

# Realizing Provisioning Pack benefits with Enterprise Manager Database Control 11g

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### Introduction

Enterprise Manager Grid Control provides a lot of capabilities for managing databases. On the other hand an instance of Enterprise Manager Database Control can manage only a single database. In this document we explore how Enterprise Manager Database Control can be used to realize some of the Provisioning Pack benefits for that single database. While Grid Control addresses the requirements of mass deployment, Database Control can make management easy and simple. The following sections outline some of those benefits.

### Database Provisioning related comparison between Grid Control and Database Control

The following table lists the database related features between Enterprise Manager Grid Control and Database Control.

Database Control is an easy way to get started on Enterprise Manager. It supports some key Provisioning features for a single database

Feature	Enterprise Manager 10g Grid Control	Enterprise Manager 11g Database Control
Single instance cloning/provisioning	Yes	Yes (within the same host or cluster)
RAC initial Provisioning	Yes	No
RAC scale-up and scale-down	Yes	No
Critical Patch Advisory	Yes	Yes
RAC cluster patching	Yes	No
Single instance patching	Yes	Yes
Feature based patching	No*	Yes

\*Planned in next release

## Single instance database patching

Enterprise Manager Database Control 11g has an auto-patching capability with which it can patch itself. This is specifically useful in cases where the database is residing in its own ORACLE\_HOME which is not shared with other databases. The patching is supported through customizable deployment procedures. The workflow covers the entire patch cycle right from getting the patches from *Metalink*, staging the patches, shutting down the services, installing the patches and bringing the database up. The patch search from *Metalink* will only display the patches that pertain to the platform and version of the database. One can also evaluate the pre-requisites for the patch without actually applying the patch. The patching application also supports the application of dictionary changes, if needed as a part of the patch. It supports interim patches, critical security updates and patchsets. The patching is supplemented by configuration reports that show the patches that have been applied.

Select	Software Update Name	Patch Number	Created On	Type	Product	Platform	Interim Patch Release	Interim Patch Applicable On	Description	README
<input type="checkbox"/>	p1053863_8.0.6.3_350_9480	1053863		Patch	Oracle Database	MC9 Unix SP4	8.0.6.3		A password is required to download this patch. To verify suitability of this patch and obtain the password, please contact Oracle Support Services.	View
<input type="checkbox"/>	p1088158_8.1.6.0_512_9480	1088158		Patch	Oracle Database	Data General ANIX 1086 Unix	8.1.6.0		A password is required to download this patch. To verify suitability of this patch and obtain the password, please contact Oracle Support Services.	View
<input type="checkbox"/>	p1112355_8.0.6.3_2_9480	1112355		Patch	Oracle Database	HP-UX PA-RISC 10.20	8.0.6.3			View
<input type="checkbox"/>	p121763_8.1.6.3_999_9480	121763		Patch	Oracle Database	HP-UX PA-RISC (32-bit)	8.1.6.3		A password is required to download this patch. To verify suitability of this patch and obtain the password, please contact Oracle Support Services.	View
<input type="checkbox"/>	p123524_8.1.6.3_301_9480	123524		Patch	Oracle Database	UnixWare	8.1.6.3		A password is required to download this patch. To verify suitability of this patch and obtain the password, please contact Oracle Support Services.	View
<input type="checkbox"/>	p1242511_7.3.4.4_89_9480	1242511		Patch	Oracle Database	HP OpenVMS Alpha	7.3.4.4			View

*Patch selection from Metalink and deployment*

## Patch Advisories

Enterprise Manager Provisioning Pack proactively generates advisories for the database it is managing. The advisories could include Critical Security Updates or Feature based patch bundles. The Critical Patch Advisory feature notifies administrators on the availability of a critical security patch. Feature based patch advisories are new to database 11g where the patch metadata is correlated with the features being used (as opposed to installed) and advisories are thus generated. This can save data centers a lot of unwanted downtime by avoiding applying patches that are not necessary, based on current usage. The following screenshot shows the advisories generated based on features used in the database.

**DBAs are proactively alerted through Patch Advisories delivered via *Metalink*. They can then schedule deployment in context of an Advisory**

The screenshot displays the Oracle Enterprise Manager 11g Database Control interface. At the top, it shows the Oracle logo and 'Enterprise Manager 11g'. The main content area is titled 'Patch Advisor' and includes a section for 'Patch Recommendations by Feature'. Below this, there is a table of patch advisories with columns for 'Patch Number', 'Created On', 'Description', 'Impacted Feature', and 'Action'. The table lists three advisories: 4751921 (dated 2007-04-20) regarding ORA-07455 BANNED COM OBJECTS AFTER 10.1 TO 11G UPGRADE, 0037441 (dated 2007-03-15) regarding Query: GLOBAL ENQUEUE STATISTICS DISPLAYS WRONG VALUES, and 4725945 (dated 2007-06-14) regarding crs\_start reports needs service offline asynchronously. Each row has a 'View' button next to it. The interface also includes a 'Schedule Patching' section and a 'Related Links' section with various utility links.

Patch Number	Created On	Description	Impacted Feature	Action
4751921	2007-04-20	ORA-07455 BANNED COM OBJECTS AFTER 10.1 TO 11G UPGRADE	Partitioning (user), Data Mining	<a href="#">View</a>
0037441	2007-03-15	Query: GLOBAL ENQUEUE STATISTICS DISPLAYS WRONG VALUES	Advanced Queuing	<a href="#">View</a>
4725945	2007-06-14	crs_start reports needs service offline asynchronously	Real Application Clusters (RAC)	<a href="#">View</a>

*Patch advisory based on database feature usage*

### Single instance database cloning

The database software cloning feature of Enterprise Manager lets administrators deploy approved ORACLE\_HOMEs in the form of validated gold images. The cloning can be done whether from the Software Library or from a reference host. In case of database control, cloning of single instance software can be done within the same host. Administrators can also create a database instance as a part of the software cloning process. This can be useful in setting up test or parallel environments for out-of-place cloning.

Provisioning Pack also supports cloning of the database. Instead of creating a database from scratch, administrators can create a database from another database or from an RMAN backup.

### Conclusion

Though one can only realize the full potential of Enterprise Manager using Grid Control, Database Control provides a limited yet useful set of features that can help in the management, provisioning and patching of single database environments. DBAs can easily provision or patch their database environments using the features of Database Control.



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