Oracle

FlexPod

NetApp
March 25, 2024

This PDF was generated from https://docs.netapp.com/us-en/flexpod/ent-db/fpd-oracle-deploy.html on March 25, 2024. Always check docs.netapp.com for the latest.

Table of Contents

Oracle . . . 1
- FlexPod Datacenter with Oracle 19c RAC Databases on Cisco UCS and NetApp AFF with NVMe over FibreChannel . . . 1
- FlexPod Datacenter with Oracle RAC Databases on Cisco UCS and NetApp AFF A-Series . . . 1
- FlexPod Datacenter with Oracle RAC on Oracle Linux . . . 2
- FlexPod Datacenter with Oracle RAC Databases on Cisco UCS and NetApp AFF A-Series . . . 2

Oracle

FlexPod Datacenter with Oracle 19c RAC Databases on Cisco UCS and NetApp AFF with NVMe over FibreChannel

Tushar Patel, Cisco
Hardikkumar Vyas, Cisco

Cisco Validated Designs (CVDs) consist of systems and solutions that are designed, tested, and documented to facilitate and improve customer deployments. This CVD document describes the Cisco and NetApp FlexPod solution, which is a validated approach for deploying a highly available Oracle RAC Database environment. Cisco and NetApp have validated the reference architecture with various database workloads, like OLTP (Online Transactional Processing) and Data Warehouse in Cisco's UCS Datacenter lab. This document shows the hardware and software configuration of the components involved and the results of various tests. Additionally, the document offers a framework for implementing Oracle RAC Databases on NVMe/FC using Cisco UCS and NetApp Storage System.

FlexPod Datacenter with Oracle 19c RAC Databases on Cisco UCS and NetApp AFF with NVMe over FibreChannel

FlexPod Datacenter with Oracle RAC Databases on Cisco UCS and NetApp AFF A-Series

Tushar Patel, Cisco
Hardikkumar Vyas, Cisco

Cisco Validated Designs include systems and solutions that are designed, tested, and documented to facilitate and improve customer deployments. These designs incorporate a wide range of technologies and products into a portfolio of solutions that have been developed to address the business needs of customers. Cisco and NetApp have partnered to deliver FlexPod, which serves as the foundation for a variety of workloads and enables efficient architectural designs that are based on customer requirements. A FlexPod solution is a validated approach for deploying Cisco and NetApp technologies as a shared cloud infrastructure.

The FlexPod Datacenter with NetApp All Flash AFF system is a converged infrastructure platform that combines best-of-breed technologies from Cisco and NetApp into a powerful converged platform for enterprise applications. Cisco and NetApp work closely with Oracle to support the most demanding transactional and response-time-sensitive databases required by today's businesses.

This Cisco Validated Design (CVD) describes the reference FlexPod Datacenter architecture using Cisco UCS and NetApp All Flash AFF Storage for deploying a highly available Oracle RAC Database environment. This document shows the hardware and software configuration of the components involved and results of various tests. Also, this document offers implementation and best practices guidance using Cisco UCS Compute Servers, Cisco Fabric Interconnect Switches, Cisco MDS Switches, Cisco Nexus Switches, NetApp AFF

Storage and Oracle RAC Database.

FlexPod Datacenter with Oracle RAC Databases on Cisco UCS and NetApp AFF A-Series

FlexPod Datacenter with Oracle RAC on Oracle Linux

Tushar Patel, Cisco
Niranjan Mohapatra, Cisco
John Elliott, NetApp

The Cisco Unified Computing System (Cisco UCS) is a next-generation data center platform that unites computing, network, storage access, and virtualization into a single cohesive system. Cisco UCS is an ideal platform for the architecture of mission-critical database workloads. The combination of Cisco UCS platform, NetApp storage, and Oracle Real Application Cluster (RAC) architecture can accelerate your IT transformation by enabling faster deployments, greater flexibility of choice, efficiency, and lower risk. This Cisco Validated Design (CVD) highlights a flexible, multitenant, high performance and resilient FlexPod reference architecture featuring the Oracle 12c RAC Database.

The FlexPod platform, developed by NetApp and Cisco, is a flexible, integrated infrastructure solution that delivers pre-validated storage, networking, and server technologies. It's designed to increase IT responsiveness to business demands while reducing the overall cost of computing. Think maximum uptime, minimal risk. FlexPod components are integrated and standardized to help you achieve timely, repeatable, consistent deployments. You can plan with accuracy the power, floor space, usable capacity, performance, and cost of each FlexPod deployment.

FlexPod embraces the latest technology and efficiently simplifies the data center workloads that redefine the way IT delivers value:

- Take advantage of the capability of NetApp FAS Hybrid Arrays with Flash Pool flash to provide the capability to deploy the precise proportion of flash to spinning media for your specific application or environment.
- Leverage a pre-validated platform to minimize business disruption and improve IT agility and reduce deployment time from months to weeks.
- Slash administration time and total cost of ownership (TCO) by 50 percent.
- Meet or exceed constantly expanding hardware performance demands for data center workloads.

FlexPod Datacenter with Oracle RAC on Oracle Linux

FlexPod Datacenter with Oracle RAC Databases on Cisco UCS and NetApp AFF A-Series

Tushar Patel, Cisco
Hardikkumar Vyas, Cisco

The FlexPod Datacenter with NetApp All Flash AFF system is a converged infrastructure platform that combines best-of-breed technologies from Cisco and NetApp into a powerful converged platform for enterprise applications. Cisco and NetApp work closely with Oracle to support the most demanding transactional and response-time-sensitive

databases required by today’s businesses.

This Cisco Validated Design (CVD) describes the reference FlexPod Datacenter architecture using Cisco UCS and NetApp All Flash AFF Storage for deploying a highly available Oracle RAC Database environment. This document shows the hardware and software configuration of the components involved and the results of various tests. Also, this document offers implementation and best practices guidance using Cisco UCS Compute Servers, Cisco Fabric Interconnect Switches, Cisco MDS Switches, Cisco Nexus Switches, NetApp AFF Storage and Oracle RAC Database.

FlexPod Datacenter with Oracle RAC Databases on Cisco UCS and NetApp AFF A-Series

Copyright information

Copyright © 2024 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

Trademark information

NETAPP, the NETAPP logo, and the marks listed at http://www.netapp.com/TM are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.