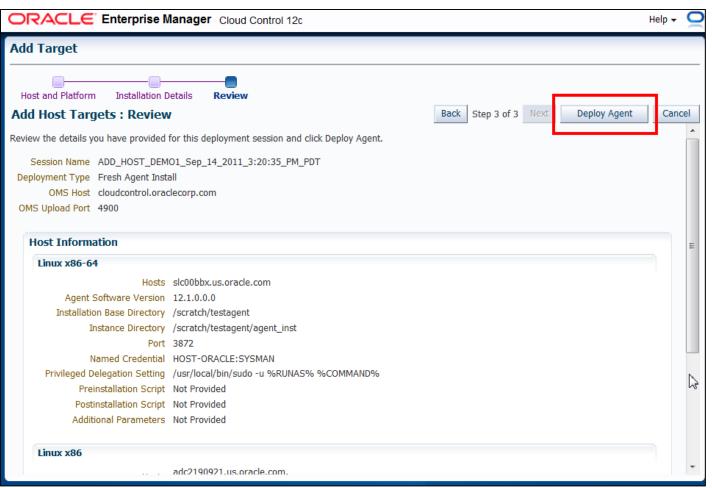
 Select the second row for the platform "Linux x86" and provide the mandatory inputs. Once inputs are provided the mandatory tag will turn green

ORACLE Enterprise Manage	Cloud Control 12c			Help → 🤦				
Add Target								
Host and Platform Installation Details Review Add Host Targets: Installation Details On this screen, select each row from the following table and provide the installation details in the Installation Details section.								
≥ Deployment Type								
Platform	Agent Software Version	Hosts		Mandatory Inputs				
Linux x86-64	12.1.0.0.0	slc00bbx.us.oracle.com						
Linux x86	12.1.0.0.0	adc2190921.us.oracle.com, ad	dc2190511.us.oracle.com	ß				
			₩					
Linux x86 : Installation Details				•				
* Installation Base Directory * Instance Directory				^				
				E				
* Named Credential Select								
Privileged Delegation Setting /usr/local/bin/sudo -u %RUNAS% %COMMAND%			+					
₹ <u></u>				•				

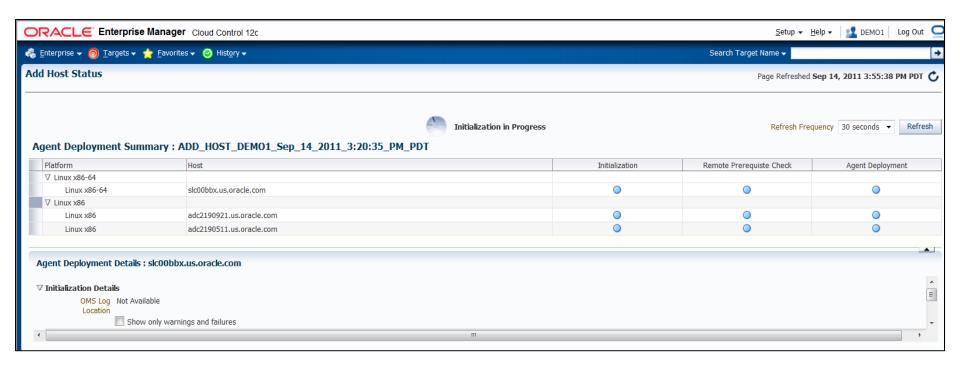
 Once the mandatory inputs are provided for all the platforms click Next



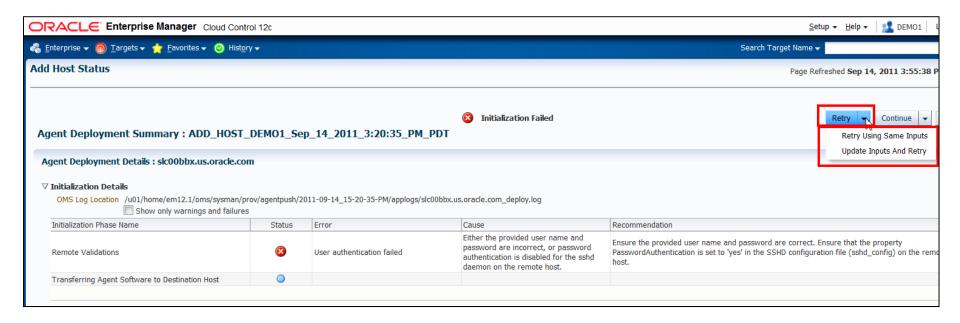
Review the details per platform wise and click "Deploy Agent"



 The agent deployment has started and you can monitor the progress.



 In case of failure you will get the detailed error message and options to retry or continue based on the error encountered



Add Host Targets Wizard - Trouble Shooting

- Precise cause, error and recommendation of failure is shown in the progress page.
- Log locations are also shown in the progress page.
- Log Locations

\$ORACLE_HOME/sysman/prov/agentpush/<time-stamp-dir> /*
\$ORACLE_HOME/sysman/prov/agentpush/logs/*

Detail info about each log file and their purpose is documented in the install guide.

Add Host Targets Wizard (Agent Push Application)

Clone/Shared Agent

Clone/Shared Agent - What's new in EM 12.1

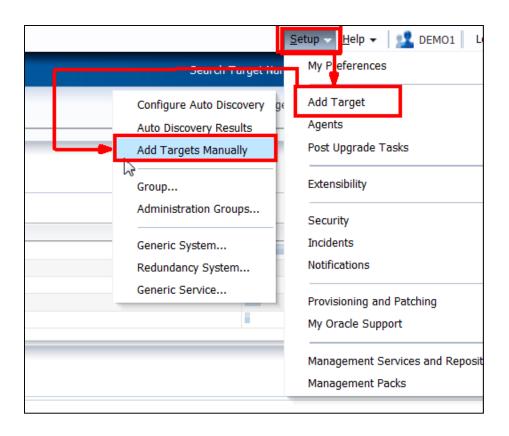
- You can select existing up and running EM 12.1 agent as the source for the cloning.
- The wizard take care of creating source agent image as opposed to user creating the source image in 10/11GC.
- User can select an existing master agent for the shared install as opposed to providing master agent location in 10/11G.



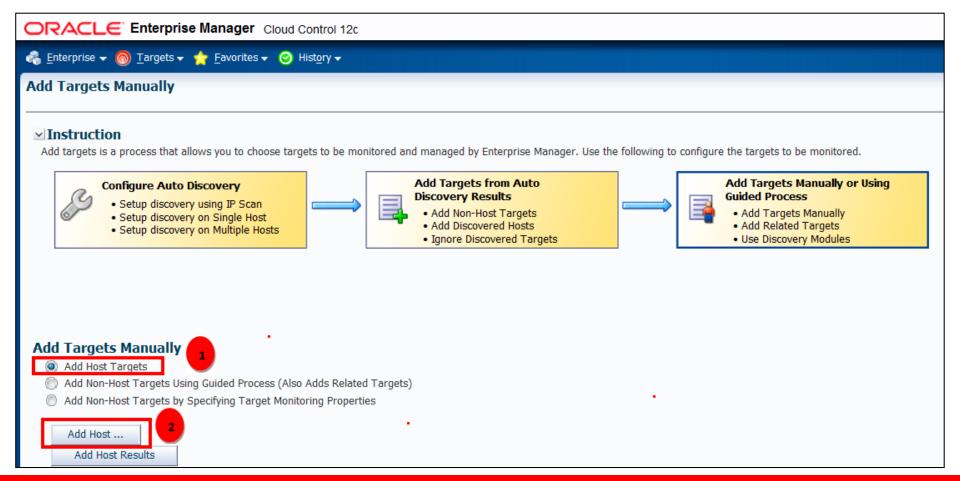
DEMO

We will clone an existing EM 12.1 Agent from Add Host Targets Wizard

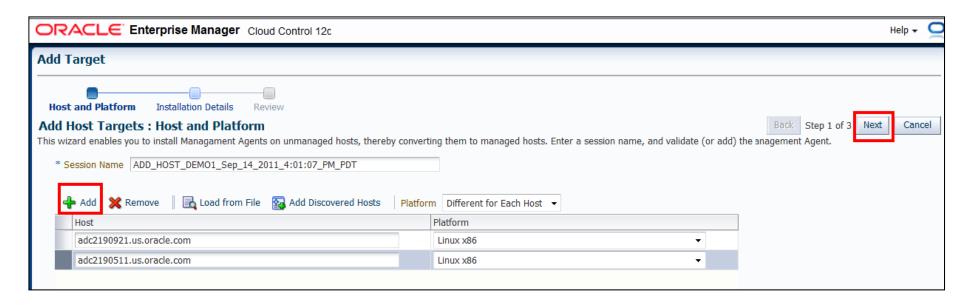
Click Setup -> Add Target -> Add Targets Manually



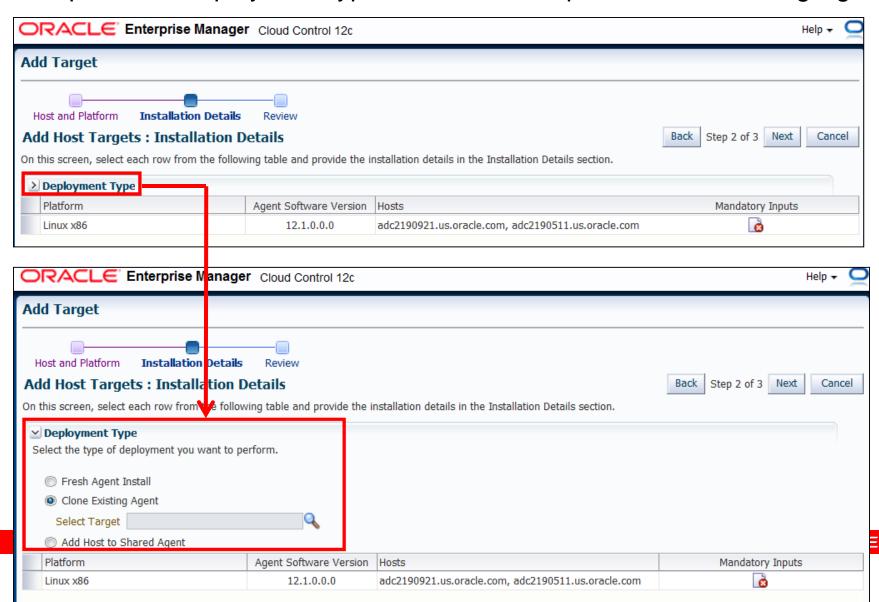
Select "Add Host Targets" and click "Add Host"



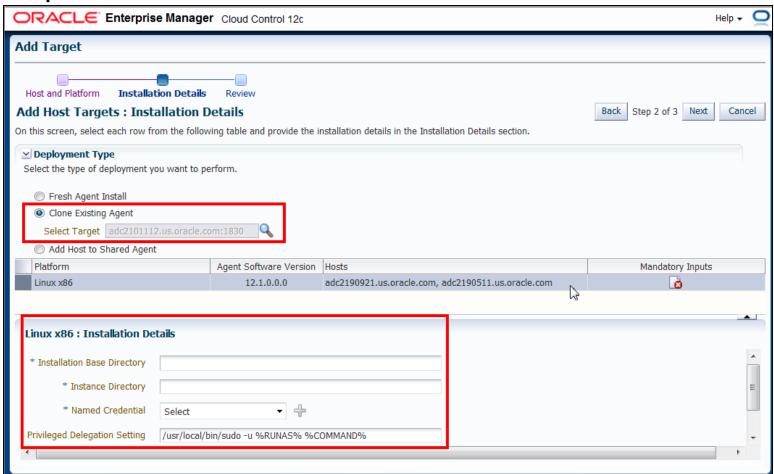
Click "Add" to add multiple target host. Click Next



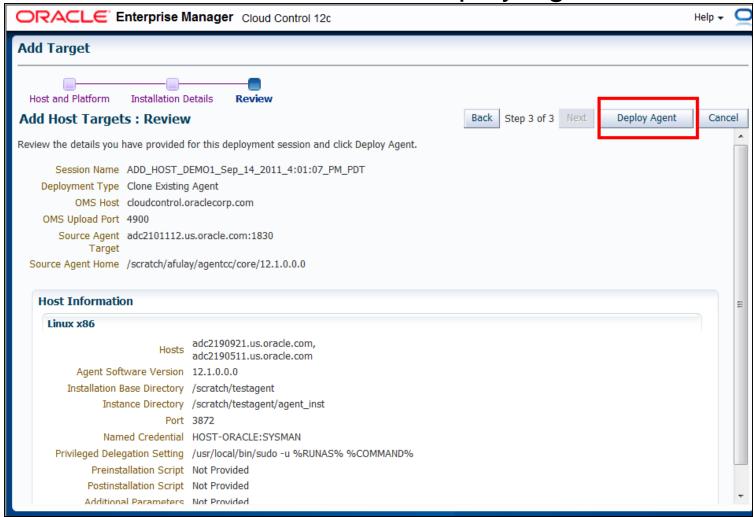
Expand the Deployment types to select the option" Clone Existing Agent"



 Select the source Agent and fill out the mandatory inputs. Click Next



Review the details and click" Deploy Agent"



Add Host Targets Wizard (Agent Push Application)

Add Host Results: How to view the previous agent deployment sessions

Add Host Targets Wizard- Add Host Results (Track the agent deployment sessions)

- Add Host Results page is used for tracking ongoing or completed agent deployment sessions.
- ➤ Launch Point
 Setup →Add Target →Add Targets Manually → Add
 Host Targets →Add Host Results
- ➤ Has a detailed Query panel to filter the Add Host Results.
- View the details of a particular session by clicking on session name.
- Can retry or continue a failed session at any time in the future.

Add Host Targets Wizard- Self Update

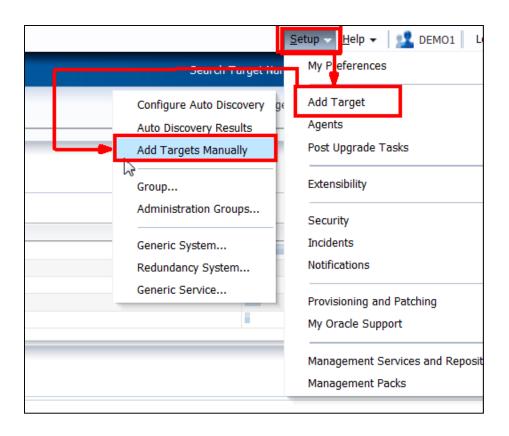
- By default the OMS contains only the agent software of the OMS platform.
- ➤ To push an Agent to a platform different from the OMS platform, the agent software has to be downloaded from Self Update
- Download can be done from Self Update in two ways:
 - Online Connection Mode
 - Automatically downloads the Agent Software updates from MOS
 - Offline Connection Mode
 - Manually download and upload the Catalog for Agent Software from MOS
 - Manually download and upload each platform Agent Software update from MOS



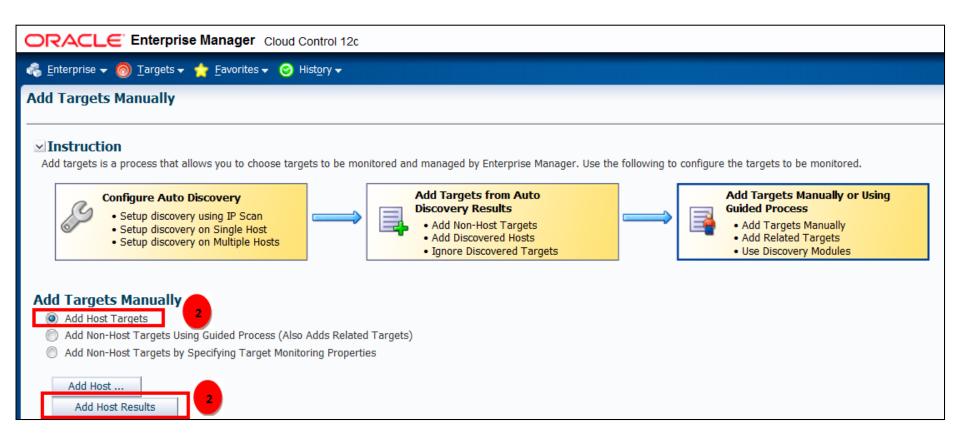
DEMO

Add Host Results: How to view the previous agent deployment sessions

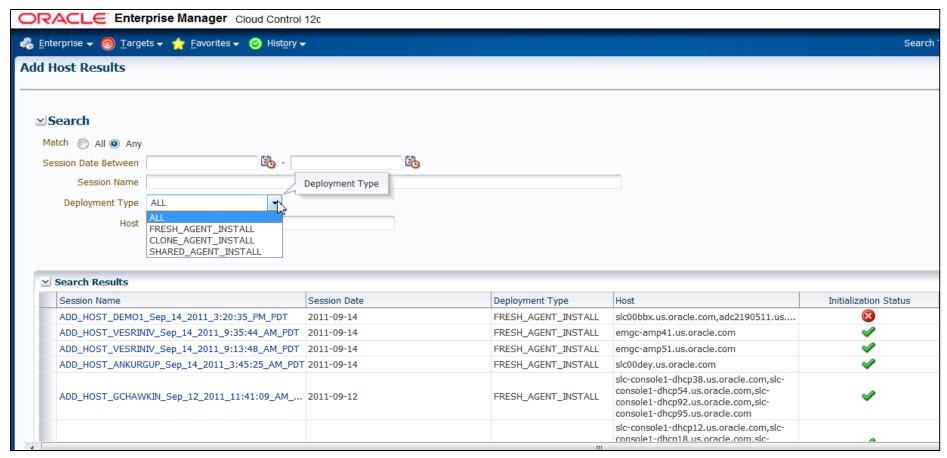
Click Setup -> Add Target -> Add Targets Manually



Select "Add Host Targets" and click "Add Host Results"



- You can search the previous deployment sessions
- Various search options are available like search based on deployment type, session name, session date/time



Documentation and Help

- Always refer to the Agent Deployment section from the EM 12.1 Install guide available on OTN:
 http://www.oracle.com/technetwork/indexes/documentation/index.html#em
- Post your queries on Install forum for any help: http://myforums.oracle.com/jive3/forum.jspa;jsessionid=8a0

 1b91e30dc54e9d3d2878542859196b34aadeed060.e3mNb 38NcheTe3mMbhiQa38Sb40?forumID=4137&start=0
- Installation and Upgrade collateral page on OTN
 http://www.oracle.com/technetwork/oem/install-upgrade-496677.html