

ODAT-31 - EXADATA DATABASE MACHINE: 12C ADMINISTRATION WORKSHOP ED 2

Categoria: **Database**

INFORMAZIONI SUL CORSO



Durata:
5 Giorni



Categoria:
Database



Qualifica Istruttore:
Oracle Certified
Professional



Dedicato a:
Professionista IT



Produttore:
Oracle

OBIETTIVI

Configurare la Gestione I/O delle risorse
Monitorare la salute di Exadata Database Machine e ottimizzarne le prestazioni
Descrivere le funzionalità chiave di Exadata Database Machine
Identificare i vantaggi nell'utilizzo di Exadata Database Machine per le diverse classi di applicazioni
Descrivere l'architettura di Exadata Database Machine e la sua integrazione con Oracle Database, Clusterware e ASM
Completare la configurazione iniziale di Exadata Database Machine
Descrivere vari approcci consigliati per la migrazione di Exadata Database Machine

PREREQUISITI

Prerequisiti richiesti:

Conoscenza e la comprensione di Oracle Database 11g Release 2, comprese Automatic Storage Management (ASM) e Real Application Clusters (RAC).
Conoscenza di Unix / Linux insieme ad una comprensione generale di networking, storage e concetti di amministrazione del sistema.

Prerequisiti consigliati:

Oracle Database 12c: Amministrazione Officina
Oracle Database 12c: Backup e Recovery Laboratorio
UNIX e Linux Essentials

CONTENUTI

Introduction

- Course Objectives
- Audience and Prerequisites
- Course Contents
- Terminology
- Additional Resources
- Introducing the Laboratory Environment

Exadata Database Machine Overview

- Introducing Database Machine
- Introducing Exadata Storage Server
- Exadata Storage Server Architecture: Overview

Exadata Storage Server Features: Overview

Exadata Storage Expansion Racks

InfiniBand Network

Database Machine Support: Overview

Exadata Database Machine Architecture

Database Machine Architecture: Overview

Database Machine Network Architecture

InfiniBand Network Architecture

InfiniBand Network Topology

Interconnecting Multiple Racks

Database Machine Software Architecture: Overview

Disk Storage Entities and Relationships

Key Capabilities of Exadata Database Machine

Classic Database I/O and SQL Processing Model

Exadata Smart Scan Model

Exadata Smart Storage Capabilities

Exadata Hybrid Columnar Compression

Exadata Smart Flash Cache

Exadata Storage Index

Database File System

I/O Resource Management

Exadata Database Machine Initial Configuration

Database Machine Implementation: Overview

Database Machine Site Preparation

Using Oracle Exadata Deployment Assistant

Choosing the Right Disk Redundancy Setting

Configuring Oracle Exadata Database Machine

The Result After Installation and Configuration

Supported Additional Configuration Activities

Exadata Storage Server Configuration

Exadata Storage Server Administration: Overview

Testing Storage Server Performance Using CALIBRATE

Configuring the Exadata Cell Server Software

Starting and Stopping Exadata Cell Server Software

Configuring Cell Disks and Grid Disks

Configuring ASM and Database Instances to Access Exadata Cells

Reconfiguring Exadata Storage

Exadata Storage Security Implementation

I/O Resource Management

I/O Resource Management Concepts

IORM Architecture

Getting Started with IORM

Enabling Intradatabase Resource Management

Setting Database I/O Utilization Limits

Interdatabase Plans and Database Roles

Using Database I/O Metrics

IORM and Exadata Storage Server Flash Memory

Recommendations for Optimizing Database Performance

- Flash Memory Usage
- Influencing Caching Priorities
- Choosing the Flash Cache Mode
- Compression Usage
- Index Usage
- ASM Allocation Unit Size
- Minimum Extent Size
- Exadata Specific System Statistics

Using Smart Scan

- Exadata Smart Scan: Overview
- Smart Scan Requirements
- Monitoring Smart Scan in SQL Execution Plans
- Smart Scan Join Processing with Bloom Filters
- Other Situations Affecting Smart Scan
- Exadata Storage Server Statistics: Overview
- Exadata Storage Server Wait Events: Overview

Consolidation Options and Recommendation

- Consolidation: Overview
- Different Consolidation Types
- Recommended Storage Configuration for Consolidation
- Alternative Storage Configurations
- Cluster Configuration Options
- Isolating Management Roles
- Schema Consolidation Recommendations
- Maintenance Considerations

Migrating Databases to Exadata Database Machine

- Migration Best Practices: Overview
- Performing Capacity Planning
- Database Machine Migration Considerations
- Choosing the Right Migration Path
- Logical Migration Approaches
- Physical Migration Approaches
- Post-Migration Best Practices
- Migrating to Database Machine Using Transportable Tablespaces

Bulk Data Loading using Oracle DBFS

- Bulk Data Loading Using Oracle DBFS: Overview
- Preparing the Data Files
- Staging the Data Files
- Configuring the Staging Area
- Configuring the Target Database
- Loading the Target Database

Exadata Database Machine Platform Monitoring Introduction

- Monitoring Technologies and Standards
- Simple Network Management Protocol (SNMP)
- Intelligent Platform Management Interface (IPMI)
- Integrated Lights Out Manager (iLOM)
- Exadata Storage Server Metrics, Thresholds, and Alerts

Automatic Diagnostic Repository (ADR)
Enterprise Manager Cloud Control 12c
Enterprise Manager Database Control

Configuring Enterprise Manager Cloud Control 12c to Monitor Exadata Database Machine

Enterprise Manager Cloud Control 12c Architecture: Overview
Cloud Control Monitoring Architecture for Exadata Database Machine
Configuring Cloud Control to Monitor Exadata Database Machine
Pre-discovery Configuration and Verification
Deploying the Oracle Management Agent
Discovering Exadata Database Machine
Discovering Additional Targets
Post-discovery Configuration and Verification

Monitoring Exadata Storage Servers

Exadata Metrics and Alerts Architecture
Monitoring Exadata Storage Server with Metrics and Alerts
Isolating Faults with
Monitoring Exadata Storage Server with Enterprise Manager: Overview
Monitoring Hardware Failure and Sensor State
Monitoring Exadata Storage Server Availability
Comparing Metrics Across Multiple Storage Servers

Monitoring Exadata Database Machine Database Servers

Monitoring Database Servers: Overview
Monitoring Hardware
Monitoring the Operating System
Monitoring Oracle Grid Infrastructure
Monitoring Oracle Database
Monitoring Oracle Management Agent
Database Monitoring with Enterprise Manager Cloud Control 12c

Monitoring the InfiniBand Network

InfiniBand Network Monitoring: Overview
InfiniBand Network Monitoring with
Monitoring the InfiniBand Switches
Monitoring the InfiniBand Switch Ports
Monitoring the InfiniBand Ports
Monitoring the InfiniBand Fabric:
Monitoring the InfiniBand Fabric:

Monitoring Other Exadata Database Machine Components

Monitoring the Cisco Ethernet Switch
Monitoring the Sun Power Distribution Units
Monitoring the KVM Switch

Other Useful Monitoring Tools

Exachk: Overview
Running Exachk
Exachk Daemon
DiagTools: Overview
Using ADRCI on Exadata Storage Servers
Imageinfo: Overview

Imagehistory: Overview

OSWatcher: Overview

Backup and Recovery

Using RMAN with Database Machine

General Recommendations for RMAN

Disk-Based Backup Strategy

Disk-Based Backup Recommendations

Disk-Based Backup on

Tape-Based Backup Strategy

Tape-Based Backup Architecture and Recommendations

Backup and Recovery of Database Machine Software

Exadata Database Machine Maintenance Tasks

Database Machine Maintenance: Overview

Powering Database Machine Off and On

Safely Shutting Down a Single Exadata Storage Server

Replacing a Damaged Physical Disk

Replacing a Damaged Flash Card

Moving All Disks from One Cell to Another

Using the Exadata Cell Software Rescue Procedure

Patching Exadata Database Machine

Patching and Updating: Overview

Maintaining Exadata Storage Server Software

Maintaining Database Server Software

Assisted Patching Using OPlan

Assisted Patching Using

Maintaining Other Software

Recommended Patching Process

Test System Recommendations

INFO

Manuale: Materiale didattico ufficiale Oracle in formato digitale. Il materiale didattico è compreso nel prezzo sia per i corsi a Calendario sia per quelli Dedicati.

Prezzo manuale: 0 € incluso nel prezzo del corso a Calendario

Natura del corso: Operativo (previsti lab su PC)