**Document Created by Dinesh Kumar and Rahul Rawal**

1. **To check the Version of Data Domain**

**Command – system show version**

**OUTPUT**

Data Domain OS 7.3.0.10-675769

**Graphical Status:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **R** | **Y** | **G** | **Detailed Report** | **Formula** |
| If no output | NA | Any output | OS Version | Output is 100 and no output is 0. |

**Detail Status:**

Add header as given below and Display “DD OS Version” details.

**Example:**

**Command : system show version**

**OUTPUT**

Header : OS Version  
Data Domain OS 7.3.0.10-675769

Value :

Success – When Command is successful and collected output

Failure - When Command is not successful

1. **To check the Serial Number of Data Domain –**

**Command – system show serial**

**OUTPUT**

Serial number: CKM00140100542

**Graphical Status:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **R** | **Y** | **G** | **Detailed Report** | **Formula** |
| If no output | NA | Any output | OS Version | Output is 100 and no output is 0. |

**Detail Status:**

Add header as given below and Display “DD Serial” details.

**Example:**

**Command : system show serial**

**OUTPUT**

Header : SN  
Serial number: CKM00140100542

Value :

Success – When Command is successful and collected output

Failure - When Command is not successful

1. **Data Domain Space Utilization -- Active**

**Command :** df -h

**OUTPUT :**

**Active Tier:**

**Resource Size GiB Used GiB Avail GiB Use% Cleanable GiB\***

**---------------- -------- ---------- --------- ---- --------------**

**/data: pre-comp - 13115495.0 - - -**

**/data: post-comp 773324.6 487647.6 285677.0 63% 8357.6**

**/ddvar 29.5 13.6 14.4 49% -**

**/ddvar/core 338.6 0.5 320.9 0% -**

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**\* Estimated based on last cleaning of 2022/07/06 09:11:08. Note:- Check “gsan,MCS,EMS,Backup scheduler, dtlt” are “up”.**

**Output Should have –**

**/data: post-comp 773324.6 487647.6 285677.0 63% 8357.6**

**Graphical Status:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **R** | **Y** | **G** | **Detailed Report** | **Formula** |
| Use%>90% | Use%>85% and <90% | Use%<85% | Data:post-comp Use % | Data Domain Space utilization |

Value : Used Gib/ Total Gib

**Detail Status:**

Add header as given below and Display “Capacity Status” details.

**Example :**

**Active Tier:**

**Resource Size GiB Used GiB Avail GiB Use% Cleanable GiB\***

**/data: post-comp 773324.6 487647.6 285677.0 63% 8357.6**

1. **Data Domain Cleaning status :-**

**Command : filesys clean status**

**OUTPUT :**

**filesys clean status**

**Cleaning finished at 2022/07/06 09:11:08.**

**Note** : If status contain anything other than “**Cleaning finished**” or “**Cleaning running**” then status will be considered as failed

**Graphical Status:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **R** | **Y** | **G** | **Detailed Report** | **Formula** |
| Status other than Cleaning failed | NA | Cleaning finished/cleaning running | Cleaning status | Green is 100 and Red is 0 |

**Detail Status:**

Add header as given below and Display “Failed cleaning” details.

**Example:**

**Command : filesys clean status**

**OUTPUT :**

**filesys clean status**

**Failure:**

**Cleaning failed at 2022/07/06 09:11:08.**

**Or**

**Success :**

**Cleaning finished at 2022/07/05 23:27:10.**

**Or**

**Cleaning started at 2022/07/05 06:00:01: phase 12 of 12 (summary)**

**47.3% complete, 181426 GiB free; time: phase 2:32:33, total 58:49:14**

Value :

Success – Cleaning is success

Failure - Cleaning is Failed

1. **Data Domain Cleaning Schedule :-**

**Command – filesys clean show sched**

**OUTPUT –**

Filesystem cleaning is scheduled to run "Sun, Tue, Fri" at "0600".

**Graphical Status:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **R** | **Y** | **G** | **Detailed Report** | **Formula** |
| IF no output |  | Any Output | Cleaning Schedule | Any Output = 100. No output = 0. |

**Detail Status:**

Add header as given below and Display “failed disk” details.

**Example:**

**Cleaning Schedule**

Filesystem cleaning is scheduled to run "Sun, Tue, Fri" at "0600".

Value :

Success – Cleaning is Scheduled

Failure - Cleaning is Not scheduled

1. **Data Domain Disk failure status ( > 30 Min ) :- Status equal to “Waiting-Queued”**

**Command : disk show state**

**OUTPUT :**

**Enclosure Disk**

**Row(disk-id) 1 2 3 4 5 6 7 8 9 10 11 12**

**-------------- -------------------------------------**

**1 F . . .**

**2 |--------|--------|--------|--------|**

**| Pack 1 | Pack 2 | Pack 3 | Pack 4 |**

**E(49-60) |. . . |. . s |. . . |. . . |**

**D(37-48) |. . . |. . . |. . . |F . . |**

**C(25-36) |. . . |. . . |. . . |. . . |**

**B(13-24) |. . . |. . . |. . . |. . . |**

**A( 1-12) |. . . |. . F |. F . |. . . |**

**|--------|--------|--------|--------|**

**3 |--------|--------|--------|--------|**

**| Pack 1 | Pack 2 | Pack 3 | Pack 4 |**

**E(49-60) |. . . |. . . |. . . |- - - |**

**D(37-48) |. . . |. . . |. . . |- - - |**

**C(25-36) |. . . |. . . |. . . |- - - |**

**B(13-24) |s . . |. . . |. . . |- - - |**

**A( 1-12) |. s . |s . . |. . . |- - - |**

**|--------|--------|--------|--------|**

**4 |--------|--------|--------|--------|**

**| Pack 1 | Pack 2 | Pack 3 | Pack 4 |**

**E(49-60) |. . . |. . . |. . s |s . . |**

**D(37-48) |s . . |. . . |. . . |. . . |**

**C(25-36) |. s . |. . . |. . . |. . . |**

**B(13-24) |. . . |. . . |. . . |. . . |**

**A( 1-12) |. . . |. . . |. . . |. . . |**

**|--------|--------|--------|--------|**

**5 |--------|--------|--------|--------|**

**| Pack 1 | Pack 2 | Pack 3 | Pack 4 |**

**E(49-60) |. . . |. . s |. . . |. . . |**

**D(37-48) |. . . |. . . |. . . |. . . |**

**C(25-36) |. . . |. s . |. . . |. . . |**

**B(13-24) |. . . |. . . |. . s |. . . |**

**A( 1-12) |. . . |. . . |. . . |. F . |**

**|--------|--------|--------|--------|**

**6 |--------|--------|--------|--------|**

**| Pack 1 | Pack 2 | Pack 3 | Pack 4 |**

**E(49-60) |. . . |. . s |. . s |- - - |**

**D(37-48) |. . . |. . . |. . . |- - - |**

**C(25-36) |. . s |. . . |. . . |- - - |**

**B(13-24) |. . . |. . . |. . . |- - - |**

**A( 1-12) |. . . |. . . |. . . |- - - |**

**|--------|--------|--------|--------|**

**-------------- -------------------------------------**

**Legend State Count**

**------ ------------------- -----**

**. In Use Disks 255**

**s Spare Disks 14**

**F Failed Disks 5**

**- Not Installed Disks 30**

**------ ------------------- -----**

**Total 274 disks**

**Disk Disks Progress Remaining**

**Group Reconstructing (%) (minutes)**

**----- -------------- -------- ---------**

**dg0 (1 pending) n/a n/a**

**----- -------------- -------- ---------**

**Formula :-** Failed disk count

**Graphical Status:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **R** | **Y** | **G** | **Detailed Report** | **Formula** |
| >=1 |  | 0 | Disk status | Failed disk count/Total disk count |

**Detail Status:**

Add header as given below and Display “failed disk” details.

**Example:**

**Legend State Count**

**------ ------------------- -----**

**. In Use Disks 255**

**s Spare Disks 14**

**F Failed Disks 5**

**- Not Installed Disks 30**

**Value:**

**Failed Disks / Total Disks**

1. **Active alert on Data Domain**

**Command : alerts show current**

**OUTPUT :**

**Id Post Time Severity Class Object Message**

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**p0-2693 Fri Jan 28 01:32:01 2022 ERROR SystemMaintenance EVT-SMTOOL-00002: Error communicating with ESRS gateway.**

**Formula :-** Long running Backup Count/Total Backup Count

**Graphical Status:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **R** | **Y** | **G** | **Detailed Report** | **Formula** |
| 1>= |  | 0 | Data Domain alert | Count of the alert |

**Detail Status:**

**Example:** Add header as given below and Display Severity.

**Id Post Time Severity Class Object Message**

**------- ------------------------ -------- ----------------- ------------------- ------------------------------------------------------------------------**

**p0-2693 Fri Jan 28 01:32:01 2022 ERROR SystemMaintenance EVT-SMTOOL-00002: Error communicating with ESRS gateway.**

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**UCMS ID: 65707**

**Version: 1**

**Submitter's Email: rrawal5@dxc.com**

**Submitter's Name: Rahul Rawal**

**Script Contact/Owner Name: Anand Vardhan**

**Script Contact/Owner Email: a.chintalapudi@dxc.com**

**Developer's Email: a.chintalapudi@dxc.com**

**Platform: Backup**

**Operating System(s): Unix**

**Type: PowerShell**

**Integrations: -**

**Makes Changes To Server? No**

**Folder Structure:**

**Password Encrypted: Yes**

**Summary of the Script/Solution:**

**To get the output of multiple health check commands from multiple DDs simultaneously.**

**Script Reusable to Other Accounts: YES**

## PREREQUISITES

* Script Hosting System should have powershell version 3.1 and above.
* WINRM service should be enabled on the Hosting system.
* Automation user should have necessary permission to execute all backup related commands

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**Running the Script:**

**1. Create-Credential Script:**

**1. Input the Servername/IPaddress, username, Password in credential.csv file.**

**2. Run create-credential.bat, which creates the encrypted password files with ".xml" extension for all the servers in credential.csv.**

**2. Get-DDCapacityReport Script:**

**1. Run Get-DataDomainStatus.bat, which will create the report and send mail.**

**3. config.json Parameters:**

**1. SendMail : Provide Yes or No to send the mail.**

**2. Smtpserver: Provide smtp details.**

**3. To : Provide To address. If multiple are there seperate by ";".**

**eg: "TO1@dxc.com;TO2@dxxc.com"**

**4. CC : Provide CC. If none available keep it blank. If multiple are there seperate by ";".**

**eg: "" or "CC1@dxc.com;CC2@dxxc.com"**

**Note:**

**1. If passwords are changed please delete all ".xml" files and run create-credential.bat.**

**2. Either encrypted password files can be generated by running credential script or directly run**

**Get-DataDomainStatus.bat which asks the password foreach server and creates the files.**

**Currently the script is in initial phase and we would like to create a dashboard before applying to other accounts.**