



Oracle Enterprise Manager 13.5

平台新特性概述

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主要内容

- 1 OEM 简介
- 2 OEM 13.5 平台新特性
- 3 OEM自动化运维
- 4 OEM混合云管理
- 5 OEM可扩展性
- 6 Q/A



OEM简介

EM产品介绍

- Oracle Enterprise Manager Cloud Control (以下简称EM或OEM) 是Oracle公司集成、统一的**企业信息系统管理平台**，提供了业界完善的生命周期管理解决方案。
- EM使你能达到以下目标：
 - 从业务视角对传统应用、**数据库**与云应用提供最佳服务等级；
 - 通过**Oracle技术栈**智能化管理方案获得**最大化IT投资回报**；
 - 通过将**Oracle知识库**与客户环境相结合的策略**完善客户支持体验**；
 - 使客户能够实现前所未有的**效率提升**，同时显着提高服务水平。

OEM 功能区

➤ 框架和基础设施
Framework and Infrastructure

➤ **企业监控**
Enterprise Monitoring

➤ 应用程序管理
Application Management

➤ **数据库管理**
Database Management

➤ 中间件管理
Middleware Management

➤ 硬件和虚拟化管理
Hardware and Virtualization Management

➤ 异构（非 Oracle）管理
Heterogeneous (Non-Oracle) Management

➤ **云管理**
Cloud Management

➤ 混合云管理
Hybrid Cloud Management

➤ **生命周期管理**
Lifecycle Management

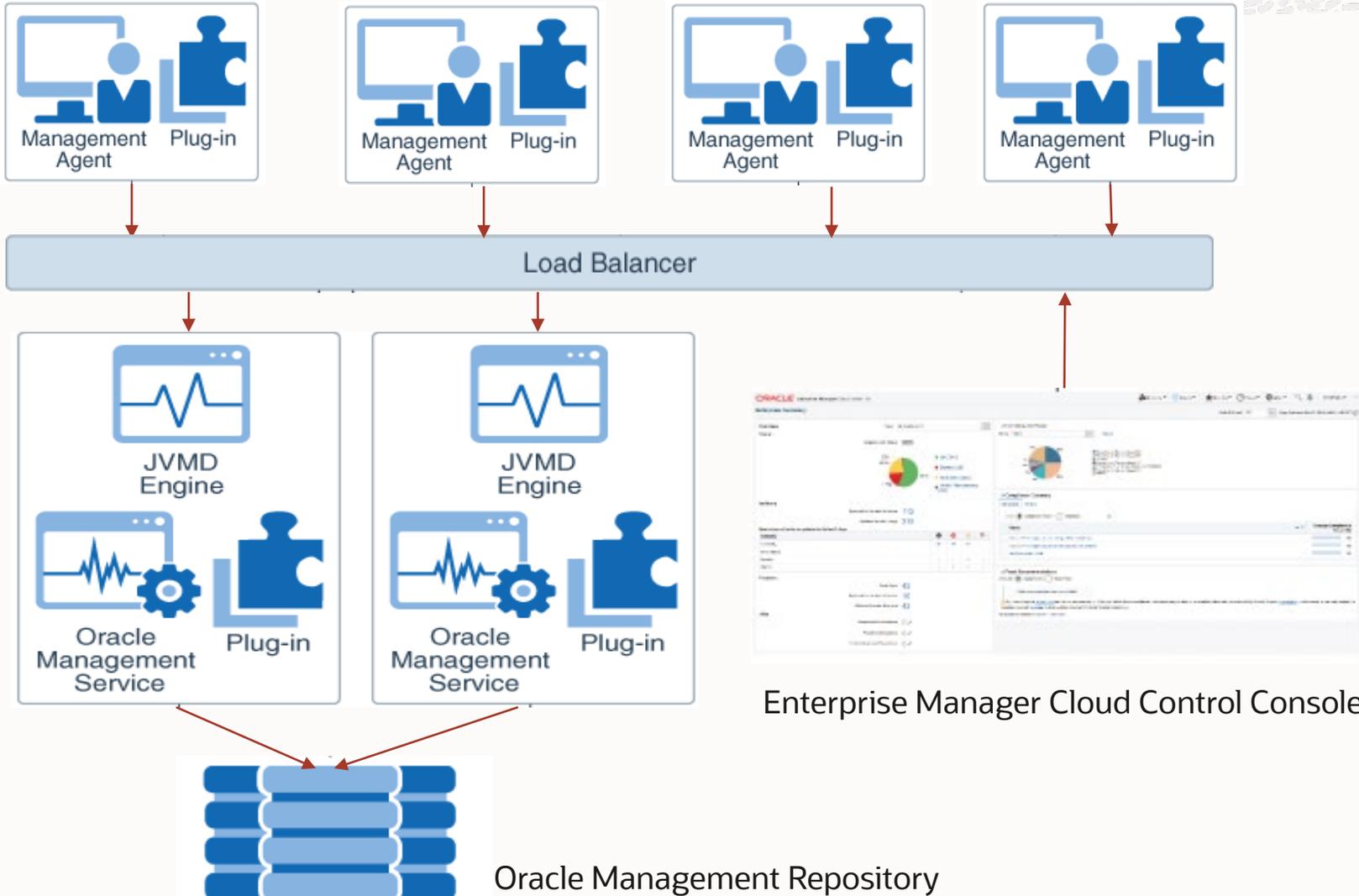
➤ 应用程序性能管理
Application Performance Management

➤ 应用质量管理
Application Quality Management



Enterprise Manager 架构关键组件

Enterprise Manager Cloud Control Architecture



主要四大关键组件组成：

Oracle Management Agent

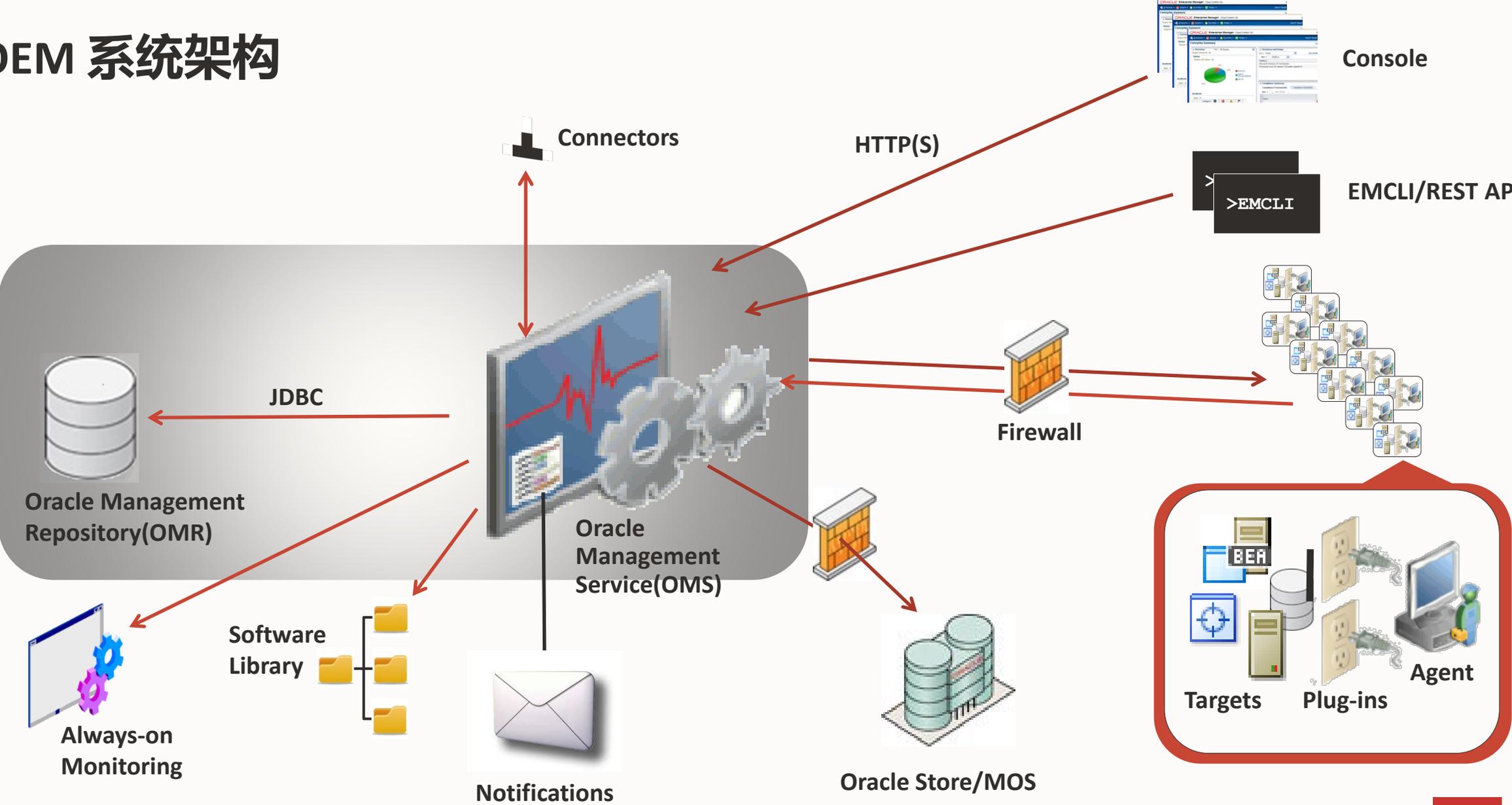
Oracle Management Service

Oracle Management Repository

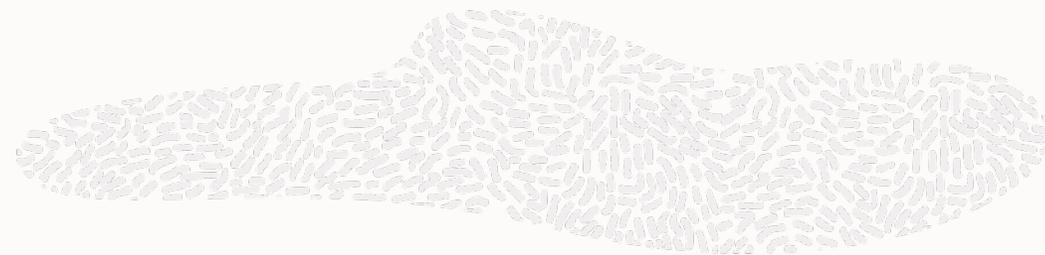
Enterprise Manager Cloud Control Console



OEM 系统架构



Enterprise Manager 使用场景



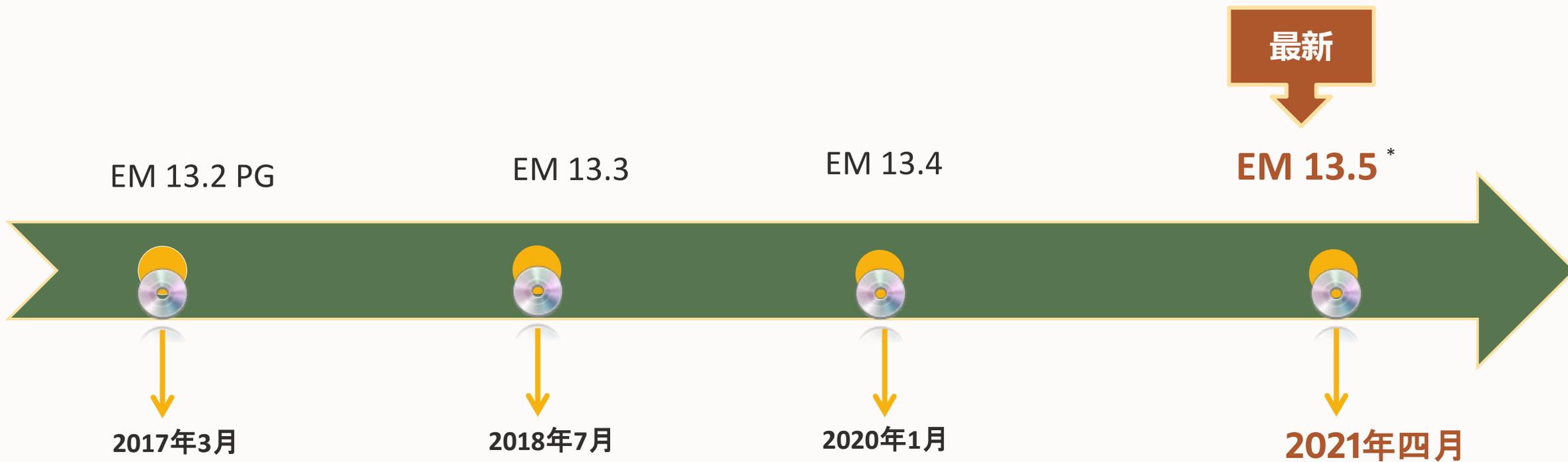
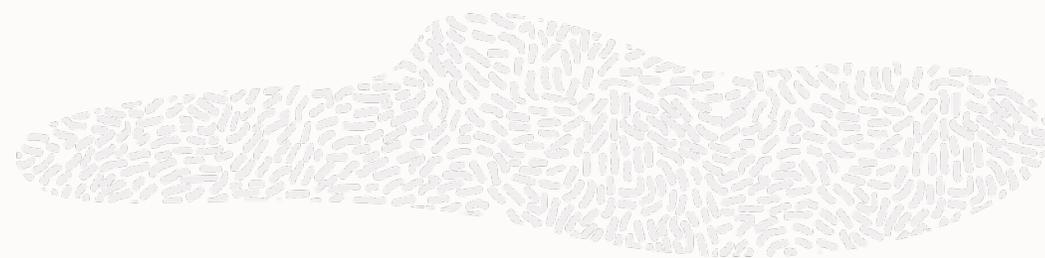
- 管理和监控本地数据中心的数据库
- Exadata管理和监控
- 数据库私有云DBaaS解决方案
- 云上数据库的管理与监控
- 混合云上的管理与监控
- Oracle ODA一体机管理和监控

OEM 13.5 平台新特性



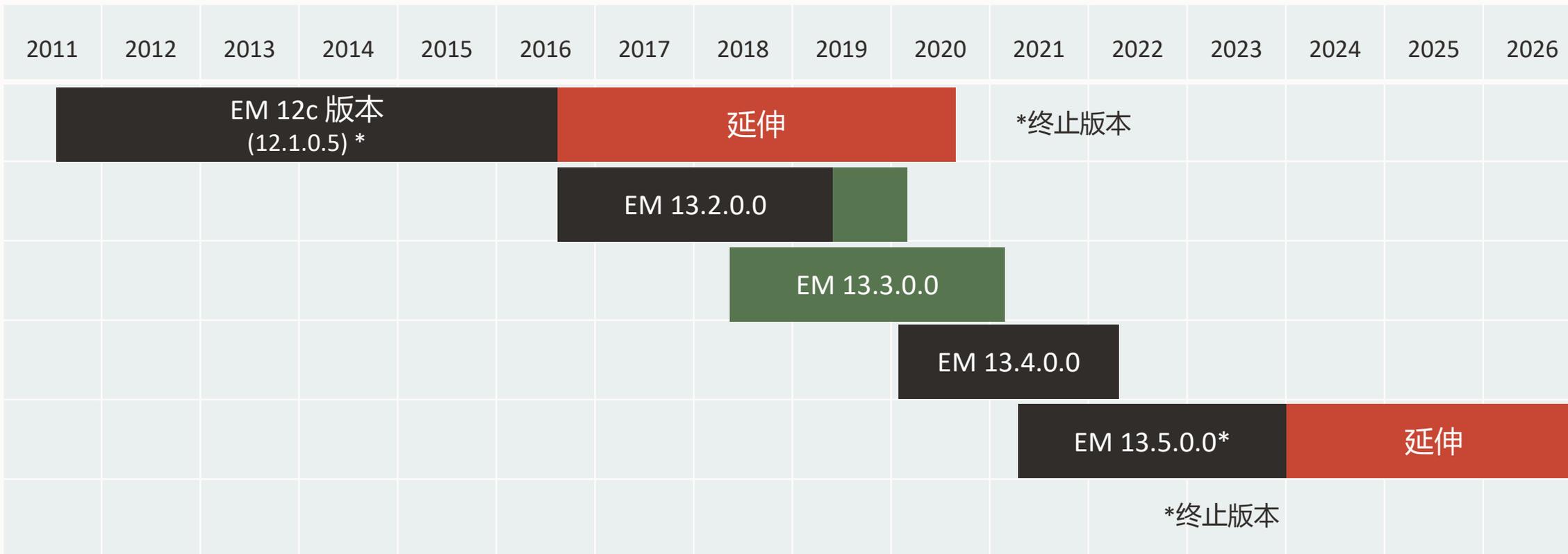
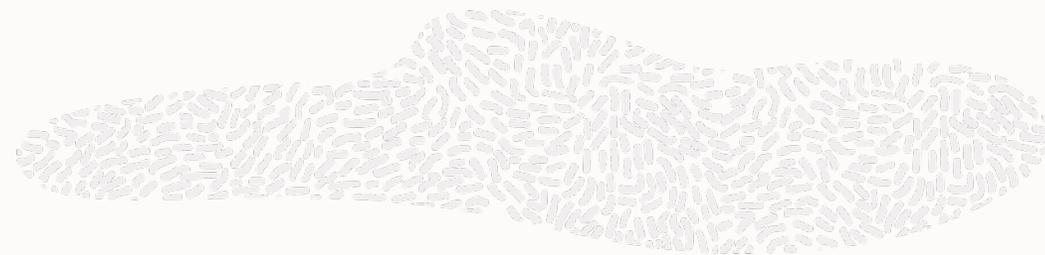
Enterprise Manager(EM) 发布路线图

继续投资和支持



Enterprise Manager 生命周期支持策略

概述



■ 标准支持

■ 纠错

■ 扩展支持



Enterprise Manager 13.5 平台

新特性



智能安全安装

- 软件仅作为安装程序选项的一部分随插件安装
- 整合数据库先决条件检查
- 使用单向或双向 SSL 对安全数据库进行安装



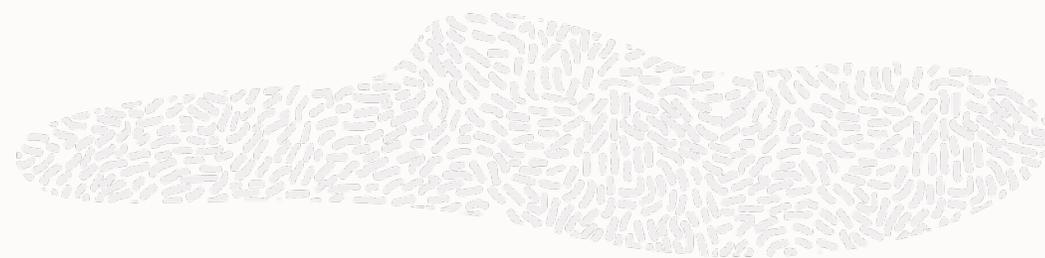
优化补丁

- 在几分钟内修补 EM - 几乎为零的停机时间
- 代理补丁的单一系统补丁模型



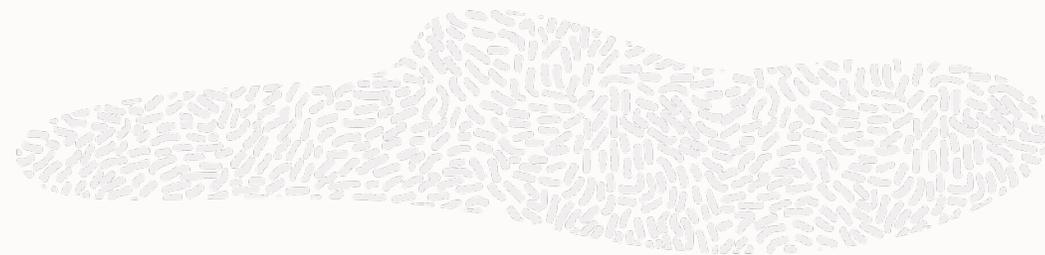
自我监控和工作诊断

- 自动提醒管理员 EM 健康问题
- 根据工作负载持续评估和推荐 EM 大小配置
- 深入的作业系统健康诊断



Enterprise Manager 13.5 平台新特性

智能安全安装

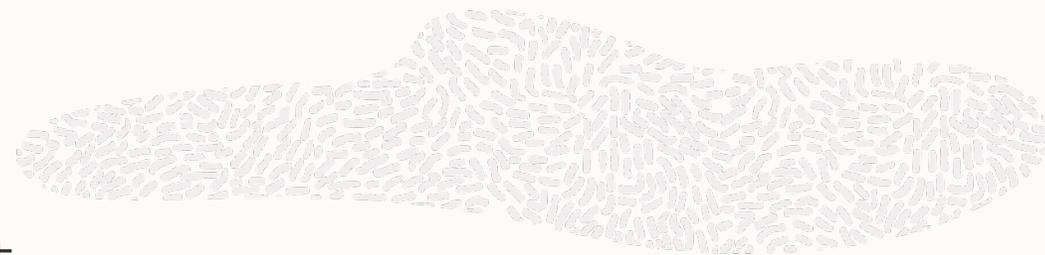


- Oracle Enterprise Manager 13.5 附带
 - WebLogic – 12.2.1.4.0
 - JDK 1.8 u261 --默认附带版本
- Oracle Enterprise Manager 13.5 版本，允许你
 - 全新安装 EM 13.5
 - 升级到EM 13.5
 - 直接支持的升级路径
 - EM13.3 → EM13.5
 - EM13.4 → EM13.5
 - EM 13.3版本以下的升级路径
 - EM13.2 → EM13.4 → EM13.5
 - EM12.1.0.5 → EM13.3 → EM13.5



Enterprise Manager 13.5 平台新特性

智能安全安装

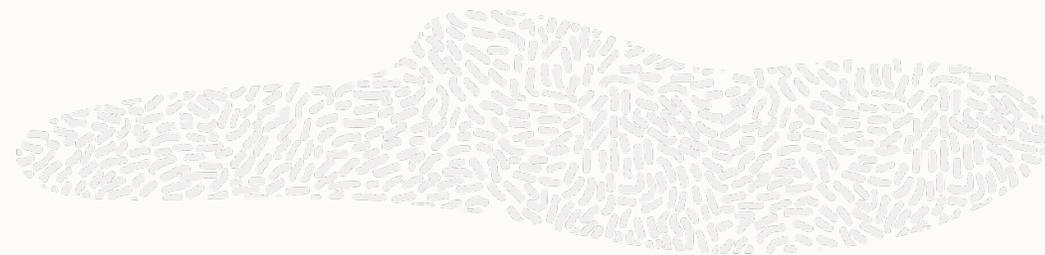


- 安装和升级优化 - 软件仅在安装程序中使用插件选项安装
- BI Publisher 不会作为 13.5 安装的一部分进行部署配置。 BI Publisher 被独立的 Oracle Analytics Server 取代 (OAS)
 - 不需要使用嵌入式 BI Publisher , 客户简化 EM 安装、升级并减少占用空间
- 支持的存储库数据库版本和类型 – 单实例、 RAC、 PDB
 - Oracle Database 19.x (建议使用最新版本)
- 增强型 EM 先决条件套件
 - 在单个窗格视图中整合存储库数据库相关检查
 - HTML 格式的先决条件检查结果
 - AutoFix 选项可减少手动操作
 - 在安装或升级过程之前独立执行必备工具包



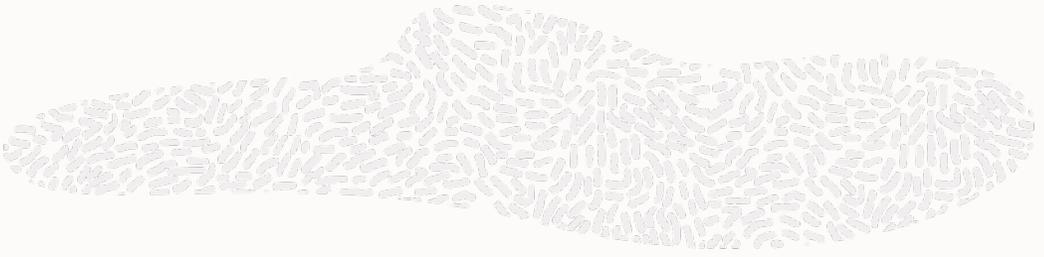
Enterprise Manager 13.5 平台新特性

安全安装和优化补丁



- 安全强化存储库数据库作为安装的一部分
 - 支持在存储库数据库和 OMS 之间配置安全的 TLSv1.2 通信
 - 安装程序更改以接受 TrustStore 和 KeyStore 位置以进行安全通信
- 存储库数据库 19c 模板和自治数据库作为存储库进行安装
- 近零停机时间修补
 - 在 OMS 启动并运行时应用 OMS 版本更新
 - 减少停机时间
 - 在计划维护期间提供关键监控和警报
- Agent 打补丁的系统补丁模型
 - 用于Agent发布更新的单例补丁[Agent平台+ Agent插件]
 - 使用“agentpatcher”实用程序更新Agent系统补丁
 - 支持Agent补丁计划、 Agent Gold Image和独立补丁

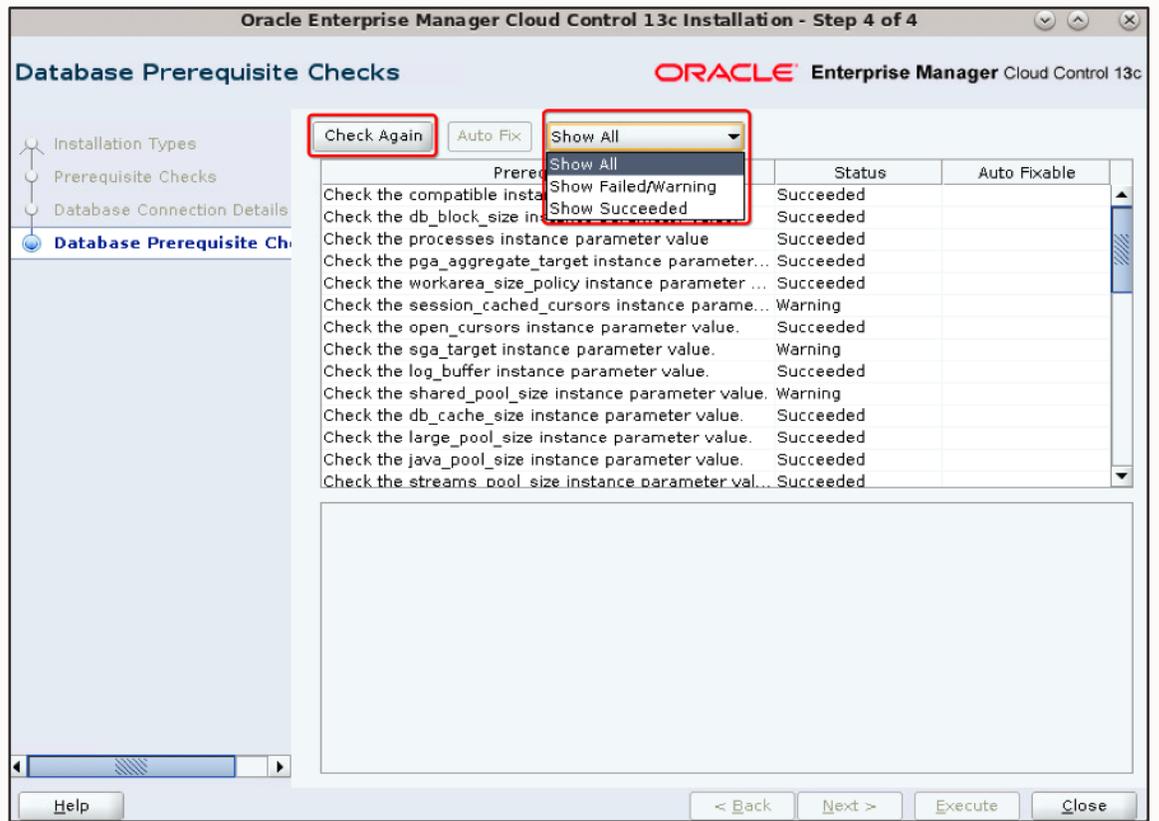
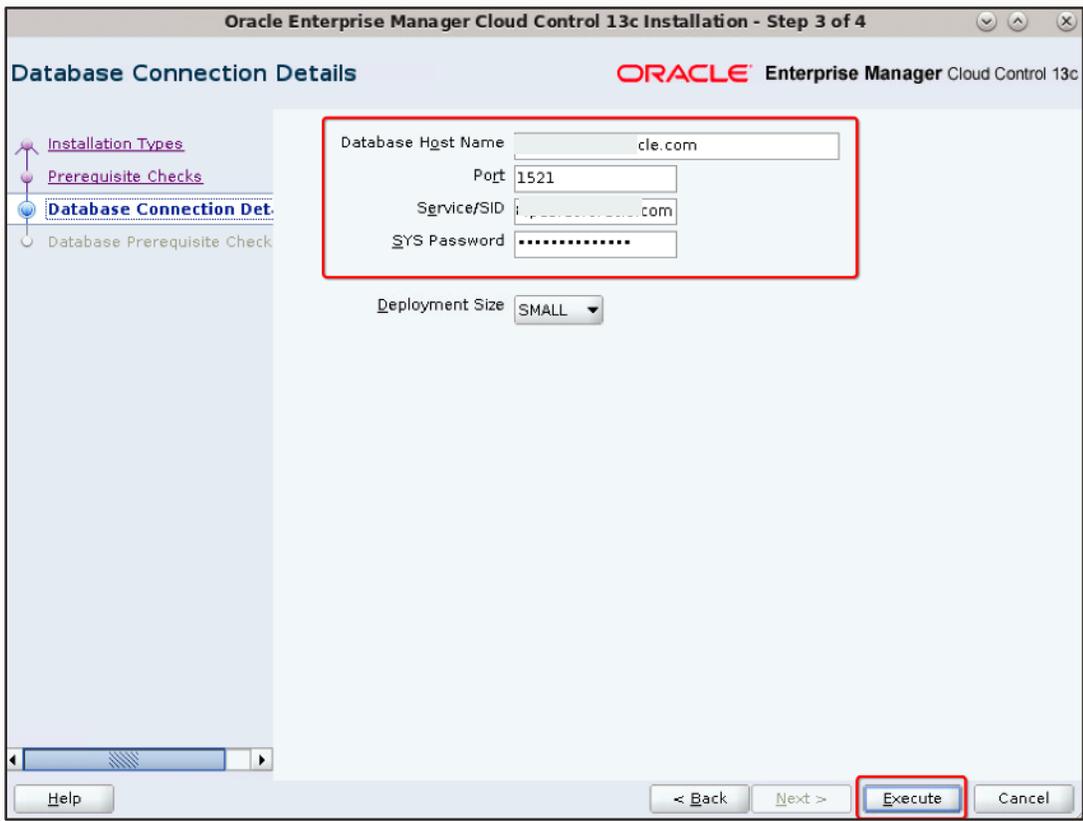




增强的Enterprise Manager先决条件检查

安装或升级前的存储库数据库健康检查

- 在单个窗格视图中整合存储库数据库相关检查
- AutoFix 选项可减少手动操作
- 在安装或升级过程之前独立执行必备工具包



增强的Enterprise Manager先决条件检查

安装或升级前的存储库数据库健康检查

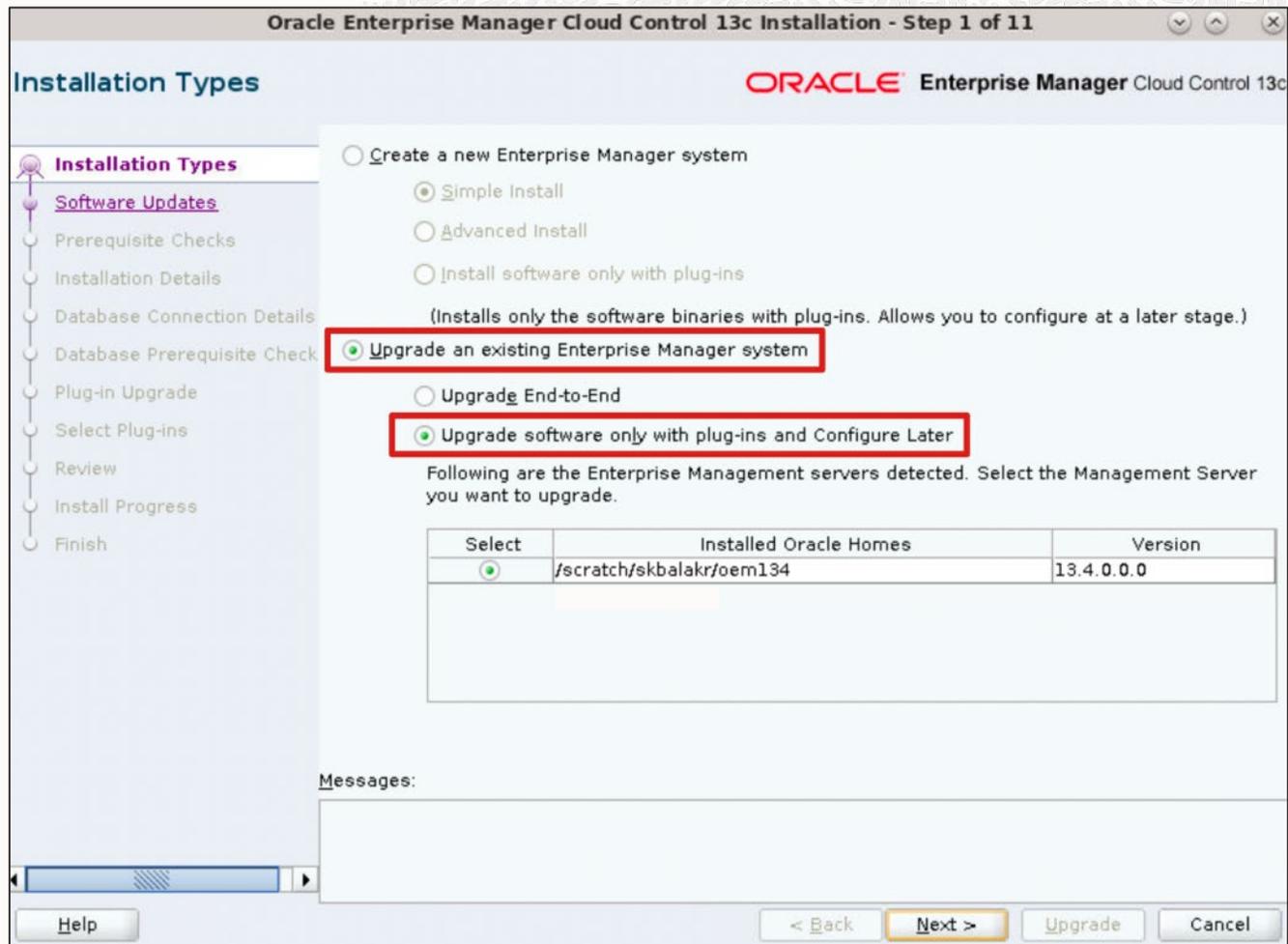
- HTML 报告文件将位于 /tmp 位置或者或者或者用户在安装的时候指定的temp的目录
 - 比如: ./em13500_linux64.bin -J-Djava.io.tmpdir=/uo1/Cust_tmp_location
 - 文件名: **prereqResultReport.html**

Enterprise Management Prereq Report				
Name	Status ↕	Type ↕	Recommendation	Auto Fixable
Checks if GVM Performance collection job is running.	Succeeded		GVM Performance Metric collection job should be stopped and deleted before performing the upgrade. Log Location : /tmp/OraInstall2020-07-02_12-41-32AM/emdbprereqs/LATEST/emprereqkit.out	
Check if Group and Oracle WebLogic Domain Group have same name.	Succeeded		Ensure that Group names and Oracle WebLogic Domain Group names do not overlap. Log Location : /tmp/OraInstall2020-07-02_12-41-32AM/emdbprereqs/LATEST/emprereqkit.out	
Check if PPC schema PK and FK are disabled	Succeeded		EM_PPC_POLICY_A_INSTANCES_FK2, EM_PPC_POLICY_ACTIONS_FK2, EM_PPC_REG_ACTION_TGT_TYPE_FK1 should not be in disabled state Log Location : /tmp/OraInstall2020-07-02_12-41-32AM/emdbprereqs/LATEST/emprereqkit.out	
Check the active job execution count before a job type upgrade.	Succeeded		Active job executions will be upgraded when job types are upgraded. The presence of a huge number of active jobs, however, could increase the EM upgrade downtime significantly. Log Location : /tmp/OraInstall2020-07-02_12-41-32AM/emdbprereqs/LATEST/emprereqkit.out	
Check for invalid objects in the EM repository	Succeeded		Compile all invalid objects in the EM repository Log Location : /tmp/OraInstall2020-07-02_12-41-32AM/emdbprereqs/LATEST/emprereqkit.out	
Check the job_queue_processes instance parameter value.	Failed	Auto	The job_queue_processes instance parameter should be zero. Log Location : /tmp/OraInstall2020-07-02_12-41-32AM/emdbprereqs/LATEST/emprereqkit.out	Yes
Check the CBO stats gathering job	Failed	Auto	Temporarily disabling the gather stats job. It will be automatically re-enabled at the end of this process. Log Location : /tmp/OraInstall2020-07-02_12-41-32AM/emdbprereqs/LATEST/emprereqkit.out	Yes
Check nls_length_semantics parameter	Succeeded		Set nls_length_semantics = BYTE Log Location : /tmp/OraInstall2020-07-02_12-41-32AM/emdbprereqs/LATEST/emprereqkit.out	
Check for the EM Target policy	Succeeded		The EM Target policy should not exist Log Location : /tmp/OraInstall2020-07-02_12-41-32AM/emdbprereqs/LATEST/emprereqkit.out	
Check for automatic UNDO management	Succeeded		Set UNDO management to automatic Log Location : /tmp/OraInstall2020-07-02_12-41-32AM/emdbprereqs/LATEST/emprereqkit.out	
Ensure that the undo tablespace has at least one datafile set to autoextensible	Succeeded		Ensure that the undo tablespace has at least one datafile set to autoextensible Log Location : /tmp/OraInstall2020-07-02_12-41-32AM/emdbprereqs/LATEST/emprereqkit.out	

智能升级

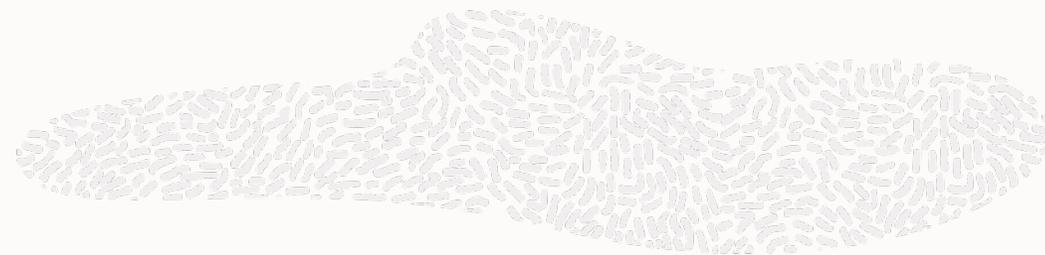
仅使用安装程序中的插件选项升级软件

- 仅使用安装程序中的插件选项升级软件
- 此选项仅用于升级而不用于安装
- 推荐的升级选项，以减少升级期间的停机时间
- EM 13.5 二进制文件将部署在新的 Oracle 主目录中，稍后将对其进行配置



Enterprise Manager 13.5 平台新特性

自我监控和诊断



- Enterprise Manager Sizing调整的合规标准
 - 根据工作负载持续评估和推荐 EM Sizing配置
 - 通知将通过 EM 中的带外通知系统发送给管理员
 - 合规仪表盘显示 OMS 和存储库分数、警告
- Manage the Manager (MTM)
 - 自动提醒 EM 管理员注意健康问题
 - 增强的作业系统诊断仪表盘 - 深入了解作业、队列、调度员等的健康状况
 - 特别有效的工作系统对超级用户来说
 - 对管理作业进行优先级排序和并行化，以提高可扩展性和效率

Manage the Manager - 合规标准指引

存储库和 OMS 的大小调整

- Enterprise Manager 为存储库和 OMS 的定期健康检查调整合规性标准
- 系统默认开启合规标准

ORACLE Enterprise Manager Cloud Control 13c

Enterprise Targets Favorites History Setup CANGAPPA

Compliance Library

Compliance Frameworks **Compliance Standards** Compliance Standard Rules

Page Refreshed Feb 18, 2021 11:11:37 AM PST

Self Update

Search

To perform an operation on a standard, highlight the row and select an operation. To delete multiple standards, select multiple rows and click Delete.

Actions View Create... Create Like... Show Details Edit... Delete Export... Import... Associate Targets... Associate Groups... Override Target Type Settings...

Compliance Standard	Description	Compliance Standard State	Applicable To	Keywords	Author	Standard Type	Association Count	Last Updated Date
DISA STIG for Oracle Linux 7 OL-7	This profile contains configuration checks that align to the DISA STIG for Oracle Linux V1R1. (v 0.1.46)	Production	Host	SCAP	SYSMAN	Repository	0	Feb 5, 2021 3:01:09 AM GMT-08:00
Enterprise Manager Sizing	This standard checks Enterprise Manager Sizing Requirements	Production	OMS and Repository		ORACLE	Repository	1	Feb 5, 2021 2:56:30 AM GMT-08:00

ORACLE Enterprise Manager Cloud Control 13c

CANGAPPA

Compliance Standard Target Association

Target Association for Compliance Standard: Enterprise Manager Sizing

OK Cancel

This table lists the targets that are associated with the compliance standard selected in the Compliance Standard Library.

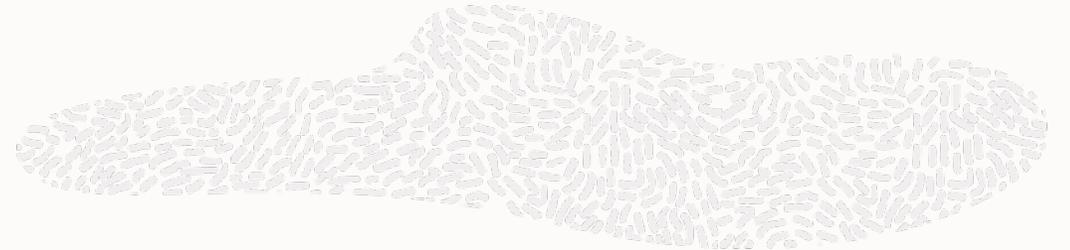
View Add... Remove Edit... Enable Disable

Target Name	Target Type	Evaluation Status	Customized	Transfer Status	Association Time Stamp
Management Services and Repository	OMS and Repository	Enabled		Successfully Done	Feb 5, 2021 3:31:01 AM GMT-08:00

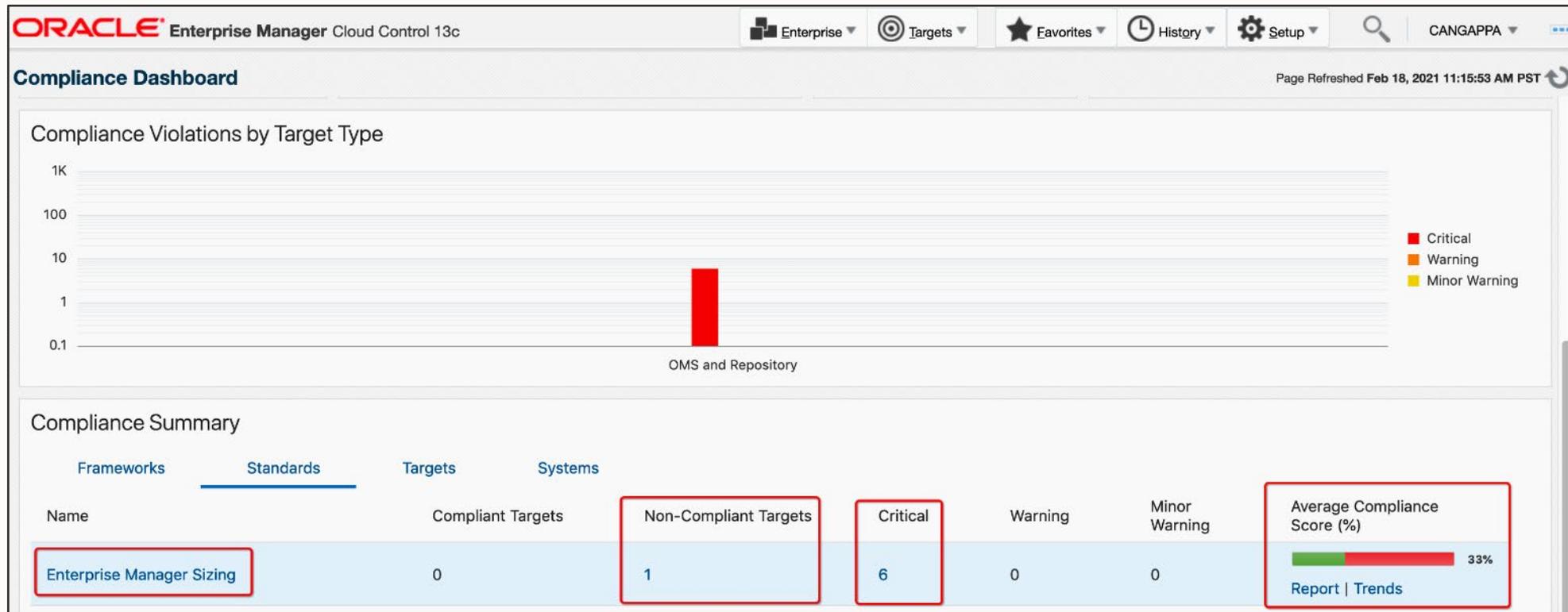


Manage the Manager - 合规标准指引

合规仪表盘

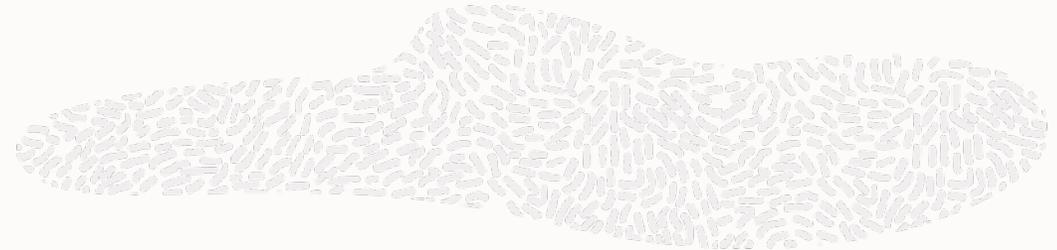


- 合规记分卡Enterprise Manager Sizing调整



Manage the Manager - 合规标准指引

Sizing要求的不匹配的结果



- OMS 资源要求的不匹配详细信息

ORACLE Enterprise Manager Cloud Control 13c

Enterprise Targets Favorites History Setup CANGAPPA

Management Services and Repository

OMS and Repository Page Refreshed Feb 18, 2021 11:22:19 AM PST

Management Services and Repository > Compliance Results > Enterprise Manager Sizing

Enterprise Manager Sizing

- Enterprise Manager Sizing
 - Enterprise Manager Minimum Hardware and Storage Requirements**
 - Enterprise Manager Minimum Database Setting Requirements
 - Enterprise Manager Tuning Setting Requirements

Enterprise Manager Minimum Hardware and Storage Requirements (Compliance Standard Rule)

Summary Violation Events

Compliance Standard Rule Enterprise Manager Minimum Hardware and Storage Requirements

Target Name Management Services and Repository

Export To Excel

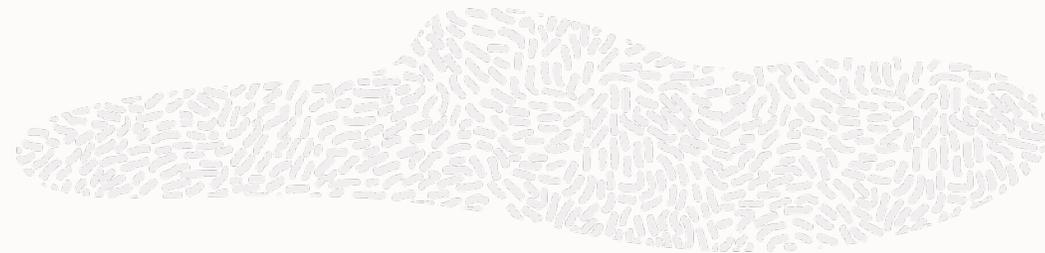
Criteria	Actual Value	Expected Value
Database Machine Count	1	2
OMS_HEAP_MAX (MB)	1740	4096

Violations	Last Evaluation Date
2	Feb 18, 2021



Manage the Manager - 合规标准指引

存储库要求的不匹配结果



- 存储库参数的不匹配详细信息

ORACLE Enterprise Manager Cloud Control 13c

Enterprise Targets Favorites History Setup CANGAPPA

Management Services and Repository

OMS and Repository Page Refreshed Feb 18, 2021 11:22:19 AM PST

Management Services and Repository > Compliance Results > Enterprise Manager Sizing

Enterprise Manager Sizing

- Enterprise Manager Sizing
 - Enterprise Manager Minimum Hardware and Storage Requirements
 - Enterprise Manager Minimum Database Setting Requirements**
 - Enterprise Manager Tuning Setting Requirements

Enterprise Manager Minimum Database Setting Requirements (Compliance Standard Rule)

Violations

Compliance Standard Rule: Enterprise Manager Minimum Database Setting Requirements
Target Name: Management Services and Repository

Export To Excel

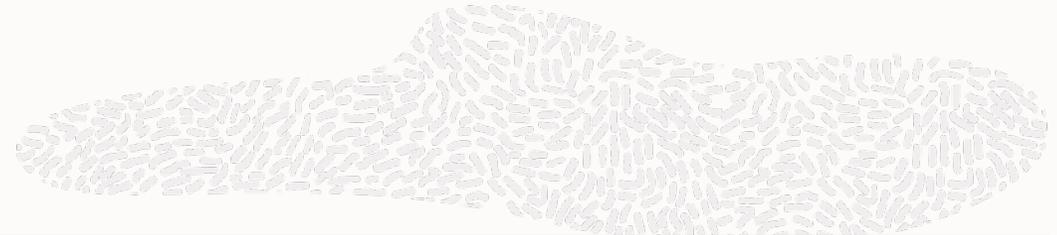
Criteria	Actual Value	Expected Value
redo log file size (MB)	200	600
shared_pool_size (MB)	0	600
optimizer_adaptive_features	true	false
sga_target (MB)	0	5120

Violations: 4 Last Evaluation Date: Feb 18, 2021



Manage the Manager - 合规标准指引

合规评估报告

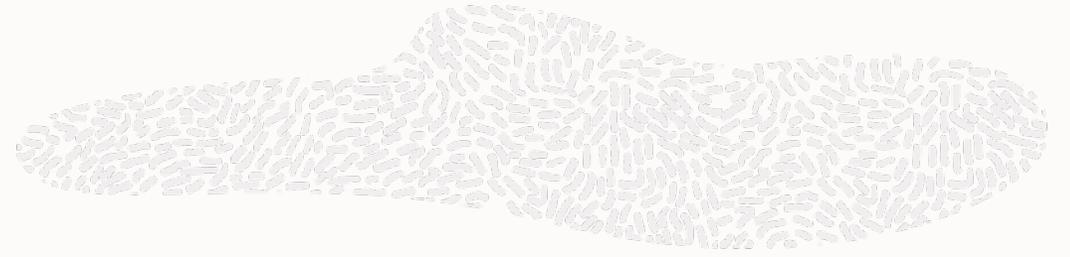


ORACLE Enterprise Manager		Compliance Evaluation Report				Evaluated On Feb 18, 2021 00:00 PST Report Generated On Feb 18, 2021 11:25 PST	
Summary							
Standard Name	Description	Target Name	Target Type	Passed Rules	Failed Rules	Compliance Score	
Enterprise Manager Sizing	This standard checks Enterprise Manager Sizing Requirements	Management Services and Repository	OMS and Repository	1	2	33%	
Result Details							
Standard Name / Rules						Evaluation Result	
<ul style="list-style-type: none"> Management Services and Repository: Enterprise Manager Sizing 1. Enterprise Manager Minimum Hardware and Storage Requirements 2. Enterprise Manager Minimum Database Setting Requirements 3. Enterprise Manager Tuning Setting Requirements 						<p>Fail (Critical)</p> <p>Fail (Critical)</p> <p>Pass</p>	
Evaluation Details							
Rule: Enterprise Manager Minimum Hardware and Storage Requirements Fail							
Description	This rule checks if Minimum Hardware and Storage Requirements are met						
Severity	Critical						
Rationale	Inadequately-sized Enterprise Manager deployments may result in the overall benefits of Enterprise Manager being compromised						
Remediation	Refer 'Sizing Your Enterprise Manager Deployment' chapter in 'Advanced Installation and Configuration Guide' and increase Hardware and Storage.						
Violation Message	Enterprise Manager Minimum Hardware and Storage Requirements are not met						Go Back
Rule: Enterprise Manager Minimum Database Setting Requirements Fail							
Description	This rule checks if Minimum Database Setting Requirements are met						
Severity	Critical						
Rationale	Inadequately-sized Enterprise Manager deployments may result in the overall benefits of Enterprise Manager being compromised						
Remediation	Refer 'Sizing Your Enterprise Manager Deployment' chapter in 'Advanced Installation and Configuration Guide' and set required Database Settings.						
Violation Message	Enterprise Manager Minimum Database Setting Requirements are not met						Go Back
Rule: Enterprise Manager Tuning Setting Requirements Pass							
Description	This rule checks if Tuning Setting Requirements are met						
Severity	Critical						
Rationale	Inadequately-sized Enterprise Manager deployments may result in the overall benefits of Enterprise Manager being compromised						



Manage the Manager (MTM)

自我监控 OMS 和存储库



- 存储库本身关闭时发送的带外电子邮件通知
- 自动提醒管理员 EM 健康问题

ORACLE Enterprise Manager Cloud Control 13c

Enterprise Targets Favorites History Setup

Management Services and Repository

OMS and Repository

Attention Required
Super-critical Alerts were found that require Immediate Attention, see Alerts section below

Warning
Out Of Band Email Notification is not configured, this needs to be configured on Agent (den00hzo.us.oracle.com:3872) of Primary OMS
This is a backup mechanism for sending email notification in cases like all OMS are down or Repository database itself is down

Alerts that require Immediate Attention

Below table lists Alerts from Management Services or Repository that could severely impact functioning of Enterprise Manager.
Related Alerts link given below lists Alerts from Management Services or Repository that are not listed in below table.

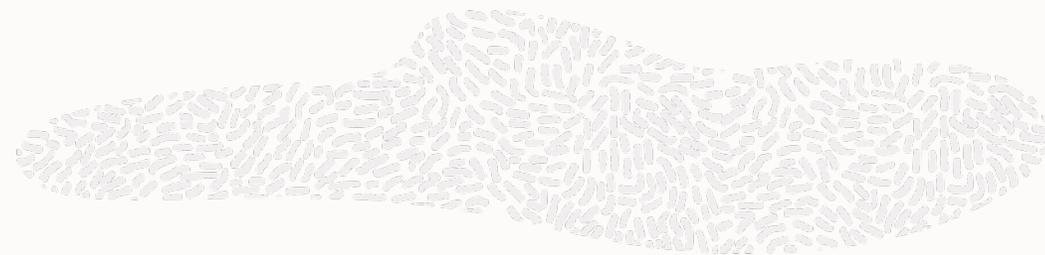
Alert Message	Target	Severity	Start Time	Resolution
Fragmentation found in Tables: EM_EVENT_BUS_TABLE Indexes:			Jan 27, 2021 2:47:40 AM	The tables and indexes should be de-fragmented

Related Alerts 77

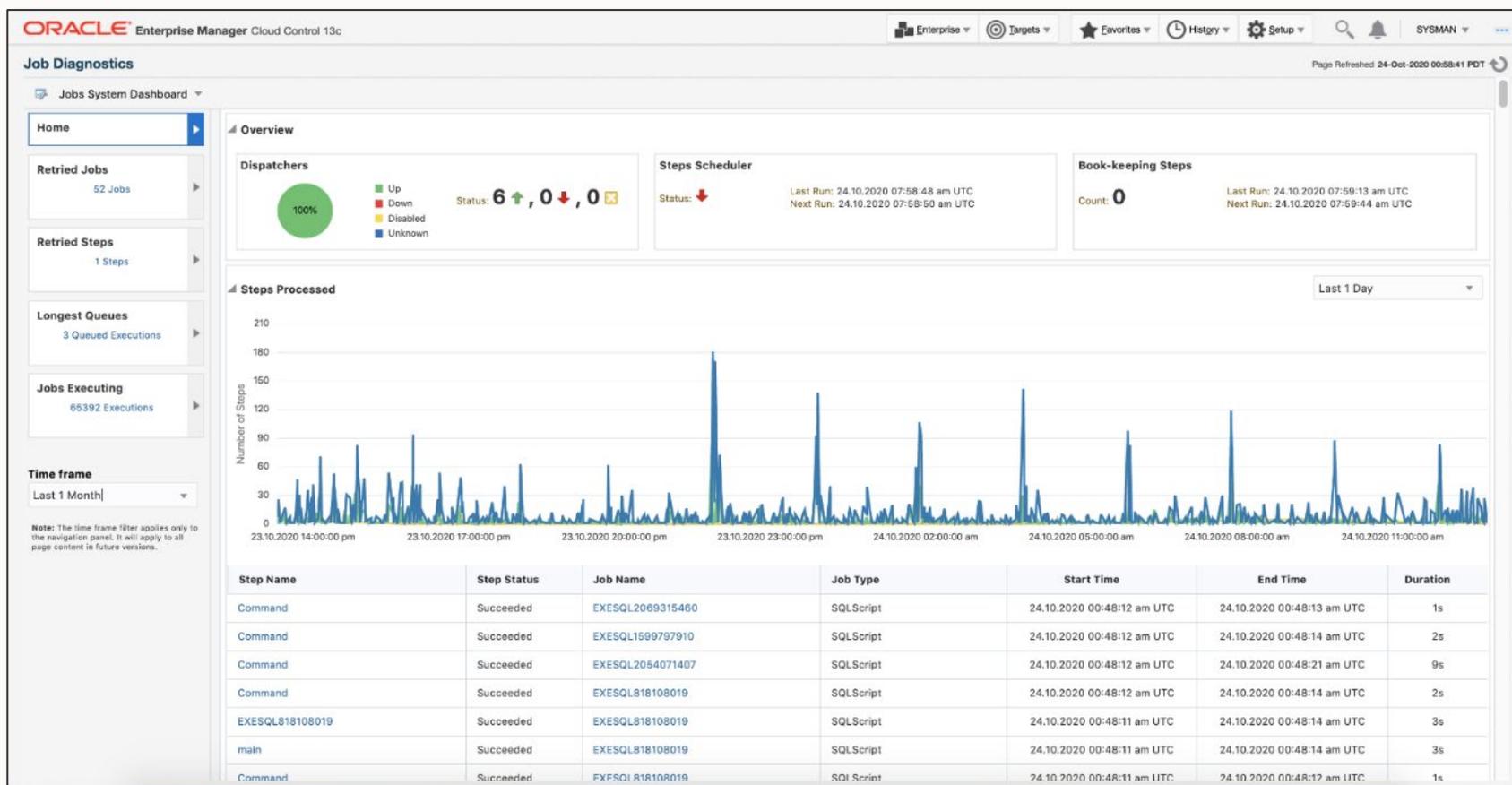


增强的作业诊断

Job Diagnostics仪表盘

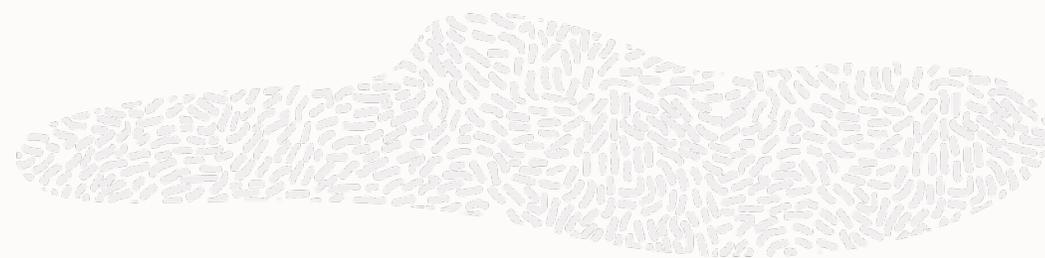


一个新的作业诊断仪表盘，用于监控作业系统的关键组件
随时间变化的作业/步骤吞吐量、作业调度员、调度员和簿记步骤的概览状态



增强的作业诊断

重试作业和步骤的详细信息



- 重试作业，突出显示问题区域，并为每个作业下钻

ORACLE Enterprise Manager Cloud Control 13c

Enterprise Targets Favorites History Setup SYSMAN

Job Diagnostics Page Refreshed 24-Oct-2020 00:58:41 PDT

Jobs System Dashboard

Home

Retried Jobs [51 Jobs](#)

Retried Steps 1 Steps

Longest Queues 3 Queued Executions

Jobs Executing 65392 Executions

Time frame Last 1 Month

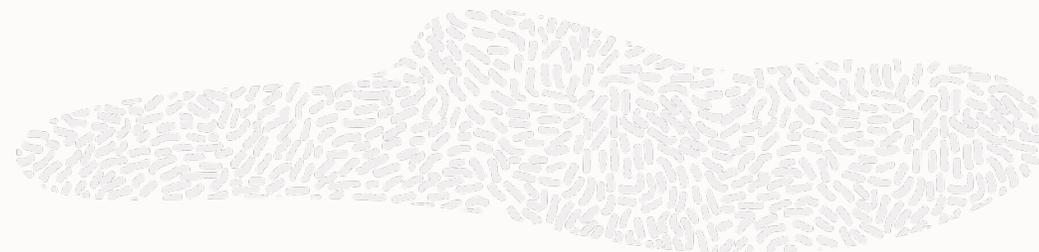
Note: The time frame filter applies only to the navigation panel. It will apply to all page content in future versions.

Job Name	Retry Count	Job Status	Job Type	Start Time	End Time	Duration
SI_NMR_WAITER_B124DC2DB093999E053AA82580A49...	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 05:45:56 am UTC	11.10.2020 05:45:56 am UTC	0s
SI_NMR_WAITER_B1251E9EA8D2C495E053AA82580A8BE7	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 06:05:02 am UTC	11.10.2020 06:05:02 am UTC	0s
SI_NMR_WAITER_B1249A7BB597E56DE053A882580A07AE	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 05:58:27 am UTC	11.10.2020 05:58:27 am UTC	0s
SI_NMR_WAITER_B124548832CA9E46E053AA82580ACB...	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 05:01:03 am UTC	11.10.2020 05:01:03 am UTC	0s
SI_NMR_WAITER_B1245488331B9E46E053AA82580ACB42	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 06:25:58 am UTC	11.10.2020 06:25:58 am UTC	0s
SI_NMR_WAITER_B124548833139E46E053AA82580ACB42	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 06:25:40 am UTC	11.10.2020 06:25:40 am UTC	0s
SI_NMR_WAITER_B1236D8EDB38D2C0E053AB82580A60...	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 03:55:17 am UTC	11.10.2020 03:55:17 am UTC	0s
SI_NMR_WAITER_B1254175F713347DE053AA82580A0ACA	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 06:25:58 am UTC	11.10.2020 06:25:58 am UTC	0s
SI_NMR_WAITER_B123447C02DAA1B8E053A982580A85...	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 03:55:15 am UTC	11.10.2020 03:55:15 am UTC	0s
SI_NMR_WAITER_B123E3827372C9E1E053A982580AFDAC	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 04:29:34 am UTC	11.10.2020 04:29:34 am UTC	0s
SI_NMR_WAITER_B123D233AEEB0768E053A982580A77FE	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 04:37:53 am UTC	11.10.2020 04:37:53 am UTC	0s
SI_NMR_WAITER_B123E382737AC9E1E053A982580AFDAC	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 04:29:35 am UTC	11.10.2020 04:29:35 am UTC	0s
SI_NMR_WAITER_B12398F13DB1A78BE053AB82580A13AE	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 04:44:30 am UTC	11.10.2020 04:44:30 am UTC	0s
SI_NMR_WAITER_B1249A706786E552E053A882580A13BF	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 05:25:52 am UTC	11.10.2020 05:25:52 am UTC	0s
SI_NMR_WAITER_B12398F13DA9A78BE053AB82580A13AE	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 04:44:28 am UTC	11.10.2020 04:44:28 am UTC	0s
SI_NMR_WAITER_B123E37CF4198052E053AA82580A367E	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 04:37:51 am UTC	11.10.2020 04:37:51 am UTC	0s
SI_NMR_WAITER_B124583BEA7066B0E053A882580A9A...	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 05:07:53 am UTC	11.10.2020 05:07:53 am UTC	0s
SI_NMR_WAITER_B12427080E9C9E67E053AA82580A1684	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 04:47:27 am UTC	11.10.2020 04:47:27 am UTC	0s
SI_NMR_WAITER_B12427080EA49E67E053AA82580A1684	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 04:47:27 am UTC	11.10.2020 04:47:27 am UTC	0s
SI_NMR_WAITER_B123E3827388C9E1E053A982580AFDAC	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 04:54:14 am UTC	11.10.2020 04:54:14 am UTC	0s
SI_NMR_WAITER_B123E3827390C9E1E053A982580AFDAC	100	Suspended by User	SiNmrStatusChangeTrigger	11.10.2020 04:54:11 am UTC	11.10.2020 04:54:11 am UTC	0s



增强的作业诊断

队列详细信息



- 队列和阻塞在队列中的作业的信息

The screenshot displays the Oracle Enterprise Manager Cloud Control 13c interface. The main page is titled "Job Diagnostics" and shows a "Jobs System Dashboard" with various metrics: Retried Jobs (51 Jobs), Retried Steps (1 Steps), Longest Queues (1 Queued Executions), and Jobs Executing (65392 Executions). A "Time frame" filter is set to "Last 1 Month".

A "Queue Details" dialog box is open, showing the following information:

- Target :**
 - Name : example-target.oracle.com:3872 ;
 - Type : Agent
- Queue :**
 - Name : PROMOTE_TARGET_B254C4D998E3E76AE053AA82580A59B1
 - Status : ENABLED
 - Total Queued Executions : 92
- Head of the Queue :**
 - Job :**
 - Name : [DELTGT_JOB_AGT_B255EA1958BFCFD6E053A882580AE5A3](#)
 - Type : DeleteTargetsFromAgt
 - Status : Suspended: Agent is not Ready
 - Execution Id : B255EA1958B2CFD6E053A882580AE5A3
- Top Job Types :**

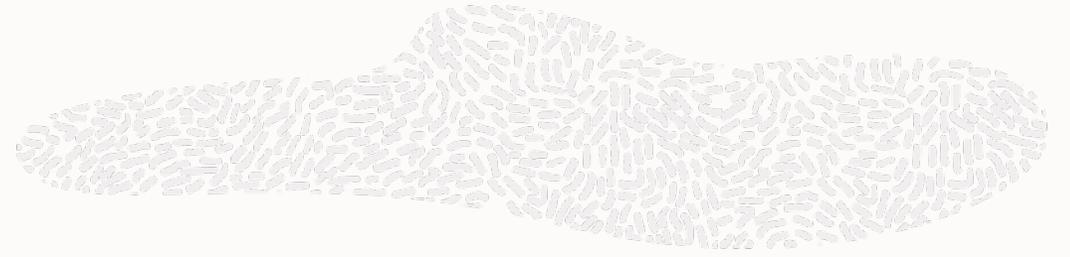
Job Type	Number of Executions
PromoteTargetsAgentBound	54
DeleteTargetsFromAgt	38

The dialog box also includes a "Close" button at the bottom right.



增强的作业诊断

作业活动级别详细信息



- 从所有表向下钻取到作业活动页面以调试潜在问题
- 帮助维护高效的工作系统

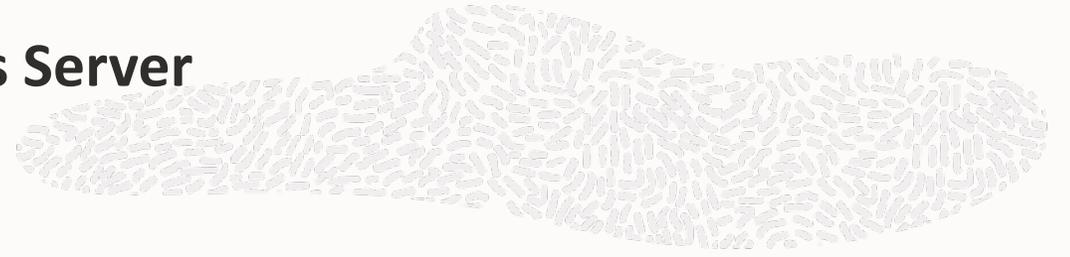
The screenshot displays the Oracle Enterprise Manager Cloud Control 13c interface. The main heading is "Jobs". Below it, the job ID is "Job Activity > Job Run: DELTGT_JOB_AGT_B255EA195BBFCFD6E053A882580AE5A3". The page is refreshed on 24-Oct-2020 08:10:49 UTC. The job status is "Suspended: Agent is not Ready".

The interface is divided into several sections:

- Job Executions on 1 Targets:** A table with columns for Target Name, Status, and Execution Time. One target is listed: "example-target.oracle.com:3872".
- Summary:** Shows the job status as "Suspended: Agent is not Ready" with a "Show More" link.
- List of Tasks:** A table with columns for Name, Ty, St, and Execution Time. One task is listed: "DeleteFromAgent".
- DeleteFromAgent:** A detailed view of the task, showing its status as "Suspended: Agent is not Ready" with a "Show More" link.



有什么不同？从BI Publisher到Oracle Analytics Server



Oracle Analytics Server (OAS) v5.5.0 (或更高)将需要在 Enterprise Manager (EM) 之外独立安装并使用 EM 进行配置以使用自定义和开箱即用报告

- 完整的技术简介，提供详细的安装和配置步骤
- 在重新命名的OAS安装中，继续支持现有的开箱即用BI Publisher报告
- 记录将现有自定义BI Publisher报告迁移到OAS
- 可以将单个OAS配置为与多个EM存储库一起用于报告
- 在e-delivery上OAS 5.5在Linux和Windows操作系统上受支持并且可用
- 带有 EM 的 OAS 将继续使用与嵌入式 BI Publisher 相同的受限使用许可(限制用于Enterprise Manager存储库和目标数据库的数据字典)
- 简化Enterprise Manager安装并减少EM占用空间与使用嵌入式 BI Publisher相比



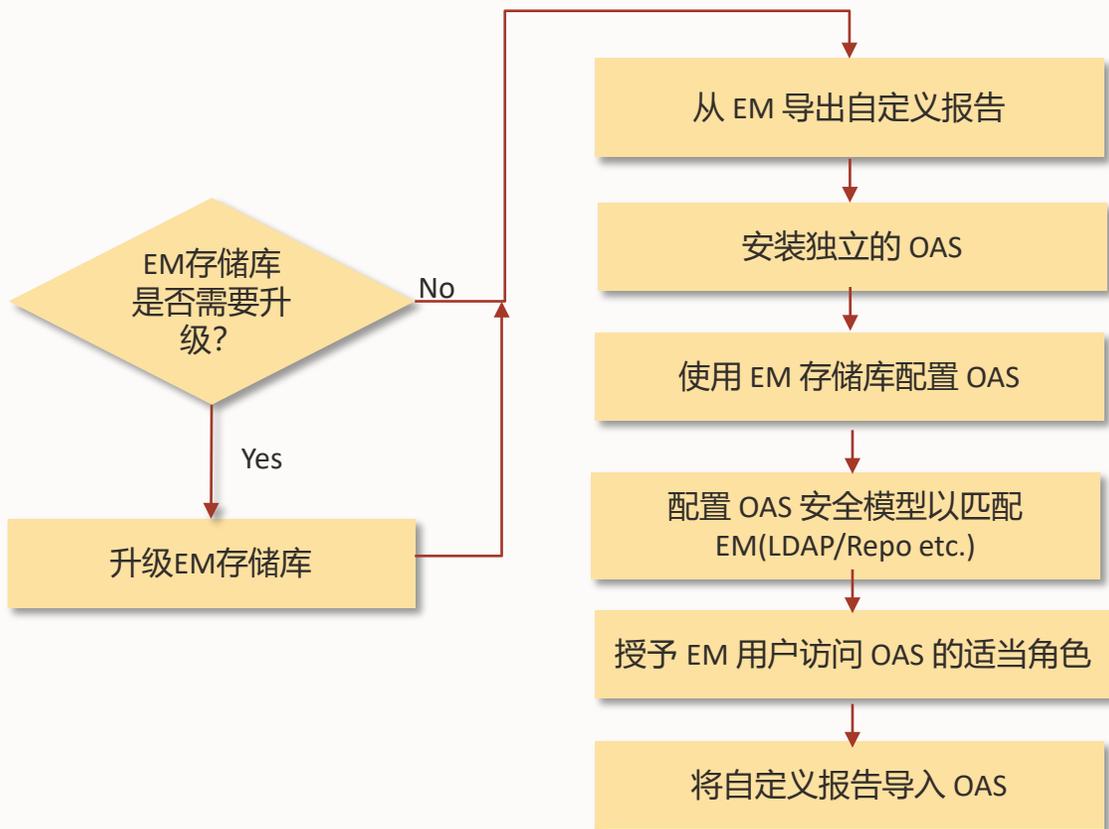
Enterprise Manager 升级

BI Publisher 迁移到 OAS (Oracle Analytics Server)

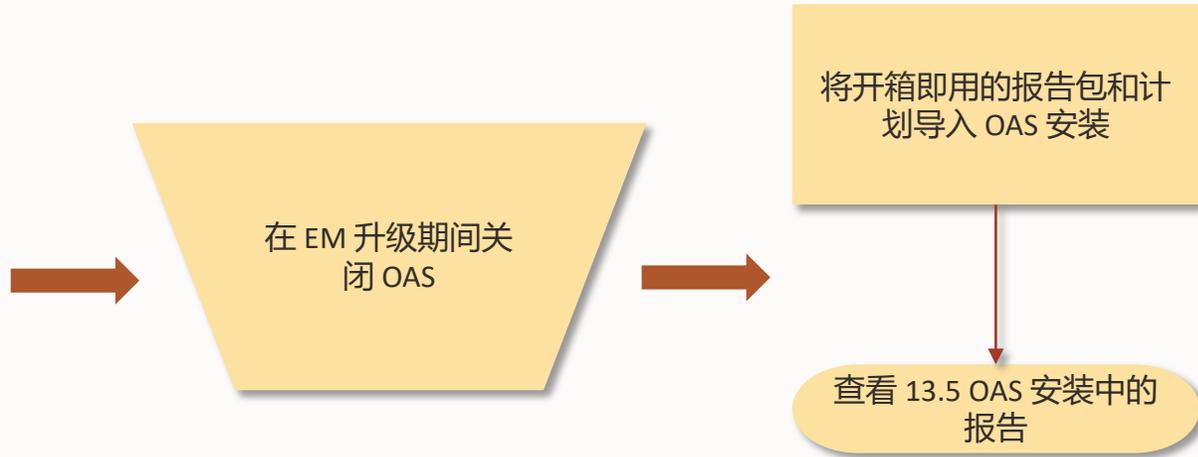
将嵌入式 BI Publisher 和报告迁移到独立的 OAS



升级前的步骤



升级到13.5后



自动化运维



运维自动化 可视化现代化

动态的Runbooks

- 直接在 EM 中编写和执行运行Runbook程序，以封装主题专业知识以诊断和解决事件
- 促进一致和更快的事件响应，降低整体 MTTR

智能事件压缩

- 将相关事件智能地自动压缩为一组较小的可操作事件

事件管理器现代化

- 重新设计的 UI 突出显示关键信息并优化常见的用户操作



运维自动化

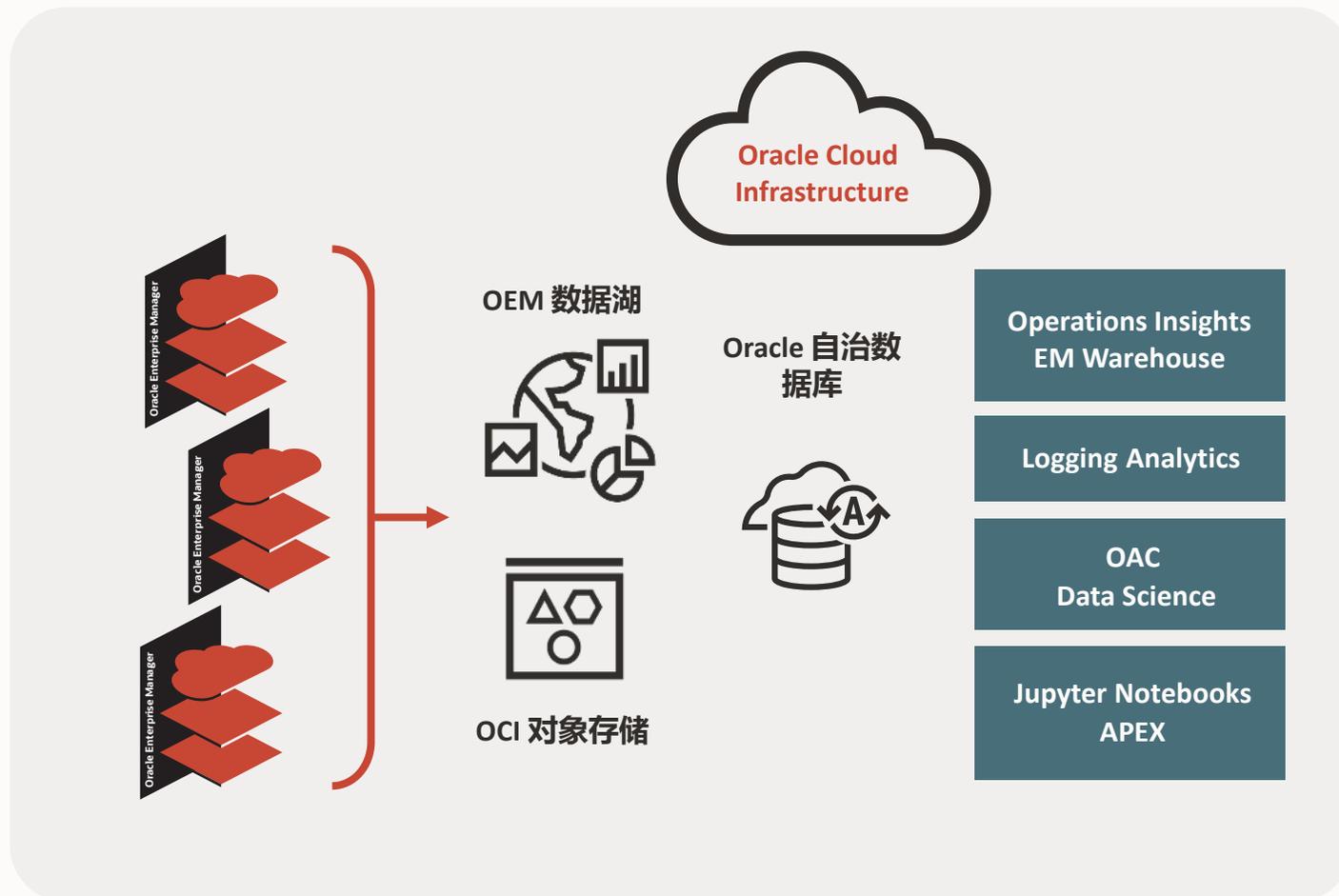
性能管理

自动工作负载分析

- 自动分析工作负载响应时间并突出显示性能特征的变化
- 有助于提高服务质量

OEM仓库

- 将 OEM 数据自动 ETL 到 Oracle 云
- 支持对长期指标和配置数据进行分析、趋势分析和预测



运维自动化

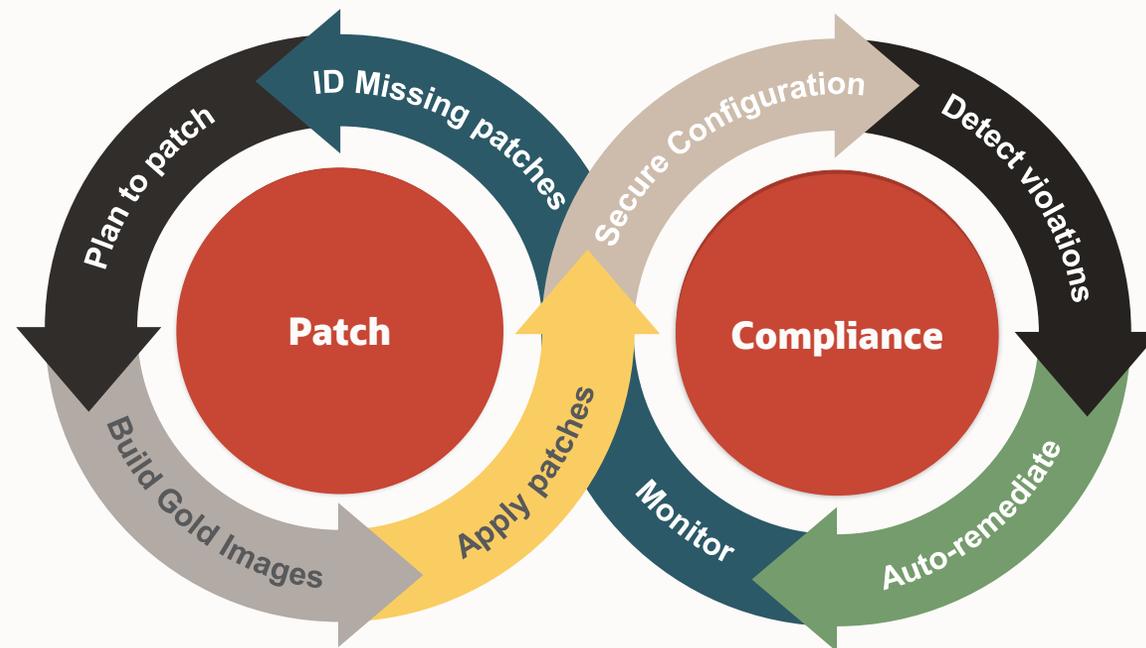
安全加固

增强的补丁和升级自动化

- 用于修补和升级整个数据库队列的新 UI，包括网格基础设施
- 智能界面有助于跟踪每一步的操作并提供可操作的见解
- 内置预检查库以提高可靠性和可诊断性

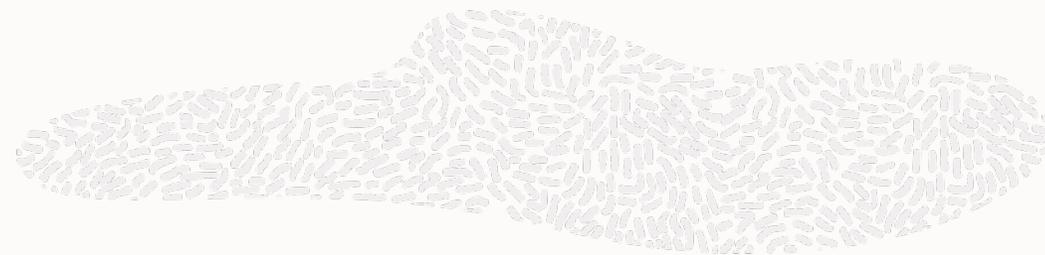
更新的合规框架跟踪并强制执行安全性

- 新的法规遵从性标准支持 Oracle Database 19c - CIS、STIG、PCI-DSS 和 HIPAA
- 支持 Oracle 自治健康框架
- 新的 HTML 合规性报告



数据库安全加固

消除数据库修补和合规性的手动工作



合规框架跟踪并加强安全性

大规模自动化安全合规检查

- 所有目标合规状态的仪表板
- 持续评估，发现风险和违规行为
- 自动修复漏洞以降低安全风险

遵守法规遵从性要求

- 具有CIS、STIG和Oracle最佳实践的数据库配置
- 具有 PCI-DSS 和 HIPAA 配置文件的 Linux 配置
- 采用 Oracle Autonomous Health Framework (AHF) 的工程系统



运维自动化

加快事件解决速度**通过使用动态 Runbooks和智能事件压缩**

识别数据库性能变化**通过自动工作负载分析**

为容量预测和性能趋势创建**EM Warehouse**

加强安全性和合规性**通过更新的合规框架**

新大批量运维的UI简化修补并加强安全性



混合云



混合云管理

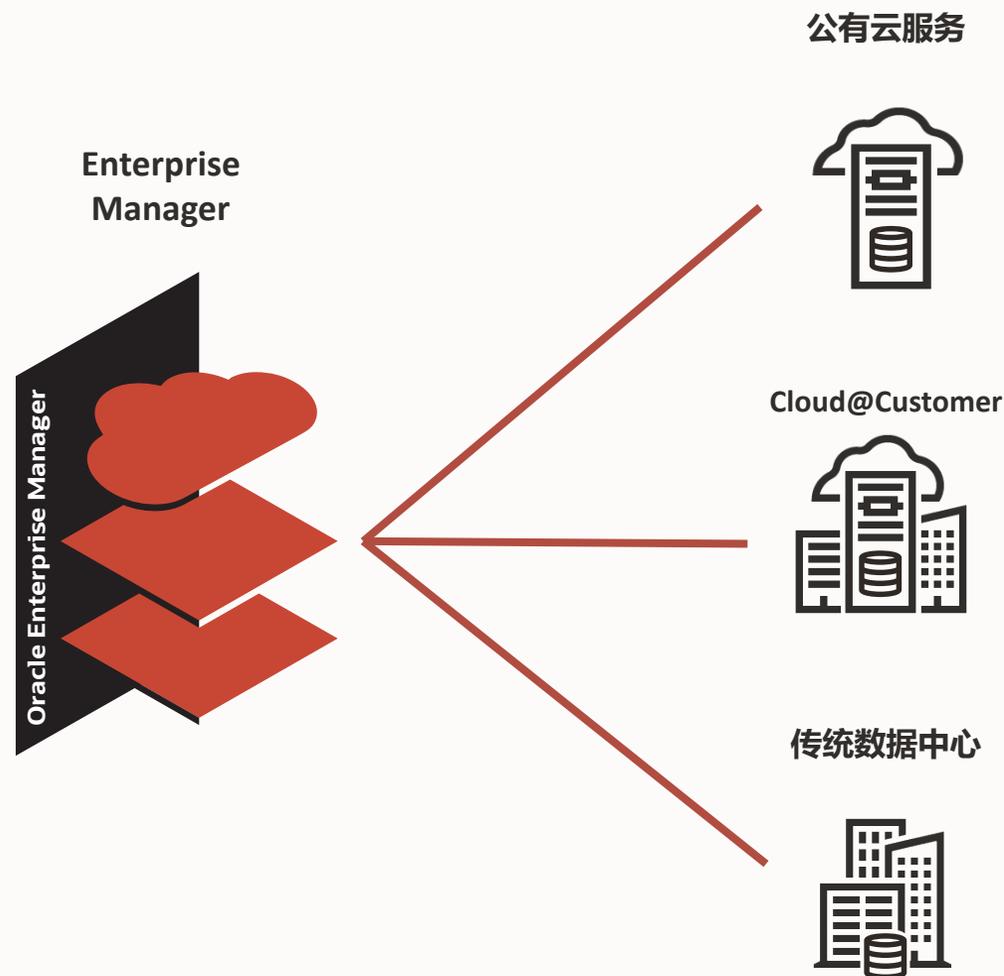
在你的混合云批量监控和管理
从 EM 部署在本地或云中

支持 OCI 数据库- 自治数据库

跨本地和 OCI 的数据库自助部署通过 **Hybrid DB-as-a-Service**

简化从本地到 OCI 的数据移动通过 **DB Migration Workbench**

OCI 连接 EM使用 **Bridge** 方式来深度运营分析



混合云管理

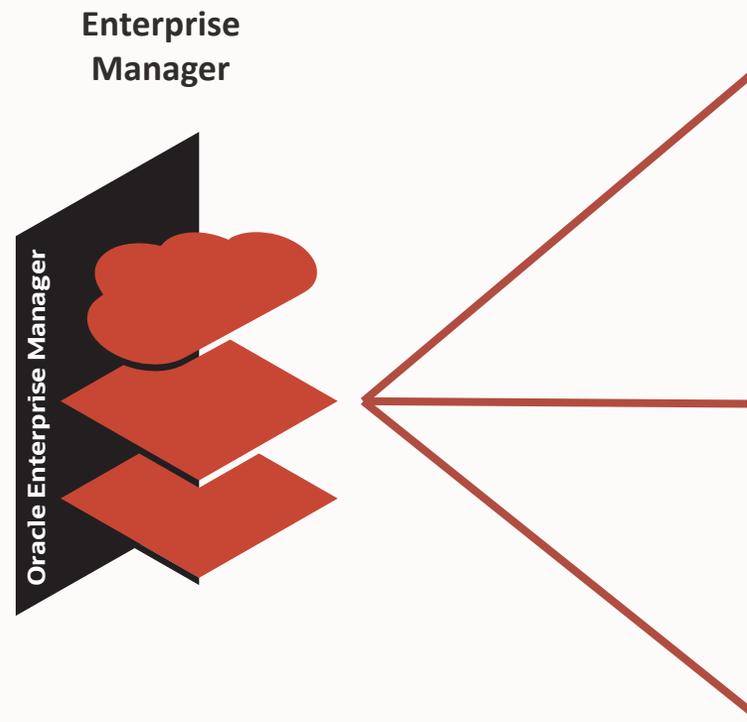
大规模混合云管理

监控和管理您的混合云

- 自治数据库的新云感知目标类型
- 用于查找“热点”的企业级批量仪表板
- 与 OCI 平台集成以管理云目标
- 通过云原生 API 对云目标（启动、备份、迁移等）进行生命周期管理

混合云 Database-as-a-Service (DBaaS)

- 跨本地和 Oracle 云的自助式部署 (VM, BM, Exadata)
- 用于有效利用云资源的自助式治理工具



混合云管理

数据移动

数据库迁移工作台 (DB Migration Workbench)

- 提供将本地数据库迁移到 OCI 的指导 workflow
- 执行先决条件检查以确保成功迁移
- 提供迁移前后 SQL 性能的自动比较

迁移规划师

- 为将数据库迁移到 Oracle Cloud 或其他平台的最佳配置提供指导

Cloud Bridge

- 通过收集目标、指标、SQL 和配置数据以进行深度运营分析，将 EM 与 OCI 连接起来
- 支持跨多个 EM 站点的分析和可见性

计划



迁移



验证



混合云管理

全面的迁移自动化 - 充满信心地计划、执行和验证迁移

> 对迁移模型的广泛支持

- 本地到 OCI
- 本地到本地
- 从传统硬件转移到工程系统
- 将许多数据库整合到可扩展的架构中

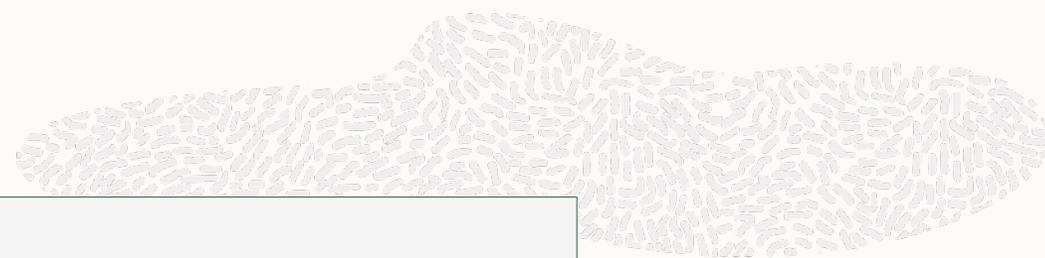
> 端到端自动化

- 计划：运行先决条件检查、识别依赖项、迁移项目管理
- 使用数据移动技术的最佳匹配来迁移数据
- 验证错误或未完成任务的结果，比较之前/之后的状态



混合云管理

通过 EM 和 OCI 桥将 OCI 服务用于 EM 数据



ORACLE Enterprise Manager Cloud Control 13c

Data Pipeline to OCI

Introduction

Overview of using Enterprise Manager Data in OCI Services

EM data can be periodically updated.

Prerequisites

1. EM name
2. OCI Object
3. Target group
4. Preferred

[See the doc](#)

Enterprise Manager (Select & Transform)

Repository Data

Target Data

ORACLE Enterprise Manager Cloud Control 13c

Enterprise Targets Favorites History Setup

Manage EM Data for OCI Services

Enable Data Export Manage OCI Connectivity

EM Target Summary

Category	Value
Logging Analytics	18
Operations Insights	16

Data Export Summary

Category	Success	Extract Paused
Operations Insights	15	1
Logging Analytics	18	0

Upload Summary

OCI Service	Total Size (MB)	Last Upload Date
Operations Insights	7	19-FEB-2021 05:22:40
Logging Analytics	2	19-FEB-2021 04:47:44

Sources Jobs

Search...

OCI Service	Target Name	Target Type	Data Export Status
Operations Insights			⚠
Group			
gef_group			Extract Paused (1) , Success (12)
gef_group3			Success (3)
Logging Analytics			✓

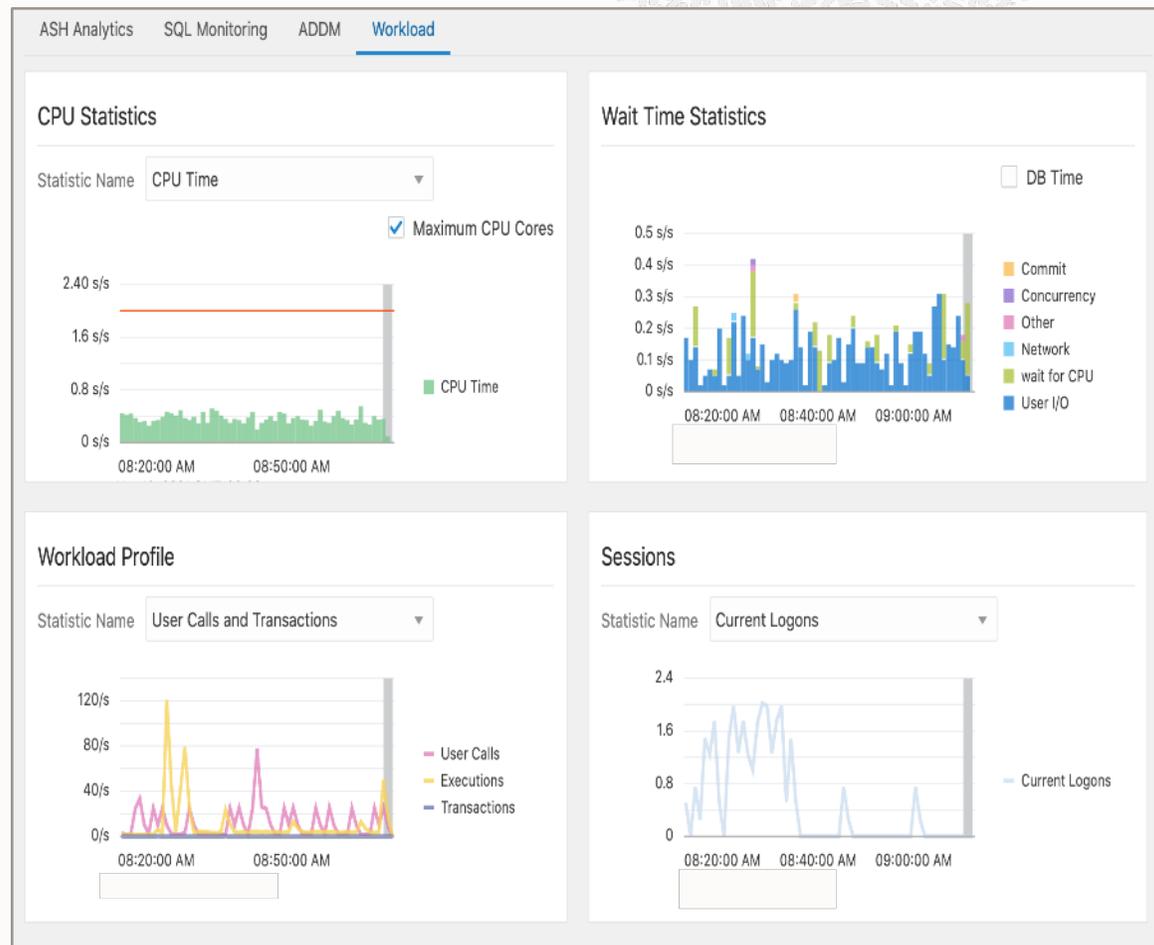
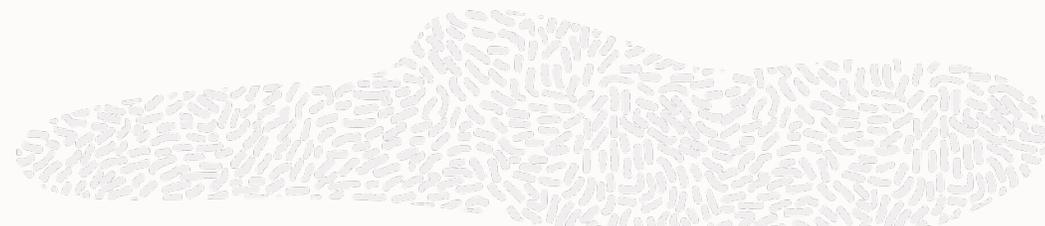


混合云管理

增强的性能中心 - 新选项卡

Performance Hub 中用于一键式性能诊断的新选项卡:

- 工作负载选项卡
 - 详细的工作负载配置文件数据, 包括用户调用、事务、会话登录等.
- ADDM 选项卡
 - DB time 所选时间范围的分析
 - 列出提高性能的可行步骤
 - CDB 和 per-PDB ADDM 支持
- Blocking Sessions选项卡
 - 阻塞会话树
 - 显示累积 DB 时间的所有阻塞和阻塞会话





可扩展性



可扩展性&弹性

可扩展平台

用于管理操作的 REST API

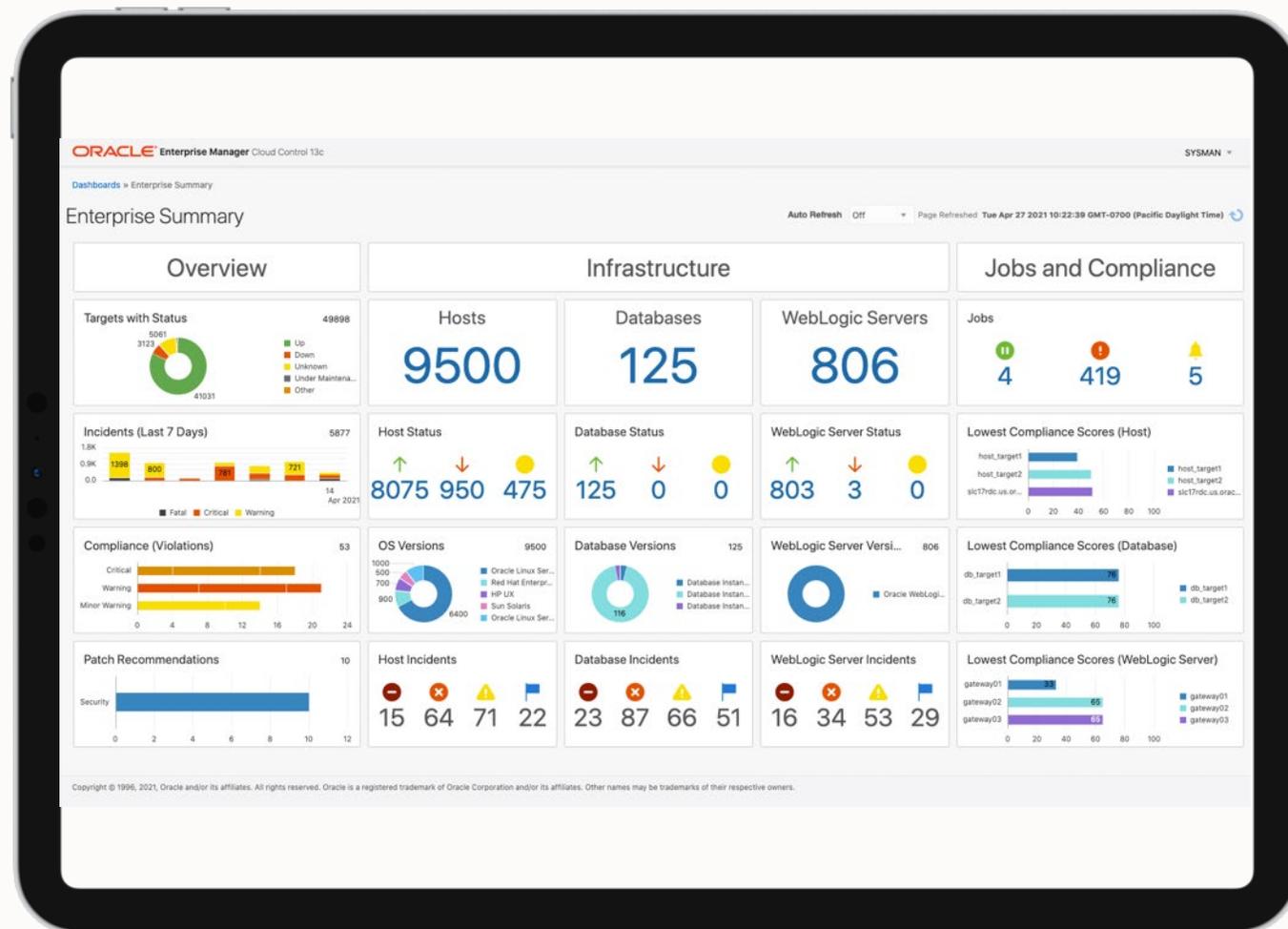
- 目标管理、事件、凭证管理、作业、数据库迁移、代理黄金形象管理等

可视化和移动应用访问

- 仪表板：使用预定义的小部件或从头开始创建您自己的仪表板
- 用于 WebLogic Server 和 JVM 性能报告的 Grafana 应用仪表板
- 移动应用通知，可定制的主页

EM Federated

- 跨多个 EM 部署进行监控通过 **Federated EM**



可扩展性&弹性

可视化和移动应用访问

新的 EM Dashboard 框架

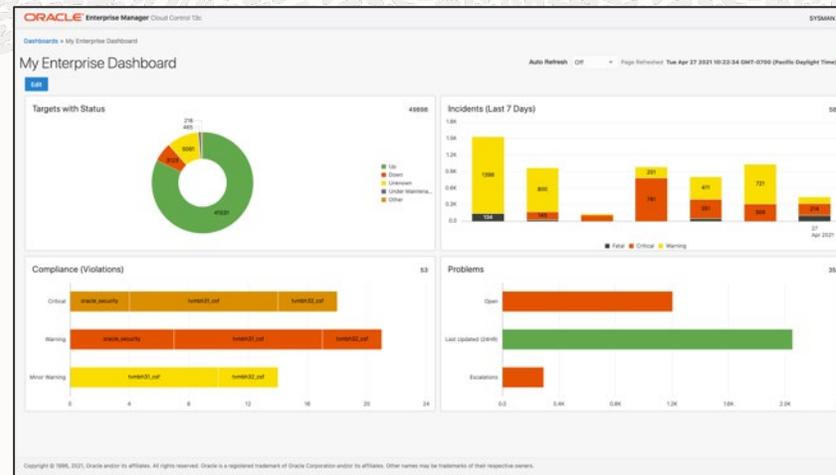
- 丰富的 Oracle 定义的开箱即用仪表板
- 使用 OOTB 内容或从头开始创建您自己的仪表板
- 使用小部件构建器构建您自己的小部件

使用新仪表板增强 Grafana 应用程序

- WebLogic Server 性能摘要
- JVM 性能报告

用于移动管理的移动应用程序

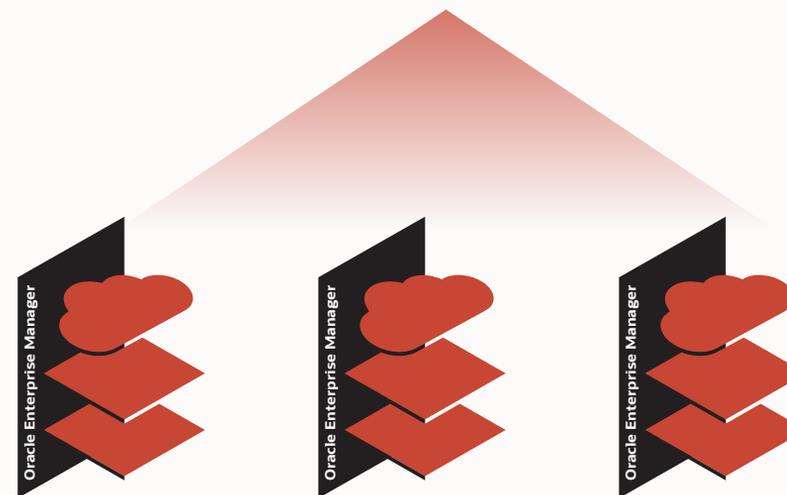
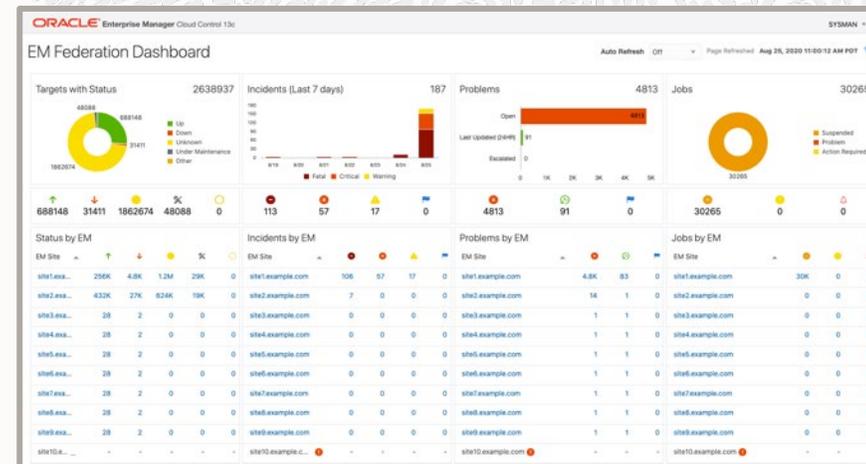
- 基于移动通知的事件管理
- 使用 EM 仪表板可自定义主页



可扩展性&弹性 Federation

EM Federation

- 对EM的原生的支持
- 使用单一管理平台监控多个 EM 部署
- 跨多个 EM 部署的联合组视图



相关资源:

Oracle Enterprise Manager

相关资源

- [Oracle.com](#) product page
- ROI [Value-add study](#)
- Oracle LiveLabs [Workshops](#)
- EM [on Oracle Cloud Marketplace](#)
- Deep dive [webcast series](#)
- [Videos, demos & screenwatches](#)
- [Product documentation](#)
- [3min upgrade to latest release](#) video



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