Hewlett Packard Enterprise

Helion Cloud Suite – Ultimate Edition

At a Glance

Software version: 2016.10

For Microsoft Windows® and Linux operating systems

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Contents

Helion Cloud Suite Ultimate Overview

The Helion Cloud Suite Ultimate Edition (HCS Ultimate) is an integrated automation and management solution for private and hybrid cloud environments that accelerates transformation of applications and IT service delivery with efficiency and speed. The HCS Ultimate enables IT to provide Infra/App Services and enable deployment by brokering across multiple environments (traditional, private, public, etc.). End-user consumers can be business users through service catalogs, developers and IT operators using APIs or the user interface. HCS Ultimate enables Infra & Ops (I/O) pros to get visibility, governance, and operational control through a single pane of glass UI or programmatically.

Ultimate edition -- provides a complete automation solution with lifecycle management for IT infrastructure and applications, using the following integrated products:

- Cloud Optimizer (CO) 3.01
- CODAR 1.7
- Cloud Service Automation 4.7 – patch 1
- Data Center Automation (DCA) Express Suite (SA, OO) 2016.10
- DMA Ultimate Suite 10.40
- Enterprise Maps (EM) - Cloud Transformation 3.2
- Helion OpenStack 4.0
- Helion Stackato (license key needed) 4.0
- IT Business Analytics (limited to Cloud analytics) 10.10
- IT Operations Compliance (ITOC) Ultimate Suite 2016.10
- Network Automation Ultimate 10.2.0
- Operations Analytics (OpsA) Ultimate 2.32
- Ops Bridge System Collectors 2016.05
- Operations Orchestration (OO) 10.60 + HPE Solution 1.7.0
- Propel Ultimate 2.2
- Universal Discovery (UD) and UCMDB 10.30

Contents

This **At a Glance** guide describes the HCS Ultimate component products and provides important links to documentation and websites to help get you started:

Getting started with HCS Ultimate

This section includes a list of all component products used for the Ultimate edition and provides descriptions of each component product with useful links to documentation and websites.

Cloud Service Automation 4.7 + Patch 1

Cloud Service Automation (CSA) is a unique platform that orchestrates the deployment of compute and infrastructure resources and of complex multi-tier application architectures. CSA integrates and leverages the strengths of several Hewlett Packard Enterprise datacenter management and automation products, adding resource management, service offering, service design, and a customer portal to create a comprehensive service automation solution.

The CSA subscription, service design, and resource utilization capabilities address three key challenges:

- The CSA Marketplace Portal provides a customer interface for requesting new cloud services and for monitoring and managing existing services, with subscription pricing to meet your business requirements.
- The CSA graphical service design and content portability tools simplify developing, leveraging, and sharing an array of service offerings that can be tailored to your customers' needs.
- The CSA lifecycle framework and resource utilization features ease the complexity of mapping your cloud fulfillment infrastructure into reusable, automated, resource offerings for on-time and on-budget delivery.

Getting started with Cloud Service Automation 4.7 + Patch 1

Resource	Link
Release Notes	go
System and Software Support Matrix	go
Documentation Library	go
Installation Guide (zip)	go
Configuration Guide – Linux / Windows (single manual for Linux and Windows in 4.7)	go
CSA Cluster Configuration Using a Load Balancer	go
CSA Cluster Configuration Using an Apache Web Server	go
CSA website	go
HPE Software Support	go
Downloads and content on HPE Live Network	go

Procedure to upgrade CSA 4.6 to CSA 4.7 on Centos

1. Deploy CSA 4.6 + Patch 1 OVA with the proper static host name and IP.
2. Make sure the CSA 4.6 host name is responsive by using the ping command to verify.
3. Roll back HPE Solutions 1.8.2 from OO (Operations Orchestration 10.60).
4. Delete the below CPs which are dependent on HPE Solutions 1.8.2 in OO:
    - CSA-SiteScope
    - Utility Orchestration
    - VMWare vCenter Compute
    - SiteScope
    - Cloud Orchestration
    - OpenStack Content
    - OpenStack Common Utility
    - HPE Solutions 1.8.2
5. Restart CSA and central services.
6. Cd /opt/hpe/oo/central/bin
   ./central restart
7. Reboot the machine.
8. After reboot, ensure the CSA service is running and you are able to open the CSA welcome page and MPP.
9. Copy the CSA 4.7 files available from:
   https://h20575.www2.hpe.com/evalportal/try.do?productNumber=TC095JAE&revision=1.0

10. Change the permission of the CSA 4.7 setup.bin file (preferably place the 4.7 bits under /tmp), by logging in as 'root' user.
    chown csauser setup.bin
    chmod u+rwx setup.bin
11. Stop the CSA service using the command: service csa stop (CSA elastic service).
12. Login as csauser, su csauser.
13. Upgrade to CSA 4.7 and run ./setup.bin.
14. If the upgrade is successful, you will receive a confirmation message.

Cloud Optimizer Premium (CO) 3.01

Cloud Optimizer Premium (CO Premium), formerly Virtualization Performance Viewer (vPV) is a web-based analysis and visualization tool that analyzes performance trends of elements in virtualized environments. It enables virtualization monitoring by providing an overview of the environment, near real-time and historical data analysis and triaging using an interactive dashboard. It also enables monitoring for cloud and hypervisor environments. CO helps you visualize performance data for elements in the context of each other to rapidly analyze bottlenecks and provides performance monitoring, graphing, and reporting in a single interface.

Note: Two installation formats are available: install and appliance. Patch documentation will be delivered with the patch.

Getting started with CO 3.01

Resource	Link
Release Notes	go
Support Matrix	go
Virtual Appliance in the Interactive Installation Guide (zip)	go
Installation Guide: Chapter 2: Installation Requirements Chapter 4: Installing CO Chapter 6: Configuring CO	go
Open Source Third-Party License Agreement Guide	go
Online Help: Chapter 3: Configuring CO Using Settings Chapter 11: CO API Reference	go
YouTube Playlist	go
HPE Blog Search	go
HPE Software Support	go

Codar 1.7

Codar 1.7 introduces the ability to expose topologies, used by other applications, as services in Cloud Foundry. Cloud Foundry is a leading platform as a service offering. Codar 1.7 comes with a service designer which will let users model infrastructure and application deployment topologies in a declarative fashion. These deployment topologies are called service designs. HPE Codar supports deployment of infrastructure over VMWare vCenter and Amazon EC2 while applications can be deployed through OpsCode Chef. The service designer also supports the ability to deploy and test applications as the service designs change and evolve.

Getting started with Codar 1.7

Resource	Link
Release Notes	go
Support Matrix	go
Configuration Guide	go
Documentation Library	go
Installation Guide	go
Online Help	go
HPE Software Support	go

Data Center Automation (DCA) Express Suite 2016.10

The Data Center Automation (DCA) Suite Express 2016.10 is a complete automation solution for centralizing and streamlining many data center functions. The DCA Suite Express 2016.10 provides tools that automate critical areas of your data center's server management, business service compliance, and IT processes, including provisioning, configuration, compliance, patching, and release management for databases and applications services.

To get started with DCA 2016.10, see the DCA 2016.10 Documentation Library document.

DMA Ultimate Suite 10.50

HPE Database Middleware and Automation (HPE DMA) ultimate suite 10.50 automates frequently performed data center tasks and processes that tend to be complex, manually intensive, and error-prone. It enables operations teams to automate the repair and maintenance of business critical applications, regardless of platform, version, or vendor.

To get started with DMA Express Suite 10.50, see the DMA Documentation Library document.

Enterprise Maps - Cloud Transformation 3.2

Enterprise Maps (EM) - Cloud Transformation version 3.2 has the capacity to manage the cloud transformation process for applications. This process involves surveys from technical, business and financial perspectives, cost analysis, reports and Cloud Service Automation. Through surveys you can gather inputs from respective stakeholders that are relevant from a cloud transformation perspective. The results assist with strategic decision-making.

Cost analysis helps compare real costs when deploying the applications into cloud data centers such as Amazon Web Service and HPE Compute. Besides the already available data centers, others can be added for comparison to maximize cost savings. The estimation can be simply based on the number of servers or can be more detailed, depending on the deployment requirement.

After completion of the assessment, integration with CSA helps automate the creation of service designs, which is the first step towards cloud automated provisioning.

Note: Two installation formats are available: install and appliance.

Getting started with Enterprise Maps – Cloud Transformation 3.2

Resource	Link
Release Notes	go
Concepts Guide	go

Resource	Link
Installation and Configuration Guide	go
Enterprise Maps 3.20 Virtual Appliance Quick Start Guide	go
User Guide	go
Administration Guide	go
Open Source Third-Party License Agreement Guide	go
Enterprise Maps website	go
HPE Software Support	go
Downloads and content HPE Live Network	go

Helion OpenStack 4.0

Helion OpenStack provides an open source and highly configurable IaaS with the room to adapt your architecture and grow your capacity as your business needs change. Helion Openstack has a hardened platform, critical patch support, data-in-transit encryption, network traffic separation, vulnerability management, and rigorous security best practices. With Helion OpenStack you can track and audit changes through a single-view management console, update or patch without application downtime, and automate your lifecycle management operations through the lifecycle API Integrated cloud monitoring and logging operations. Increase cloud service reliability and availability with integrated cloud monitoring and expanded centralized logging

To get started with Helion OpenStack 4.0, see the Helion documentation portal.

Helion Stackato Virtualbox 4.0

Helion Stackato provides IT Operators with simplified deployment and cloud native services. Its infrastructure agnostic, guaranteeing compatibility across cloud infrastructures. With the Helion Service Manager, operators can easily manage application services while leveraging the Helion Control Plane to ensure the entire application lifecycle. Besides popular third-party services useful for developers, Helion Stackato integrates HPE Software services such as StormRunner and Haven OnDemand.

To get started on Helion Stackato Virtualbox 4.0, see the Stackato documentation portal.

IT Business Analytics (ITBA) Cloud Analytics 10.10

IT Business Analytics (ITBA) version 10.10 automatically gathers data from across your IT systems to build key performance indicators (KPIs) providing organizations with broad and deep insights into everything IT does.

Note: Two installation formats are available: install and appliance.

Getting started with ITBA 10.10

Resource	Link
Release Notes	go
Support and Compatibility Matrix	go
Documentation Library	go

Resource	Link
ITBA Installation Guide	go
ITBA Virtual Appliance 10.10. Installation Guide	go
Administrator Guide	go
ITBA website	go
HPE Software Support	go
Downloads and content HPE Live Network	go

IT Operations Compliance (ITOC) Ultimate Suite 1.20

ITOC provides cost-effective and continuous IT compliance to unify policy and security management across silos to deliver compliant business services. ITOC is one component of the DCA Premium suite, which provides a holistic, automated approach across the network management domain. For example, ITOC allows you to get the IT compliance information you need, when you need it; increases productivity across IT silos, and decreases time for audit and remediation; and provides easy set up and out-of-the-box policy management content.

To get started with ITOC Ultimate Suite 1.20, see the ITOC Documentation Library document.

Network Automation Ultimate 10.2

Network Automation (NA) software automates the complete operational lifecycle of network devices from provisioning to policy-based change management, compliance, and security administration. NA is one component of the DCA Premium suite, which provides a holistic, automated approach across the network management domain. For example, NA proactively passes audit and compliance requirements, recognizes and fixes security vulnerabilities before they impact the network, prevents network inconsistencies and misconfigurations, and leverages process-powered automation to deliver application integrations.

To get started with NA Ultimate 10.2, see the 10.20 User Guide.

Operations Analytics (OpsA) Ultimate 2.32

Operations Analytics (OpsA) Premium (formerly "Operations Log Intelligence (OLI)"), limited to virtual machine and bare metal in this suite. Ops A is a log management solution that is optimized for extremely high event throughput, efficient long-term storage, and rapid data analysis. OpsA receives and stores events; supports search, and retrieval; and can optionally forward selected events.

Getting started with OpsA 2.32

Resource	OpsA 2.32 Link
Release Notes	go
Support and Compatibility Matrix - see the Release Notes	go
Documentation Library	go
Installation Guide	go
Configuration Guide	go
OpsA website	go

Resource	OpsA 2.32 Link
HPE Software Support	go
Downloads and content HPE Live Network	go

Ops Bridge System Collectors 2016.05

The Ops Bridge is a suite of software that provides the ability to sense, analyze, and adapt to manage IT services that support digital business. With advanced event correlation, log intelligence, predictive analytics, and automation, you can remediate issues across all your technologies to prioritize business targets. Operations Bridge Premium Suite includes these component products: Operations Manager i (OMi), Operations Bridge Reporting (OBR), SiteScope, Operations Agent & Infrastructure SPIs, and Operations Bridge System Collectors.

Getting started with Operations Bridge System Collectors 2016.05

Resource	Link
OMi Management Packs	go
Connectors	Find numerous third-party connectors on HPE LiveNetwork in Documentation > BSM Connectors
OBR Documentation Library	go
SiteScope Documentation Library	go
Operations Agent & Infrastructure SPIs Documentation Library	go
HPE Software Support	go
Ops Bridge System Collectors website	go

Operations Orchestration 10.60 + HPE Solution 1.7.0

Operations Orchestration (OO) is the industry-leading solution for IT process automation and runbook automation.

OO is a system for creating and using actions in structured sequences (called flows) which maintain, troubleshoot, repair, and provision your Information Technology (IT) resources by performing the following actions:

- Checking the health, diagnosing, and repairing, networks, servers, services, software applications, and individual workstations.
- Deploying applications, patching, and maintaining them by checking client, server, and virtual machines for required software and updates, and, if needed, performing the necessary installations, updates, and distributions.
- Performing repetitive tasks, such as checking status on internal or external web site pages.

Getting started in OO 10.60 + HPE Solution 1.7.0

Resource	Link
Release Notes	go
Support and Compatibility Matrix	go
Documentation Library	go
Installation and Upgrade Whitepaper	go
OO website	go
HPE Software Support	go
Downloads and content on HPE Live Network	go

Propel Ultimate 2.2

HPE Propel enables IT departments to offer their services in an online shopping experience, similar to what users experience today at popular online retailers. Users may select from a variety of service providers, giving back IT a level of control over the computing environment while allowing their consumers to choose from a wide variety of sources.

Getting started in Propel 2.2

Resource	Link
Release Notes	go
Administration Guide	go
Installation and Configuration Guide	go
Propel website	go
HPE Software Support	go

Universal Discovery with UCMDB 10.30

Universal Discovery with UCMDB version 10.30 stores data center UCMDB resource information such as storage, resource pools, and compute resources. When CSA is integrated with UCMDB, the configuration data is translated or mapped to UCMDB Configuration Items (CIs), attributes, and relationships, and then written into the UCMDB. As CSA consumes the resource capacities during cloud service resource allocation, it updates the both the UCMDB records and the CSA resource pool artifacts.

Getting started with UCMDB 10.30

Resource	Link
Release Notes	go
Support and Compatibility Matrix	go
Documentation Library	go
Deployment Guide (10.30) (zip) • "Install HPE UCMDB 10.30"	go
UCMDB website	go
HPE Software Support	go
Downloads and content HPE Live Network	go

System requirements

This section displays system requirements for the HCS Ultimate version.

Server and Database	CPU	MEM (GB)	DISK (GB)	OS	Notes
CODAR 1.7 (with Oracle or Postgres or MSSQL)	8	16	150	Windows or Linux	
CO 3.01 for 1k Monitored Instances (with Vertica (Included with appliance))	2	4	100	CentOS	
CSA 4.7 & OO 10.60 Virtual Appliance (with Postgres (Included with appliance))	8	16	160	CentOS	
Database and Middleware Automation (DMA) Application Server – Small (with Oracle or Postgres)	1	4	25	RHEL or SUSE	Small = Under 100 DMA Clients
Database and Middleware Automation (DMA) Database Server – Small (with Oracle or Postgres)	4	4	50	RHEL or SUSE	Small = Under 100 DMA Clients
DCAA 2016.10 (with Postgres (Included with appliance))	8	32	256	CentOS	
ITBA 10.10 Virtual Appliance Server (Vertica (Included with appliance))	8	16	150	CentOS	
ITBA 10.10 Vertica Database Server	8	16	150	CentOS	
ITBA 10.10 SAP BO Enterprise Server	8	16	150	CentOS	
Propel 2.2 (with Postgres (Included with appliance))	4	12	50	CentOS	
Network Automation (NA) Core - Small	6	16	150	Windows or Linux	
Network Automation (NA) Database – Small (with Oracle or SQL Only)	12	16	512	Windows or Linux	
OpsA - 2.32 Operations Analytics Server (up to 500 Nodes) – Small (with Vertica)	4	8	40	CentOS	5 Concurrent Users
OpsA – 2.32 Collector Appliance (up to 500 Nodes) - Small	8	16	200	CentOS	5 Concurrent Users
OpsA – 2.32 Node Vertica (up to 500 Nodes) - Small	8	16	1000	CentOS	5 Concurrent Users
OpsA – 2.32 ArcSight Logger Instance per 250 GB of log file volume / Day	4	12	850	CentOS	HPE Operations Analytics 2.32 System Requirements and Sizing Guide
OpsB - OMi Virtual Appliance (with Postgres (Included with appliance))	4	12	64	CentOS	Up to 2000 nodes
OpsB Reporter (~30K CI's / ~200K Records per Hour) - Small - 3 Content Packs (with Vertica)	8	16	550	CentOS	Single-System Deployment
OpsB Reporter Collector (per 10,000 Nodes / Equivalent to ~320 CI's) (with Vertica)	4	8	300	CentOS	
OpsB SiteScope (Embedded)	4	16	100	Windows or Linux	
Enterprise Maps (with Oracle Express (Included with appliance)	4	16	50	Debian (hLinux)	
UCMDB Application Server - (2M CI's & Relationships) Small (with Postgres, MSQL 2008/2012, Oracle)	4	16	60		For production-use DB's should be physical
UCMDB Probe - (2M CI's & Relationships) Small (with Postgres, MSQL 2008/2012, Oracle)	4	12	100		For production-use DB's should be physical

HCS supported use cases

This section provides a list of the supported use cases for the Ultimate HCS edition.

Product	Use Case
DCA - SA	As an HCS Admin, I should be able to provision VMs on vCenter using SA's virtualization feature.
	As an HCS Admin, I should be able to define OS build plans, patch policies.
	As an HCS Admin, I should be able to create service designs & service offerings that can provision OS on a compute.
	As an HCS Admin, I should be able to create service designs & service offerings to attach, scan and remediate patch policies.
	As an HCS consumer, I should be able to use the operator portal to initiate a server provisioning task for physical and virtual servers.
	As an HCS consumer, I should be able to use the operator portal to scan/remediate a server or group of servers for patching policies.
	As an HCS Admin, I should be able to create policy elements and group them into compliance policies.
OO	As an HCS Admin, I need support for Runbook Automation.
DMA	As an HCS Admin, I should be able to provision database, middleware on top existing infrastructure using runbook automation.
DCA - ITOC	As an HCS Admin, I should be able to create policy elements and group them into IT Compliance policies.
	As an HCS Admin, I should be able to expose those policies to select organizations (and /or) catalogs.
	As an HCS Admin, I should be able to create service designs & service offering with policies as options.
	As an HCS Consumer, I should be able to view my service's compliance details.
	As an HCS consumer, I should be able to use the operator portal to scan/remediate a server or group of servers for IT Compliance policies.
DCA - NA	As an HCS Network Admin, I should be able to provision network, perform network configuration & policy compliance management.
CO	As an HCS Admin, I should be able to view and report on the cloud management platform's infrastructure resources.
	As an HCS Admin, I should be able view and report on the cloud management platform's infrastructure resources that I oversee.
	As an HCS Admin, I should be able provision infrastructure services intelligently in my available resources based on capacity analytics.
OMi	As an HCS Admin, I should be able to view all events (from CO) on my OMi event console.
	As an HCS Admin or IT Ops Admin, I should be able to automate configuration of agentless and agent-based monitoring of infrastructure and applications per management templates.
CSA/OO Appliance	As an HCS Admin, I should be able to create providers, service designs, and service offerings for automated provisioning of private and public cloud services.
	As an HCS Admin, I should have offerings for automated provisioning of infrastructure services private cloud (Vmware, Helion OpenStack) and public cloud (AWS).

Product	Use Case
	As an HCS consumer, I should be able to consume infrastructure provisioning services available in my catalog.
OpsA	As an HCS Admin, I should be able to collect and analyze the logs from all provisioned servers.
ITBA	As an HCS Admin, I should be able to view and report on resource usage across entire platform/Organization.
	As an HCS Admin, I should be able to view and report on showback across entire platform/Organization.
EM	As an HCS Admin, I should be able to assess and model existing applications for cloud deployment.
	As an HCS Admin, I should be able transform existing applications for cloud deployment
UCMDB/UD	As an HCS Admin or IT Admin, I should be able to discover my existing resources from public/private cloud and traditional environments.
	As an HCS Admin or IT Admin, I should be able to discover infrastructure and application dependencies in support of cloud services.
	As an HCS or IT Admin, I should be able to automate discovery of infrastructure and applications in support of cloud services.
CODAR	As an HCS Application Release Manager, I should be able to automate application deployment, release pipeline management, and integrated CI/CD.
Propel	As an HCS Admin, I want the ability to aggregate and integrate different supplier services.

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