# HP IT Executive Scorecard

Software Version: 9.50
Windows ® operating system

## Content Reference Guide for the Integration with Amazon Web Service Cloud Watch

Document Release Date: February 2015
Software Release Date: June 2014



# Legal Notices

## Warranty

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

## Restricted Rights Legend

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

## Copyright Notice

© Copyright 2011-2014 Hewlett-Packard Development Company, L.P.

## Trademark Notices

Microsoft® and Windows® are U.S. registered trademarks of Microsoft Corporation.

AMD is a trademark of Advanced Micro Devices, Inc.

Intel and Xeon are trademarks of Intel Corporation in the U.S. and other countries.

Oracle and Java are registered trademarks of Oracle and/or its affiliates.

# Documentation Updates

The title page of this document contains the following identifying information:

- Software Version number, which indicates the software version.
- Document Release Date, which changes each time the document is updated.
- Software Release Date, which indicates the release date of this version of the software.

To check for recent updates or to verify that you are using the most recent edition of a document, go to: **https://softwaresupport.hp.com**

This site requires that you register for an HP Passport and sign in. To register for an HP Passport ID, go to: **https://hpp12.passport.hp.com/hppcf/createuser.do**

Or click the **the Register** link at the top of the HP Software Support page.

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

# Support

Visit the HP Software Support Online web site at: **https://softwaresupport.hp.com**

This web site provides contact information and details about the products, services, and support that HP Software offers.

HP Software online support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support web site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests

- Download software patches
- Manage support contracts
- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract. To register for an HP Passport ID, go to:

**https://hpp12.passport.hp.com/hppcf/createuser.do**

To find more information about access levels, go to:

**https://softwaresupport.hp.com/web/softwaresupport/access-levels**

**HP Software Solutions Now** accesses the HPSW Solution and Integration Portal Web site. This site enables you to explore HP Product Solutions to meet your business needs, includes a full list of Integrations between HP Products, as well as a listing of ITIL Processes. The URL for this Web site is **http://h20230.www2.hp.com/sc/solutions/index.jsp**

## About this PDF Version of Online Help

This document is a PDF version of the online help. This PDF file is provided so you can easily print multiple topics from the help information or read the online help in PDF format. Because this content was originally created to be viewed as online help in a web browser, some topics may not be formatted properly. Some interactive topics may not be present in this PDF version. Those topics can be successfully printed from within the online help.

# Contents

AWSCW Data Source - Integration, Associated Context, KPIs, Metrics, and Data Lineage ... 5
AWSCW Data Source ... 6
Activate the Integration ... 7
CloudOptimization Context ... 10
Run the Custom Metrics Scripts Provided by Amazon EC2 ... 25
% of CPU Utilization KPI ... 26
% of Disk Space Utilization KPI ... 27
% of Memory Utilization KPI ... 28
% of Pagefile Utilization KPI ... 29
% of Swap Utilization KPI ... 30
% of Volume Utilization KPI ... 31

Send Documentation Feedback ... 32

# AWSCW Data Source - Integration, Associated Context, KPIs, Metrics, and Data Lineage

This document describes the integration, contexts, KPIs, Metrics, data lineage, and reports associated with the integration with the Amazon Web Service CloudWatch data source.

Amazon CloudWatch monitors your Amazon Web Services (AWSCW) resources and the applications you run on AWS in real-time. You can use CloudWatch to collect and track metrics, which are the variables you want to measure for your resources and applications. CloudWatch alarms send notifications or automatically make changes to the resources you are monitoring based on rules that you define. For example, you can monitor the CPU usage and disk reads and writes of your Amazon Elastic Compute Cloud (Amazon EC2) instances and then use this data to determine whether you should launch additional instances to handle increased load. You can also use this data to stop under-used instances to save money. In addition to monitoring the built-in metrics that come with AWS, you can monitor your own custom metrics. With CloudWatch, you gain system-wide visibility into resource utilization, application performance, and operational health.

**Cloud Optimization Offering**

The Cloud Optimization offering includes integrations with:

- **Amazon Web Services (AWS).** For details see AWS Data Source - Integration, Associated Context, KPIs, Metrics, and Data Lineage in the *IT Executive Scorecard Content Reference Guide for the Integration of Amazon Web Services*.
- **Amazon Web Service CloudWatch(AWSCW).** For details see AWSCW Data Source - Integration, Associated Context, KPIs, Metrics, and Data Lineage in the *IT Executive Scorecard Content Reference Guide for the Integration of Amazon Web Service CloudWatch*.
- **HP Cloud Service Automation (CSA).** For details see CSA Data Source - Integration, Associated Context, KPIs, Metrics, and Data Lineage in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Cloud Service Automation*.
- **vCenter Chargeback Manager (VCM).** For details see VCM Data Source - Integration, Associated Context, KPIs, Metrics, and Data Lineage in the *IT Executive Scorecard Content Reference Guide for the Integration of vCenter Chargeback Manager*.
- **Microsoft Hyper-V (HPV).** For details see Hyper-V Data Source - Integration, Associated Contexts, KPIs, Metrics, Data Lineage, and Reports in the *IT Executive Scorecard Content Reference Guide for the Integration of Hyper-V*.

**Note:** Information about the ALT data source and more general content issues are detailed in the *IT Executive Scorecard Content Reference Guide for the Integration of Alternate Data Sources*.

**Data Lineage**

For details on how to understand the data lineage graph, see Data Lineage in the *IT Executive Scorecard Content Reference Guide*

# AWSCW Data Source

The purpose of the integration of AWSCW as a data source is to bring this information into the Data Warehouse.

**To access:**

Select **Admin > Data Source Management** then click **Add data source** and select **AWSCW** to activate the integration processes for the **AWSCW** data source.




## Learn More

**Content Packs and their functionality**

To learn about Content Packs and their functionality, see Data Source Management in the *IT Executive Scorecard Administrator Guide*.

**Important Information**

- The AWSCW Content Pack supports multiple instances.
- **FBI Integration:** An extractor using the File Based Integration mechanism that extracts entities from the source and generates corresponding flat files. For details see File Based Integration (FBI) in the *IT Executive Scorecard Administrator Guide*.
- All fields are case-sensitive.
- The AWSCW FBI extracts the metric data from Amazon Web Service CloudWatch and uses it as a properties file along with the datasource.xml file. It is available once the AWSCW content pack is deployed under: <HP_XS>\agora\ContentPacks\AWSCW\conf.

  The properties file defines the rule to extract the metrics data, such as **criteriaTimeFormat**, **dimensionDelimiter**, **valueDelimiter**, **period**, and **minimumScope**. Generally, the value of the period is changed to define the frequency of metrics data.
- AWSCW proxy parameters are optional in a public network.

**When using both the AWS and VCM data sources.** Both the AWS and the VCM data sources offer the same type of information. If you integrate with both data sources, the values provided by the relevant Metrics might combine. For example, the Number of Used Instances Metric calculates how many VMs users are using the hybrid cloud environment. Both of the AWS data source (100 VM subscriptions) and the VCM data source (300 VM subscriptions) include this information. If, for example, you work with AWS only, the Number of Used Instances Metric is 100. If you work with VCM only, the Number of Used Instances Metric is 300. If you work with both data source, the Number of Used Instances Metric is 400.

# Tasks

## Activate the Integration

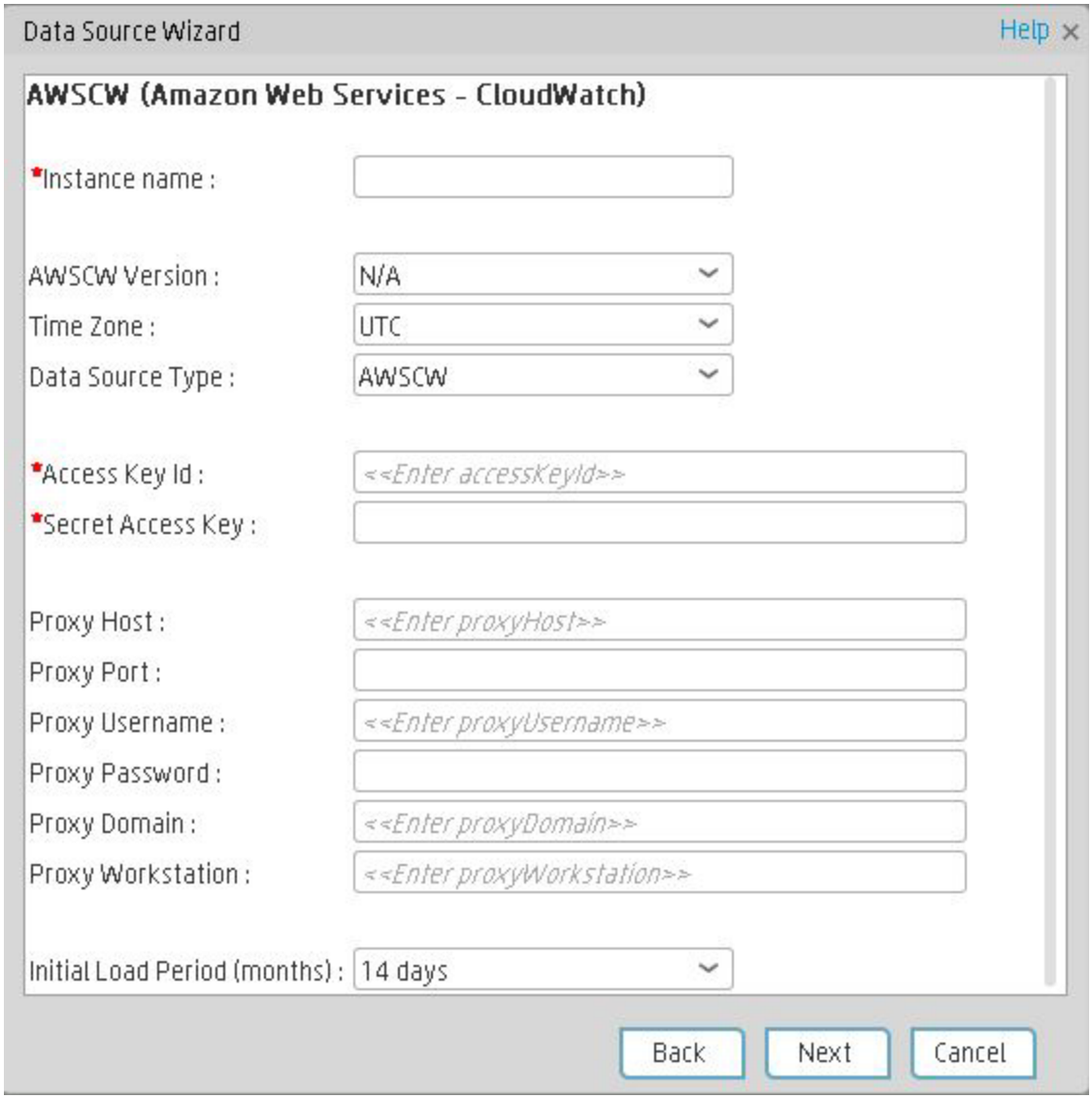
1. Select **Admin** > **Data Source Management** then click **Add data source**.
2. The Add Data Source page opens. Select the **AWSCW** data source type.
3. Select or enter the configuration parameters.
4. Click **Next** to proceed to the validationpage.

**Note:** To perform configuration and activation tasks using the Automation tool, seeThe Automation Tool in the *IT Executive Scorecard Administrator Guide*.

# UI Description

**AWSCW Activation Page**

The following is an example of the AWSCW Activation page.




User interface elements are described below:

| UI Element | Description |
|---|---|
| **Instance name** | Enter a name for the data source instance you are activating.<br>**Note:** If the AWSCW configuration is for a named instance connection, make sure to enter the named instance port. |
| **AWSCW Version** | This parameter is Not Applicable. |
| **Time Zone** | UTC only. |
| **Data Source Type** | AWSCW. This parameter is read only. |

| UI Element | Description |
|---|---|
| **Access Key Id** | Enter the AWS access key ID. |
| **Secret Access Key** | Enter the AWS secret access key. |
| **Proxy Host** | Enter the proxy host name. |
| **Proxy Port** | Enter the proxy port number. |
| **Proxy Username** | Enter the proxy username used to log on to the network. |
| **Proxy Password** | Enter the proxy password used to log on to the network. |
| **Proxy Domain** | Enter the proxy domain. |
| **Proxy Workstation** | Enter the proxy workstation. |
| **Initial Load Period (months)** | 14 days.<br>AWS CloudWatch stores only 14 days data. |



# Reference

## List and Flow of Entities

List of Entities in Excel format

This document is available in the PDFs directory in the Installation DVD, is accessible from the Help Center page in the online Help Center (documentation library), or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

# CloudOptimization Context

The CloudOptimization context gathers data from several data sources.

## Data sources of the CloudOptimization context

The CloudOptimization context contains the attributes and classes that relate to the following data sources:

- Amazon Web Services (AWS) offers a complete set of infrastructure and application services that enable you to run virtually everything in the cloud: from enterprise applications and big data projects to social games and mobile apps. One of the key benefits of cloud computing is the opportunity to replace up-front capital infrastructure expenses with low variable costs that scale with your business.

  The integration with AWS provides cost and usage reports based on the cost allocation report provided by AWS account.

  For details, see AWS Data Source in the *IT Executive Scorecard Content Reference Guide for the Integration of Amazon Web Services*.
- HP Cloud Service Automation (CSA) is a platform that orchestrates the deployment of computation and infrastructure resources and of complex multi-tier application architectures. HP CSA integrates and leverages the strengths of a hybrid cloud environment, providing the ability to design and deploy enterprise-ready cloud services tailored to the business needs of your organization. It works through a catalog-based subscription process. Subscribers request and modify cloud service offerings with pre-defined pricing and other customer-specific features. Once the request is approved, through a policy-driven process, HP CSA deploys the cloud service offering using a structured lifecycle with pre-defined integration mechanisms for invoking external processes.

  The integration with CSA as new content pack provides reporting analysis based on CSA data model.

  For details, see CSA Data Source in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Cloud Service Automation*.
- Amazon CloudWatch monitors your Amazon Web Services (AWSCW) resources and the applications you run on AWS in real-time. You can use CloudWatch to collect and track metrics, which are the variables you want to measure for your resources and applications. CloudWatch alarms send notifications or automatically make changes to the resources you are monitoring based on rules that you define. For example, you can monitor the CPU usage and disk reads and writes of your Amazon Elastic Compute Cloud (Amazon EC2) instances and then use this data to determine whether you should launch additional instances to handle increased load. You can also use this data to stop under-used instances to save money. In addition to monitoring the built-in metrics that come with AWS, you can monitor your own custom metrics. With CloudWatch, you gain system-wide visibility into resource utilization, application performance, and operational health.

  For details, see AWSCW Data Source in the *IT Executive Scorecard Content Reference Guide for the Integration of Amazon Web Service CloudWatch*.

**To access:**

In Executive Scorecard, click **Admin > Semantic Layer > Semantic Layer**. In the Context Management page, click **Launch Context Designer**. In the Context Designer page, click **Open an existing context**, and select the Context.

Tasks | Reference

# Tasks

## Display the Context

1. In Executive Scorecard, click **Admin > Semantic Layer > Semantic Layer**. The Context Management page opens.
2. The list of out-of-the-box Contexts is displayed.
3. Click **Launch Context Designer**.
4. In the Context Designer page that opens, click **Open an existing context**.
5. Select the relevant Context.

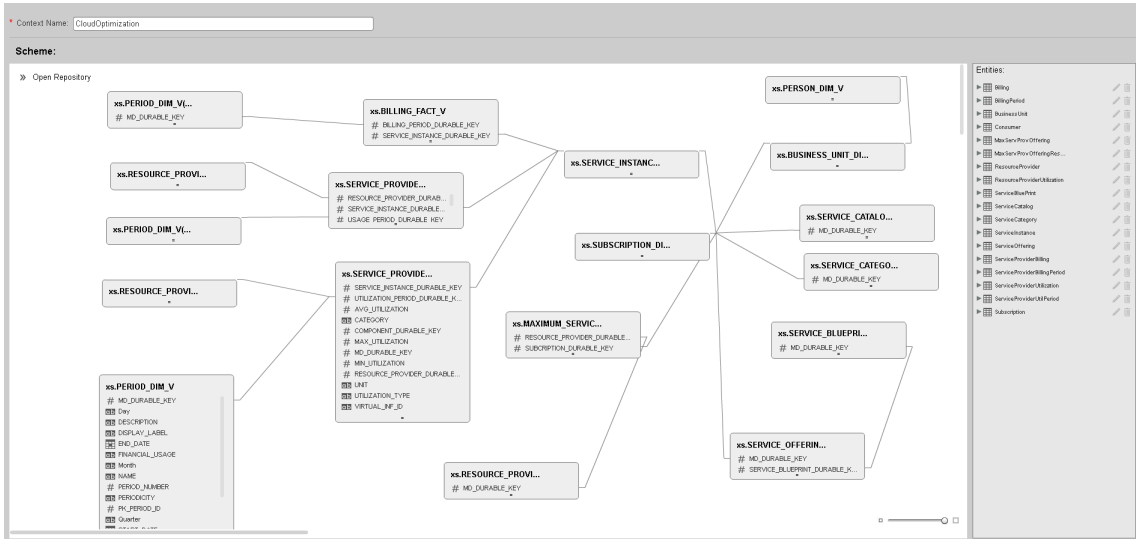
   The structure of the Context is displayed.

For additional details about Context Designer, see Semantic Layer - Context Designer in the *IT Executive Scorecard Administrator Guide*.

# Reference

## Context Tables and Structure

The context includes the following tables and relationships:



## Statistics

| Entity Count | Field Count | Table Count | Alias Count | Join Count |
|---|---|---|---|---|
| 18 | 94 | 18 | 4 | 17 |

## Model Structure

The table lists all the views and fields included in the model even when the corresponding objects have not been selected to be part of the corresponding Context.

| TABLE_NAME | COLUMN_NAME | TYPE |
|---|---|---|
| xs.BILLING_FACT_V | AMOUNT_BASE | NUMERIC |
| xs.BILLING_FACT_V | RECURRING_FLAG | NUMERIC |
| xs.BUSINESS_UNIT_DIM_V | Name | STRING |
| xs.BUSINESS_UNIT_DIM_V | ORG_TYPE | STRING |
| xs.MAXIMUM_SERVICE_PROVIDER_ OFFERING_V | SERVICE_OFFERING_ DURABLE_KEY | NUMERIC |
| xs.PERIOD_DIM_V | Day | STRING |
| xs.PERIOD_DIM_V | Day | STRING |
| xs.PERIOD_DIM_V | Day | STRING |
| xs.PERIOD_DIM_V | Month | STRING |
| xs.PERIOD_DIM_V | Month | STRING |
| xs.PERIOD_DIM_V | Month | STRING |
| xs.PERIOD_DIM_V | PERIODICITY | STRING |
| xs.PERIOD_DIM_V | PERIODICITY | STRING |
| xs.PERIOD_DIM_V | PERIODICITY | STRING |
| xs.PERIOD_DIM_V | Quarter | STRING |
| xs.PERIOD_DIM_V | Quarter | STRING |
| xs.PERIOD_DIM_V | Quarter | STRING |
| xs.PERIOD_DIM_V | Week | STRING |
| xs.PERIOD_DIM_V | Week | STRING |
| xs.PERIOD_DIM_V | Week | STRING |

| TABLE_NAME | COLUMN_NAME | TYPE |
|---|---|---|
| xs.PERIOD_DIM_V | Year | STRING |
| xs.PERIOD_DIM_V | Year | STRING |
| xs.PERIOD_DIM_V | Year | STRING |
| xs.PERSON_DIM_V | Name | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | FLAG_INTERNAL | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | FLAG_INTERNAL | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | FLAG_INTERNAL | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL0 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL0 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL0 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL1 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL1 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL1 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL2 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL2 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL2 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL3 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL3 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL3 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL4 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL4 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL4 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL5 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL5 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL5 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL6 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL6 | STRING |

| TABLE_NAME | COLUMN_NAME | TYPE |
|---|---|---|
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL6 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL7 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL7 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL7 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL8 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL8 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL8 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL9 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL9 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | LEVEL9 | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | Name | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | Name | STRING |
| xs.RESOURCE_PROVIDER_DIM_V | Name | STRING |
| xs.SERVICE_BLUEPRINT_DIM_V | DISPLAY_LABEL | STRING |
| xs.SERVICE_BLUEPRINT_DIM_V | NAME | STRING |
| xs.SERVICE_BLUEPRINT_DIM_V | SVC_BLUPRT_TYPE | STRING |
| xs.SERVICE_CATALOG_DIM_V | DISPLAY_LABEL | STRING |
| xs.SERVICE_CATALOG_DIM_V | NAME | STRING |
| xs.SERVICE_CATEGORY_DIM_V | DISPLAY_LABEL | STRING |
| xs.SERVICE_CATEGORY_DIM_V | NAME | STRING |
| xs.SERVICE_INSTANCE_DIM_V | DISPLAY_LABEL | STRING |
| xs.SERVICE_INSTANCE_DIM_V | NAME | STRING |
| xs.SERVICE_INSTANCE_DIM_V | SVC_INS_STATE | STRING |
| xs.SERVICE_OFFERING_DIM_V | CATEGORY | STRING |
| xs.SERVICE_OFFERING_DIM_V | DISPLAY_LABEL | STRING |
| xs.SERVICE_OFFERING_DIM_V | MD_DURABLE_KEY | NUMERIC |
| xs.SERVICE_OFFERING_DIM_V | NAME | STRING |

| TABLE_NAME | COLUMN_NAME | TYPE |
|---|---|---|
| xs.SERVICE_OFFERING_DIM_V | SVC_OFFERING_STATE | STRING |
| xs.SERVICE_PROVIDER_BILLING_FACT_V | COST_BASE | NUMERIC |
| xs.SERVICE_PROVIDER_BILLING_FACT_V | USAGE_QUANTITY | NUMERIC |
| xs.SERVICE_PROVIDER_BILLING_FACT_V | USAGE_TYPE | STRING |
| xs.SERVICE_PROVIDER_BILLING_FACT_V | USAGE_TYPE_CATEGORY | STRING |
| xs.SERVICE_PROVIDER_BILLING_FACT_V | VIRTUAL_INF_ID | STRING |
| xs.SERVICE_PROVIDER_UTILIZATION_FACT_V | AVG_UTILIZATION | NUMERIC |
| xs.SERVICE_PROVIDER_UTILIZATION_FACT_V | CATEGORY | STRING |
| xs.SERVICE_PROVIDER_UTILIZATION_FACT_V | MAX_UTILIZATION | NUMERIC |
| xs.SERVICE_PROVIDER_UTILIZATION_FACT_V | MIN_UTILIZATION | NUMERIC |
| xs.SERVICE_PROVIDER_UTILIZATION_FACT_V | UNIT | STRING |
| xs.SERVICE_PROVIDER_UTILIZATION_FACT_V | UTILIZATION_TYPE | STRING |
| xs.SERVICE_PROVIDER_UTILIZATION_FACT_V | VIRTUAL_INF_ID | STRING |
| xs.SUBSCRIPTION_DIM_V | DATE_END_LOC | DATE |
| xs.SUBSCRIPTION_DIM_V | DATE_START_LOC | DATE |
| xs.SUBSCRIPTION_DIM_V | INITIAL_PRICE | NUMERIC |
| xs.SUBSCRIPTION_DIM_V | NAME | STRING |
| xs.SUBSCRIPTION_DIM_V | RECURRING_PERIOD | STRING |
| xs.SUBSCRIPTION_DIM_V | RECURRING_PRICE | NUMERIC |
| xs.SUBSCRIPTION_DIM_V | STATUS | STRING |

## Object List

The table lists all the entities and fields of the model that were selected to be part of the Context.

| Entity Name | Field Name | Source Table Name | Alias Table Name | DB Column Name | Field Type |
|---|---|---|---|---|---|
| Billing | Amount | xs.BILLING_FACT_V | NULL | AMOUNT_BASE | NUMERIC |
| Billing | RecurringFlag | xs.BILLING_FACT_V | NULL | RECURRING_FLAG | NUMERIC |
| BillingPeriod | Day | xs.PERIOD_DIM_V | BILLING_PERIOD | Day | STRING |
| BillingPeriod | Month | xs.PERIOD_DIM_V | BILLING_PERIOD | Month | STRING |
| BillingPeriod | PERIODICITY | xs.PERIOD_DIM_V | BILLING_PERIOD | PERIODICITY | STRING |
| BillingPeriod | Quarter | xs.PERIOD_DIM_V | BILLING_PERIOD | Quarter | STRING |
| BillingPeriod | Week | xs.PERIOD_DIM_V | BILLING_PERIOD | Week | STRING |
| BillingPeriod | Year | xs.PERIOD_DIM_V | BILLING_PERIOD | Year | STRING |
| BusinessUnit | Name | xs.BUSINESS_UNIT_DIM_V | NULL | Name | STRING |
| BusinessUnit | Type | xs.BUSINESS_UNIT_DIM_V | NULL | ORG_TYPE | STRING |
| Consumer | Name | xs.PERSON_DIM_V | NULL | Name | STRING |
| MaxServProvOffering | ServiceOfferingId | xs.MAXIMUM_SERVICE_PROVIDER_OFFERING_V | NULL | SERVICE_OFFERING_DURABLE_KEY | NUMERIC |
| MaxServProvOfferingResProvider | IsPrivate | xs.RESOURCE_PROVIDER_DIM_V | xs_RESOURCE_PROVID | FLAG_INTERNAL | STRING |

| Entity Name | Field Name | Source Table Name | Alias Table Name | DB Column Name | Field Type |
|---|---|---|---|---|---|
| | | | ER_DIM_V2 | | |
| MaxServProvOfferingResProvider | LEVEL0 | xs.RESOURCE_PROVIDER_DIM_V | xs_RESOURCE_PROVIDER_DIM_V2 | LEVEL0 | STRING |
| MaxServProvOfferingResProvider | LEVEL1 | xs.RESOURCE_PROVIDER_DIM_V | xs_RESOURCE_PROVIDER_DIM_V2 | LEVEL1 | STRING |
| MaxServProvOfferingResProvider | LEVEL2 | xs.RESOURCE_PROVIDER_DIM_V | xs_RESOURCE_PROVIDER_DIM_V2 | LEVEL2 | STRING |
| MaxServProvOfferingResProvider | LEVEL3 | xs.RESOURCE_PROVIDER_DIM_V | xs_RESOURCE_PROVIDER_DIM_V2 | LEVEL3 | STRING |
| MaxServProvOfferingResProvider | LEVEL4 | xs.RESOURCE_PROVIDER_DIM_V | xs_RESOURCE_PROVIDER_DIM_V2 | LEVEL4 | STRING |
| MaxServProvOfferingResProvider | LEVEL5 | xs.RESOURCE_PROVIDER_DIM_V | xs_RESOURCE_PROVIDER_DIM_V2 | LEVEL5 | STRING |
| MaxServProvOfferingRe | LEVEL6 | xs.RESOURC | xs_ | LEVEL6 | STRIN |

| Entity Name | Field Name | Source Table Name | Alias Table Name | DB Column Name | Field Type |
|---|---|---|---|---|---|
| sProvider | | E_PROVIDER_DIM_V | RESOURCE_PROVIDER_DIM_V2 | | G |
| MaxServProvOfferingResProvider | LEVEL7 | xs.RESOURCE_PROVIDER_DIM_V | xs_RESOURCE_PROVIDER_DIM_V2 | LEVEL7 | STRING |
| MaxServProvOfferingResProvider | LEVEL8 | xs.RESOURCE_PROVIDER_DIM_V | xs_RESOURCE_PROVIDER_DIM_V2 | LEVEL8 | STRING |
| MaxServProvOfferingResProvider | LEVEL9 | xs.RESOURCE_PROVIDER_DIM_V | xs_RESOURCE_PROVIDER_DIM_V2 | LEVEL9 | STRING |
| MaxServProvOfferingResProvider | Name | xs.RESOURCE_PROVIDER_DIM_V | xs_RESOURCE_PROVIDER_DIM_V2 | Name | STRING |
| ResourceProvider | IsPrivate | xs.RESOURCE_PROVIDER_DIM_V | NULL | FLAG_INTERNAL | STRING |
| ResourceProvider | LEVEL0 | xs.RESOURCE_PROVIDER_DIM_V | NULL | LEVEL0 | STRING |
| ResourceProvider | LEVEL1 | xs.RESOURCE_PROVIDER_DIM_V | NULL | LEVEL1 | STRING |

| Entity Name | Field Name | Source Table Name | Alias Table Name | DB Column Name | Field Type |
|---|---|---|---|---|---|
| ResourceProvider | LEVEL2 | xs.RESOURCE_PROVIDER_DIM_V | NULL | LEVEL2 | STRING |
| ResourceProvider | LEVEL3 | xs.RESOURCE_PROVIDER_DIM_V | NULL | LEVEL3 | STRING |
| ResourceProvider | LEVEL4 | xs.RESOURCE_PROVIDER_DIM_V | NULL | LEVEL4 | STRING |
| ResourceProvider | LEVEL5 | xs.RESOURCE_PROVIDER_DIM_V | NULL | LEVEL5 | STRING |
| ResourceProvider | LEVEL6 | xs.RESOURCE_PROVIDER_DIM_V | NULL | LEVEL6 | STRING |
| ResourceProvider | LEVEL7 | xs.RESOURCE_PROVIDER_DIM_V | NULL | LEVEL7 | STRING |
| ResourceProvider | LEVEL8 | xs.RESOURCE_PROVIDER_DIM_V | NULL | LEVEL8 | STRING |
| ResourceProvider | LEVEL9 | xs.RESOURCE_PROVIDER_DIM_V | NULL | LEVEL9 | STRING |
| ResourceProvider | Name | xs.RESOURCE_PROVIDER_DIM_V | NULL | Name | STRING |
| ResourceProviderUtilization | IsPrivate | xs.RESOURCE_PROVIDER_DIM_V | RESOURCE_PROV_UTILIZATION | FLAG_INTERNAL | STRING |
| ResourceProviderUtilization | LEVEL0 | xs.RESOURCE_PROVIDER_DIM_V | RESOURCE_PROV_UTILIZATION | LEVEL0 | STRING |

| Entity Name | Field Name | Source Table Name | Alias Table Name | DB Column Name | Field Type |
|---|---|---|---|---|---|
| ResourceProviderUtilization | LEVEL1 | xs.RESOURCE_PROVIDER_DIM_V | RESOURCE_PROV_UTILIZATION | LEVEL1 | STRING |
| ResourceProviderUtilization | LEVEL2 | xs.RESOURCE_PROVIDER_DIM_V | RESOURCE_PROV_UTILIZATION | LEVEL2 | STRING |
| ResourceProviderUtilization | LEVEL3 | xs.RESOURCE_PROVIDER_DIM_V | RESOURCE_PROV_UTILIZATION | LEVEL3 | STRING |
| ResourceProviderUtilization | LEVEL4 | xs.RESOURCE_PROVIDER_DIM_V | RESOURCE_PROV_UTILIZATION | LEVEL4 | STRING |
| ResourceProviderUtilization | LEVEL5 | xs.RESOURCE_PROVIDER_DIM_V | RESOURCE_PROV_UTILIZATION | LEVEL5 | STRING |
| ResourceProviderUtilization | LEVEL6 | xs.RESOURCE_PROVIDER_DIM_V | RESOURCE_PROV_UTILIZATION | LEVEL6 | STRING |
| ResourceProviderUtilization | LEVEL7 | xs.RESOURCE_PROVIDER_DIM_V | RESOURCE_PROV_UTILIZATION | LEVEL7 | STRING |
| ResourceProviderUtilization | LEVEL8 | xs.RESOURCE_PROVIDER_DIM_V | RESOURCE_PROV_UTILIZATION | LEVEL8 | STRING |

| Entity Name | Field Name | Source Table Name | Alias Table Name | DB Column Name | Field Type |
|---|---|---|---|---|---|
| ResourceProviderUtilization | LEVEL9 | xs.RESOURCE_PROVIDER_DIM_V | RESOURCE_PROV_UTILIZATION | LEVEL9 | STRING |
| ResourceProviderUtilization | Name | xs.RESOURCE_PROVIDER_DIM_V | RESOURCE_PROV_UTILIZATION | Name | STRING |
| ServiceBluePrint | DisplayLabel | xs.SERVICE_BLUEPRINT_DIM_V | NULL | DISPLAY_LABEL | STRING |
| ServiceBluePrint | Name | xs.SERVICE_BLUEPRINT_DIM_V | NULL | NAME | STRING |
| ServiceBluePrint | Type | xs.SERVICE_BLUEPRINT_DIM_V | NULL | SVC_BLUPRT_TYPE | STRING |
| ServiceCatalog | DISPLAY_LABEL | xs.SERVICE_CATALOG_DIM_V | NULL | DISPLAY_LABEL | STRING |
| ServiceCatalog | NAME | xs.SERVICE_CATALOG_DIM_V | NULL | NAME | STRING |
| ServiceCategory | DISPLAY_LABEL | xs.SERVICE_CATEGORY_DIM_V | NULL | DISPLAY_LABEL | STRING |
| ServiceCategory | NAME | xs.SERVICE_CATEGORY_DIM_V | NULL | NAME | STRING |
| ServiceInstance | DisplayLabel | xs.SERVICE_INSTANCE_DIM_V | NULL | DISPLAY_LABEL | STRING |
| ServiceInstance | Name | xs.SERVICE_INSTANCE_DIM_V | NULL | NAME | STRING |

| Entity Name | Field Name | Source Table Name | Alias Table Name | DB Column Name | Field Type |
|---|---|---|---|---|---|
| ServiceInstance | State | xs.SERVICE_INSTANCE_DIM_V | NULL | SVC_INS_STATE | STRING |
| ServiceOffering | Category | xs.SERVICE_OFFERING_DIM_V | NULL | CATEGORY | STRING |
| ServiceOffering | DisplayLabel | xs.SERVICE_OFFERING_DIM_V | NULL | DISPLAY_LABEL | STRING |
| ServiceOffering | Name | xs.SERVICE_OFFERING_DIM_V | NULL | NAME | STRING |
| ServiceOffering | ServiceOfferingId | xs.SERVICE_OFFERING_DIM_V | NULL | MD_DURABLE_KEY | NUMERIC |
| ServiceOffering | State | xs.SERVICE_OFFERING_DIM_V | NULL | SVC_OFFERING_STATE | STRING |
| ServiceProviderBilling | Cost | xs.SERVICE_PROVIDER_BILLING_FACT_V | NULL | COST_BASE | NUMERIC |
| ServiceProviderBilling | UsageQuantity | xs.SERVICE_PROVIDER_BILLING_FACT_V | NULL | USAGE_QUANTITY | NUMERIC |
| ServiceProviderBilling | UsageType | xs.SERVICE_PROVIDER_BILLING_FACT_V | NULL | USAGE_TYPE | STRING |
| ServiceProviderBilling | UsageTypeCategory | xs.SERVICE_PROVIDER_BILLING_FACT_V | NULL | USAGE_TYPE_CATEGORY | STRING |
| ServiceProviderBilling | VirtualInfraStructureId | xs.SERVICE_PROVIDER_BILLING_ | NULL | VIRTUAL_INF_ID | STRING |

| Entity Name | Field Name | Source Table Name | Alias Table Name | DB Column Name | Field Type |
|---|---|---|---|---|---|
| | | FACT_V | | | |
| ServiceProviderBillingPeriod | Day | xs.PERIOD_DIM_V | SERVICE_PROV_BILLING_PERIOD | Day | STRING |
| ServiceProviderBillingPeriod | Month | xs.PERIOD_DIM_V | SERVICE_PROV_BILLING_PERIOD | Month | STRING |
| ServiceProviderBillingPeriod | PERIODICITY | xs.PERIOD_DIM_V | SERVICE_PROV_BILLING_PERIOD | PERIODICITY | STRING |
| ServiceProviderBillingPeriod | Quarter | xs.PERIOD_DIM_V | SERVICE_PROV_BILLING_PERIOD | Quarter | STRING |
| ServiceProviderBillingPeriod | Week | xs.PERIOD_DIM_V | SERVICE_PROV_BILLING_PERIOD | Week | STRING |
| ServiceProviderBillingPeriod | Year | xs.PERIOD_DIM_V | SERVICE_PROV_BILLING_PERIOD | Year | STRING |
| ServiceProviderUtilization | AvgUtilization | xs.SERVICE_PROVIDER_UTILIZATION_FACT_V | NULL | AVG_UTILIZATION | NUMERIC |
| ServiceProviderUtilization | Category | xs.SERVICE_PROVIDER_UTILIZATION_FACT_V | NULL | CATEGORY | STRING |
| ServiceProviderUtilization | MaxUtilization | xs.SERVICE_PROVIDER_UTILIZATION_FACT_V | NULL | MAX_UTILIZATION | NUMERIC |

| Entity Name | Field Name | Source Table Name | Alias Table Name | DB Column Name | Field Type |
|---|---|---|---|---|---|
| ServiceProviderUtilization | MinUtilization | xs.SERVICE_PROVIDER_UTILIZATION_FACT_V | NULL | MIN_UTILIZATION | NUMERIC |
| ServiceProviderUtilization | Unit | xs.SERVICE_PROVIDER_UTILIZATION_FACT_V | NULL | UNIT | STRING |
| ServiceProviderUtilization | UtilizationType | xs.SERVICE_PROVIDER_UTILIZATION_FACT_V | NULL | UTILIZATION_TYPE | STRING |
| ServiceProviderUtilization | VirtualInfraStructureId | xs.SERVICE_PROVIDER_UTILIZATION_FACT_V | NULL | VIRTUAL_INF_ID | STRING |
| ServiceProviderUtilPeriod | Day | xs.PERIOD_DIM_V | NULL | Day | STRING |
| ServiceProviderUtilPeriod | Month | xs.PERIOD_DIM_V | NULL | Month | STRING |
| ServiceProviderUtilPeriod | PERIODICITY | xs.PERIOD_DIM_V | NULL | PERIODICITY | STRING |
| ServiceProviderUtilPeriod | Quarter | xs.PERIOD_DIM_V | NULL | Quarter | STRING |
| ServiceProviderUtilPeriod | Week | xs.PERIOD_DIM_V | NULL | Week | STRING |
| ServiceProviderUtilPeriod | Year | xs.PERIOD_DIM_V | NULL | Year | STRING |
| Subscription | DateEnd | xs.SUBSCRIPTION_DIM_V | NULL | DATE_END_LOC | DATE |
| Subscription | DateStart | xs.SUBSCRIPTION_DIM_V | NULL | DATE_START_LOC | DATE |
| Subscription | InitialPrice | xs.SUBSCRIPTION_DIM_V | NULL | INITIAL_PRICE | NUMERIC |

| Entity Name | Field Name | Source Table Name | Alias Table Name | DB Column Name | Field Type |
|---|---|---|---|---|---|
| Subscription | Name | xs.SUBSCRIPTION_DIM_V | NULL | NAME | STRING |
| Subscription | RecurringPeriod | xs.SUBSCRIPTION_DIM_V | NULL | RECURRING_PERIOD | STRING |
| Subscription | RecurringPrice | xs.SUBSCRIPTION_DIM_V | NULL | RECURRING_PRICE | NUMERIC |
| Subscription | Status | xs.SUBSCRIPTION_DIM_V | NULL | STATUS | STRING |

# Run the Custom Metrics Scripts Provided by Amazon EC2

The following KPIs display data only if you follow the procedure below.

- % of Disk Space Utilization
- % of Memory Utilization
- % of Pagefile Utilization
- % of Swap Utilization
- % of Volume Utilization KPIs

The procedure is as follows:

1. Download the scripts for custom metrics like memory, and disk space utilization, that are provided by Amazon:
   - For Amazon CloudWatch Monitoring Scripts for Linux, download from:
     http://aws.amazon.com/code/8720044071969977
   - For Amazon CloudWatch Monitoring Scripts for Linux, download:
     http://aws.amazon.com/code/8720044071969977
2. Install and run the scripts on Amazon EC2 instances for your OS system.

Once the custom metrics are submitted to CloudWatch, the utilization data is provided to Executive Scorecard from CloudWatch through a Web Service or an API.

Note that customized metrics are charged by AWS. For details, refer to Amazon CloudWatch Pricing.

# % of CPU Utilization KPI

| | |
|---|---|
| **Component Type** | KPI |
| **Business Questions** | Make sure our resources are utilized efficiently. |
| **Business Objective** | Improve Server Utilization |
| **Description** | The average of percentages of CPU utilization at instance level. |
| **Context** | CloudOptimization |
| **Data source** | HPV, AWSCW |
| **Formula** | AVG( ServiceProviderUtilization.AvgUtilization , ServiceProviderUtilization.UtilizationType ='CPUUtilization' and PERIOD_ENTITY = ServiceProviderBillingPeriod ) |
| **KPI Formula Filter** | N/A |
| **Unit Type** | % |
| **Time Period** | Daily |
| **Direction** | Centralize |
| **Thresholds** | 0.00 to 60.00 \| 60.00 to 70.00 \| 70.00 to 80.00 \| 80.00 to 90.00 \| 90.00 to 100.00 |
| **Release** | 9.41 |

# % of Disk Space Utilization KPI

| | |
|---|---|
| **Component Type** | KPI |
| **Business Questions** | Make sure our resources are utilized efficiently. |
| **Business Objective** | Improve Server Utilization |
| **Description** | The average of percentages of disk space utilization at instance level. |
| **Context** | CloudOptimization |
| **Data source** | AWSCW |
| **Formula** | AVG( ServiceProviderUtilization.AvgUtilization , ServiceProviderUtilization.UtilizationType = 'DiskSpaceUtilization' and PERIOD_ENTITY = ServiceProviderUtilPeriod ) |
| **KPI Formula Filter** | N/A |
| **Unit Type** | % |
| **Time Period** | Daily |
| **Direction** | Centralize |
| **Thresholds** | 0.00 to 60.00 \| 60.00 to 70.00 \| 70.00 to 80.00 \| 80.00 to 90.00 \| 90.00 to 100.00 |
| **Release** | 9.41 |

# % of Memory Utilization KPI

| | |
|---|---|
| **Component Type** | KPI |
| **Business Questions** | Make sure our resources are utilized efficiently. |
| **Business Objective** | Improve Server Utilization |
| **Description** | The average of percentages of memory utilization at instance level. |
| **Context** | CloudOptimization |
| **Data source** | AWSCW |
| **Formula** | AVG( ServiceProviderUtilization.AvgUtilization , ServiceProviderUtilization.UtilizationType = 'MemoryUtilization' and PERIOD_ENTITY = ServiceProviderUtilPeriod ) |
| **KPI Formula Filter** | N/A |
| **Unit Type** | % |
| **Time Period** | Daily |
| **Direction** | Centralize |
| **Thresholds** | 0.00 to 60.00 \| 60.00 to 70.00 \| 70.00 to 80.00 \| 80.00 to 90.00 \| 90.00 to 100.00 |
| **Release** | 9.41 |

# % of Pagefile Utilization KPI

| | |
|---|---|
| **Component Type** | KPI |
| **Business Questions** | Make sure our resources are utilized efficiently. |
| **Business Objective** | Improve Server Utilization |
| **Description** | The average of percentages of pagefile utilization at instance level. |
| **Context** | CloudOptimization |
| **Data source** | AWSCW |
| **Formula** | AVG( ServiceProviderUtilization.AvgUtilization , ServiceProviderUtilization.UtilizationType = 'pagefileUtilization' and PERIOD_ENTITY = ServiceProviderUtilPeriod ) |
| **KPI Formula Filter** | N/A |
| **Unit Type** | % |
| **Time Period** | Daily |
| **Direction** | Centralize |
| **Thresholds** | 0.00 to 60.00 \| 60.00 to 70.00 \| 70.00 to 80.00 \| 80.00 to 90.00 \| 90.00 to 100.00 |
| **Release** | 9.41 |

# % of Swap Utilization KPI

| | |
|---|---|
| **Component Type** | KPI |
| **Business Questions** | Make sure our resources are utilized efficiently. |
| **Business Objective** | Improve Server Utilization |
| **Description** | The average of percentages of swap utilization at instance level. |
| **Context** | CloudOptimization |
| **Data source** | AWSCW |
| **Formula** | AVG( ServiceProviderUtilization.AvgUtilization , ServiceProviderUtilization.UtilizationType = 'SwapUtilization' and PERIOD_ENTITY = ServiceProviderUtilPeriod ) |
| **KPI Formula Filter** | N/A |
| **Unit Type** | % |
| **Time Period** | Daily |
| **Direction** | Centralize |
| **Thresholds** | 0.00 to 60.00 \| 60.00 to 70.00 \| 70.00 to 80.00 \| 80.00 to 90.00 \| 90.00 to 100.00 |
| **Release** | 9.41 |

# % of Volume Utilization KPI

| | |
|---|---|
| **Component Type** | KPI |
| **Business Questions** | Make sure our resources are utilized efficiently. |
| **Business Objective** | Improve Server Utilization |
| **Description** | The average of percentages of volume utilization at instance level. |
| **Context** | CloudOptimization |
| **Data source** | AWSCW |
| **Formula** | AVG( ServiceProviderUtilization.AvgUtilization , ServiceProviderUtilization.UtilizationType = 'VolumeUtilization' and PERIOD_ENTITY = ServiceProviderUtilPeriod ) |
| **KPI Formula Filter** | N/A |
| **Unit Type** | % |
| **Time Period** | Daily |
| **Direction** | Centralize |
| **Thresholds** | 0.00 to 60.00 \| 60.00 to 70.00 \| 70.00 to 80.00 \| 80.00 to 90.00 \| 90.00 to 100.00 |
| **Release** | 9.41 |

# Send Documentation Feedback

If you have comments about this document, you can contact the documentation team by email. If an email client is configured on this system, click the link above and an email window opens with the following information in the subject line:

**Feedback on Content Reference Guide for the Integration with Amazon Web Service Cloud Watch (IT Executive Scorecard 9.50)**

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to SW-Doc@hp.com.

We appreciate your feedback!




Java™
COMPATIBLE