

Data Center Automation Suite (Express)

Software Version: 2017.01

Getting started

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Contents

Get started	4
Key features and capabilities	5
Enable agile IT operations and business service delivery	5
Automated provisioning and configuration	5
Built-in process orchestration	6
Product integration matrix	7
Server Automation	7
Operations Orchestration	8
Database and Middleware Automation Premium	8
Operations Bridge Reporter	9
Product library	11
Send documentation feedback	12

Get started

The Data Center Automation (DCA) Suite 2017.01 is a complete automation solution for standardizing and automating routine data center operations.

The DCA Suite Express edition is used to provision and manage servers and data center operations more effectively. This edition helps you to automate activities for data center management including Server OS, Software discovery, Provisioning, Configuration, and Lifecycle management operations across your data center.

It provides tools that automate:

- critical areas of your data center's server management
- IT processes, including provisioning and configuration
- release management for databases

Key features and capabilities

This section provides information on the various features and capabilities of the DCA Suite Express.

Enable agile IT operations and business service delivery

The DCA Suite Express is a unified, scalable, analytics-driven infrastructure management solution that automates tasks and orchestrates end-to-end processes. It reduces the cost of IT operations and accelerates service delivery.

It delivers end-to-end lifecycle management across virtual and physical servers, databases, and middleware; including discovery, provisioning, configuration, remediation, software deployment, upgrades, migrations and retirement.

Policy-based deployments and out-of-the-box workflows ensure proven, consistent processes are followed, enterprise standards are enforced and greatly speed up and simplify operations, either as discreet tasks or within an orchestrated multi-domain end-to-end process.

It supports heterogeneous and multivendor automation for popular operating systems and commercial applications, including, but not limited to, Windows®, Linux®, Oracle, SQL Server, DB2, Sybase, WebSphere, WebLogic, Apache and JBoss. The most diverse and complex IT environments rely on DCA for managing day-to-day operations.

Automated provisioning and configuration

With DCA Suite Express, you can automate provisioning and configuration for virtual servers, physical servers, databases, and middleware. A template-based approach simplifies mass-scale deployment while enabling consistent results. Key features and capabilities include:

- Bare-metal provisioning
- Virtual machine (VM) deployment
- Database and middleware provisioning and configuration for standalone instances
- Template-based provisioning and configuration

- Sequence multiple resource types (for example, update registry settings, install applications, apply first time patches, edit user or group settings, and run scripts)
- Out-of-the-box OS build plans
 - Heterogeneous operating system (OS), BIOS setup, and RAID configurations
- Proven scalability across more than 100,000 servers, and 20,000 database instances

Built-in process orchestration

A built-in process orchestration engine connect tasks and process flows to help automate data center management. The orchestration engine allows customers to tailor processes their specific needs based on out-of-the-box operations.

- Thousands of pre-built operation flows to create powerful and repeatable deployments
- Out-of-the-box content built using industry standards, vendor best practices, and real-world experience
- Workflows for many common, processes such as end-to-end provisioning (infrastructure to application), vulnerability management, and disaster recovery.
- Integration engine for open source and proprietary third-party scripts (for example Chef, Puppet, and Ansible), extending capabilities (for example software audit and tracking, user access management, and compliance)
- Easy flow creation
 - Design and debug flows with intuitive, drag-and-drop interface and integration
 - Integrate existing customer content, for example, PowerShell scripts, Web Services, REST
- SOAP APIs
- Integrated development environment (IDE) that supports hundreds of authors across geographies
 - Graphical and textual dual authoring experience

Product integration matrix

	SA 10.51	OO 10.70	DMA Premium 10.50	OBR 10.00
SA 10.51		②	-	⊘
OO 10.70	②		⊘	-
DMA Premium 10.50	-	②		-
OBR 10.00	②	-	-	

The following sections provide information about the individual products that comprise the DCA Suite Express 2017.01 release.

Server Automation

Server Automation (SA) is a data-center automation software that centralizes and streamlines many data center functions and automates critical areas of your data center's server management including the following:

- server discovery
- operating system provisioning
- · operating system patching
- · software provisioning
- · audit and compliance
- application configuration
- application deployment
- · software compliance
- reporting

Virtual environment management

You can also manage your heterogeneous virtual environment including:

- virtualization services (VSs)
- virtual machines (VMs)
- VM templates

You can provision, patch, configure, and audit all of your virtual machines the same way that you manage your physical servers.

SA enables you to make changes more safely and consistently because you can model and validate changes before you commit them to a managed server. SA provides methods to ensure that modifications you plan for your managed servers work because they have been tested before being applied, thereby reducing downtime.

Operations Orchestration

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 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.

Database and Middleware Automation Premium

Database and Middleware Automation (DMA) Premium software automates administrative tasks like:

- · provisioning and configuration
- compliance
- patching
- release management for databases and application servers

When performed manually, these day-to-day software administration operations are error-prone, time consuming, and difficult to scale.

DMA automates these administration tasks that take up 60-70% of a database or application server administrator's day. Automating these tasks enables greater efficiency and faster change delivery with higher quality and better predictability.

DMA provides role-based access to automation content. This enables you to better utilize resources at every level:

- end users can deliver routine, yet complex, DBA and middleware tasks.
- operators can execute expert level tasks across multiple servers including provisioning, patching, configuration, and compliance checking.
- subject matter experts can define, enforce, and audit full stack automation across network, storage, server, database, and middleware.

DMA workflows

Use a DMA workflow to perform a specific automated task, such as:

- provisioning databases or application servers
- patching databases or application servers
- checking a database or application server for compliance with a specific standard

You specify environment-specific information that the workflow requires by configuring DMA parameters. You can also group related DMA workflows into a solution pack.

Operations Bridge Reporter

Operations Bridge Reporter (OBR) is a cross-domain historical infrastructure performance reporting solution. It leverages the topology information to show how the underlying infrastructure's health, performance, and availability are affecting your business services and business applications in the long term. OBR manages the relationship of infrastructure elements to the business services at run-time by using the same topology services that are used by the products that collect the performance data from the managed nodes.

OBR collects data from different data sources, processes the data, and generates top-down and bottoms-up reports with the processed data. The SAP BusinessObjects, HP Vertica database, and PostgreSQL database are embedded software component of OBR.

You can use the interactive reports in OBR to:

- Report and analyze the pattern of problems in your IT environment.
- Forecast IT resource performance based on historical data.
- Drill down across time boundaries for the available data. For example, you can drill down from
 yearly level reports to monthly and daily level reports and vice versa to analyze the pattern of
 problems in a specific period of time.
- Perform a custom analysis of the data using report filters.

You can use OBR to determine the changes that you can make in your IT environment to improve the performance of your business services.

OBR has high data retention capability. This makes it possible to maintain high performance data over a long period of time and aid in decision making.

OBR provides Content Pack which is a data mart—a repository of data collected from various sources—that pertains to a particular domain, such as system performance or virtual environment performance, and meets the specific demands of a particular group of knowledge users in terms of analysis, content presentation, and ease of use.

Content Packs contain the rules that define how the metrics will be collected, transformed, and aggregated in the reports. A typical Content Pack defines the metrics for a specific domain along with the necessary rules for analysis required in that domain.

OBR allows you to perform the following functions:

- Create your own Content Packs. OBR provides Content Development Environment (CDE) to create new Content Packs and customize existing Content Packs.
- Customize and extend the out-of-the-box Content Packs provided in the product.
- Create your own groups for reporting. For example, you can create groups based on the business management chain or business functions.

Product library

Product	Version	Documentation library link
Server Automation (SA)	10.51	go
Operations Orchestration (OO)	10.70	go
Databases and Middleware Automation (DMA) Premium	10.50	go
Operations Bridge Reporter (OBR)	10.00	go

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