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Exam : **D-PSC-MN-01**

Title : Dell PowerScale Maintenance

Version : DEMO

1.A customer notices a platform engineer intentionally leaving a 1U gap underneath a Dell PowerScale H400 chassis during racking and stacking What is the purpose of the gap?
A. Backend Ethernet switch
B. Cable management tray
C. Location to install archive nodes
D. Required blanking panel for node separation
Answer: B
Explanation:
During the installation of Dell PowerScale H400 nodes, it is standard practice to leave a 1U gap underneath the chassis to accommodate the Cable Management Tray (CMT). The Cable Management Tray is essential for organizing and supporting the network and power cables connected to the node. Proper cable management ensures that cables are neatly routed, reduces stress on the connectors, and prevents obstruction of airflow within the rack.
According to the Dell PowerScale Hardware Installation and Planning Guide, the inclusion of a Cable Management Tray improves serviceability and maintains optimal airflow by preventing cables from hanging in front of the equipment or blocking ventilation paths. By intentionally leaving a 1U gap, the platform engineer ensures that the Cable Management Tray can be installed without interfering with the node's operation or the rack's structural integrity.
Reference: Dell PowerScale Hardware Installation and Planning Guide
Best Practices for Cable Management in Dell PowerScale Systems

2.Which cluster interface provides the most detailed network traffic statistics and enables file and directory operations on the cluster?
A. Web console
B. Serial console
C. Platform API
D. CLI
Answer: D
Explanation:
The Command Line Interface (CLI) provides the most comprehensive and detailed interaction with a Dell PowerScale cluster. Through the CLI, administrators have access to a wide range of commands that offer detailed network traffic statistics, system performance metrics, and the ability to perform granular file and directory operations.
While the Web console offers a user-friendly graphical interface for cluster management, it may not provide the same level of detail or the full set of functionalities available in the CLI. The Serial console is primarily used for initial setup or troubleshooting when network access is unavailable. The Platform API allows for programmatic access but requires additional development effort to utilize. The CLI is accessible via SSH and provides tools like isi statistics for detailed performance metrics and isi commands for file system operations. This makes it the most powerful interface for administrators needing in-depth information and control over the cluster.
Reference: Dell PowerScale OneFS Command-Line Administration Guide Dell PowerScale OneFS CLI Reference Guide

3.A platform engineer is connecting a new Dell PowerScale F600 node to the frontend switch in an

existing cluster with legacy nodes.
How should the network cables be connected?
A. From the PCIe slot 1 to the frontend Ethernet switch
B. From the PCIe slot 3 to the frontend Ethernet switch
C. From the PCIe slot 1 to the frontend InfiniBand switch
D. From the PCIe slot 3 to the frontend InfiniBand switch
Answer: A
Explanation:
When connecting a Dell PowerScale F600 node to the frontend network in an existing cluster with legacy nodes, it's important to follow the correct cabling practices to ensure network compatibility and optimal performance.
The F600 node uses PCIe slot 1 for frontend (client) network connections. This slot supports Ethernet network interfaces that handle client traffic. PCIe slot 3 is typically reserved for backend (cluster interconnect) networking. Since the cluster includes legacy nodes, and assuming they use Ethernet for frontend connectivity, the F600 should connect its frontend network interfaces from PCIe slot 1 to the frontend Ethernet switch.
Connecting the cables from PCIe slot 1 to the frontend Ethernet switch ensures that the F600 node properly communicates with clients and integrates seamlessly into the existing cluster network infrastructure.
Reference: Dell PowerScale F600 Technical Specifications Guide
Dell PowerScale Network Configuration Guide
Best Practices for Adding Nodes to an Existing Dell PowerScale Cluster

4.A platform engineer connected to a Dell PowerScale F600 node using a serial connection. The session is unresponsive.
What action must the engineer take?
A. Restart the server using the front panel power button.
B. Check the settings of the serial connection.
C. Replace the serial cable with a new one.
D. Update the node firmware to the latest release
Answer: B
Explanation:
When a platform engineer connects to a Dell PowerScale F600 node using a serial connection and the session is unresponsive, the first action should be to check the settings of the serial connection. Serial communication requires specific configuration parameters to establish a successful connection. An incorrect setting can result in an unresponsive session.
The standard serial connection settings for Dell PowerScale nodes are:
Baud Rate: 115200
Data Bits: 8
Parity: None
Stop Bits: 1
Flow Control: None
Steps to resolve the issue:
Verify Serial Port Configuration:

Open your terminal emulator software (e.g., PuTTY, Tera Term). Check that the serial port settings match the required parameters. Confirm Physical Connections:
Ensure that the serial cable is securely connected to both the laptop and the node's serial port.
Test the Serial Cable:
If possible, test the cable with another device to rule out a faulty cable.
Restarting the server or updating firmware is unnecessary at this stage and could introduce additional issues. Replacing the serial cable should only be considered after confirming that the settings and connections are correct.
Reference: Dell PowerScale Hardware Installation and Planning Guide – Serial Connection Settings
Dell PowerScale OneFS CLI Administration Guide – Accessing the Cluster Through a Serial Connection
Dell Knowledge Base Article – Troubleshooting Serial Console Access

5.DRAG DROP
A platform engineer is creating a Dell PowerScale cluster using the Configuration Wizard. They have selected the Create a new cluster option.
What Is the correct sequence of steps to create the cluster?

Steps	Correct order	
Configure an external network.	1	
Configure the internal network.	2	
Configure the cluster name.	3	
Accept the End User License Agreement.	4	
Configure the cluster join mode.	5	

Answer:

Steps	Correct order	
Configure an external network.	1	Accept the End User License Agreement.
Configure the internal network.	2	Configure the cluster name.
Configure the cluster name.	3	Configure the cluster join mode.
Accept the End User License Agreement.	4	Configure the internal network.
Configure the cluster join mode.	5	Configure an external network.

Explanation:
The correct sequence is:
Accept End User License Agreement
Configure cluster name
Configure cluster join mode
Configure internal network
Configure external network
When creating a new Dell PowerScale cluster using the Configuration Wizard, the steps must be performed in a specific sequence to ensure proper setup and functionality. Below is the detailed order of the steps with explanations and references to Dell PowerScale documentation.
1. Accept End User License Agreement Purpose:
Before any configuration can begin, you must accept the End User License Agreement (EULA) to comply with legal requirements and proceed with the cluster setup.

Action:
Review the EULA presented in the Configuration Wizard. Select the option to accept the terms and conditions. Dell PowerScale
Reference: Dell EMC PowerScale OneFS Installation Guide Chapter: Initial Configuration
The Configuration Wizard begins by displaying the EULA, which must be accepted to continue. Best Practices:
Carefully read the EULA to understand your rights and obligations.
2. Configure Cluster Name
Purpose:
Assigning a cluster name is essential for identification and management purposes within your network environment.
Action:
Enter a unique and descriptive name for the cluster when prompted.
Dell PowerScale
Reference: Dell EMC PowerScale OneFS Installation Guide
Section: Configuring Cluster Settings
After accepting the EULA, the wizard prompts for cluster-specific settings, starting with the cluster name.
Best Practices:
Use a naming convention that aligns with your organization's standards.
Ensure the cluster name is DNS-resolvable if necessary.
3. Configure Cluster Join Mode Purpose:
Determine whether to create a new cluster or join an existing one.
Since you are creating a new cluster, you need to select the appropriate join mode. Action:
Choose "Create a new cluster" from the available options. Dell PowerScale
Reference: Dell EMC PowerScale OneFS Installation Guide Section: Cluster Creation Options
The wizard asks whether to create a new cluster or join an existing one.
Best Practices:
Verify that all nodes intended for the cluster are correctly cabled and powered on.
4. Configure Internal Network
Purpose:
Set up the internal networking (back-end network) that enables communication between nodes within the cluster.
Critical for cluster operations, data replication, and management traffic.
Action:
Configure settings for internal interfaces int-a and int-b.
Assign IP address ranges and netmasks as required.
Dell PowerScale
Reference: Dell EMC PowerScale Networking Configuration Guide
Chapter: Configuring Internal Networks
Details on setting up the internal network interfaces during cluster creation.
Best Practices:
Use separate subnets for int-a and int-b to enhance redundancy.
Ensure that the internal network is isolated from external networks for security.
5. Configure External Network Purpose:

Establish the external networking (front-end network) that allows clients and services to access the cluster.
Action:
Configure settings for external network interfaces.
Assign IP addresses, netmasks, gateways, and DNS information. Dell PowerScale
Reference: Dell EMC PowerScale Networking Configuration Guide
Chapter: Configuring External Networks
Provides guidance on setting up external interfaces after internal networking is configured.
Best Practices:
Plan IP addressing to avoid conflicts within your network.
Configure SmartConnect zones if required for load balancing and failover.
Additional Notes:
Sequence Importance:
Following this sequence ensures that foundational settings are established before dependent configurations.
For example, internal networking must be configured before external networking to ensure proper node communication.
Validation and Testing:
After completing the Configuration Wizard, validate the cluster setup by checking node status and network connectivity.
Use the OneFS web administration interface or CLI commands to verify configurations.
Reference to Dell PowerScale Documentation:
Dell EMC PowerScale OneFS Installation Guide
Provides step-by-step instructions for initial cluster setup.
Dell EMC PowerScale Networking Configuration Guide
Offers detailed information on networking configurations and best practices.
Dell EMC PowerScale OneFS Administration Guide
Useful for advanced configurations and cluster management post-installation.
Conclusion:
By following the sequence outlined above, the platform engineer can successfully create a new Dell PowerScale cluster using the Configuration Wizard. Each step builds upon the previous one, ensuring a robust and properly configured cluster ready for operation.