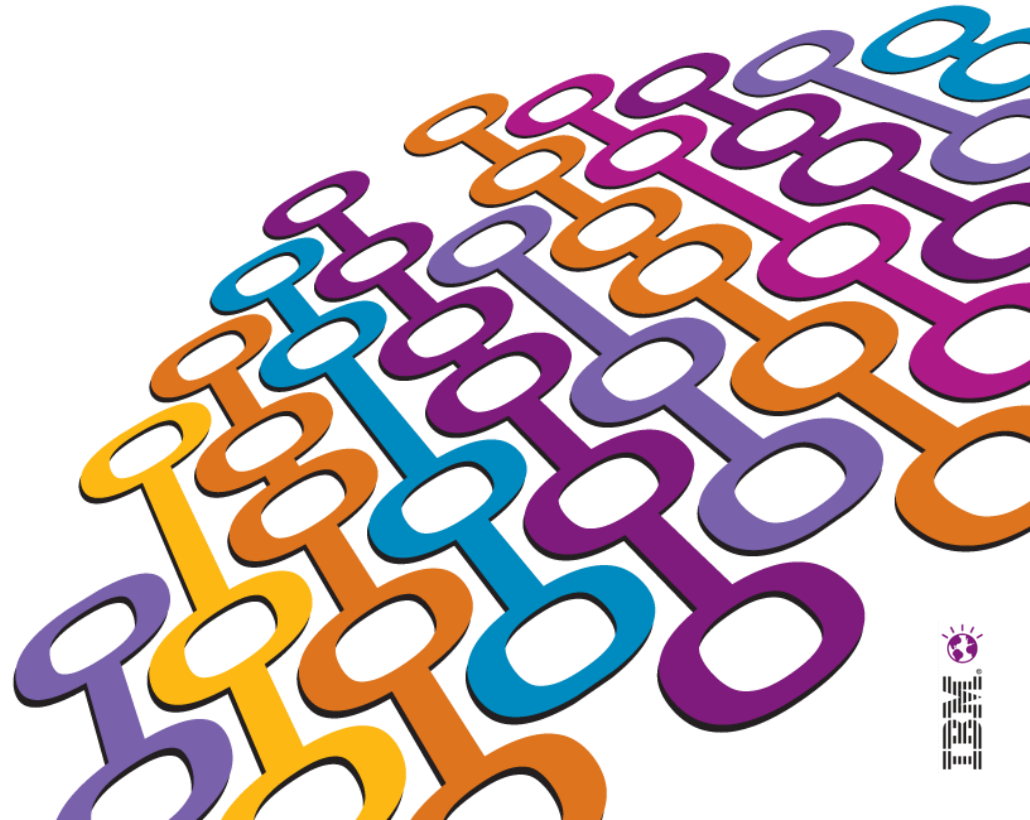


Managing DataPower Appliances with WebSphere Appliance Management Center





Agenda

- Introduction to WebSphere Appliance Management Center
- New and noteworthy
- Multi-box Management Scenarios
 - WebSphere Appliance Management Center start up
 - Perform a secure backup of a set of appliances
 - Upgrade firmware to take advantage of new features
 - Create an application domain for a new project
 - Migrate an application to production
 - Update a service within an application domain
- WebSphere Appliance Management Toolkit



Agenda



Introduction to WebSphere Appliance Management Center

- New and Noteworthy
- Selected Multi-box Management Scenarios
 - WebSphere Appliance Management Center start up
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Introduction to ITCAM Agent for WebSphere DataPower Appliances

- Focused on monitoring appliance level metrics including resource utilization, object status, system log, event notifications, transaction latency, as well as the network and connection statistics, etc. for DataPower Appliances
- Supports subnodes, to make it easy to monitor multiple DataPower Appliances with one agent
- Monitors remotely through SOMA (SOAP Configuration Management) requests





Agenda

- Introduction to WebSphere Appliance Management Center



New and Noteworthy

- Selected Multi-box Management Scenarios
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New and noteworthy

Lighter, snappier, more streamlined interactions

- The management user interface is now implemented on the IBM WebSphere Application Server Liberty Profile
 - Much lower disk and memory resource consumption
 - Fast install and start up time
 - Improved user interface responsiveness
- The user interface has been simplified for improved work flow
 - Navigation is provided in a standard menu bar
 - Page content and available actions are consistent and clear
 - Targeted feedback available in the UI
 - Detailed history is available on a separate page





WebSphere Appliance Management Center UI

IBM WebSphere Appliance Management Center wamcadmin ?

Appliances | Domains | Services | Repository | History

+ ✗ 🖨 Other Actions

🔍 No filter applied

Name	Host Name	Appliance Type	Model	Firmware Version	Status
dpdev1	dpdev1	XI52	7199	5.0.0.0	↑
dpdev2	dpdev2	XI52	7199	5.0.0.0	↑↓
dpdevxs1	dpdevxs1	XS40	9235	4.0.2.1	↑
dpprod1	dpprod1	XI52	7199	4.0.2.1	?
dpprod2	dpprod2	XI52	7199	4.0.2.1	↑
dpprod3	dpprod3	XI52	7199	4.0.2.1	↑
dpprod4	dpprod4	XI52	7199	4.0.2.1	↑
dpprodxs1	dpprodxs1	XS40	9235	4.0.1.0	↑
dpprodxs2	dpprodxs2	XS40	9235	4.0.1.0	↑
dpctest1	dpctest1	XI52	7199	4.0.2.1	↓
dpctest2	dpctest2	XI52	7199	4.0.2.1	↑
dpctestxs1	dpctestxs1	XS40	9235	5.0.0.0	↑

Properties:

Name:

Host name:

Appliance type: XI52

Model: 7199

Firmware version: 4.0.2.1

Status: ↑

Feature list: MQ, DataGlue, JAXP-API, PKCS7-SMIME, WebSphere-JMS, RaidVolume, iSCSI, LocateLED, IPMI, RaidVolumeSr, IntrusionDetection, IPMI-LAN

Serial number: 1869460143

Quiesce timeout (seconds):

AMP version: 2.0

AMP port:

Appliance administrator ID:

Appliance administrator password:



Simplified layout for improved work flow



IBM WebSphere Appliance Management Center

wamcadmin ? IBM

Appliances Domains Services Repository History

Quick Page Navigation

Other Actions

No filter applied

Name	Host Name	Appliance Type	Model	Firmware	Status
dpdevxs1	dpdevxs1	XI52	7199	4.0.2.1	↑
dpprod1	dpprod1	XI52	7199	4.0.2.1	?
dpprod2	dpprod2	XI52	7199	4.0.2.1	↑
dpprod3	dpprod3	XI52	7199	4.0.2.1	↑
dpprod4	dpprod4	XI52	7199	4.0.2.1	↑
dpprodxs1	dpprodxs1	XS40	9235	4.0.1.0	↑
dpprodxs2	dpprodxs2	XS40	9235	4.0.1.0	↑
dpctest1	dpctest1	XI52	7199	4.0.2.1	↓
dpctest2	dpctest2	XI52	7199	4.0.2.1	↑
dpctestxs1	dpctestxs1	XS40	9235	5.0.0.0	↑

Properties:

Name:

Host name:

Appliance type: XI52

Model: 7199

Firmware version: 4.0.2.1

Status: ↑

Feature list: MQ, DataGlue, JAXP-API, PKCS7-SMIME, WebSphere-JMS, RaidVolume, iSCSI, LocateLED, IPMI, RaidVolumeSr, IntrusionDetection, IPMI-LAN

Serial number: 1869460143

Quiesce timeout (seconds):

AMP version: 2.0

AMP port:

Appliance administrator ID:

Appliance administrator password:

Efficient use of space

Easy access to actions

Selection drives properties widget





New and noteworthy

Flexible appliance and domain operations

- Filters allow the user to quickly view appliances, domains or services
- Selections may be made for all or some appliances in a filtered view
- When one or more objects is selected, only actions that may be applied to all of the selected objects are available
- An appliance may be managed by more than one instance of the WebSphere Appliance Management Center



Filtering



The screenshot shows the IBM WebSphere Appliance Management Center interface. The browser address bar indicates the URL is `https://localhost:9443/wamc/index.html`. The main navigation bar includes tabs for Appliances, Domains, Services, Repository, and History. The current view is the Appliances page, displaying a table of 7 items (out of 14 shown) filtered by the rule "Name contains prod".

Table Data:

Name	Host Name	Appliance Type	Firmware Version	Status	
dpprod1	dpprod1		4.0.2.3	?	
dpprod2	dpprod2	XI52	7199	4.0.2.3	↑
dpprod3	dpprod3	XI52	7199	4.0.2.1	↑
dpprod4	dpprod4	XI52	7199	4.0.2.1	↑
dpprodxs1	dpprodxs1	XS40	9235	4.0.1.0	↑
dpprodxs2	dpprodxs2	XS40	9235	4.0.1.0	↑
xcprod1	xcprod1	XC10	9235	2.0.0.3-cf11205.74151	↓

Properties Panel:

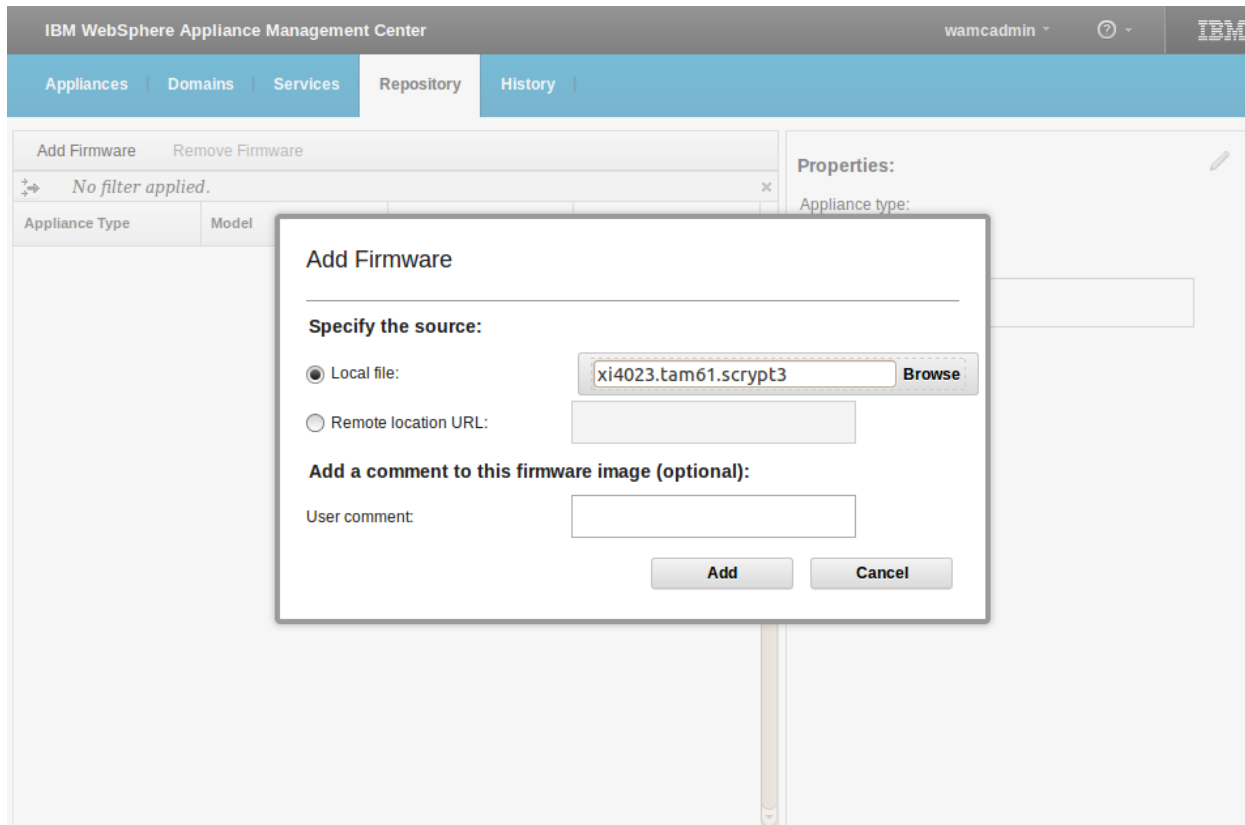
- Name: dpprod1
- Host name: dpprod1
- Appliance type: XI52
- Model: 7199
- Firmware version: 4.0.2.3
- Status: ?
- Feature list: MQ, DataGlue, JAXP-API, PKCST7-SMIME, WebSphere-JMS, RaidVolume, iSCSI, LocateLED, IPMI, RaidVolumeSr, IntrusionDetection, IPMI-LAN
- Serial number: 1869460142
- Quiesce timeout (seconds): 60
- AMP version: 2.0
- AMP port: 5550
- Appliance administrator ID: admin
- Appliance administrator password: [Redacted]



New and noteworthy

Improved firmware management support

- Simplified firmware upload and deployment
- Supports firmware management on XC10





New and noteworthy

Finer grained configuration management

- Previous versions of WebSphere Appliance Management Center support deploying configuration at the domain level
- The new WebSphere Appliance Management Center for WebSphere Appliances supports deploying configuration at the domain and service levels
 - View the services in one or more domains
 - Deploy service configuration to one or more domains with or without an associated deployment policy
 - Remove a service and it's associated objects from a domain



Finer grained configuration management



IBM WebSphere Appliance Management Center wamcadmin ?

Appliances | Domains | **Services** | Repository | History

Other Actions

No filter applied.

Name	Type	Domain	Appliance	Status
ServiceB	Multi-Protocol Gateway	payroll	dpdev1	↑
ServiceA	Multi-Protocol Gateway	payroll	dpdev1	↑
ServiceC	Multi-Protocol Gateway	payroll	dpdev1	↑
ServiceB	Multi-Protocol Gateway	sales	dpdev1	↑
ServiceA	Multi-Protocol Gateway	sales	dpdev1	↑
ServiceC	Multi-Protocol Gateway	sales	dpdev1	↑
ServiceB	Multi-Protocol Gateway	crm	dpdev1	↑
ServiceA	Multi-Protocol Gateway	crm	dpdev1	↑
ServiceC	Multi-Protocol Gateway	crm	dpdev1	↑
ServiceB	Multi-Protocol Gateway	payroll	dpdev2	↑
ServiceA	Multi-Protocol	payroll	dpdev2	↑

Properties:

Name: ServiceB
Type: Multi-Protocol Gateway
Domain: payroll
Appliance: dpdev1
Status: ↑



ITCAM Agent for WebSphere DataPower Appliance

- **Multiple application domains monitoring**
 - Agent will discover all domains on the appliance
 - Support for collecting metric data from all application domains on the appliance
- **Granular memory usage monitoring**
 - Service level memory usage
 - Domain level memory usage
- **WSM agent status monitoring**
 - Monitor the status of WSM agent on each domain of a DataPower appliance
 - Situation triggered when WSM agent status reaches thresholds
- **XC10 Support**
 - Collect data with SNMP
 - A new subnode for XC10 will be added in the navigator
- **Expanded Support for DataPower appliance models**
 - XC10
 - 9005
 - Blade for zEnterprise
- **Extended platform support**
 - pLinux





Application Domain Monitoring

- One sub-node to monitor all domains of a DataPower appliance
 - Improved scalability, especially for monitoring large DataPower appliance deployments
- Eliminate the limitation of only collecting data from the default domain
 - Utilizes the SOAP Configuration Management service to collect data.
- Simplified configuration
 - Removes the need to configure SNMP on the agent
 - Removes the need to create multiple subnodes to monitor each domain (SNMP community) in one agent instance



Multiple Domain Monitoring



The screenshot displays a monitoring application with two main windows. The left window, titled 'Domain Status - v525400c72fd3 - SYSADMIN', shows a tree view of the domain structure and a table of domain status. The right window, titled 'Objects and Services Status by Domain - v525400c72fd3 - SYSADMIN', shows a tree view of objects and a table of active services.

Domain Status Table:

Name	Save Needed	Traffic
DEMO	off	off
DengPeng	off	off
KBN71_1	off	off

Active Services Table:

Local IP	Local Port	Type	Name
0.0.0.0	9083	wSGateway	SampleBrokerWShost
0.0.0.0	9082	wSGateway	GetCustomer
0.0.0.0	8085	wSGateway	Trinket
0.0.0.0	8081	wSGateway	WAS_JAXWS

Object Status Table:

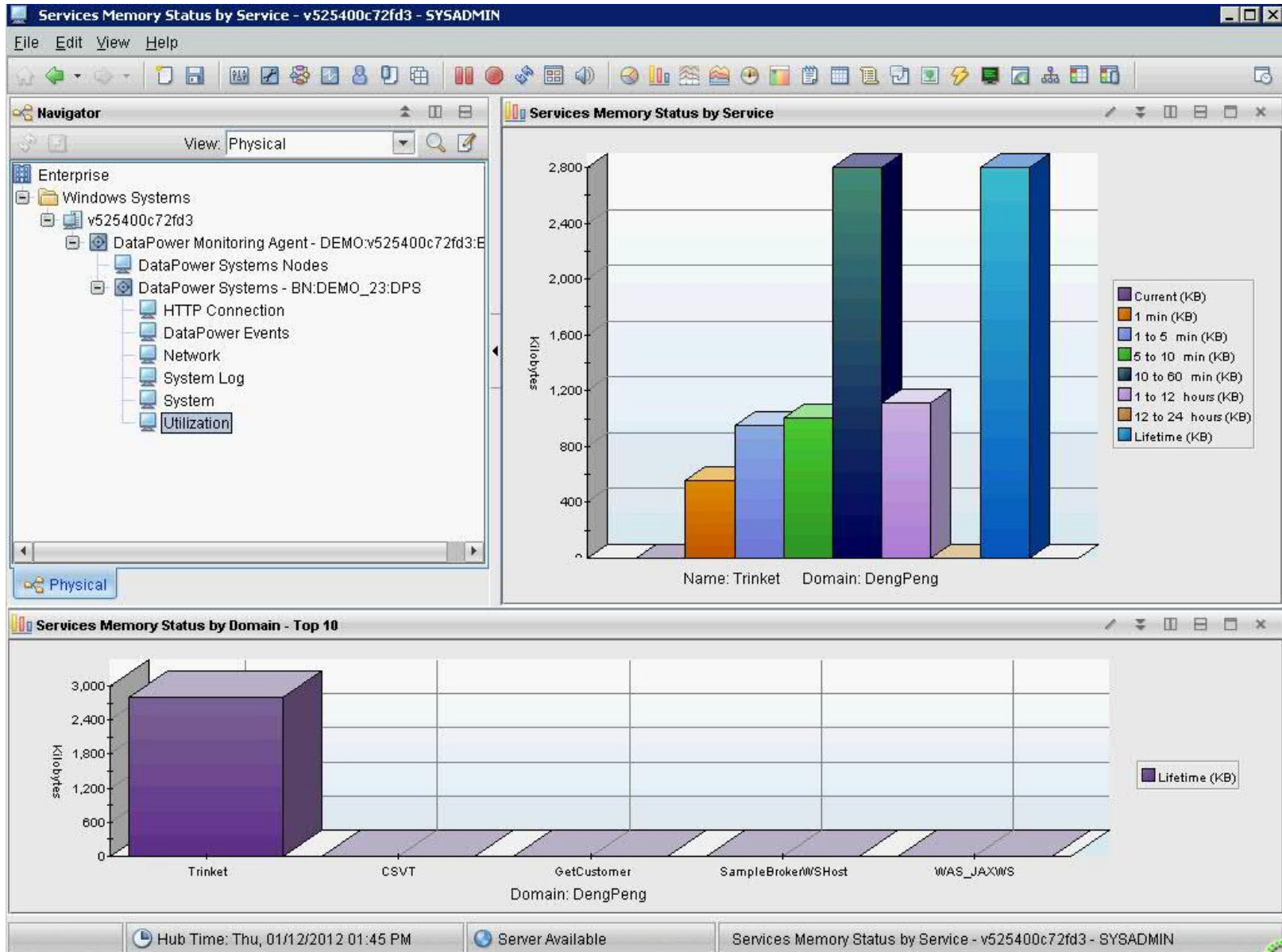
Type	Name	Operational State	Administration State	Event Code	Error Code	Configuration State	Domain
cryptoCertificate	ForwardCert	down	enabled	0x00f30002	File is unreadable	saved	DengPeng
cryptoCertificate	ForwardCert1	down	enabled	0x00f30002	File is unreadable	saved	DengPeng
cryptoCertificate	admin	down	enabled	0x00f30002	File is unreadable	saved	DengPeng
cryptoCertificate	admin2	down	enabled	0x00f30002	File is unreadable	saved	DengPeng
cryptoCertificate	test	down	enabled	0x00f30002	File is unreadable	saved	DengPeng
cryptoKey	admin	down	enabled	0x00f30002	File is unreadable	saved	DengPeng
cryptoKey	admin1	down	enabled	0x00f30002	File is unreadable	saved	DengPeng
cryptoKey	admin2	down	enabled	0x00f30002	File is unreadable	saved	DengPeng

Hub Time: Wed, 01/11/2012 10:26 AM

Server Available

Objects and Services Status by Domain - v525400c72fd3 - SYSADMIN

Granular Memory Usage Monitoring



WSM Agent Status Monitoring



Web Service - TIVDD001 - SYSADMIN *ADMIN MODE*

File Edit View Help

Navigator View: Physical

- Enterprise
 - Windows Systems
 - TIVDD001
 - DataPower Monitoring Agent - test:TIVDD001:BN
 - DataPower Systems Nodes
 - DataPower Systems - BN:25:DPS
 - HTTP Connection
 - DataPower Events
 - Network
 - System Log
 - System
 - Utilization
 - Web Service

Physical

WSM Agent Status Top 10

WSM Agent Status

Domain	Active Subscribers	Polled Subscribers	Records Seen	Records Lost	Pending Records	Complete Records	Memory Used (KB)	Administrative State	Comments	Maximum Record Size	Maximum M
default	0	0	0	0	0	0	0	enabled	wage	3000	64000
DEMO	0	0	0	0	0	0	0	enabled	wage	3000	64000
DengPeng	0	0	701284	406702	0	14	1336	enabled	wage	3000	64000
KBN71_1	0	0	0	0	0	0	0	enabled	wage	3000	64000
KBN71_10	0	0	0	0	0	0	0	enabled	wage	3000	64000
KBN71_11	0	0	0	0	0	0	0	enabled	wage	3000	64000
KBN71_12	0	0	0	0	0	0	0	enabled	wage	3000	64000
KBN71_2	0	0	0	0	0	0	0	enabled	wage	3000	64000
KBN71_3	0	0	0	0	0	0	0	enabled	wage	3000	64000
KBN71_4	0	0	0	0	0	0	0	enabled	wage	3000	64000
KBN71_5	0	0	0	0	0	0	0	enabled	wage	3000	64000
KBN71_6	0	0	0	0	0	0	0	enabled	wage	3000	64000
KBN71_7	0	0	0	0	0	0	0	enabled	wage	3000	64000
KBN71_8	0	0	0	0	0	0	0	enabled	wage	3000	64000
KBN71_9	0	0	0	0	0	0	0	enabled	wage	3000	64000
KillerApp	0	0	0	0	0	0	0	enabled	wage	3000	64000

Hub Time: Thu, 02/02/2012 10:04 AM Server Available Web Service - TIVDD001 - SYSADMIN *ADMIN MC



XC10 Support



Shows appliance health, system information, CPU and memory usage, and grid, map, and JVM statistics

The screenshot displays the DataPower XC10 management console interface. The main window is titled "DataPower XC10 - localhost - SYSADMIN". The interface is divided into several sections:

- Navigator:** A tree view on the left showing the system hierarchy, including "Enterprise", "Windows Systems", "DataPower Monitoring Agent", "DataPower XC10 nodes", "DataPower Systems Nodes", "DataPower Systems", "BN:cd123:DPS", "BN:dp7:DPS", "DataPower XC10", "BN:xc10-1:DPC", and "BN:xc10-2:DPC".
- JVM Used Memory Percentage - Top 10:** A table showing the top 10 JVM instances with their memory usage statistics.
- Grid Transaction Time - Top 10:** A table showing the top 10 grid transactions with their execution times and throughput.
- CPU Usage:** A 3D bar chart showing CPU usage for the selected node (BN:xc10-2-DPC) over the last 10 minutes, with a value of approximately 25%.
- Memory Usage:** A 3D bar chart showing memory usage for the selected node (BN:xc10-2-DPC), with a value of approximately 30%.

Device	jvmStatsIndex	jvmHostName	jvmServerName	jvmMaxMem	jvmTotalMem	jvmFreeMem	jvmUsedPercent
xsa25.rtp.raleigh.ibm.com	2	9.42.139.144	xsServer01_9.42.139.144	55451136	2013265920	7918376	3631
xsa25.rtp.raleigh.ibm.com	4	9.42.139.144	xsServer03_9.42.139.144	54588928	2013265920	13959512	3688
xsa25.rtp.raleigh.ibm.com	6	9.42.139.144	xsServer05_9.42.139.144	56348160	2013265920	23478400	3573
xsa25.rtp.raleigh.ibm.com	7	9.42.139.144	xsServer06_9.42.139.144	55220736	2013265920	4423160	3646
xsa25.rtp.raleigh.ibm.com	8	9.42.139.144	xsServer07_9.42.139.144	56873472	2013265920	21775568	3540
xsa25.rtp.raleigh.ibm.com	9	9.42.139.144	xsServer08_9.42.139.144	56489472	2013265920	10385760	3564
xsa25.rtp.raleigh.ibm.com	10	9.42.139.144	xsServer09_9.42.139.144	52485632	2013265920	17657984	3836
xsa25.rtp.raleigh.ibm.com	11	9.42.139.144	xsServer10_9.42.139.144	56448000	2013265920	17576712	3567
xsa25.rtp.raleigh.ibm.com	12	9.42.139.144	xsServer11_9.42.139.144	56829952	2013265920	18574392	3543

Device	gridStatsIndex	gridName	gridAvgTranTime	gridAvgThruPut	gridTransactionCount	gridMaxTranTime	gridMinTranTime	grid
xsa25.rtp.raleigh.ibm.com	1	simple2	0	0	0	0	0	0
xsa25.rtp.raleigh.ibm.com	2	SlamSess	0	0	0	0	0	0





Agenda

- Introduction to WebSphere Appliance Management Center
- New and Noteworthy



Selected Multi-box Management Scenarios

- WebSphere Appliance Management Center start up
 - Perform a secure backup of a set of appliances
 - Upgrade firmware to take advantage of new features
 - Migrate an application to production
 - Update a service within an application domain
- WebSphere Appliance Management Toolkit



Management Scenarios

Scenario background

- JK Enterprise wants to use WebSphere Appliance Management Center to ease operational management of appliances in development, test, and production
 - XS40 security appliances in the DMZ
 - XI52 integration appliances in the ESB tier
 - XC10 caching appliances in the application tier
- Device configuration is created in development, then migrated to test and production; deployment policies are used to manage differences across the three environments
- New firmware versions are verified in development and test before upgrading production appliances
- Configuration changes will be minimized via centralized service governance and SLA management, with automatic policy synchronization and enforcement between WebSphere DataPower 5.0.0 appliances and WebSphere Services Registry and Repository



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WebSphere Appliance Management Center Start up



1. Download the application

- Download WebSphere Appliance Management Center for WebSphere Appliances from IBM from:

<http://www.ibm.com/support/docview.wss?rs=171&uid=swg24032265>





WebSphere Appliance Management Center Start up

2. Determine where to host WebSphere Appliance Management Center

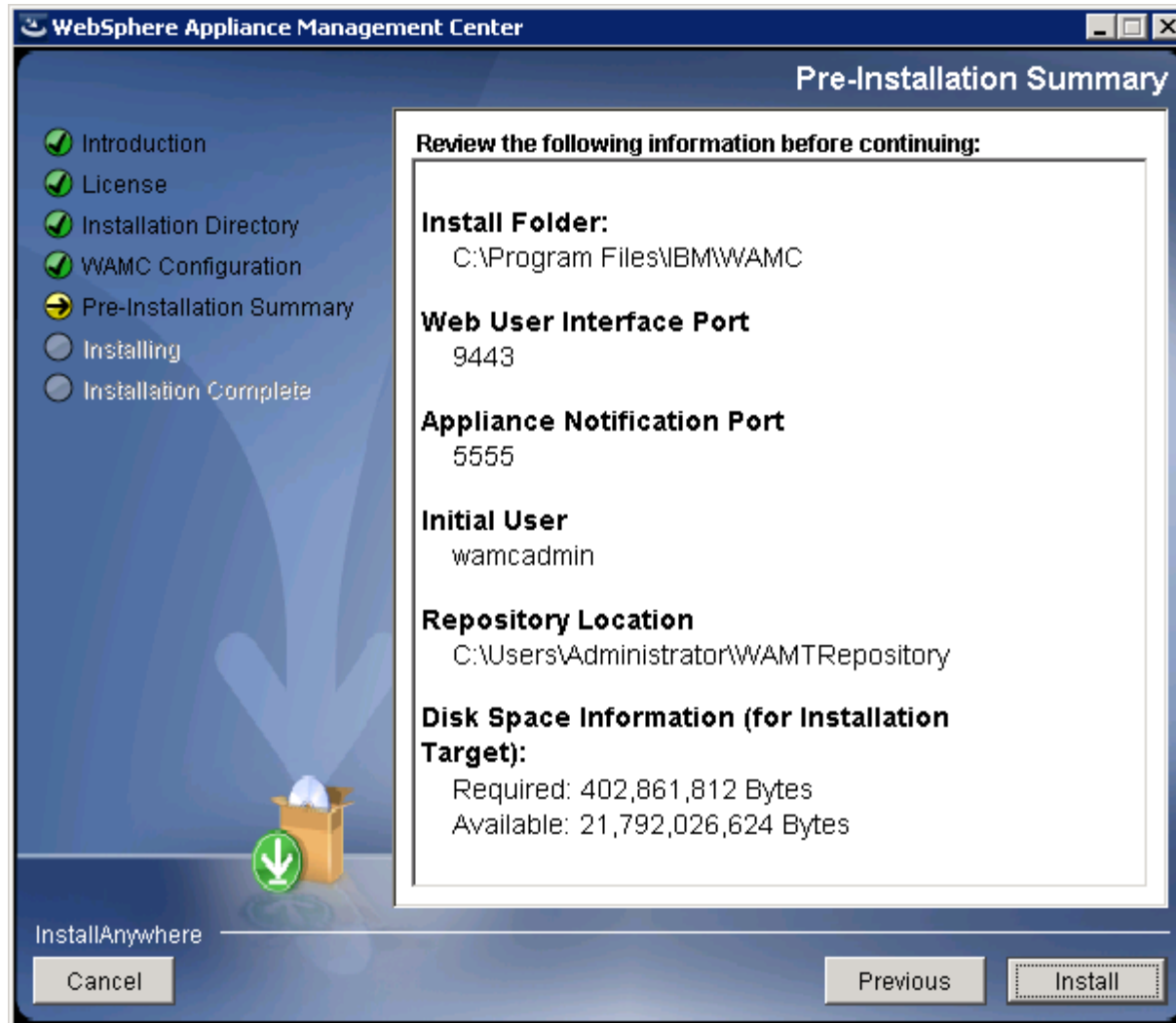
- Requires a supported server with network connectivity to the appliances you wish to manage
 - AIX 6.1/7.1 (64-bit)
 - RHEL 5/6 (System z/x86-64)
 - SLES 10/11 (System z/x86-64)
 - Windows Server 2008 (x86-64)
 - Windows Server 2008 R2 (x86-64)
- Requires a supported browser on the server or a workstation
 - Firefox 3.6 or 10.0 ESR
 - Internet Explorer 8.0 or 9.0





WebSphere Appliance Management Center Start up

3. *Install WebSphere Appliance Management Center*





WebSphere Appliance Management Center Start up

4. Add appliances

The screenshot displays the IBM WebSphere Appliance Management Center (WAMC) interface. The main window shows a navigation bar with tabs for 'Appliances', 'Domains', 'Services', 'Repository', and 'History'. The 'Appliances' tab is active. Below the navigation bar, there is a toolbar with a plus sign, a minus sign, and a refresh icon, followed by a dropdown menu labeled 'Other Actions'. A table with columns 'Name', 'Host Name', 'Appliance Type', 'Model', 'Firmware Version', and 'Status' is visible, but it is currently empty with the text 'No filter applied.' and 'No items'.

In the foreground, a modal dialog box titled 'Add Appliance' is open. It contains the following fields and values:

- * Name:
- * Host name:
- * AMP port:
- * Appliance administrator ID:
- * Appliance administrator password:

At the bottom of the dialog box, there are two buttons: 'Add' and 'Cancel'.

On the right side of the main interface, there is a 'Properties' section with several input fields, some of which are partially visible and include question mark icons for help.





WebSphere Appliance Management Center Start up

5. View appliance status and properties

IBM WebSphere Appliance Management Center wamcadmin ?

Appliances | Domains | Services | Repository | History

Other Actions

No filter applied

Name	Host Name	Appliance Type	Model	Firmware Version	Status
dpdev1	dpdev1	XI52	7199	5.0.0.0	↑
dpdev2	dpdev2	XI52	7199	5.0.0.0	↑↓
dpdevxs1	dpdevxs1	XS40	9235	4.0.2.1	↑
dpprod1	dpprod1	XI52	7199	4.0.2.1	?
dpprod2	dpprod2	XI52	7199	4.0.2.1	↑
dpprod3	dpprod3	XI52	7199	4.0.2.1	↑
dpprod4	dpprod4	XI52	7199	4.0.2.1	↑
dpprodxs1	dpprodxs1	XS40	9235	4.0.1.0	↑
dpprodxs2	dpprodxs2	XS40	9235	4.0.1.0	↑
dptest1	dptest1	XI52	7199	4.0.2.1	↓
dptest2	dptest2	XI52	7199	4.0.2.1	↑
dptestxs1	dptestxs1	XS40	9235	5.0.0.0	↑

Properties:

Name:

Host name:

Appliance type: XI52

Model: 7199

Firmware version: 4.0.2.1

Status: ↑

Feature list:

Serial number: 1869460143

Quiesce timeout (seconds):

AMP version: 2.0

AMP port:

Appliance administrator ID:

Appliance administrator password:



WebSphere Appliance Management Center Start up



6. View domains

IBM WebSphere Appliance Management Center wamcadmin ?

Appliances **Domains** Services | Repository | History

Other Actions

4 of 48 items shown. [Clear Filter](#)

Name	Appliance	Status
default	dpprod2	↑
payroll	dpprod2	↑
sales	dpprod2	↑
crm	dpprod2	↑

Properties:

Name: payroll
Appliance: dpprod2
Status: ↑
Configuration source:
Deployment policy:
Quiesce timeout (seconds): 60





WebSphere Appliance Management Center Start up

7. View services

IBM WebSphere Appliance Management Center wamcadmin ?

Appliances | Domains | **Services** | Repository | History

Other Actions

No filter applied.

Name	Type	Domain	Appliance	Status
ServiceB	Multi-Protocol Gateway	payroll	dpdev1	↑
ServiceA	Multi-Protocol Gateway	payroll	dpdev1	↑
ServiceC	Multi-Protocol Gateway	payroll	dpdev1	↑
ServiceB	Multi-Protocol Gateway	sales	dpdev1	↑
ServiceA	Multi-Protocol Gateway	sales	dpdev1	↑
ServiceC	Multi-Protocol Gateway	sales	dpdev1	↑
ServiceB	Multi-Protocol Gateway	crm	dpdev1	↑
ServiceA	Multi-Protocol Gateway	crm	dpdev1	↑
ServiceC	Multi-Protocol Gateway	crm	dpdev1	↑
ServiceB	Multi-Protocol Gateway	payroll	dpdev2	↑
ServiceA	Multi-Protocol	payroll	dpdev2	↑

Properties:

Name: ServiceB
Type: Multi-Protocol Gateway
Domain: payroll
Appliance: dpdev1
Status: ↑





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Perform a secure backup of production appliances

1. Select the appliance to back up

- To implement a disaster recovery for an appliance, or to prepare to upgrade the firmware on an appliance, select the appliance from the appliances page and select the “Backup” button
 - An appliance must have been initialized with secure backup enabled in order to perform a backup
 - This feature is not yet available for XC10 appliances

The screenshot shows the IBM WebSphere Appliance Management Center interface. The top navigation bar includes 'Appliances', 'Domains', 'Services', 'Repository', and 'History'. The 'Appliances' tab is active. Below the navigation bar, there is a table of appliances with columns for Name, Host name, Appliance Type, Model, Firmware Version, and Status. A context menu is open over the table, showing 'Other Actions' with options: Quiesce, Unquiesce, Backup (highlighted with a red circle), Restore, Deploy Firmware, and Create Domain. To the right of the table, the 'Properties' section for the selected appliance 'dpprod1' is visible, showing fields for Name, Host name, Appliance type, Model, Firmware version, and Status.

Name	Host name	Appliance Type	Model	Firmware Version	Status
dpdev1	dpprod1		7199	5.0.0.0	↑
dpdev2	dpprod1		7199	5.0.0.0	↑↓

Properties:

- Name: dpprod1
- Host name: dpprod1
- Appliance type: XI52
- Model: 7199
- Firmware version: 4.0.2.1
- Status: ?





Perform a secure backup of production appliances

2. Provide required input and perform the back up

The screenshot shows the IBM WebSphere Appliance Management Center interface. A modal dialog box titled "Backup Appliance" is open, allowing the user to configure backup settings. The background shows a table of appliances with columns for Name and Host Name.

Backup Appliance

Provide the crypto certificate:
Crypto certificates contain a public key that is used to encrypt the secure backup file. Use one of the following options to specify where the crypto certificate is located.

- Crypto certificate object name: [?](#)
[Link to the appliance web GUI](#)
- Local file: [Browse](#)

Specify where to save the backup:

- File for download [?](#)
- Appliance local file directory: local://
- Appliance temporary file directory: temporary://

Additional options:
You can include additional data in the secure backup:

- Include iSCSI data [?](#)
- Include RAID data [?](#)

Name	Host Name
dpdev1	dpdev1
dpdev2	dpdev2
dpdevxs1	dpdevxs1
dpprod1	dpprod1
dpprod2	dpprod2
dpprod3	dpprod3
dpprod4	dpprod4
dpprodxs1	dpprodxs1
dpprodxs2	dpprodxs2
dptest1	dptest1
dptest2	dptest2





Perform a secure backup of production appliances

3. Backup success message is displayed

IBM WebSphere Appliance Management Center wamcadmin ?

Appliances | Domains | Services | Repository | History

✓ Backup appliance 'dpprod1' | Completed successfully. [Download backup](#) ✕

Other Actions

No filter applied.

Name	Host Name	Appliance Type	Model	Firmware Version	Status
dpdev1	dpdev1	XI52	7199	5.0.0.0	↑
dpdev2	dpdev2	XI52	7199	5.0.0.0	↑↓
dpdevxs1	dpdevxs1	XS40	9235	4.0.2.1	↑
dpprod1	dpprod1	XI52	7199	4.0.2.1	↑
dpprod2	dpprod2	XI52	7199	4.0.2.1	↑
dpprod3	dpprod3	XI52	7199	4.0.2.1	↑
dpprod4	dpprod4	XI52	7199	4.0.2.1	↑
dpprodxs1	dpprodxs1	XS40	9235	4.0.1.0	↑
dpprodxs2	dpprodxs2	XS40	9235	4.0.1.0	↑
dpctest1	dpctest1	XI52	7199	4.0.2.1	↓
dpctest2	dpctest2	XI52	7199	4.0.2.1	↑

Properties:

Name:

Host name:

Appliance type: XI52

Model: 7199

Firmware version: 4.0.2.1

Status: ↑

Feature list: MQ, DataGlue, JAXP-API, PKCS7-SMIME, WebSphere-JMS, RaidVolume, iSCSI, LocateLED, IPMI, RaidVolumeSr, IntrusionDetection, IPMI-LAN

Serial number: 1869460142

Quiesce timeout (seconds):

AMP version: 2.0

AMP port:

Appliance administrator ID:

Appliance administrator password:





Agenda

- Introduction to WebSphere Appliance Management Center
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Upgrade Appliance Firmware

1. Add the appliance firmware to the repository

The screenshot displays the IBM WebSphere Appliance Management Center interface. The top navigation bar includes 'Appliances', 'Domains', 'Services', 'Repository', and 'History'. The 'Repository' tab is active. Below the navigation bar, there are buttons for 'Add Firmware' and 'Remove Firmware'. A table with columns 'Appliance Type' and 'Model' is visible, with the text 'No filter applied.' above it. On the right, a 'Properties:' section shows 'Appliance type:'. A modal dialog box titled 'Add Firmware' is open in the center. It contains the following elements:

- Specify the source:**
 - Local file:
 - Remote location URL:
- Add a comment to this firmware image (optional):**
 - User comment:
-





Upgrade Appliance Firmware

2. Select the appliance(s) to upgrade, then select *Deploy Firmware*

IBM WebSphere Appliance Management Center wamcadmin ?

Appliances | Domains | Services | Repository | History

Other Actions

- Quiesce
- Unquiesce
- Backup
- Restore
- Deploy Firmware**
- Create Domain

Name	Host Name	Appliance Type	Model	Firmware Version	Status
dpdev1	dpdev1		7199	5.0.0.0	↑
dpdev2	dpdev2		7199	5.0.0.0	↑↓
dpdevxs1	dpdevxs1	XS40	9235	4.0.2.1	↑
dpprod1	dpprod1	XI52	7199	4.0.2.1	?
dpprod2	dpprod2	XI52	7199	4.0.2.1	↑
dpprod3	dpprod3	XI52	7199	4.0.2.1	↑
dpprod4	dpprod4	XI52	7199	4.0.2.1	↑

Properties:

Name: ?

Host name: ?

Appliance type:

Model:

Firmware version:

Status:

Feature list: ?

Serial number:

Quiesce timeout (seconds): ?

AMP version:

AMP port: ?

Appliance





Upgrade Appliance Firmware

3. Perform the appliance firmware upgrade

IBM WebSphere Appliance Management Center wamcadmin ? IBM

Appliances Domains Services Repository History

+ × Other

No filter applied.

Name	Host Name
dpdev1	dpdev1
dpdev2	dpdev2
dpdevxs1	dpdevxs1
dpprod1	dpprod1
dpprod2	dpprod2
dpprod3	dpprod3
dpprod4	dpprod4
dpprodxs1	dpprodxs1
dpprodxs2	dpprodxs2
dpctest1	dpctest1
dpctest2	dpctest2
dpctestxs1	dpctestxs1

Deploy Firmware

Set the target firmware:

List upgrades only
 List all compatible firmware versions

Specify the firmware version: 4.0.2.3

Summary:

Appliance Name	Appliance Type	Appliance Model	Current Firmware	Target Firmware
dpprod1	XI52	7199	4.0.2.1	4.0.2.3 details ✓
dpprod2	XI52	7199	4.0.2.1	4.0.2.3 details ✓

accept the terms in the license agreements.

Note: After you click **Deploy**, you cannot stop this operation.

Deploy **Cancel**





Upgrade Appliance Firmware

3. Verify the firmware was successfully updated

IBM WebSphere Appliance Management Center wamcadmin ?

Appliances | Domains | Services | Repository | History

+ × Other Actions

No filter applied.

Name	Host Name	Appliance Type	Model	Firmware Version	Status
dpdev1	dpdev1	XI52	7199	5.0.0.0	↑
dpdev2	dpdev2	XI52	7199	5.0.0.0	↑↓
dpdevxs1	dpdevxs1	XS40	9235	4.0.2.1	↑
dpprod1	dpprod1	XI52	7199	4.0.2.3	?
dpprod2	dpprod2	XI52	7199	4.0.2.3	↑
dpprod3	dpprod3	XI52	7199	4.0.2.1	↑
dpprod4	dpprod4	XI52	7199	4.0.2.1	↑
dpprodxs1	dpprodxs1	XS40	9235	4.0.1.0	↑
dpprodxs2	dpprodxs2	XS40	9235	4.0.1.0	↑
dptest1	dptest1	XI52	7199	4.0.2.1	↓
dptest2	dptest2	XI52	7199	4.0.2.1	↑
dptestxs1	dptestxs1	XS40	9235	5.0.0.0	↑

Properties:

Name:

Host name:

Appliance type:

Model:

Firmware version:

Status:

Feature list:

Serial number:

Quiesce timeout (seconds):

AMP version:

AMP port:

Appliance administrator ID:

Appliance administrator password:





Agenda

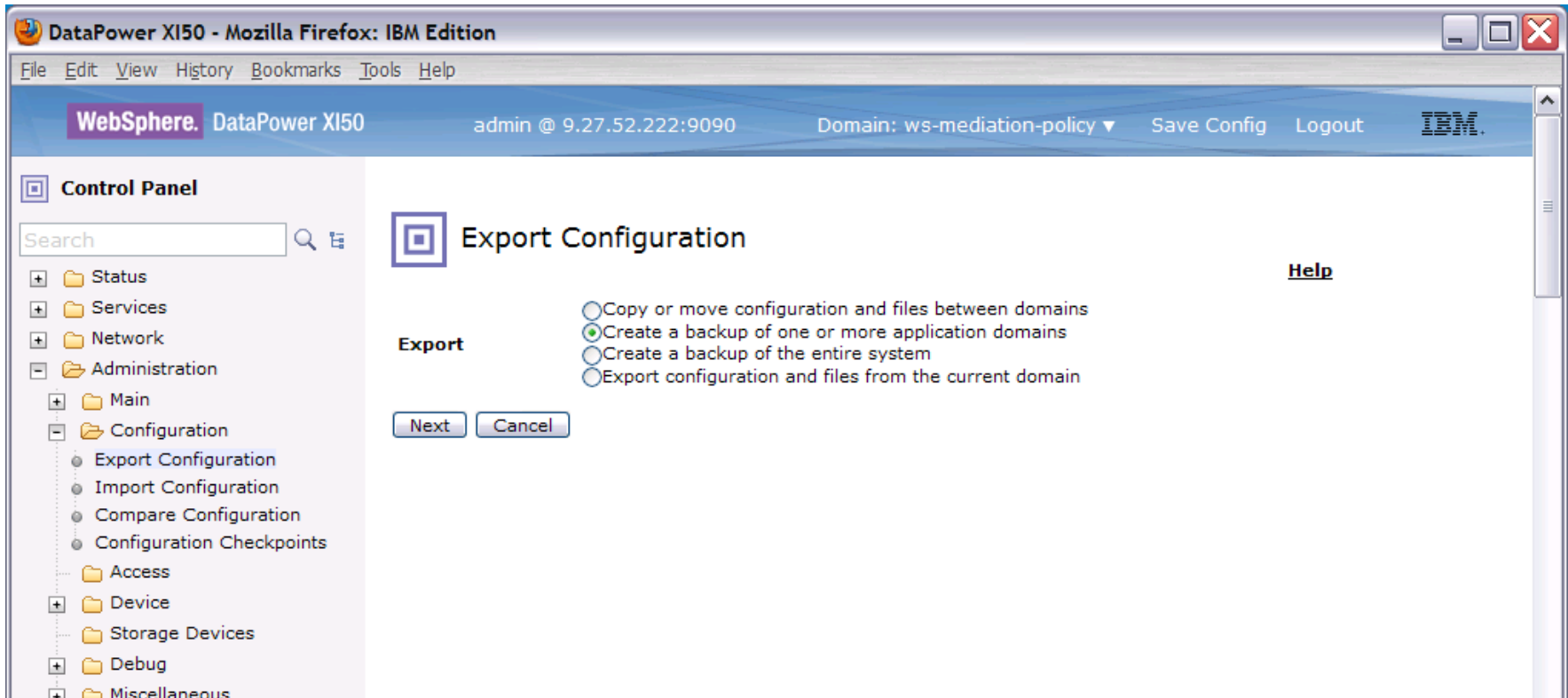
- Introduction to WebSphere Appliance Management Center
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Migrate an application to production

1. Export the application domain configuration

- If an exported application domain is not already available, perform an export via the DataPower WebGUI or XML Management Interface





Migrate an application to production

2. Create a deployment policy

- If a deployment policy is not already created, create a deployment policy to change any properties that are different in the production environment.

The screenshot shows the DataPower XI50 administration console in Mozilla Firefox. The page title is "Configure Deployment Policy". The left sidebar shows a "Control Panel" with a search bar and a tree view of configuration categories. The main content area shows the "Configure Deployment Policy" page with a "Modified Configuration" tab selected. Below the tab, there is a "Deployment Policy" section with "Apply" and "Cancel" buttons. A "Name" field contains "productionDeploymentPolicy". Below this is a table titled "Modified Configuration" with the following data:

Configuration Match	Modification Type	Configuration Property	Configuration Value	
*/ws-mediation-policy/access/tam?Name=prodTAM&Property=LDAPSSLPort&Value=12345	Change Configuration		5678	↑ ↓ ✎ ✕

An "Add" button is located at the bottom right of the table.





Migrate an application to production

3. Select the production appliances and click Create Domain

The screenshot shows the IBM WebSphere Appliance Management Center interface. The top navigation bar includes 'Appliances', 'Domains', 'Services', 'Repository', and 'History'. The 'Appliances' tab is active. A table lists various appliances with columns for Name, Host name, Appliance Type, Model, Firmware Version, and Status. A context menu is open over the 'dpdev2' row, with 'Create Domain' highlighted. The right-hand side of the interface shows a 'Properties' section with several input fields for configuration.

Name	Host name	Appliance Type	Model	Firmware Version	Status
dpdev1	dpdev1		7199	5.0.0.0	↑
dpdev2	dpdev2		7199	5.0.0.0	↑↓
dpdevxs1	dpdevxs1	XS40	9235	4.0.2.1	↑
dpprod1	dpprod1	XI52	7199	4.0.2.3	?
dpprod2	dpprod2	XI52	7199	4.0.2.3	↑
dpprod3	dpprod3	XI52	7199	4.0.2.1	↑
dpprod4	dpprod4	XI52	7199	4.0.2.1	↑
dpprodxs1	dpprodxs1	XS40	9235	4.0.1.0	↑

Properties:

- Name: ?
- Host name: ?
- Appliance type:
- Model:
- Firmware version:
- Status:
- Feature list: ?
- Serial number:
- Quiesce timeout (seconds): ?
- AMP version:
- AMP port: ?
- Appliance administrator ID:
- Appliance



Migrate an application to production

4. Provide the name of the domain, click Next

IBM WebSphere Admin Console - Appliances tab. The table below shows the list of appliances:

Name	Host Name
dpdev1	dpdev1
dpdev2	dpdev2
dpdevxs1	dpdevxs1
dpprod1	dpprod1
dpprod2	dpprod2
dpprod3	dpprod3
dpprod4	dpprod4
dpprodxs1	dpprodxs1
dpprodxs2	dpprodxs2
dptest1	dptest1
dptest2	dptest2
dptestxs1	dptestxs1

Create Domain

Summary of appliances selected:

Name	Appliance Type
dpprod1	XI52
dpprod2	XI52
dpprod3	XI52

New domains are created by using existing configuration. You can either use a backup containing a domain of the same name, or a configuration export containing objects to use in the new domain.

* Specify the name for this new domain:

Note: Once a domain has been created, you cannot change its name.

Next **Cancel**

IBM WebSphere Admin Console - Create Domain wizard. The screen shows a series of empty input fields for configuring the domain.



Migrate an application to production

5. Provide the exported configuration and policy

Create Domain

Specify the configuration source for this domain:

The configuration source can be either a backup containing a domain of the same name or a configuration export containing objects to include in this domain.

Local file:

Select File:

Remote location (URL):

Specify URL:

Create Domain

Specify a deployment policy: (optional)

In the Summary table below, you can select one or more domains and then specify a deployment policy.

Summary:

Appliance	Policy
dpprod1	None
dpprod2	None
dpprod3	None
dpprod4	None

Deployment policy option:

Specify the file:

* Specify the name of the domain containing the policy:

* Specify the policy name:





Migrate an application to production

6. Verify the application is working as expected

- The domain are deployed one at a time to each appliance, without pause.
- A message will be provided for each appliance to indicate success or error.
- Verify each domain was successfully deployed by sending test messages for the services deployed in the domain.





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Update a service within an application domain

1. Select the service from the Services page and click Deploy Configuration

IBM WebSphere Appliance Management Center wamcadmin ?

Appliances | **Domains** | **Services** | **Repository** | **History**

Other Actions
Delete Service
Deploy Configuration

Name	Type	Domain	Appliance	Status
ServiceB	Multi-Protocol Gateway	payroll	dpdev1	↑
ServiceA	Multi-Protocol Gateway	payroll	dpdev1	↑
ServiceC	Multi-Protocol Gateway	payroll	dpdev1	↑
ServiceB	Multi-Protocol Gateway	sales	dpdev1	↑
ServiceA	Multi-Protocol Gateway	sales	dpdev1	↑
ServiceC	Multi-Protocol Gateway	sales	dpdev1	↑
ServiceB	Multi-Protocol Gateway	crm	dpdev1	↑

Properties:

Name: ServiceB
Type: Multi-Protocol Gateway
Domain: payroll
Appliance: dpdev1
Status: ↑



Update a service within an application domain

2. Provide the exported configuration

IBM WebSphere App

Appliances | Doma

Other Actions

No filter applied

Name	Type
ServiceB	Mul Gat
ServiceA	Mul Gat
ServiceC	Mul Gat
ServiceB	Mul Gat
ServiceA	Mul Gat
ServiceC	Mul Gat
ServiceB	Mul Gat
ServiceA	Mul Gat
ServiceC	Mul Gat
ServiceB	Mul Gat
ServiceA	Mul Gat

Deploy Service Configuration

Specify the configuration source for this new service

Local file

Select File: **Browse**

Remote location (URL)

Specify URL

Next **Cancel**

IBM

Gateway





Update a service within an application domain

3. *Optionally modify the deployment policy then click Finish to deploy the service configuration*

IBM WebSphere App

Appliances | Doma

Other Actions

No filter applied

Name	Type
ServiceB	Mul Gat
ServiceA	Mul Gat
ServiceC	Mul Gat
ServiceB	Mul Gat
ServiceA	Mul Gat
ServiceC	Mul Gat
ServiceB	Mul Gat
ServiceA	Mul Gat
ServiceC	Mul Gat
ServiceB	Mul Gat
ServiceA	Mul Gat

Deploy Service Configuration

Specify a deployment policy: (optional)

In the following table, you can select one or more service and then specify a deployment policy.

Appliance	Domain	Policy
dpdev1	payroll	None

Deployment policy option:

Specify the file:

* Specify the name of the domain containing the policy:

* Specify the policy name:

IBM

Gateway





Update a service within an application domain

4. Verify the service is working as expected

- The service is quiesced before deploying the updated configuration, then unquiesced when the deployment is complete.
- The service is deployed one at a time to each domain, without pause.
- A message will be provided for each domain to indicate success or error.
- Verify the service was successfully deployed by sending test messages to the services deployed in the domain.





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WebSphere Appliance Management Toolkit





WebSphere Appliance Management Toolkit

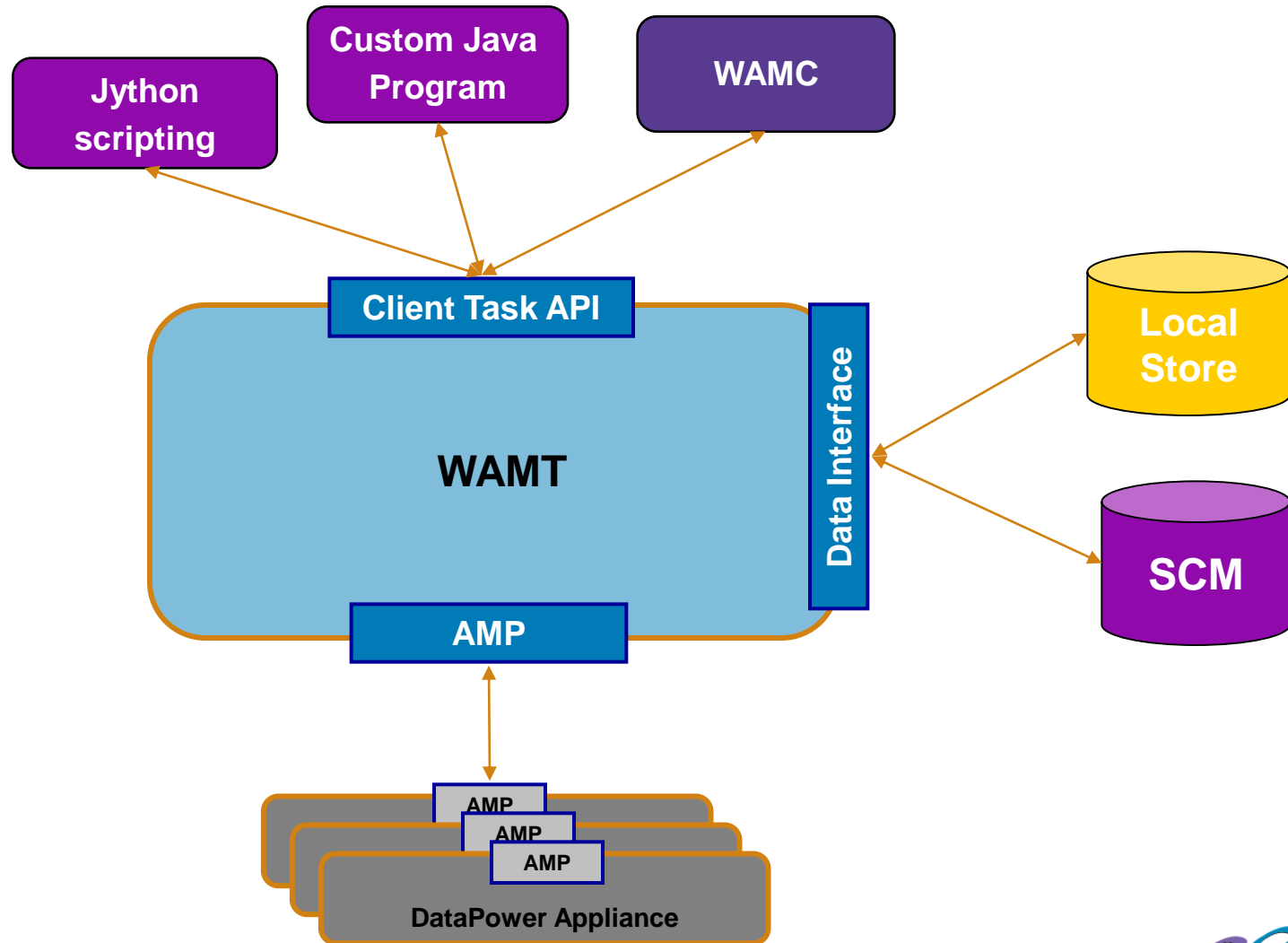
Overview

- Provides a Java API and Jython scripting interface for automated and / or headless operational management
 - Centralized firmware management
 - Disaster recovery
 - Configuration life cycle management, including deployment at the service level
- Used by WebSphere Appliance Management Center
- Available as a free, unsupported download
- developerWorks articles with Java and Jython samples:
 - http://www.ibm.com/developerworks/websphere/library/techarticles/1011_burke/1011_burke.html
 - http://www.ibm.com/developerworks/websphere/library/techarticles/1102_burke/1102_burke.html



WebSphere Appliance Management Toolkit

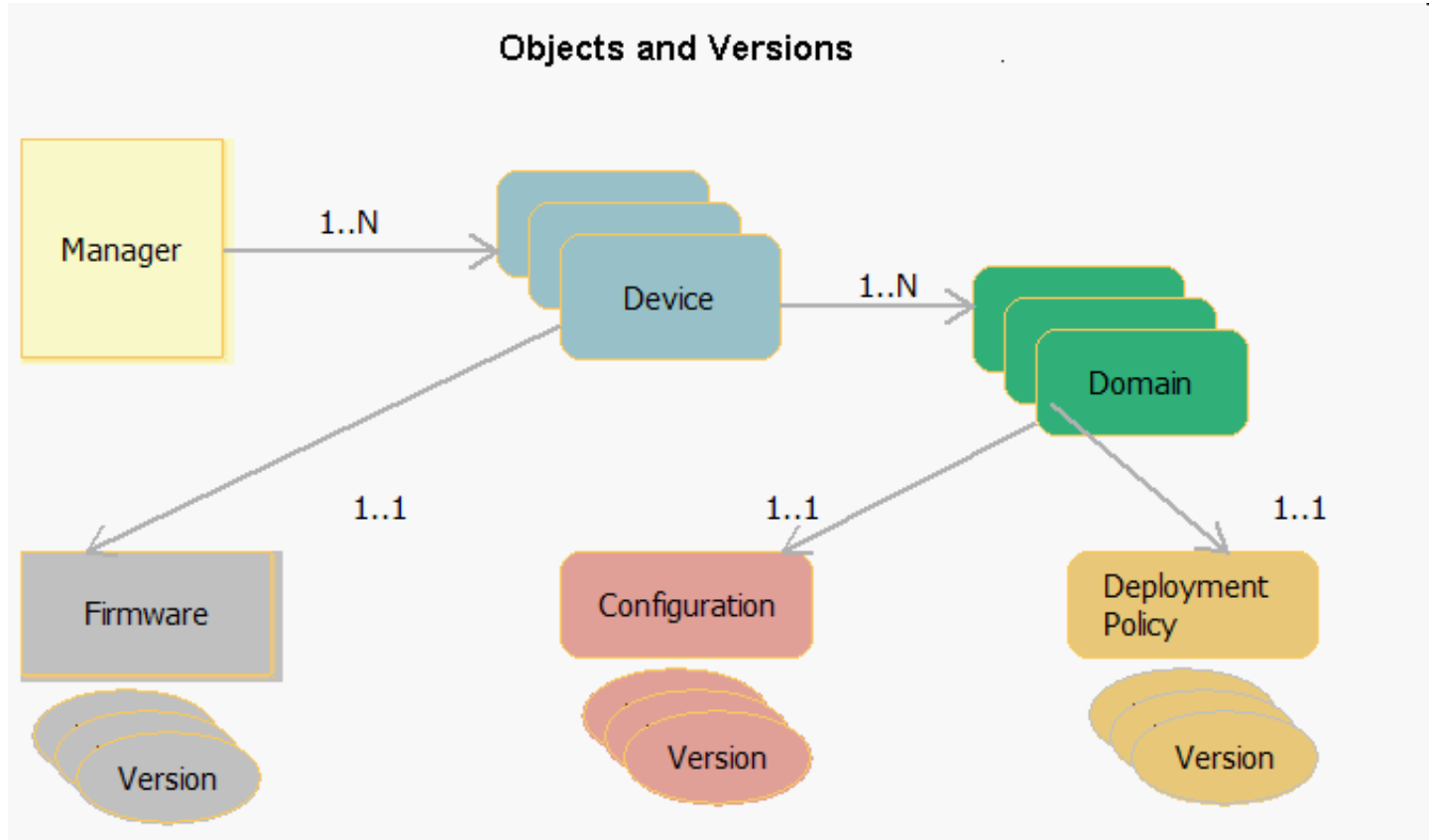
Architecture





WebSphere Appliance Management Toolkit

Object Model





WebSphere Appliance Management Toolkit

What's new

- Multiple managers can manage the same appliance
 - Limitation: The local store still cannot be accessed by multiple managers at the same time
- Support for DataPower services
 - Get the services for a domain
 - Deploy new service to one or more domains
 - Update service in one or more domains
- Support for WebSphere DataPower XC10 appliance
 - Get appliance information and manage firmware
- Support for WebSphere DataPower firmware level 5.0.0





Webinar on WAMC

What will it cover?

- WAMC v5 Features and Functions
- Demo

Who should attend?

- DataPower Developers
- IT Operations responsible for managing DataPower appliances

When?

10th October from 2pm - 3:30pm UK time



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