Oracle Automatic Storage Management Under The Hood Practical Deployment Gu

Expert Oracle Exadata, 2nd Edition opens up the internals of Oracle's Exadata platform so that you can fully benefit from the most performant and scalable database hardware appliance capable of running Oracle Database. This edition is fully-updated to cover Exadata 5-2 and Oracle Database 12c. If you're new to Exadata, you'll soon learn that it embodies a change in how you think about and manage relational databases. A key part of that change lies in the concept of offloading SQL processing to the storage layer. In addition there is Oracle's engineering effort in creating a powerful platform for both consolidation and transaction processing. The resulting value proposition in the form of Exadata has truly been a game-changer. Expert Oracle Exadata, 2nd Edition provides a look at the internals and how the combination of hardware and software that comprise Exadata actually work. Authors include Martin Bach, Andy Colvin, and Frits Hoogland, with contributions from Karl Arao, and built on the foundation laid by Kerry Osborne, Randy Johnson, and Tanel Poder in the first edition. They share their real-world experience gained through a great many Exadata implementations, possibly more than any other group of experts today. Always their goal is toward helping you advance your career through success with Exadata in your own environment. This book is intended for readers who want

to understand what makes the platform tick and for whom—"how" it does what it is does is as important as what it does. By being exposed to the features that are unique to Exadata, you will gain an understanding of the mechanics that will allow you to fully benefit from the advantages that the platform provides. This book changes how you think about managing SQL performance and processing. It provides a roadmap to successful Exadata implementation. And it removes the "black box" mystique. You'll learn how Exadata actually works and be better able to manage your Exadata engineered systems in support of your business. This book: Changes the way you think about managing SQL performance and processing Provides a roadmap to successful Exadata implementation Removes the "black box" mystique, showing how Exadata actually works This book is a practical step-by-step tutorial with screenshots for carrying out tasks showing you how to manage and administer your data center with Oracle Enterprise Manager. It is packed with best practices and tips that will help you benefit from the author's extensive experience of working with Oracle Enterprise Manager since at least a decade, and combined with his 25+ years IT industry experience. If you are a Data Center, IT or Database Team manager who wants to take advantage of the automation and compliance benefits of Enterprise Manager 12c Cloud Control, then Oracle Enterprise Mana.

Implement a Centralized Cloud Storage Infrastructure with Oracle Automatic Storage Management Build and manage a scalable, highly available cloud storage

solution. Filled with detailed examples and best practices, this Oracle Press guide explains how to set up a complete cloud-based storage system using Oracle Automatic Storage Management. Find out how to prepare hardware, build disk groups, efficiently allocate storage space, and handle security. Database Cloud Storage: The Essential Guide to Oracle Automatic Storage Management shows how to monitor your system, maximize throughput, and ensure consistency across servers and clusters. Set up and configure Oracle Automatic Storage Management Discover and manage disks and establish disk groups Create, clone, and administer Oracle databases Consolidate resources with Oracle Private Database Cloud Control access, encrypt files, and assign user privileges Integrate replication, file tagging, and automatic failover Employ pre-engineered private cloud database consolidation tools Check for data consistency and resync failed disks Code examples in the book are available for download The book follows a tutorial-based approach, covering all the best practices for backup and recovery. The book starts by introducing readers to the world of backup and recovery, then moves on to teach them the new features offered by Oracle 12c. The book is full of useful tips and best practices that are essential for any DBA to perform backup and recovery operations in an organization. This book is designed for Oracle DBAs and system administrators. The reader will have a basic working experience of administering Oracle databases. This book is designed for Oracle DBAs and system administrators. This book will become a reference guide

and will also help you to learn some new skills, and give you some new ideas you never knew about, helping you to easily find the solution to some of the most well-known problems you could encounter as DBAs. Sam Alapati's Expert Oracle Database 11g Administration is a comprehensive handbook for Oracle database administrators (DBAs) using the 11g release of the Oracle Database. All key aspects of database administration are covered, including backup and recovery, day-to-day administration and monitoring, performance tuning, and more. This is the one book to have on your desk as a continual reference. Refer to it frequently. It'll help you get the job done. Comprehensive handbook for Oracle Database administrators. Covers all major aspects of database administration. Tests and explains in detail key DBA commands. Offers primers on Linux/Unix, data modeling, SQL, and PL/SQL. In this multicloud and cognitive era, information continues to grow rapidly. By 2025, IDC says worldwide data will grow by 61% to 175 zettabytes, with as much of the data in data centers as in the cloud. IT environments with Oracle deployments will need to accommodate that data growth, including storing, copying, mirroring, and protecting the data. When IT budgets are constrained but data keeps growing, storage costs can consume more than their fair share of the IT budget. The leading-edge portfolio of storage solutions and essential technologies of IBM® can help organizations stay ahead of the information explosion. Designed with built-in efficiency, these solutions represent preferred practices that address the following main storage objectives for hybrid

multicloud environments: Stop storing so much Store more with what you have. Move Oracle and related data to balance performance and efficiency IBM offers true enterprise class storage support for Oracle deployments at a low total cost of ownership (TCO). With flash disk, tape, storage network hardware, consolidated management console, software-defined storage solutions, and security software, IBM can provide Oracle customers the full spectrum of products to meet their availability, retention, security, and compliance requirements.

Learn cutting-edge technology from Oracle experts Written by Oracle insiders, this comprehensive guide covers everything you need to know about Real Application Clusters -- low-cost hardware platforms that can rival and exceed the quality of service, availability, and scalability of the most expensive mainframe systems. Concepts covered are applicable to all previous versions of Oracle Tuning and troubleshooting tips, providing insight on the most advanced diagnostics available Detailed coverage of advanced RAC concepts Working code for all examples available online Dynamic organizations want to accelerate growth while reducing costs. To do so, they must speed the deployment of business applications and adapt quickly to any changes in priorities. Organizations today require an IT infrastructure that is easy, efficient, and versatile. The VersaStack solution by Cisco and IBM® can help you accelerate the deployment of your data centers. It reduces costs by more efficiently managing information and resources while maintaining your ability to adapt to

business change. The VersaStack solution combines the innovation of Cisco UCS Integrated Infrastructure with the efficiency of the IBM Storwize® storage system. The Cisco UCS Integrated Infrastructure includes the Cisco Unified Computing System (Cisco UCS), Cisco Nexus and Cisco MDS switches, and Cisco UCS Director. The IBM FlashSystem® V9000 enhances virtual environments with its Data Virtualization, IBM Real-time CompressionTM, and IBM Easy Tier® features. These features deliver extraordinary levels of performance and efficiency. The VersaStack solution is Cisco Application Centric Infrastructure (ACI) ready. Your IT team can build, deploy, secure, and maintain applications through a more agile framework. Cisco Intercloud Fabric capabilities help enable the creation of open and highly secure solutions for the hybrid cloud. These solutions accelerate your IT transformation while delivering dramatic improvements in operational efficiency and simplicity. Cisco and IBM are global leaders in the IT industry. The VersaStack solution gives you the opportunity to take advantage of integrated infrastructure solutions that are targeted at enterprise applications, analytics, and cloud solutions. The VersaStack solution is backed by Cisco Validated Designs (CVD) to provide faster delivery of applications, greater IT efficiency, and less risk. This IBM Redbooks® publication is aimed at experienced storage administrators who are tasked with deploying a VersaStack solution with Oracle Real Application Clusters (RAC) and IBM SpectrumTM Protect.

The Practical, Authoritative, 360-Degree Technical Guide to

Oracle Exadata: From Setup to Administration, Optimization, Tuning, and Troubleshooting The blazingly fast Oracle Exadata Database Machine is being embraced by thousands of large-scale users worldwide: by governments, the military, enterprise organizations, cloud service providers, and anyone who needs extreme performance. Now, Oracle Exadata Expert's Handbook provides authoritative guidance to running Oracle Exadata with maximum reliability. effectiveness, performance, and efficiency. Six renowned Oracle technology experts have brought together core technical information, experience, best practices, and insider tips in a concise reference. Covering both 11g and 12c versions of Oracle Exadata software, they deliver hands-on coverage of best practices, setup, migration, monitoring, administration, performance tuning, and troubleshooting. Whether you're an Oracle Exadata DBA, DMA, architect, or manager, you need these insights. Get a 360-degree overview of the Oracle Exadata Database Machine Efficiently deploy RAC within the Oracle Exadata ecosystem Fully leverage Storage Cell's extraordinary performance, via Offloading, Smart Scans, and Hybrid Columnar Compression Manage Exadata with OEM 12c: perform setup, configuration. asset/target discovery, and day-to-day administration Tune Oracle Exadata for even better performance Perform Exadata Backup/Recovery/DR with RMAN and Data Guard Migrate to Oracle Exadata from other platforms Use Oracle Exadata with the ZFS Storage Appliance Consolidate within the Exadata **Database Cloud**

Explaining how to use the powerful Oracle10g automatic features for simple database administration, this book has complete coverage for 10g Automatic Storage Management (ASM), 10g Automatic Workload Repository (AWR), Automatic Database Diagnostic Monitor (ADDM), Automatic SGA Management (ASM), and the SQL Tuning Advisor.

Demonstrated is how a non-Oracle person can quickly install and configure Oracle database 10g for automatic database administration and how, in less than a day, a complete Oracle10g database can be ready to use. Also explained is easy disk and file management with the 10g Automatic Storage Management and how the 10g Automatic Workload Repository collects important Oracle performance statistics. Linux Recipes for Oracle DBAs is an example-based book on managing Oracle Database in a Linux environment. Covering commonly used distributions such as Red Hat Enterprise Linux and Oracle Enterprise Linux, the book is written for database administrators who need to get work done and lack the luxury of curling up fireside with a stack of Linux documentation. The book is task-oriented: Look up the task to perform. See the solution. Read up on the details. Get the job done. Takes you directly from problem to solution Covers the "right" mix of Linux user and administration tasks for database administrators Respects your time by being succinct and to-the-point What you'll learn Execute Linux commands applicable to Oracle Database administration. Write shell scripts to automate critical DBA tasks. Monitor, tune, and optimize a Linux server to run Oracle Database. Perform Linux system administration tasks relevant to Oracle Database. Implement Oracle real application clusters on Linux. Implement Oracle automatic storage management on Linux. Remotely (and securely!) manage Oracle on Linux. Who this book is for Linux Recipes for Oracle DBAs is a book for Oracle database administrators who want to expertly operate Oracle databases on the Linux operating system. If you're new to Linux, or are migrating from a Unix platform, or just want detailed solutions for tasks that Oracle DBAs perform on Linux servers, this book is for you. Expert Oracle RAC 12c is a hands-on book helping you understand and implement Oracle Real Application Clusters $\frac{Page}{Page}$ 8/29

(RAC), and to reduce the total-cost-of-ownership (TCO) of a RAC database. As a seasoned professional, you are probably aware of the importance of understanding the technical details behind the RAC stack. This book provides deep understanding of RAC concepts and implementation details that you can apply toward your day-to-day operational practices. You'll be guided in troubleshooting and avoiding trouble in your installation. Successful RAC operation hinges upon a fast-performing network interconnect, and this book dedicates a chapter solely to that very important and easily overlooked topic. All four authors are experienced RAC engineers with a wealth of hard-won experience encountering and surmounting the challenges of running a RAC environment that delivers on its promise. In Expert Oracle RAC 12c they provide you a framework in which to avoid repeating their hard-won lessons. Their goal is for you to manage your own RAC environment with ease and expertise. Provides a deep conceptual understanding of RAC Provides best practices to implement RAC properly and match application workload Enables readers to troubleshoot RAC with ease What you'll learn Know when to apply RAC, and when not to Design applications to take advantage of RAC Troubleshoot and solve clusterware problems Manage database backup and recovery in RAC Stay on top of locking issues and deadlock detection Harness the performance from parallel processing in RAC Support your RAC environment with a healthy network interconnect Who this book is for Expert Oracle RAC 12c is for experienced Oracle Database Administrators (DBAs) who are ready to take the next step in their career by expanding their skill set to include building and managing Oracle Real Application Clusters (RAC). DBAs and architects who are in the process of implementing RAC can immensely benefit from this book. It's an excellent choice for DBAs to learn RAC conceptually, understand best practices, $\frac{PAG}{PAG}$

and become experts in troubleshooting RAC problems. Table of ContentsOverview of Oracle RAC Clusterware Management and Troubleshooting RAC Operational Practices RAC New Features Storage and ASM Practices Application Design Issues Managing and Optimizing a Complex RAC Environment Backup and Recovery in RAC Network Practices in RAC RAC Database Optimization Locks and Deadlocks Parallel Query in RAC Clusterware and Database Upgrades Oracle RAC One Node Expert Consolidation in Oracle Database 12c is your key to reducing data management costs and increasing data center efficiency. Consolidation and cloud computing are converging trends sweeping the industry. The same technologies enabling cloud computing enable consolidation as well, leading to savings on all fronts from the amount of power used for servers to the amount of floor space consumed to the number of administrators needed to manage an installation. Yet the consolidation process can be a long and winding road. Success requires planning, and consideration to the impacts on supporting infrastructure. Expert Consolidation in Oracle Database 12c guides you through planning and implementing a consolidated Oracle Database installation using the many new features built into the latest release of Oracle's database management system. You'll learn to identify candidates for consolidation and to recognize instances that are best left stand-alone. The book guides in working with clustered systems and ASM storage in the consolidated environment. Focus is given to Oracle Enterprise Manager 12c Cloud Control as a monitoring and management dashboard. Always the goal is to drive towards a cost-effective environment that is efficient both in technology and people. Focuses on the new consolidation features in Oracle Database 12c Helps you evaluate and correctly decide when to consolidate Leads to cost savings $\frac{10}{29}$

and improved data center efficiency

Pro Oracle Database 11g RAC on Linux provides full-lifecycle guidance on implementing Oracle Real Application Clusters in a Linux environment. Real Application Clusters. commonly abbreviated as RAC, is Oracle's industry-leading architecture for scalable and fault-tolerant databases. RAC allows you to scale up and down by simply adding and subtracting inexpensive Linux servers. Redundancy provided by those multiple, inexpensive servers is the basis for the failover and other fault-tolerance features that RAC provides. Written by authors well-known for their talent with RAC, Pro Oracle Database 11g RAC on Linux gives you a rock-solid and technically flawless foundation on which to build your RAC-management skills. Authors Julian Dyke and Steve Shaw share their hard-won experience in building RAC clusters, showing you how to build for success using the very latest Oracle technologies, such as Automatic Storage Management (ASM) and Oracle Clusterware. You'll learn to troubleshoot performance and other problems. You'll even learn how to correctly deploy RAC in a virtual-machine environment based upon Oracle VM, which is the only virtualization solution supported by Oracle Corporation. RAC is a complex and powerful technology. It demands expertise in its deployment. You can't just "wing it" in creating a RAC solution. Julian and Steve have earned the right to term themselves expert—in Pro Oracle Database 11g RAC on Linux, they offer a rigorous and technically-correct treatment of RAC that helps you build a solid foundation of expertise and achieve success. Rigorous and technically accurate content Complete coverage of RAC, from planning to implementation to rollout to ongoing maintenance and troubleshooting Up-to-date with the very latest RAC features Build and manage a scalable storage infrastructure with Oracle Automatic Storage Management Streamline data

management and provisioning using Oracle Automatic Storage Management (Oracle ASM) and the detailed information contained in this exclusive Oracle Press resource. Written by a team of database experts, Oracle Automatic Storage Management: Under-the-Hood & Practical Deployment Guide explains how to build and maintain a dynamic, highly available Oracle database storage environment. Inside, you'll learn how to configure storage for Oracle ASM, build disk groups, use data striping and mirroring, and optimize performance. You'll also learn how to ensure consistency across server and storage platforms, maximize data redundancy, and administer Oracle ASM from the command line. Manage Oracle ASM Instances and configure Oracle RDBMS instances to leverage Oracle ASM Define, discover, and manage disk storage under Oracle ASM Create external, normal-redundancy, and highredundancy disk groups Add and remove Oracle ASM storage without affecting RDMS instance availability Learn how Oracle ASM provides even I/O distribution Work with Oracle ASM directories, files, templates, and aliases Improve storage performance and integrity using the ASMLIB API Simplify system administration with the Oracle ASM command line interface Understand key internal Oracle ASM structures and algorithms

This Oracle 11g training course provides a step-by-step guide for configuring and using the Oracle Grid Infrastructure in a single server environment, and it forms the basis for expanding this infrastructure to a clustered server configuration. Advanced database and storage administration tasks are considered, including Oracle Restart and Automatic Storage Management (ASM). With this course you will learn about: Preparing a host system for the Grid Infrastructure and Oracle RDBMS installations and performing those installations; Preparing a host system for ASM storage

management, Partitioning and configuration of storage devices for ASM storage on both Linux and MS Windows servers: Utilizing Oracle Restart for automatic sequencing and restarting of Oracle software components; Obtain an introduction to Oracle High-Availability Services including the Server Control and Clusterware Control utilities; Review the Oracle server stack architecture including operating system virtualization and storage subsystem virtualization layers: Using ASM for storage of some or all database files, thereby providing a database-centric and optimized storage and volume manager; Exploiting ASM storage from the Database Configuration Assistant (DBCA), Database Upgrade Assistant (DBUA) and the Enterprise Manager (EM) interface; Administration of an ASM instance and management of ASM disk groups; Implement advanced storage capabilities including Intelligent Data Placement, Highcapacity disk drives and access control privileges; Manage storage systems using the ASM Configuration Assistant (ASMCA) and the ASM command-line interface (ASMCMD); Migrate a database from traditional file system storage to ASM storage; Monitoring performance and throughput of ASM devices. Master Oracle Real Application Clusters Maintain a dynamic enterprise computing infrastructure with expert instruction from an Oracle ACE. Oracle Database 11g Oracle Real Application Clusters Handbook, Second Edition has been fully revised and updated to cover the latest tools and features. Find out how to prepare your hardware, deploy Oracle Real Application Clusters, optimize data integrity, and integrate seamless failover protection. Troubleshooting, performance tuning, and application development are also discussed in this comprehensive Oracle Press guide. Install and configure Oracle Real Application Clusters Configure and manage diskgroups using Oracle Automatic Storage Management Work with services, voting disks, and Oracle

Clusterware Repository Look under the hood of the Cache Fusion and Global Resource Directory operations in Oracle Real Applications Clusters Explore the internal workings of backup and recovery in Oracle Real Application Clusters Employ workload balancing and the Transparent Application Failover feature of an Oracle database Get complete coverage of Stretch Clusters, also known as Metro Clusters Troubleshoot Oracle Clusterware using the most advanced diagnostics available Develop custom Oracle Real Application Clusters applications

ASM is a new and popular product introduced with Oracle Database 10g and provides the ideal storage solution for companies using Oracle. This comprehensive resource provides full details on Oracle ASM, Oracle's integrated file and volume management interface. Get full details on general operations, administration, best practices, and expert techniques. Oracle DBAs will be able to implement robust storage solutions with help from this useful guide. Master Oracle Data Guard 11g Provide superior data protection, availability, and disaster recovery using the tested techniques in this Oracle Press guide. Cowritten by a team of Oracle experts, Oracle Data Guard 11g Handbook provides a sound architectural foundation along with best practices for configuration, monitoring, maintenance, and troubleshooting. You will get full details on implementing deployment architectures to address requirements that extend beyond disaster recovery. This invaluable resource also includes a complete set of monitoring scripts available for download. Develop a disaster recovery plan for your Oracle database to meet your organization's requirements Configure and deploy Oracle Data Guard for your environment Tune and troubleshoot your physical and logical standby databases Implement the Oracle Data Guard Broker management framework Integrate with Oracle Grid Control Monitor your $\frac{1}{Page}$ 14/29

Oracle Data Guard environment Enable read-only services and disaster recovery with Oracle Active Data Guard Configure seamless database and application failover Minimize planned downtime using Oracle Data Guard switchover Handle backup and recovery with Oracle Recovery Manager

A Fully Integrated Study System for OCP Exam 1Z0-053 Prepare for the Oracle Certified Professional Oracle Database 11g: Administration II exam with help from this exclusive Oracle Press guide. In each chapter, you'll find challenging exercises, practice questions, a two-minute drill, and a chapter summary to highlight what you've learned. This authoritative guide will help you pass the test and serve as your essential on-the-job reference. Get complete coverage of all OCP objectives for exam 1Z0-053, including: Database structure and Oracle Automatic Storage Management Configuring database recoverability Oracle Recovery Manager (RMAN) Oracle Flashback Memory management techniques Database tuning advisors Disk space and resource management Configuring database diagnostics Administering the Oracle Scheduler Database globalization On the CD-ROM: One full practice exam that simulates the actual OCP exam Detailed answers and explanations Score report performance assessment tool Complete electronic book Bonus exam available free with online registration Proven Database Optimization Solutions? Fully Updated for Oracle Database 12c Release 2 Systematically identify and eliminate database performance problems with help from Oracle Certified Master Richard Niemiec. Filled with realworld case studies and best practices. Oracle Database 12c Release 2 Performance Tuning Tips and Techniques details the latest monitoring, troubleshooting, and optimization methods. Find out how to identify and fix bottlenecks on premises and in the cloud, configure storage devices, $\frac{Page}{Page}$ 15/29

execute effective queries, and develop bug-free SQL and PL/SQL code. Testing, reporting, and security enhancements are also covered in this Oracle Press guide. • Properly index and partition Oracle Database 12c Release 2 • Work effectively with Oracle Cloud, Oracle Exadata, and Oracle Enterprise Manager • Efficiently manage disk drives, ASM, RAID arrays, and memory • Tune queries with Oracle SQL hints and the Trace utility • Troubleshoot databases using V\$ views and X\$ tables • Create your first cloud database service and prepare for hybrid cloud • Generate reports using Oracle's Statspack and Automatic Workload Repository tools • Use sar, vmstat, and iostat to monitor operating system statistics

Oracle Performance Survival Guide A Systematic Approach to Database Optimization The fast, complete, start-to-finish guide to optimizing Oracle performance Oracle Performance Survival Guide offers a structured, systematic, start-to-finish methodology for optimizing Oracle performance as efficiently as possible. Leading Oracle expert Guy Harrison shows how to maximize your tuning investment by focusing on causes rather than symptoms, and by quickly identifying the areas that deliver the greatest "bang for the buck." Writing for DBAs and developers with all levels of experience, Harrison covers every area of Oracle performance management, from application design through SQL tuning, contention management through memory and physical IO management. He also presents up-to-the-minute guidance for optimizing the performance of the Oracle 11g Release 2. You'll start by mastering Oracle structured performance tuning principles and tools, including techniques for tracing and monitoring Oracle execution. Harrison illuminates the interaction between applications and databases, guides you through choosing tuning tools, and introduces upfront design techniques that lead to higher-performance applications. He $_{Page\ 16/29}^{Page\ 16/29}$

also presents a collection of downloadable scripts for reporting on all aspects of database performance. Coverage includes • "Tuning by layers," the most effective, highestvalue approach to Oracle performance optimization • Making the most of Oracle's core tools for tracing, monitoring, and diagnosing performance • Highly efficient database logical and physical design, indexing, transaction design, and API use • SQL and PL/SQL tuning, including the use of parallel SQL techniques • Minimizing contention for locks, latches, shared memory, and other database resources • Optimizing memory and physical disk IO • Tuning Real Application Cluster (RAC) databases guyharrison.net informit.com/ph Demystifying the power of the Oracle 12c database The Oracle database is the industry-leading relational database management system (RDMS) used from small companies to the world's largest enterprises alike for their most critical business and analytical processing. Oracle 12c includes industry leading enhancements to enable cloud computing and empowers users to manage both Big Data and traditional data structures faster and cheaper than ever before. Oracle 12c For Dummies is the perfect guide for a novice database administrator or an Oracle DBA who is new to Oracle 12c. The book covers what you need to know about Oracle 12c architecture, software tools, and how to successfully manage Oracle databases in the real world. Highlights the important features of Oracle 12c Explains how to create, populate, protect, tune, and troubleshoot a new Oracle database Covers advanced Oracle 12c technologies including Oracle Multitenant—the "pluggable database" concept—as well as several other key changes in this release Make the most of Oracle 12c's improved efficiency, stronger security, and simplified management capabilities with Oracle 12c For Dummies.

Annotation Oracle RAC or Real Application Clusters is a grid

computing solution that allows multiple nodes (servers) in a clustered system to mount and open a single database that resides on shared disk storage. Should a single system (node) fail, the database service will still be available on the remaining nodes. Oracle RAC is an integral part of the Oracle database setup. You have one database with multiple users accessing it, in real time. This book will enable DBAs to get their finger on the pulse of the Oracle 11g RAC environment quickly and easily. This book will cover all areas of the Oracle RAC environment and is indispensable if you are an Oracle DBA who is charged with configuring and implementing Oracle11g R1, with bonus R2 information included. This book presents a complete method for the configuration, installation, and design of Oracle 11g RAC, ultimately enabling rapid administration of Oracle 11g RAC environments. This practical handbook documents how to administer a complex Oracle 11g RAC environment. Packed with real world examples, expert tips and troubleshooting advice, the book begins by introducing the concept of Oracle RAC and High Availability. It then dives deep into the world of RAC configuration, installation and design, enabling you to support complex RAC environments for real world deployments. Chapters cover Oracle RAC and High Availability, Oracle 11g RAC Architecture, Oracle 11g RAC Installation, Automatic Storage Management, Troubleshooting, Workload Management and much more. By following the practical examples in this book, you will learn every concept of the RAC environment and how to successfully support complex Oracle 11g R1 and R2 RAC environments for various deployments within real world situations. This book is the updated release of our previous Oracle 11g R1/R2 Real Application Clusters Handbook. If you already own a copy of that Handbook, there is no need to upgrade to this book.

Oracle Database 12c running on Linux is available for deployment on IBM® LinuxONE. The enterprise-grade Linux on LinuxONE solution is designed to add value to Oracle Database solutions, including the new functions that are introduced in Oracle Database 12c. In this IBM Redbooks® publication, we explore the IBM and Oracle Alliance and describe how Oracle Database benefits from LinuxONE. We then explain how to set up Linux quests to install Oracle Database 12c. We also describe how to use the Oracle Enterprise Manager Cloud Control Agent to manage Oracle Database 12c Release 1. Additionally, we discuss encryption for Oracle using Oracle Transparent Data Encryption (TDE) on Oracle 12c Release 2. We also describe a successful consolidation project from sizing to migration, performance management topics, and high availability. Finally, we end with a chapter about surrounding Oracle with Open Source software. The audience for this publication includes database consultants, installers, administrators, and system programmers. This publication is not meant to replace Oracle documentation, but to supplement it with our experiences while installing and using Oracle products. A guide to the new features of Oracle Database 11g

A guide to the new features of Oracle Database 11g covers such topics as architectural changes, database administration upgrades, security enhancements, and programming innovations.

Filled with detailed examples and best practices, this Oracle Press guide explains how to set up a complete cloud-based storage system using Oracle Automatic Storage Management. Find out how to prepare

hardware, build disk groups, efficiently allocate storage space, and handle security. Guide to Oracle Automatic Storage Management shows how to monitor your system, maximize throughput, and ensure consistency across servers and clusters.

Oracle Exadata Recipes takes an example-based, problem/solution approach in showing how to size, install, configure, manage, monitor, optimize, and migrate Oracle database workloads on and to the Oracle Exadata Database Machine. Whether you're an Oracle Database administrator, Unix/Linux administrator, storage administrator, network administrator, or Oracle developer, Oracle Exadata Recipes provides effective and proven solutions to accomplish a wide variety of tasks on the Exadata Database Machine. You can feel confident using the reliable solutions that are demonstrated in this book in your enterprise Exadata environment. Managing Oracle Exadata is unlike managing a traditional Oracle database. Oracle's Exadata Database Machine is a pre-configured engineered system comprised of hardware and software, built to deliver extreme performance for Oracle Database workloads. Exadata delivers extreme performance by offering an optimally balanced hardware infrastructure with fast components at each layer of the engineered technology stack, as well as a unique set of Oracle software features designed to leverage the highperforming hardware infrastructure by reducing I/O demands. Let Oracle Exadata Recipes help you translate your existing Oracle Database knowledge into the exciting new growth area that is Oracle Exadata. Helps

extend your Oracle Database skillset to the fast-growing, Exadata platform Presents information on managing Exadata in a helpful, example-based format Clearly explains unique Exadata software and hardware features What you'll learn Install and configure Exadata Manage your Exadata hardware infrastructure Monitor and troubleshoot performance issues Manage smart scan and cell offload processing Take advantage of Hybrid Columnar Compression Deploy Smart Flash Cache and Smart Flash Logging Ensure the health of your Exadata environment Who this book is for Oracle Exadata Recipes is for Oracle Database administrators, Unix/Linux administrators, storage administrators, backup administrators, network administrators, and Oracle developers who want to quickly learn to develop effective and proven solutions without reading through a lengthy manual scrubbing for techniques. Readers in a hurry will appreciate the recipe format that sets up solutions to common tasks as the centerpiece of the book. Table of Contents Exadata Hardware Exadata Software How Oracle Works on Exadata Workload Qualification Sizing Exadata Preparing for Exadata Administration and Diagnostics Utilities Backup and Recovery Storage Administration Network Administration Patching and Upgrades Security Monitoring Exadata Storage Cells Host and Database Performance Monitoring Smart Scan and Cell Offload Hybrid Columnar Compression I/O Resource Management and Instance Caging Smart Flash Cache and Smart Flash Logging Storage Indexes Post-Installation Monitoring Tasks Post-Install Database Tasks

Expert Oracle RAC Performance Diagnostics and Tuning provides comprehensive coverage of the features, technology and principles for testing and tuning RAC databases. The book takes a deep look at optimizing RAC databases by following a methodical approach based on scientific analysis rather than using a speculative approach, twisting and turning knobs and gambling on the system. The book starts with the basic concepts of tuning methodology, capacity planning, and architecture. Author Murali Vallath then dissects the various tiers of the testing implementation, including the operating system, the network, the application, the storage, the instance, the database, and the grid infrastructure. He also introduces tools for performance optimization and thoroughly covers each aspect of the tuning process, using many real-world examples, analyses, and solutions from the field that provide you with a solid, practical, and replicable approach to tuning a RAC environment. The book concludes with troubleshooting guidance and guick reference of all the scripts used in the book. Expert Oracle RAC Performance Diagnostics and Tuning covers scenarios and details never discussed before in any other performance tuning books. If you have a RAC database, this book is a requirement. Get your copy today. Takes you through optimizing the various tiers of the RAC environment. Provides real life case studies, analysis and solutions from the field. Maps a methodical approach to testing, tuning and diagnosing the cluster Practical guide to RAC architecture for data base managers to manage Oracle9i clusters.

Oracle 10g Database Administrator II: Backup/Recovery uses the most current database release from Oracle to provide thorough coverage of an Oracle database through the day-to-day duties of a database administrator. This text drills down key tools and techniques for Oracle database backup, recovery and network administration and provides good preparation for the update Oracle certification exam, Database Fundamentals I (#1Z0-043). In addition to extensive review material, the end of chapter content also includes comprehensive coverage of the exam objectives and exam-like practice questions. This text is the perfect compliment to the Oracle 10g: Database Administrator: Implementation and Administration (DBA1) text and the 1Z0-042.

Grid architecture is Oracle's strategy for high-end computing and RAC is the stepping stone into this arena. This book focuses on current technology including all valid RAC features up through Oracle Database 10g Release 2, with a primary focus on deploying it in a highend grid environment. The book discusses this technology at length which users will find beneficial when researching, implementing or monitoring a RAC environment. The author covers workshop implementation of services and the distribution of workload across instances, with threshold definitions and the new load balancing algorithms. In addition it includes detailed discussions on ASM that complements the implementation of RAC in Oracle Grid strategy. The book also includes discussions on new Oracle Clusterware, its components and its integration with RAC. Oracle 10g

RAC focuses on RAC-specific topics including ASM, operating system configuration, installation and configuration of RAC and much more. Coverage includes network configuration for high availability, FAN, TAF, ONS, implementation of maximum availability architecture (MAA), EM Grid Control, AWR, ADDM and other performance-related tools. The author includes several scripts for performance tuning and implementation that the reader can use to configure a RAC environment either on a 2, 4, 8, 60 or 99 node configuration. Focuses on implementing, testing and tuning features of Real Application Clusters (RAC) database version 10g Release 2 Provides extensive coverage of usage, day-to-day functions and operations Includes tips and techniques such as script samples to illustrate various features of RAC A jumpstart into all the key features of 10g R2 RAC

IBM® is a Platinum level Partner in the Oracle Partner Network, which delivers the proven combination of industry insight, extensive real-world Oracle applications experience, deep technical skills, and high-performance servers and storage to create a complete business solution with a defined return on investment. From application selection, purchase, and implementation to upgrade and maintenance, we help organizations reduce the total cost of ownership and the complexity of managing their current and future applications environment while building a solid base for business growth. Oracle Database running on Linux is available for

deployment on IBM LinuxONE by using Redhat Enterprise Linux (RHEL) or SUSE Linux Enterprise Server (SLES). This enterprise-grade solution is designed to add value to Oracle Database solutions. This IBM Redpaper® publication focuses on accepted good practices for installing and getting started by using Oracle Database, which provides you with an environment that is optimized for performance, scalability, flexibility, and ease-of-management.

This Oracle Press guide illuminates and details the revolutionary new features and tools available in Oracle Database 12c.

Oracle's Enterprise Manager Grid Control is recognized as the IT Industry's leading Oracle database administration and management tool. It is unrivalled in its ability to monitor, manage, maintain and report on entire enterprise grids that comprise hundreds (if not thousands) of Oracle databases and servers following an approach that is consistent and repeatable. However, Enterprise Manager Grid Control may seem daunting even to the most advanced Oracle Administrator. The problem is you know about the power of Enterprise Manager but how do you unleash that power amongst what initially appears to be a maze of GUI-based screens that feature a myriad of links to reports and management tasks that in turn lead you to even more reports and management tasks? This book

shows you how to unleash that power. Based on the Author's considerable and practical Oracle database and Enterprise Manager Grid Control experience you will learn through illustrated examples how to create and schedule RMAN backups, generate Data Guard Standbys, clone databases and Oracle Homes and patch databases across hundreds and thousands of databases. You will learn how you can unlock the power of the Enterprise Manager Grid Control Packs, PlugIns and Connectors to simplify your database administration across your company's database network, as also the management and monitoring of important Service Level Agreements (SLAs), and the nuances of all important real-time change control using Enterprise Manager. There are other books on the market that describe how to install and configure Enterprise Manager but until now they haven't explained using a simple and illustrated approach how to get the most out of your Enterprise Manager. This book does just that. Covering all aspects of Oracle disk I/O tuning, this book explores disk performance, RAID management, Oracle data file performance, and Oracle data segment internals. Also explored is physical disk I/O, which includes disk device internals, detecting disk bottlenecks, disk organization techniques, and disk striping and disk load balancing. Highlighted are RAID and Oracle performance as well as techniques for effective use Page 26/29

of RAID with Oracle. Additionally, Oracle data file internals are considered and how to use multiple data block sizes to detect and repair Oracle data segment bottlenecks and segment waits is described. Oracle segment management is illustrated, and the effective use of Oracle segment partitioning, segment slot internals, and monitoring segment I/O is explained.

This IBM® Redbooks® publication provides information for attaching the IBM XIV® Storage System to various host operating system platforms, including IBM i. The book provides information and references for combining the XIV Storage System with other storage platforms, host servers, or gateways, including IBM N Series, and IBM ProtecTIER®. It is intended for administrators and architects of enterprise storage systems. The book also addresses using the XIV storage with databases and other storage-oriented application software that include: IBM DB2® VMware ESX Microsoft HyperV SAP The goal is to give an overview of the versatility and compatibility of the XIV Storage System with various platforms and environments. The information that is presented here is not meant as a replacement or substitute for the Host Attachment kit publications. It is meant as a complement and to provide readers with usage guidance and practical illustrations.

Leverage the New and Improved Features of Oracle

Database 12c Written by Oracle experts Bob Bryla and Robert G. Freeman, this Oracle Press guide describes the myriad new and enhanced capabilities available in the latest Oracle Database release. Inside, you'll find everything you need to know to get up and running quickly on Oracle Database 12c Release 2. Supported by contributions from Oracle expert Eric Yen, Oracle Database 12c Release 2 New Features offers detailed coverage of: • Installing Oracle Database 12c and Grid Infrastructure • Architectural changes, such as Oracle Multitenant • The most current information on upgrading and migrating to Oracle Database 12c • The pre-upgrade information tool and parallel processing for database upgrades • Oracle Real Application Clusters new features, such as Oracle Flex Cluster, Oracle Flex Automatic Storage Management, and Oracle Automatic Storage Management Cluster File System • Enhanced and new online operations: tables, indexes, and PDBs • Oracle RMAN enhancements, including crossplatform backup and recovery • Oracle Data Guard improvements, such as Fast Sync, and Oracle Active Data Guard new features, such as Far Sync • SQL, PL/SQL, DML, and DDL new features • Improvements to partitioning manageability, performance, and availability • Advanced business intelligence and data warehousing capabilities • Security enhancements, including privileges Page 28/29

analysis, data redaction, and new administrativelevel privileges • Manageability, performance, and optimization improvements

Oracle Automatic Storage Management: Under-the-Hood & Practical Deployment GuideMcGraw Hill Professional

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