



References

Data Center Automation Premium 2017.05

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Table of Contents

1	Legal Notices	2
2	References.....	6
3	Reports	6
3.1	Related topics	7
3.2	Compliance Job History	7
3.2.1	Prerequisites for displaying meaningful data	7
3.2.2	User prompt input.....	7
3.2.3	Sample.....	7
3.2.3.1	Related topics	8
3.3	Policy Compliance Details.....	8
3.3.1	Prerequisite for displaying meaningful data	8
3.3.2	User prompt inputs.....	8
3.3.3	Sample.....	9
3.3.3.1	Related topics	9
3.4	Policy Compliance Summary	9
3.4.1	Prerequisite for displaying meaningful data	10
3.4.2	User prompt input.....	10
3.4.3	Sample.....	10
3.4.3.1	Related topics	10
3.5	Resource Compliance Details.....	11
3.5.1	Prerequisite for displaying meaningful data	11
3.5.2	User prompt input.....	11
3.5.3	Sample.....	11
3.5.3.1	Related topics	12
3.6	SLO Conformance Summary	12
3.6.1	Prerequisite for displaying meaningful data	12
3.6.2	User prompt input.....	12
3.6.3	Sample.....	13
3.6.3.1	Related topics	13
4	Reports universe	13

4.1	Universe elements	13
4.2	Universe descriptions	14
4.2.1	DCA inventory.....	14
4.2.1.1	DATETIME	14
4.2.1.2	Benchmark	15
4.2.1.3	Requirement.....	16
4.2.1.4	Rule	16
4.2.1.5	Control.....	17
4.2.1.6	Policy	17
4.2.1.7	Deployment.....	18
4.2.1.8	Resource group	18
4.2.1.9	Resource	19
4.2.2	DCA Compliance.....	19
4.2.2.1	DATETIME	19
4.2.2.2	Compliance Details	20
4.2.2.3	Requirement.....	26
4.2.2.4	Rule	26
4.2.2.5	Control.....	26
4.2.2.6	Deployment.....	27
4.2.2.7	Resource.....	27
4.2.3	DCA ADHOC Compliance.....	29
4.2.3.1	Adhoc Compliance Details.....	29
4.2.3.2	Requirement.....	30
4.2.3.3	Rule	31
4.2.3.4	Control.....	31
4.2.3.5	Resource.....	32
4.2.3.6	Related topics	33
5	Target system requirements	34
5.1	Related topics	34
5.2	Prerequisites for Linux target.....	34
5.3	Prerequisites for Windows target.....	36
5.3.1	Configure WinRM.....	36
5.3.2	Configure HTTP connection	37
5.3.3	Configure HTTPS connection	37

5.3.4	Create self-signed certificates on a Windows target.....	38
5.3.5	Enable HTTPS authentication.....	38
6	Out-of-the-box tags.....	39
6.1	Related topics	39
7	Send documentation feedback.....	41

References

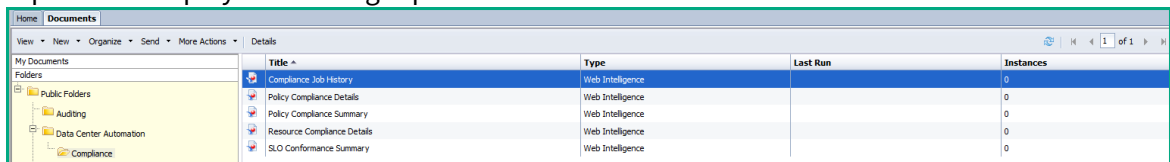
The following topics provide information that supplement the DCA documentation.

- [Reports](#)
- [Reports universe](#)
- [Target system requirements](#)
- [Out-of-the-box tags](#)


Reports

This topic describes the process to generate the reports out-of-the-box reports. To generate the reports, perform the following steps:

1. Log on to the SAP BI launch pad: <https://<SAP-BO-IP-Address:port>/BOE/BI>
The BI launch pad login page is displayed.
2. Enter the SAP BusinessObjects user name and password.
3. Click **Log On**.
4. In the BI launch pad, click the **Documents** tab.
5. Click to expand the **Folders** tab.
6. Expand **Public Folders > Data Center Automation > Compliance**. All the out-of-the-box reports are displayed in the right pane.



Title	Type	Last Run	Instances
Compliance Job History	Web Intelligence		0
Policy Compliance Details	Web Intelligence		0
Policy Compliance Summary	Web Intelligence		0
Resource Compliance Details	Web Intelligence		0
SLO Conformance Summary	Web Intelligence		0

7. Double-click the name of the report to open the report. The report template opens.
8. Click Refresh . You will be prompted to select for user inputs.
9. Click **OK** to run the report.

Currently, DCA supports the following reports:

Report	Description
Compliance Job History	Provides information about the details of jobs for all benchmarks, with resources and job execution time.
Policy Compliance Details	Provides information about the compliance status and details run for each policy.
Policy Compliance Summary	Provides information about the detailed compliance state of a benchmark (or multiple benchmarks) for each resource.
Resource Compliance Details	Provides information about the compliance details and scan status of a resource.
SLO Conformance Summary	Provides information about the Measurement SLO and Remediation SLO for every benchmark for a selected policy

Related topics

[Integrate with OBR](#)

[Reports universe](#)

Compliance Job History

Run this report to view the the history of actions related to the benchmarks. The results display the job details for all benchmarks, along with the number of resources and job execution time.

Prerequisites for displaying meaningful data

Confirm that a compliance scan or remediation job is run against the deployment instance attached with a benchmark.

User prompt input

Field	Description
Number of days(X)	Enter the number of days for which you want the report to be run.
Job Type (optional)	Select the job type(s) for which the report needs to be run.

Sample

The following figure is a snapshot of a sample Compliance Job History report.

Compliance Job History

Run this report to see the history of actions related to all the Benchmarks.

-Optionally, filter the result on audit job type

Results show Job Details all the Benchmarks is attached along with the Number of Resources and Job Execution Time.

Report Executed Date 5/22/17

Job Start Time	Job Type	Policy Name	Benchmark Name	Job Status	Resource Name	Job Execution Time
5/19/17 6:59 AM	SCAN	custom_policy_b m	custom_benchmark	Completed	dcaqatarget10.h peswiab.net	0 Hours 0 Mins 47 Seconds
5/19/17 5:36 AM	SCAN	test_db	CIS Oracle 11g Benchmark v1.0.1	Completed	ORCA1	0 Hours 1 Mins 19 Seconds
5/19/17 5:21 AM	SCAN	CIS	CIS Red Hat Enterprise Linux 6 Benchmark v1.3.0	Completed	dcaqatarget10.h peswiab.net	0 Hours 1 Mins 14 Seconds

Related topics

[Reports](#)

[Reports universe](#)

Policy Compliance Details

Run this report to view detailed compliance status information for a selected policy, benchmark, and date. This report provides rule-level information about the compliance status and details run for each policy to which a resource is attached, along with the daily aggregated data and the last scan date.

Prerequisite for displaying meaningful data

Confirm that a compliance scan or remediation job is run against the policy attached with a benchmark.

User prompt inputs

Field	Description
Policy Name (optional)	Enter the policies for which the report needs to be run.

Date	Select the date for which the report needs to be run.
Benchmark Name (optional)	Enter the benchmarks for which the report needs to be run.
Resource Group Compliance Status (optional)	Enter the compliance states for which the report needs to be run.

Sample

The following figure is a snapshot of a sample Policy Compliance Details report.

Policy Compliance Details

Run this report to see detailed compliance status information for a selected policy, benchmark and date.
 * Select a date
 *Optionally Resource Compliance Status, Policy and Benchmark

Results include a count rules by compliance status and details by resource Results depend on daily aggregated data and use only the last scan of the day

Report Executed Date 5/22/17

Compliance Status Compliant

Policy Name	Benchmark Name	Resource Name	Last Scan Date	No of Rules
CIS	CIS Red Hat Enterprise Linux 6 Benchmark v1.3.0	dcagatarget10.hpeswlab.net	05-19-2017	42
custom_policy_bm	custom_benchmark	dcagatarget10.hpeswlab.net	05-19-2017	1

Related topics

[Reports](#)

[Reports universe](#)

Policy Compliance Summary

Run this report to view the compliance status of a benchmark associated with a policy. The results show a count of resources by compliance status. Results depend on the daily aggregated data and use only the last scan of the day.

If a scan is performed multiple times during one day, then the report uses only the last scan run for that policy on that day.

Prerequisite for displaying meaningful data

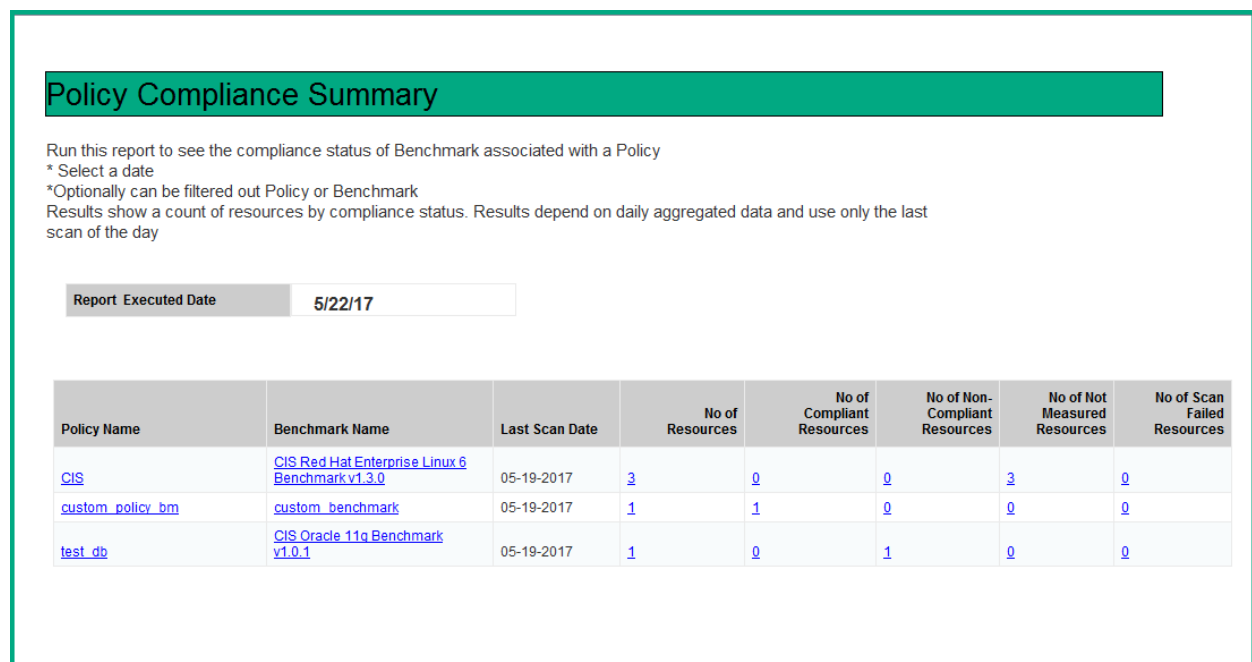
Confirm that a compliance scan or remediation job is run against the policy with a benchmark.

User prompt input

Field	Description
Policy Name (optional)	Enter the policy or policies for which the report needs to be run.
Date	Select the date for which the report needs to be run.
Benchmark Name (optional)	Enter the benchmarks for which the report needs to be run.

Sample

The following figure is a snapshot of a sample Policy Compliance Summary report.



Related topics

[Reports](#)

[Reports universe](#)

Resource Compliance Details

Run this report to view the compliance details of a resource. This report provides rule-level information about the compliance scan status and details run for each resource, along with the daily aggregated data and the last scan date.

Prerequisite for displaying meaningful data

Confirm that a compliance scan or remediation job is run against the policy attached with a benchmark.

User prompt input

Field	Description
Policy Name (optional)	Enter the policies for which the report needs to be run.
Date	Enter the date for which the report needs to be run, in <i>mm-dd-yyyy</i> format.
Benchmark Name (optional)	Enter the benchmarks for which the report needs to be run.
Resource Name (optional)	Enter the resources for which the report needs to be run.
Resource Compliance Status (optional)	Enter the compliance state of resource(s) for which the report needs to be run.

Sample

The following figure is a snapshot of a sample Resource Compliance Details report.

Resource Compliance Details

Run this report to see detailed compliance details of a Resource.
 - Optionally, filter the results on Policy, Benchmark, Resource and Compliance State.
 This report provides rule level information about the compliance scan run for each Resource

Report Executed Date

Policy Name	CIS
Benchmark Name	CIS Red Hat Enterprise Linux6 Benchmark v1.3.0
Resource Name	dcaqatarget10.hpes.wlab.net
Last Scan Date	05-19-17

Requirement Name	Rule Name	Rule Compliance Status	Actual Value	Expected Value	Days Non Compliant
1.1.10 Add nodev Option to /home	RHEL 6:Add nodev Option to /home	COMPLIANT	0:'nodev' option is applied to all file systems except /in /etc/fstab	0:'nodev' option is applied to all file systems except /in /etc/fstab	
1.1.11 Add nodev Option to Removable Media Partitions	RHEL 6:Add nodev Option to Removable Media Partitions	COMPLIANT	0:'nodev','noexec' and 'nosuid' options are applied to all removable media in /etc/fstab	0:'nodev','noexec' and 'nosuid' options are applied to all removable media in /etc/fstab	

Related topics

[Reports](#)

[Reports universe](#)

SLO Conformance Summary

Run this report to track the SLO for a policy. This report shows the Measurement SLO and Remediation SLO for every benchmark across each selected policy.

Prerequisite for displaying meaningful data

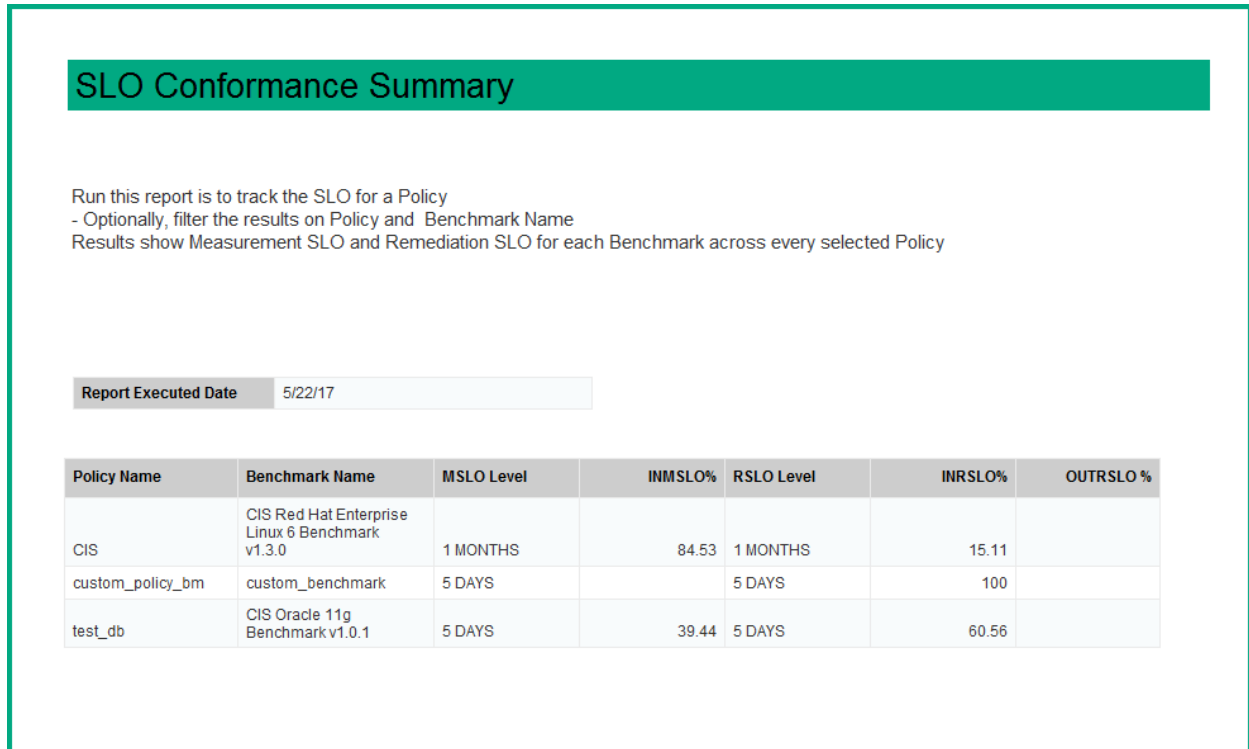
Confirm that a compliance scan or remediation job is run against the policy attached with a benchmark.

User prompt input

Field	Description
Policy Name (optional)	Enter the policies for which the report needs to be run.
Benchmark Name (optional)	Enter the benchmarks for which the report needs to be run.

Sample

The following figure is a snapshot of a sample SLO Conformance Summary report.



Related topics

[Reports](#)

[Reports universe](#)

Reports universe

The Report universe defines classes that contain typical Report objects related to compliance and inventory. When you run either a standard or a custom compliance report, you will use these objects. The resulting reports provide information about the compliance levels of your DCA devices.

Universe elements

The Universe contains the following basic elements: objects, classes, and query filters.

Object

An object represents a specific set of data in your DCA database. Each object is given a term that has specific meaning in DCA. The types of objects are as follows:

- **Dimension** - A dimension object retrieves the data that provides the basis for analysis in a report. Dimension objects typically retrieve character type data. For example, on a DCA machine, the business service contains dimensions such as Business Service Name, Business Service ID, and Business Service Priority.
 - An associated dimension object is related to the dimension above it.
- **Measure** - A measure object performs a numerical evaluation on the data in the database report. An example of a measure object is Number of Benchmarks.
- **Class** - A class is a logical grouping of related objects. Web Intelligence represents a class with a folder icon. Each class can contain one or more subclasses. Subclasses contain objects that are further categorized into subcategories. When you create queries on a universe, classes help you to find the objects that represent the information that you want to find.
- **Query Filter** - A query filter object allows you to restrict the data returned by an object in a query. Query filters are represented by a yellow funnel icon. Two examples of query filters are Till Date and As Of Date. These query filters enable you to select the time frame for the report.



Note

Date filters carry a timestamp of 00:00:00. A report with a date filter of "Today" will not include items that were inserted in the database after midnight. To capture items inserted in the database after midnight, set the date filter to tomorrow's date.

Universe descriptions

DCA Universe: This universe contains information about DCA Inventory, DCA Compliance, and DCA ADHOC Compliance.

DCA inventory

The DCA Inventory class represents DCA inventory-related classes and objects. By using DCA inventory, users can:

- See all business services and benchmarks for a resource.
- See all inventory-related details.
- See all requirements and rules for benchmarks.

DATETIME

The DATETIME class represents the date and time classes in DCA.

DCA Inventory > DATETIME Class

Object	Object type	Data type	Description
As of Date	<input type="checkbox"/> Dimension	Date and Time	Date associated with a query output record. Include this if you want a date stamp on each row in the final report. You must use this dimension when building historical reports spanning a date range, in order to relate each record to its date.
Date Range	<input type="checkbox"/> Filter		This date range filter applies to servers and objects associated with the servers. If the range is given, then 'As of Date' values for each of the date between start_data and end_date will be reported.
Number of Days	<input type="checkbox"/> Filter	Numeric	Select date or as of date. If a date for as of date is not specified, current date is considered.
Dynamic Date	<input type="checkbox"/> Filter	Numeric	The date is set to current date by default. To schedule customized reports, change the date to the required date.

Benchmark

The Benchmark class represents the benchmarks in DCA.

DCA Inventory > Benchmark Class

Object	Object type	Data type	Description
Benchmark Name	<input type="checkbox"/> Dimension	String	Benchmark name in DCA.
Benchmark Description	<input type="checkbox"/> Dimension	String	Detailed description of a benchmark in DCA.
Benchmark Type	<input type="checkbox"/> Dimension	String	Benchmark type
Benchmark Effective Date	<input type="checkbox"/> Dimension	Date and time	Effective date of the benchmark in DCA. The date when the benchmark goes to activation state in DCA.
Benchmark Created Date	<input type="checkbox"/> Dimension	Date and time	Timestamp when the benchmark was created in DCA.
Benchmark Modified Date	<input type="checkbox"/> Dimension	Date and time	Timestamp when the benchmark was modified in DCA Compliance.
Benchmark Modified By	<input type="checkbox"/> Dimension	String	User who modified the benchmark. Format: First_name last_name (Login_name)

Requirement

The Requirement class represents requirements in DCA.

DCA Inventory > Benchmark > Requirement Class

Object	Object type	Data type	Description
Requirement Name	<input type="checkbox"/> Dimension	String	Requirement name in DCA.
Requirement Description	<input type="checkbox"/> Dimension	String	Description of a requirement in DCA.
Requirement Modified By	<input type="checkbox"/> Dimension	String	First name, last name, and login name of the user who modified a particular requirement in DCA.
Requirement Modified Date	<input type="checkbox"/> Dimension	Date and time	Timestamp when a particular requirement was modified in DCA.
Requirement Created Date	<input type="checkbox"/> Dimension	Date and time	Timestamp when a particular requirement was created in DCA.

Rule

The Rule class represents rules in DCA. This class is a subclass of the Requirement class.

DCA Inventory > Benchmark > Requirement > Rule Class

Object	Object type	Data type	Description
Rule Name	<input type="checkbox"/> Dimension	String	Rule name in DCA.
Rule Created Date	<input type="checkbox"/> Dimension	Date	Timestamp when a particular rule was created in DCA.
Rule Modified By	<input type="checkbox"/> Dimension	String	First name, last name, and login name of the user who modified a particular rule in DCA.
Rule Modified Date	<input type="checkbox"/> Dimension	Date	Timestamp when a particular rule was modified in DCA.
Rule Type	<input type="checkbox"/> Dimension	String	Rule type in DCA

Control

The Control class represents controls in DCA.

DCA Inventory > Benchmark > Control Class

Object	Object type	Data type	Description
Control Name	<input type="checkbox"/> Dimension	String	Control name in DCA.
Control Category	<input type="checkbox"/> Dimension	String	Control category in DCA.
Control Type	<input type="checkbox"/> Dimension	String	Control type in DCA.
Control Description	<input type="checkbox"/> Dimension	String	Detailed description of a control in DCA.
Control Created Date	<input type="checkbox"/> Dimension	Date	Timestamp when a control was created in DCA.
Control Modified Date	<input type="checkbox"/> Dimension	Date	Timestamp when a control was modified in DCA.
Control Modified By	<input type="checkbox"/> Dimension	String	First name, last name, and login name of the user who modified the control in DCA.
Control Till Date	<input type="checkbox"/> Filter	String	This filter provides the historical data till the user selected date or by default today's date. This filter can be used only with the Control inventory class.
Control Last X Days	<input type="checkbox"/> Filter	Number	Use this to filter query results based on number of days. This filter can be used only with the Control inventory class.

Policy

The Policy class represents policies in DCA.

Object	Object type	Data type	Description
Policy Name	<input type="checkbox"/> Dimension	String	Name of a policy in DCA.

Policy Description	<input type="checkbox"/> Dimension	String	Description of a particular policy in DCA.
Policy Created Date	<input type="checkbox"/> Dimension	Date and time	Timestamp when a policy was created in DCA.
Policy Modified By	<input type="checkbox"/> Dimension	String	First name, last name, and login name of the user who modified a particular policy in DCA.
Policy Modified Date	<input type="checkbox"/> Dimension	Date and time	Timestamp when a policy was modified in DCA.
Measurement SLO	<input type="checkbox"/> Dimension	String	Measurement SLO of a policy in DCA.
Remediation SLO	<input type="checkbox"/> Dimension	String	Remediation SLO of a policy in DCA.

Deployment

The Deployment class represents deployments in DCA.

DCA Inventory > Deployment Class

Object	Object type	Data type	Description
Deployment Name	<input type="checkbox"/> Dimension	String	Name of a deployment in DCA.
Deployment Created Date	<input type="checkbox"/> Dimension	Date and time	Timestamp when a deployment was created in DCA.
Deployment Modified Date	<input type="checkbox"/> Dimension	Date and time	Timestamp when a deployment was modified in DCA.
Deployment Modified By	<input type="checkbox"/> Dimension	String	First name, last name, and login name of the user who modified a particular deployment in DCA.

Resource group

The Resource group represents resource groups in DCA.

DCA Inventory > Resource group Class

Object	Object type	Data type	Description
Resource Group Name	<input type="checkbox"/> Dimension	String	Name of the resource group

Parent Resource Group Name	<input type="checkbox"/> Dimension	String	Name of the parent resource group
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Resource

The Resource class represents resources in DCA.

DCA Inventory > Resource Class

Object	Object type	Data type	Description
Resource Name	<input type="checkbox"/> Dimension	String	Name of a resource in DCA.
Applicable Scope	<input type="checkbox"/> Dimension	String	Resource type in DCA.
Resource Modified By	<input type="checkbox"/> Dimension	String	First name, last name, and login name of the user who modified a particular resource in DCA.
Resource Modified Date	<input type="checkbox"/> Dimension	Date and time	Timestamp when the resource was modified in DCA.
Resource Created Date	<input type="checkbox"/> Dimension	Date and time	Timestamp when the resource was created in DCA.
Parent resource name	<input type="checkbox"/> Dimension	String	Name of a parent resource in DCA.

DCA Compliance

The DCA Compliance class represents DCA compliance-related classes and objects. By using DCA Compliance, users can view the following:

- Compliance-related details
- Overall compliance score for a business service and its compliance status
- All jobs and their states, whether success, warning, or failed, running on a specific DCA core in the Job Content pane.

DATETIME

The DATETIME class represents the date and time classes in DCA.

DCA Compliance > DATETIME

Object	Object type	Data type	Description
Day	<input type="checkbox"/> Dimension	String	The day, date, and time when the report is to be generated.
Day Name	<input type="checkbox"/> Associated dimension	String	Name of the day when the report is generated.
Hour	<input type="checkbox"/> Dimension	Numeric	The hour at which the report is generated.
Hour Id	<input type="checkbox"/> Associated dimension	Numeric	The ID associated with the timestamp when the report is generated.
Time Hour Description	<input type="checkbox"/> Associated dimension	String	The time and hour description when the report is generated.
Raw Date	<input type="checkbox"/> Dimension	Date and time	The current date when the report is generated.
Dynamic Date	<input type="checkbox"/> Filter	Date and time	The date and time are set to current date and time. To generate custom reports, change the date.
Date Range	<input type="checkbox"/> Filter	Date	Historical data is shown until the user-selected date.
Number of Days	<input type="checkbox"/> Filter	Number	Use this filter to get data for the last number of X days from the system date.

Compliance Details

The Compliance Details class represents the compliance details in DCA.

DCA Compliance > Compliance Details

Object	Object type	Data type	Description
Non Compliant Date	<input type="checkbox"/> Dimension	Date and time	The non compliant date.
Scan Date	<input type="checkbox"/> Dimension	Date and time	The date when the rule is run.
Rule Compliance Status	<input type="checkbox"/> Dimension	String	The status of the rule like, compliant, non compliant, not measured, and scan failed.
Days Non Compliant	<input type="checkbox"/> Measure	Number	The number of days a rule is not compliant in DCA.

No of Rules	<input type="checkbox"/> Measure	Numeric	The number of rules for policy, benchmark, and resources in DCA.
No of Compliant Rules	<input type="checkbox"/> Measure	Numeric	The number of compliant rules for policy, benchmark, and resources in DCA.
No of Non Compliant Rules	<input type="checkbox"/> Measure	Numeric	The number of non-compliant rules for policy, benchmark, and resources in DCA.
No of Not Measured Rules	<input type="checkbox"/> Measure	Numeric	The number of rules for policy, benchmark, and resources that are not measured.
No of Scan Failed Rules	<input type="checkbox"/> Measure	Numeric	The number of rules for Policy, Benchmark, and resources that failed during a scan.
As of Date Raw Data	<input type="checkbox"/> Filter	Date and Time	The raw date collected for a given date. If no date is specified, current date is considered.
As of Date Hourly Data	<input type="checkbox"/> Filter	Date and Time	The data that is collected for a particular hour. If no time is specified, current time is considered.
As of Date Daily Data	<input type="checkbox"/> Filter	Date and Time	The data that is collected daily.

Job

The Job class represents the jobs in DCA.

DCA Compliance > Compliance Details > Jobs

Object	Object type	Data type	Description
Job Id	<input type="checkbox"/> Dimension	Numeric	The job ID in DCA.
Job Description	<input type="checkbox"/> Associated dimension	String	The job description in DCA.
Job Start Date	<input type="checkbox"/> Associated dimension	Date	The date the job will start or has started.
Job End Date	<input type="checkbox"/> Associated dimension	Date	The date the job will end or has ended.
Job Execution Time	<input type="checkbox"/> Associated dimension	Number	The time (in hour:minutes:seconds) taken to complete the job in DCA.
Job Status	<input type="checkbox"/> Associated dimension	String	The status of a job in DCA.

Job Type	<input type="checkbox"/> Associated dimension	String	The type of a job in DCA.
Job Modified By	<input type="checkbox"/> Associated dimension	String	The first name, last name, and login name of the user who modified the job.
Job Modified Date	<input type="checkbox"/> Associated dimension	Date and Time	The date the job was modified.
Expected Value	<input type="checkbox"/> Dimension	String	The expected value of a job.
Actual Value	<input type="checkbox"/> Dimension	String	The actual value of a job.
Old Value	<input type="checkbox"/> Dimension	String	The previous value of a job.
STDERR	<input type="checkbox"/> Dimension	String	Stderr of a job in DCA.
STDOUT	<input type="checkbox"/> Dimension	String	Stdout of a job in DCA.
Job Result Status	<input type="checkbox"/> Dimension	String	The result status of the job.
Job Run for Last X Days	<input type="checkbox"/> Filter	Number	Jobs started in the last <x> days.

Policy

The Policy class represents the policies in DCA.

DCA Compliance > Compliance Details > Benchmark

Object	Object type	Data type	Description
Policy Name	<input type="checkbox"/> Dimension	String	The name of a policy in DCA.
Policy Description	<input type="checkbox"/> Dimension	String	The detailed description of a policy in DCA.
Policy Created Date	<input type="checkbox"/> Dimension	Date and Time	The date on which the policy was created.
Policy Modified By	<input type="checkbox"/> Dimension	String	User who modified the policy in DCA. This attribute is in the format of "First_name Last_Name(Login_name)".

Policy Modified Date	<input type="checkbox"/> Dimension	Date and time	Timestamp when a benchmark was modified in DCA.
Policy Measurement SLO	<input type="checkbox"/> Dimension	String	SLOs defined for measurement. When the measurement level is defined as 1 month, the measurement must happen within the defined MSLO level to meet the MSLO.
Remediation SLO	<input type="checkbox"/> Dimension	Number	The SLOs defined for remediation. When the remediation level is defined as 15 days, remediation must happen with 15 days of discovery of the non-compliant state of a rule.
No of Resources	<input type="checkbox"/> Measure	Numeric	The number of resources associated with a particular policy.
No of Compliant Resources	<input type="checkbox"/> Measure	Numeric	The number of resources associated with a particular policy that are compliant.
No of Non-Compliant Resources	<input type="checkbox"/> Measure	Numeric	The number of resources associated with a particular policy that are not compliant.
No of Not Measured Resources	<input type="checkbox"/> Measure	Numeric	The number of resources associated with a particular policy that are not measured.
No of Scan Failed Resources	<input type="checkbox"/> Measure	Numeric	The number of resources associated with a particular policy that failed in a compliance scan.
Compliant Resources %	<input type="checkbox"/> Measure	Numeric	The percentage resources that are compliant.
Non-Compliant Resources %	<input type="checkbox"/> Measure	Numeric	The percentage of resources that are not compliant.
Not Measured Resources %	<input type="checkbox"/> Measure	Numeric	The percentage of resources that are not measured.
Scan Failed Resources %	<input type="checkbox"/> Measure	Numeric	The percentage of resources that failed a compliance scan.
No of Benchmarks	<input type="checkbox"/> Measure	Numeric	The number of benchmarks for a particular policy.

No of Compliant Benchmarks	<input type="checkbox"/> Measure	Numeric	The number of compliant benchmarks for a particular policy.
No of Non-Compliant Benchmarks	<input type="checkbox"/> Measure	Numeric	The number of non-compliant benchmarks for a particular policy.
No of Not Measured Benchmarks	<input type="checkbox"/> Measure	Numeric	The number of benchmarks for a particular policy that are not measured.
No of Scan Failed Benchmarks	<input type="checkbox"/> Measure	Numeric	The number of benchmarks for a particular policy that failed a compliance scan.
Compliant Benchmarks %	<input type="checkbox"/> Measure	Numeric	The percentage of benchmarks that are compliant for a policy.
Non-Compliant Benchmarks %	<input type="checkbox"/> Measure	Numeric	The percentage of benchmarks that are not compliant for a policy.
Not Measured Benchmarks %	<input type="checkbox"/> Measure	Numeric	The percentage of benchmarks that are not measured for a policy.
Scan Failed Benchmarks %	<input type="checkbox"/> Measure	Numeric	The percentage of benchmarks that failed a compliance scan for a policy.

Benchmark

The Benchmark class represents the benchmarks in DCA.

DCA Compliance > Compliance Details > Benchmark

Object	Object type	Data type	Description
Benchmark Name	<input type="checkbox"/> Dimension	String	The name of a benchmark in DCA.
Benchmark Description	<input type="checkbox"/> Dimension	String	The detailed description of a benchmark in DCA.

Benchmark Type	<input type="checkbox"/> Dimension	String	The type of a benchmark in DCA.
Benchmark Modified By	<input type="checkbox"/> Dimension	String	The first name, last name, and login ID of a user that modified the benchmark.
Benchmark Modified Date	<input type="checkbox"/> Dimension	Date and time	Timestamp when the benchmark was modified.
Benchmark Created Date	<input type="checkbox"/> Dimension	Date and time	Timestamp when the benchmark was created in DCA.
Benchmark Compliance Status	<input type="checkbox"/> Dimension	String	The compliance status of a benchmark.
No of Resources	<input type="checkbox"/> Measure	String	The number of resources associated with a particular benchmark.
No of Compliant Resources	<input type="checkbox"/> Measure	String	The number of resources associated with a particular benchmark that are compliant.
No of Non-Compliant Resources	<input type="checkbox"/> Measure	String	The number of resources associated with a particular benchmark that are not compliant.
No of Not Measured Resources	<input type="checkbox"/> Measure	Numeric	The number of resources associated with a particular benchmark that are not measured.
No of Scan Failed Resources	<input type="checkbox"/> Measure	Numeric	The number of resources associated with a particular benchmark that failed scan.
Compliant Resources %	<input type="checkbox"/> Measure	Numeric	The percentage of resources associated with a particular benchmark that are compliant.
Non-Compliant Resources %	<input type="checkbox"/> Measure	Numeric	The percentage of resources associated with a particular benchmark that are not compliant.
Not Measured Resources %	<input type="checkbox"/> Measure	Numeric	The percentage of resources associated with a particular benchmark that are not measured.
Scan Failed Resources %	<input type="checkbox"/> Measure	Numeric	The percentage of resources associated with a particular benchmark that are scan failed.
No of Rules Compliant in MSLO	<input type="checkbox"/> Measure	Numeric	The number of rules that are compliant in a measure SLO.
No of Rules Non-Compliant in RSLO	<input type="checkbox"/> Measure	Numeric	The number of rules that are not compliant in a remediation SLO.

No of Rules Non-Compliant OUT RSLO	<input type="checkbox"/> Measure	Numeric	The number of rules that are not compliant in a OUT remediation SLO.
------------------------------------	----------------------------------	---------	----------------------------------------------------------------------

Requirement

The Requirement class represents the requirements in DCA.

DCA Compliance > Compliance Details > Requirement

Object	Object type	Data type	Description
Requirement Name	<input type="checkbox"/> Dimension	String	Requirement name in DCA.
Requirement Description	<input type="checkbox"/> Dimension	String	Detailed description of a requirement in DCA.

Rule

The Rule class represents rules in DCA. This class is a subclass of the Requirement class.

Requirement > Rule Class

Object	Object type	Data type	Description
Rule Name	<input type="checkbox"/> Dimension	String	Rule name in DCA.
Rule Type	<input type="checkbox"/> Dimension	String	Rule type in DCA.

Control

The Control class represents controls in DCA.

DCA Compliance Details > Control Class

Object	Object type	Data type	Description
Control Name	<input type="checkbox"/> Dimension	String	Control name in DCA.
Control Category	<input type="checkbox"/> Dimension	String	Control category in DCA.
Control Type	<input type="checkbox"/> Dimension	String	Control type in DCA.
Control Description	<input type="checkbox"/> Dimension	String	Detailed description of a control in DCA.

Deployment

The Deployment class represents deployments in the DCA.

DCA Compliance > Deployment

Deployment Name	<input type="checkbox"/> Dimension	String	Deployment name in DCA.
Deployment Modified By	<input type="checkbox"/> Dimension	String	First name, last name, and login name of the user who modified the deployment.
Deployment Modified Date	<input type="checkbox"/> Dimension	Date and Time	Timestamp when a deployment was modified.
Deployment Created Date	<input type="checkbox"/> Dimension	Date and Time	Timestamp when a deployment was created.

Resource

The Resource class represents resources in DCA.

DCA Compliance > Resource

Object	Object type	Data type	Description
Resource Name	<input type="checkbox"/> Dimension	String	Resource name in DCA.
Applicable Scope	<input type="checkbox"/> Dimension	String	Scope applicable to a resource in DCA.
Resource Modified By	<input type="checkbox"/> Dimension	String	First name, last name, and login name of the user who modified the resource.
Resource Modified Date	<input type="checkbox"/> Dimension	Date and Time	Timestamp when the resource was modified.
Resource Created Date	<input type="checkbox"/> Dimension	Date and Time	Timestamp when the resource was created.

Parent Resource Name	<input type="checkbox"/> Dimension	String	Name of the parent resource.
Resource Compliance Status	<input type="checkbox"/> Dimension	String	Compliance status if a resource.
No of Benchmarks	<input type="checkbox"/> Measure	Numeric	The number of benchmarks associated with a particular resource.
No of Compliant Benchmarks	<input type="checkbox"/> Measure	Numeric	The number of benchmarks associated with a particular resource that are compliant.
No of Non-Compliant Benchmarks	<input type="checkbox"/> Measure	Numeric	The number of benchmarks associated with a particular resource that are not compliant.
No of Not Measured Benchmarks	<input type="checkbox"/> Measure	Numeric	The number of benchmarks associated with a particular resource that are not measured.
No of Scan Failed Benchmarks	<input type="checkbox"/> Measure	Numeric	The number of benchmarks associated with a particular resource that are scan failed.
Compliant Benchmarks %	<input type="checkbox"/> Measure	Numeric	The percentage of benchmarks associated with a particular resource that are compliant.
Non-Compliant Benchmarks %	<input type="checkbox"/> Measure	Numeric	The percentage of benchmarks associated with a particular resource that are not compliant.
Scan Failed Benchmarks %	<input type="checkbox"/> Measure	Numeric	The percentage of benchmarks associated with a particular resource that are scan failed.
Not Measured Benchmarks %	<input type="checkbox"/> Measure	Numeric	The percentage of benchmarks associated with a particular resource that are not measured.
No of Policies	<input type="checkbox"/> Measure	Numeric	The number of policies associated with a particular benchmark.
No of Compliant policies	<input type="checkbox"/> Measure	Numeric	The number of policies that are compliant.
No of Non-Compliant policies	<input type="checkbox"/> Measure	Numeric	The number of policies that are not compliant.
No of Not Measured policies	<input type="checkbox"/> Measure	Numeric	The number of policies that are not measured.
No of Scan Failed policies	<input type="checkbox"/> Measure	Numeric	The number of policies that are not scan failed.
Compliant Policies %	<input type="checkbox"/> Measure	Numeric	Percentage of policies that are compliant.

Non-Compliant polices %	<input type="checkbox"/> Measure	Numeric	Percentage of policies that are not compliant.
Scan Failed Policies %	<input type="checkbox"/> Measure	Numeric	Percentage of policies that are scan failed.
Not Measured Polices %	<input type="checkbox"/> Measure	Numeric	Percentage of policies that are not measured.
No of Rules Compliant in MSLO	<input type="checkbox"/> Measure	Numeric	Number of rules that are compliant in measure SLO.
No of Rules Non-Compliant in RSLO	<input type="checkbox"/> Measure	Numeric	Number of rules that are not compliant in remediation SLO.
No of Rules Non-Compliant OUT RSLO	<input type="checkbox"/> Measure	Numeric	Number of rules that are not compliant in OUT remediation SLO.

DCA ADHOC Compliance

The DCA ADHOC Compliance class represents DCA adhoc compliance-related classes and objects. By using DCA ADHOC Compliance, users can view the following:

- Adhoc Compliance-related details
- Overall compliance score for a business service and its compliance status
- All jobs and their states, whether success, warning, or failed, running on a specific DCA core in the Job Content pane

Adhoc Compliance Details

The Compliance Details class represents the compliance details in DCA.

DCA ADHOC Compliance > Adhoc Compliance Details

Object	Object type	Data type	Description
Non Compliant Date	<input type="checkbox"/> Dimension	Date and time	The non compliant date.
Scan Date	<input type="checkbox"/> Dimension	Date and time	The date when the rule is run.
Rule Compliance Status	<input type="checkbox"/> Dimension	String	The status of the rule like, compliant, non compliant, not measured, and scan failed.
Days Non Compliant	<input type="checkbox"/> Measure	Number	The number of days a rule is not compliant in DCA.

Benchmark

The Benchmark class represents the benchmarks in DCA.

DCA ADHOC Compliance > Benchmark

Object	Object type	Data type	Description
Benchmark Name	<input type="checkbox"/> Dimension	String	The name of a benchmark in DCA.
Benchmark Description	<input type="checkbox"/> Dimension	String	The detailed description of a benchmark in DCA.
Benchmark Type	<input type="checkbox"/> Dimension	String	The type of a benchmark in DCA.
Benchmark Effective Date	<input type="checkbox"/> Dimension	Date and Time	Timestamp when the benchmark was in effect.
Benchmark Modified By	<input type="checkbox"/> Dimension	String	The first name, last name, and login ID of a user that modified the benchmark.
Benchmark Modified Date	<input type="checkbox"/> Dimension	Date and time	Timestamp when the benchmark was modified.
Benchmark Created Date	<input type="checkbox"/> Dimension	Date and time	Timestamp when the benchmark was created in DCA.

Requirement

The Requirement class represents the requirements in DCA.

DCA ADHOC Compliance > Adhoc Compliance Details > Requirement

Object	Object type	Data type	Description
Requirement Name	<input type="checkbox"/> Dimension	String	Requirement name in DCA.
Requirement Description	<input type="checkbox"/> Dimension	String	Detailed description of a requirement in DCA.
Requirement Modified By	<input type="checkbox"/> Dimension	String	First name, last name, and login name of the user who modified the particular requirement.
Requirement Modified Date	<input type="checkbox"/> Dimension	Date and Time	Timestamp when the requirement was modified.
Requirement Created Date	<input type="checkbox"/> Dimension	Date and Time	Timestamp when the requirement was created.

Rule

The Rule class represents rules in DCA. This class is a subclass of the Requirement class.

Requirement > Rule Class

Object	Object type	Data type	Description
Rule Name	<input type="checkbox"/> Dimension	String	Rule name in DCA.
Rule Type	<input type="checkbox"/> Dimension	String	Rule type in DCA.
Rule Created Date	<input type="checkbox"/> Dimension	Date and time	Timestamp when the rule was created.
Rule Modified By	<input type="checkbox"/> Dimension	String	First name, Last name, and Login name of the user who modified a rule.
Rule Modified Date	<input type="checkbox"/> Dimension	String	Timestamp when the rule was modified.

Control

The Control class represents controls in DCA.

DCA Adhoc Compliance Details > Control Class

Object	Object type	Data type	Description
Control Name	<input type="checkbox"/> Dimension	String	Control name in DCA.
Control Category	<input type="checkbox"/> Dimension	String	Control category in DCA.
Control Type	<input type="checkbox"/> Dimension	String	Control type in DCA.
Control Description	<input type="checkbox"/> Dimension	String	Detailed description of a control in DCA.
Control Created Date	<input type="checkbox"/> Dimension	Date and time	Timestamp when the control was created.
Control Modified Date	<input type="checkbox"/> Dimension	Date and time	Timestamp when the control was modified.
Control Modified By	<input type="checkbox"/> Dimension	String	First name, Last name, and login name of the user who modified the control.

Policy

The Policy class represents the policies in DCA.

DCA ADHOC Compliance > Adhoc Compliance Details > Benchmark

Object	Object type	Data type	Description
Policy Name	<input type="checkbox"/> Dimension	String	The name of a policy in DCA.
Policy Description	<input type="checkbox"/> Dimension	String	The detailed description of a policy in DCA.
Policy Created Date	<input type="checkbox"/> Dimension	Date and Time	The date on which the policy was created.
Policy Modified By	<input type="checkbox"/> Dimension	String	User who modified the policy in DCA. This attribute is in the format of "First_name Last_Name(Login_name)".
Policy Modified Date	<input type="checkbox"/> Dimension	Date and time	Timestamp when a benchmark was modified in DCA.

Resource

The Resource class represents resources in DCA.

DCA ADHOC Compliance > Resource

Object	Object type	Data type	Description
Resource Name	<input type="checkbox"/> Dimension	String	Resource name in DCA.
Applicable Scope	<input type="checkbox"/> Dimension	String	Scope applicable to a resource in DCA.
Resource Modified By	<input type="checkbox"/> Dimension	String	First name, last name, and login name of the user who modified the resource.
Resource Modified Date	<input type="checkbox"/> Dimension	Date and Time	Timestamp when the resource was modified.
Resource Created Date	<input type="checkbox"/> Dimension	Date and Time	Timestamp when the resource was created.
Parent Resource Name	<input type="checkbox"/> Dimension	String	Name of the parent resource.

Job

The Job class represents the jobs in DCA.

DCA ADHOC Compliance > Adhoc Compliance Details > Jobs

Object	Object type	Data type	Description
Job Id	<input type="checkbox"/> Dimension	Numeric	The job ID in DCA.
Job Description	<input type="checkbox"/> Associated dimension	String	The job description in DCA.
Job Start Date	<input type="checkbox"/> Associated dimension	Date	The date the job will start or has started.
Job End Date	<input type="checkbox"/> Associated dimension	Date	The date the job will end or has ended.
Job Execution Time	<input type="checkbox"/> Associated dimension	Number	The time (in hour:minutes:seconds) taken to complete the job in DCA.
Job Status	<input type="checkbox"/> Associated dimension	String	The status of a job in DCA.
Job Type	<input type="checkbox"/> Associated dimension	String	The type of a job in DCA.
Job Modified By	<input type="checkbox"/> Associated dimension	String	The first name, last name, and login name of the user who modified the job.
Job Modified Date	<input type="checkbox"/> Associated dimension	Date and Time	The date the job was modified.
Job Result Id	<input type="checkbox"/> Dimension	String	The ID associated to the job result.
Expected Value	<input type="checkbox"/> Dimension	String	The expected value of a job.
Actual Value	<input type="checkbox"/> Dimension	String	The actual value of a job.
Old Value	<input type="checkbox"/> Dimension	String	The previous value of a job.
STDERR	<input type="checkbox"/> Dimension	String	Stderr of a job in DCA.
STDOUT	<input type="checkbox"/> Dimension	String	Stdout of a job in DCA.
Job Result Status	<input type="checkbox"/> Dimension	String	The result status of the job.

Related topics

[Reports](#)

[Integrate with OBR](#)

Target system requirements

The following sections list system requirements for target servers:

- [Prerequisites for Linux target](#)
- [Prerequisites for Windows target](#)

Related topics

[Prerequisites](#)

Prerequisites for Linux target

This section lists the prerequisites tasks to be performed in the RHEL 6.x and RHEL 7.x target systems.

1. Create the group and user.
2. Add the user into the group.
3. Execute the following commands:

```
groupadd -g 501 oinstall
groupadd -g 502 dba
groupadd -g 503 oper
groupadd -g 504 asmadmin
groupadd -g 506 asmdba
groupadd -g 505 asmoper
useradd -u 502 -g oinstall -G dba,asmdba,oper oracle
passwd oracle
mkdir -p /u01/app/oracle/product/11.2.0/db_1
chown -R oracle:oinstall /u01
chmod -R 775 /u01
```



Note

/u01 is an example given above. Update the path to which ORACLE is being installed.

4. Install or upgrade to higher versions of the below RPMs:
 - compat-libstdc++-33 gcc*
 - gcc-c++-4.* glibc-devel-2.*
 - glibc-headers-2.*
 - libaio-devel-0.*
 - libgomp-4.*
 - libstdc++-devel-4.*
 - sysstat* unixODBC-2.*
 - unixODBC-devel-2.*

- libXp.so.6 libXtst* vim*
- elfutils-libelf-devel*
- glibc* make*
- glibc.i686sasd



Note

In addition to these libraries, ksh is required for RHEL 7.x.

5. Ensure that the firewalls are off:

```
service iptables stop
chkconfig iptables off
service ip6tables stop
chkconfig ip6tables off
```

6. Disable SELINUX: #vi /etc/sysconfig/selinux .
7. Set SELINUX=disabled.
8. Ensure that the server name has the FQDN by editing the **/etc/hosts** file and adding the E.g :
16.xx.xx.xx minion1.<FQDN> minion1 entry.
9. Edit the **/etc/sysctl.conf** file and add the following lines:

```
fs.suid_dumpable = 1
fs.aio-max-nr = 1048576
fs.file-max = 6815744
kernel.shmall = 2097152
kernel.shmmax = 2070833152
kernel.shmmni = 4096
# semaphores: semmsl, semmns, semopm, semmni
kernel.sem = 250 32000 100 128
net.ipv4.ip_local_port_range = 9000 65500
net.core.rmem_default=4194304
net.core.rmem_max=4194304
net.core.wmem_default=262144
net.core.wmem_max=1048586
```

10. Run the `/sbin/sysctl -p` command to change the current kernel parameters.
11. Edit the **/etc/security/limits.conf** file and the following entries at the end of file:

```

oracle          soft  nproc  2047
oracle          hard  nproc  16384
oracle          soft  nofile 1024
oracle          hard  nofile 65536
oracle          soft  stack  10240

```

12. Create the oracle profile file.

```

#vi ~oracle/.profile
And add the below lines and save it
export TMP=/tmp
export TMPDIR=\$TMP
export ORACLE_HOSTNAME=<Hostname with FQDN>
export ORACLE_BASE=<Specify the path where the Oracle base is being given during
deployment>
export PATH=\$PATH:\$ORACLE_HOME/bin:\$PATH
export LD_LIBRARY_PATH=\$ORACLE_HOME/lib:/lib:/usr/lib
export CLASSPATH=\$ORACLE_HOME/jlib:\$ORACLE_HOME/rdbms/jlib
export TNS_ADMIN=\$ORACLE_HOME/network/admin

```

13. Edit the oracle/.bash_profile file and add the `. ./.profile` entry at the end of the file.

14. For RHEL 7.x, add the `set max_nprocs = 16384` entry in the `/etc/system` file.

For system requirements for provisioning multiple Oracle database on a target, see [Oracle documentation](#).

Prerequisites for Windows target

From DCA-OO-Central to any Windows target, the communication is through Windows Remote Management Service (WinRM) on the target. For this communication, you must enable either HTTP or HTTPS port on the target. Currently, the port number is configurable in OO Central, however, it has to be same across all Windows targets. The default port numbers are 5985 for HTTP and 5986 for HTTPS.

Perform the following tasks to configure WinRM and enable HTTP and HTTPS ports:

- [Configure WinRM](#)
- [Configure HTTP connection](#)
- [Configure HTTPS connection](#)
- [Create self-signed certificates on a Windows target](#)
- [Enable HTTPS authentication](#)

Configure WinRM

You can enable the WS-Management protocol on the Windows target and set up the default configuration for remote management with the command: **Winrm quickconfig**.

1. Run the following command at a command prompt in the Windows target to set the default WinRM configuration values.

C:\> winrm quickconfig

This performs the following:

- Starts the WinRM service, and sets the service startup type to auto-start.
- Configures a listener for the ports that send and receive WS-Management protocol messages using either HTTP or HTTPS on any IP address.
- Defines ICF exceptions for the WinRM service, and opens the ports for HTTP and HTTPS.

2. Run the following command to check whether a listener is running, and verify the default ports.

C:\> winrm e winrm/config/listener

The default ports are 5985 for HTTP and 5986 for HTTPS.

3. Enable basic authentication on the WinRM service.

- a. Run the following command to check whether basic authentication is allowed.

C:\> winrm get winrm/config

- b. Run the following command to enable basic authentication.

C:\> winrm set winrm/config/service/auth @{Basic="true"}

4. Configure WinRM to allow unencrypted SOAP messages.

C:\> winrm set winrm/config/service @{AllowUnencrypted="true"}

5. Configure WinRM to provide required memory to the commands.

C:\> winrm set winrm/config/winrs @{MaxMemoryPerShellMB="4096"}

6. Set idle timeout and max timeout values.

C:\> winrm set winrm/config/winrs @{IdleTimeout="180000"}

C:\> winrm set winrm/config @{MaxTimeoutms="1800000"}

Configure HTTP connection

Perform the steps below to configure HTTP connection. Port used is 5985.

1. Enable the WinRM firewall exception.

C:\> netsh advfirewall firewall add rule name="WinRM-HTTP" dir=in localport=5985 protocol=TCP action=allow

2. Confirm that listeners are running on the port.

C:\> winrm enumerate winrm/config/listener

Configure HTTPS connection

Perform the steps below to configure HTTPS connection. Port used is 5986.

1. Create a self signed certificate for the remote host. Import the certificate in the client keystore and copy the certificate thumbprint.

If you do not have a self-signed certificate, see [Create self-signed certificates on a Windows target](#).

2. Create an HTTPS WinRM listener on the remote host with the thumbprint of the certificate you've just copied.

```
C:\> winrm create winrm/config/Listener?Address=*+Transport=HTTPS
@{Hostname="HOSTNAME"; CertificateThumbprint="THUMBPRINT"}
```

3. Do a quickconfig for WinRM with HTTPS.

```
C:\> winrm quickconfig -transport:https
```

4. Check the complete WinRM configurations and that the listeners have been configured.

```
C:\> winrm get winrm/config
```

```
C:\> winrm enumerate winrm/config/listener
```

Create self-signed certificates on a Windows target

Perform the following steps to create self-signed certificate on Windows target.

1. Install Open SSL, if you do not have it installed.
2. Edit the openssl.cfg file under the OpenSSL install folder to set extendedKeyUsage = serverAuth under the [v3_ca] section.
Add the [v3_ca] section if it is not available in the openssl.cfg file.
3. Set environment variable OPENSSL_CONF.
4. **C:\> set OPENSSL_CONF=C:\OpenSSL-Win32\bin\openssl.cfg.**
5. Generate the self-signed certificate.
C:\> OpenSSL-Win32\bin\openssl req -x509 -nodes -days 9999 -newkey rsa:2048 -keyout <domain-name>.key -out <domain-name>.cer -subj "/CN=*.<domain-name>"
6. Convert certificate and private key to .PFX file.
C:\> OpenSSL-Win32\bin\openssl pkcs12 -export -out <domain-name>.pfx -inkey <domain-name>.key -in <domain-name>.cer -name "*.<domain-name>" -passout pass:
7. Copy the.pfx file created to the Windows target.
8. Set WinRM to use HTTPS. See [Enable HTTPS authentication](#).

Enable HTTPS authentication

Perform the below steps to enable WinRM to use HTTPS authentication.

1. Open a powershell and create the below function

```
function Install-Certificate ($certPath, [string]$storeLocation = "LocalMachine", [string]
$storeName = "My")
{
    $cert = New-Object
System.Security.Cryptography.X509Certificates.X509Certificate2($certPath, "",
"MachineKeySet,PersistKeySet")
    $store = New-Object System.Security.Cryptography.X509Certificates.X509Store($storeName,
$storeLocation)
    $store.Open("ReadWrite")
    $store.Add($cert)
    $store.Close()
    "Thumbprint: $($cert.Thumbprint)"
}
```

2. Run the following command on the powershell.
C:\> Install-Certificate <.pfx-file-path>. For example, C:\> Install-Certificate C:\Users
 \Administrator\dcavm.pfx.
3. Copy the Thumbprint output.
4. Set WinRM to use HTTPS.
**C:\> winrm set winrm/config/Listener?Address=*+Transport=HTTPS
 @{Hostname="*<domain-name>"; CertificateThumbprint="<Thumbprint-output>"}**

Out-of-the-box tags

Following is the list of out-of-the-box tags shipped with DCA:

Operating System tags

- OS (an OS Instance), Hypervisor
- Linux, RedHat, SUSE, Ubuntu, OraEL, RHEL6, RHEL7
- Windows, Win2008, Win2012, Win2016, Windows2008R2, Windows2012R2, Windows2012
- Unix, AIX, Solaris, SPARC, HP-UX
- VMWare, vCenter, VM

Software tags

- Software (a generic Software Instance)
- Database, Oracle, MSSQL, SQL_Server, DB2, Sybase, MySQL,PDB,CDB, Instance, Container Database, Pluggable Database,Oracle11, Oracle12, MSSQL2008R2, MSSQL2012, MSSQL2014
- AppServer, WebSphere, WAS, JBoss, WebLogic, WLS
- WebServer, Apache, Tomcat

Miscellaneous tags

- Benchmark
- CIS
- PCI
- HIPPA
- FISMA
- Docker
- Docker Host
- Docker Image
- Unprovisioned Server
- Software With Single Database 11
- Software With Multiple Databases 12
- Software With CDB PDB

Related topics

[Resource types](#)

[Templates](#)

Deployments

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