

HPE IT Business Analytics Cloud Analytics End-to-End Guide



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This document provides an end-to-end guide for the integration of IT Business Analytics (ITBA), Cloud Service Automation (CSA), Amazon Web Services, Microsoft Azure (Azure), and Cloud Optimizer (CO).

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Overview

The CSA CAP pages, KPIs, and Metrics display data extracted from CSA, AWS, AWSCW, Azure, and CO.

Support Matrix

Product	Versions	Supported Databases
Amazon Web Services (AWS)	Amazon Web Services Note: Working with this data source requires a working Internet connection from the Data Warehouse machine.	All supported database servers
Amazon Web Service CloudWatch (AWSCW)	Amazon Web Service CloudWatch Note: Working with this data source requires a working Internet connection from the Data Warehouse machine.	All supported database servers
Microsoft Azure (AZURE)		All supported database servers
Cloud Service Automation (CSA)	4.6, 4.50 with patch 4.50.0001, 4.2, 4.1, 4.0, 3.2 and 3.1	All supported database servers
Cloud Optimizer (CO)	3.0	All supported database servers

For details, see *Support Matrix*.

Configuration Steps

To configure the integrations, follow the below steps.

CSA Content Preconditions

1. All VMs must be created from the CSA portal, but only the following OOTB designs are supported:

AZURE	CSL_BP_MICROSOFT_AZURE_COMPUTE_3.20_CP3.0
Amazon	Sequence: Amazon EC2 Compute with ELB
	Topology: Amazon EC2 topology (version: 15.07.0000)
Helion	OpenStack Compute with Storage v5.0
vCenter	vCenter Compute – EEM (version: 1.0.2)
	vCenter Compute (version: 1.0.1)

2. When you create a VM in CSA, you create a resource provider (which includes an account message) and a design, but you have to install resource provider the relevant category in the below list:

CSA Category	Resource Provider
VMware vCenter	VCenter
Amazon AWS	Amazon
OpenStack	Helion
Microsoft Azure	Azure

Installation

To install and configure this integration:

1. Install ITBA. For details, see *Installation Guide* . You can install ITBA using a GUI, silent, or console installation.

2. Optional:
 - o [Optional - Install BOE on a Linux Server](#) or [Optional - Install BOE Client on Windows Server](#) in the *Installation Guide*.
 - o [Optional - Install the Vertica Driver in the BOE Server and the BOE Client Server](#) in the *Installation Guide*.
3. Integrate ITBA with the BOE server. For details, see [Update the BOE Linkage](#) in the *Utility Tools Guide*.

Prepare the Dashboard Pages in ITBA

CSA CAP.

1. Create data in source systems: CSA, AWS, AWSCW, Azure, and CO.
2. Install and connect to data source for CSA, AWS, AWSCS, Azure, and CO
 - a. [Integration with CSA](#) in the *Content Reference Guide*.

Note: For CSA: If you want to change the default exchange rate of each currency, see "[Change the default exchange rate of each currency](#)" in the *Content Reference Guide*.

- b. [Integration with AWS](#) in the *Content Reference Guide*.
- c. [Integration with AWSCW](#) in the *Content Reference Guide*.
- d. [Integration with Azure](#) in the *Content Reference Guide*.
- e. [Integration with CO](#) in the *Content Reference Guide*.

Note: For CO: If you want to change the default pricing model, see "[Change the default price of the CO private cloud resources](#)" in the *Content Reference Guide*.

3. Execute the ETL process. For details, see [Data Management - Run ETL - Content Flow Management](#) in the *Administrator Guide*.
4. Activate the CSA CAP. For details, see [Activate a CAP](#) in the *Content Acceleration Packs Guide*.

Note: Some KPIs/Metrics may have no data if some of the Content Packs have not been installed.

5. Check the CSA Dashboard pages.

Note: If a page is blank:

- a. Update the browser settings. For details, see [Browsers and BOE Reports](#) in the *Administrator Guide*.
 - b. Link again ITBA to the BOE server. For details, see [Update the BOE Linkage](#) in the *Utility Tools Guide*.
6. Add a scheduler for ETL. For details, see [Run a job instance using the Content Flow Manager](#) in the *Administrator Guide*.
 7. Add a trigger for the KPI calculation. For details, see [Use-Case - Trigger Business Context calculation from Content Flow Manager](#) in the *Administrator Guide*.

Embed Dashboard Pages in the Provider Portal

1. Create a user in ITBA with the same logon name as in CSA.
2. Configure single sign-on. For details, see [LW-SSO](#) in the *Administrator Guide*.
3. Configure the embedded page URL. For details, see [Embed an ITBA Dashboard page in another application](#) in the *Business Analyst Guide*.
4. Access the ITBA pages in the CSA system.

Consumer Permission Control

1. Integrate LDAP with ITBA, BOE and CSA. For details, see [Users and Roles - LDAP Management](#) in the *Administrator Guide*.
2. Configure permission in BOE universe tool. For details, see [Configure the Showback report for the Consumer Organization Administrator](#) in the *Content Reference Guide*.

KPIs, Metrics, and Webi Reports and the Integrations with CSA, AWS, AWSCW, Azure, and CO

KPIs and Metrics	CSA	CSA +AWS	CSA +Azure	CSA +CO	CSA +AWS +Azure +CO
Average Cost of IT Services KPI The average cost of services provided by IT.	X	X	X	X	X
Average Cost of Resource Providers KPI The average cost of the Resource Providers during the measurement period.		X	X	X	X
Average Expense for Services KPI The average expense of services consumed by the organization.	X	X	X	X	X
Average Revenue of Services KPI The average revenue of services provided by IT during the measurement period.	X	X	X	X	X
Number of Service Subscriptions KPI The number of Service subscriptions created during the measurement period.	X	X	X	X	X
Percentage of DiskSpace Utilization KPI The average of percentages of disk space utilization at instance level.		X		X	X
Percentage of Memory Utilization KPI The average of percentages of memory utilization at instance level.		X	X	X	X
Percentage of Pagefile Utilization KPI The average of percentages of pagefile utilization at instance level.		X			X
Percentage of Server Utilization KPI The average of percentages of CPU utilization at instance level.		X	X	X	X

KPIs and Metrics	CSA	CSA +AWS	CSA +Azure	CSA +CO	CSA +AWS +Azure +CO
<p>Percentage of Swap Utilization KPI</p> <p>The average of percentages of swap utilization at instance level.</p>		X			X
<p>Percentage of Volume Utilization KPI</p> <p>The average of percentages of volume utilization at instance level.</p>		X			X
<p>Public vs Private Cloud Spending KPI</p> <p>The ratio between the public and the private spending.</p>		X	X	X	X
<p>Service Profit Margin KPI</p> <p>The profit margin of the services provided by IT during the measurement period.</p>		X	X	X	X
<p>Service Subscription Lifespan KPI</p> <p>The average lifecycle time of a subscription to a service during the measurement period.</p>	X	X	X	X	X
<p>Total Cost of IT Services KPI</p> <p>The total cost of services provided by IT during the measurement period.</p>		X	X	X	X
<p>Total Cost of Resource Providers KPI</p> <p>The total cost of the Resource Providers during the measurement period.</p>		X	X	X	X
<p>Total Expense for Services KPI</p> <p>The total expense of services consumed by the organization.</p>	X	X	X	X	X
<p>Total Revenue of Services KPI</p> <p>The total revenue of service provided by IT during the measurement period.</p>	X	X	X	X	X
<p>Amount of Used Disk Metric</p> <p>The product of the amount of disk provisioned and the number of days the VM has been running. For example, if a VM has been running with 20 GB of hard disk for 5 days, the DiskDays is calculated as 20x5 = 100 Disk (GB)-Days.</p>				X	X

KPIs and Metrics	CSA	CSA +AWS	CSA +Azure	CSA +CO	CSA +AWS +Azure +CO
<p>Amount of Used Memory Metric</p> <p>The product of the amount of memory allocated and the number of days the VM has been running. For example, if a VM has been running with 4 GB of memory for 5 days, the MemDays is calculated as follows: 5x4 = 20 Memory (GB)-Days.</p>				X	X
<p>Amount of Used Storage Metric</p> <p>The number of TBs of storage that are currently in use.</p>		X			X
<p>Computer Hours Metric</p> <p>The number of hours during which the VM has been running.</p>		X	X		X
<p>Incoming Network Traffic Metric</p> <p>Network Download.</p>		X			X
<p>Network Traffic Metric</p> <p>Total network traffic.</p>		X			X
<p>Number of Used CPUs Metric</p> <p>The product of the number of CPUs and the number of days the VM has been running. For example, if 4 CPUs are used for the first 15 days and 8 CPUs are used for the next 15 days in a month, the CPUDays is calculated as follows: (4x15)+(8x15) = 180 CPUDays</p>				X	X
<p>Number of Used Instances Metric</p> <p>The number of dedicated instances you are running in your hybrid cloud environment.</p>		X	X	X	X
<p>Outgoing Network Traffic Metric</p> <p>Network Upload.</p>		X			X

Webi Reports	CSA	CSA +AWS	CSA +Azure	CSA +CO	CSA +AWS +Azure +CO
CSA - Amazon EC2 Instance Usage and Utilization		X			X
CSA-Showback for Cloud Services	X	X	X	X	X
CSA-Showback Detail for Cloud Services	X	X	X	X	X
CSA-Showback for Consumer	X	X	X	X	X
CSA-Showback Detail for Consumer	X	X	X	X	X
CSA-Resource Usage and Utilization for Consumer		X	X	X	X
CSA-Resource Usage and Utilization for Resource Supplier Manager		X	X	X	X

For details about the reports, see *Content Acceleration Packs Guide*.

Troubleshooting

- Some KPIs/Metrics may have no data if some of the Content Packs are not installed.
- Blank report or Dashboard page.
 - a. You must update the browser settings. For details, see [Browsers and BOE Reports](#) in the *Administrator Guide*.
 - b. If you changed the host name of the ITBA server or of the BOE server, you must link again ITBA to the BOE server.

Additional Resources



HPE Software Support Online



HPE Live Network



HPE Software Solutions and Integrations



Forum Discussions:

- <https://hpln.hpe.com/node/10214/og/forum/373>

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Support Matrices

For complete support and compatibility information, see the support matrix for the relevant product release. All support matrices and product manuals are available here on the HPE Software Support Online website:

http://support.openview.hp.com/sc/support_matrices.jsp

You can also download the HPE Support and Compatibility Matrix for this release from the HPE Self-solve documentation portal:

<http://support.openview.hp.com/selfsolve/manuals>

Document Change Notes

The following table provides details of any changes introduced in this version of this document.

Date	Change
April 2016	Original release of this document

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