



# Centralized Configuration



- LightSpeed PM – A Certified Quest Partner

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# Centralized Config – Why

- Managing an environment with 2 or more FMS Servers can be time consuming due to key challenges:
  - How to keep the servers in sync
  - How to make sure that changes made on any of the Foglight Servers are replicated onto others.
  - How to avoid human nature's capacity to forget and make the changes across all servers.
  - How to make the FMS administrator more productive by reducing the replication challenges.
  - Which servers are to receive the changes when servers are spread out and are divided into departments, regions, ...

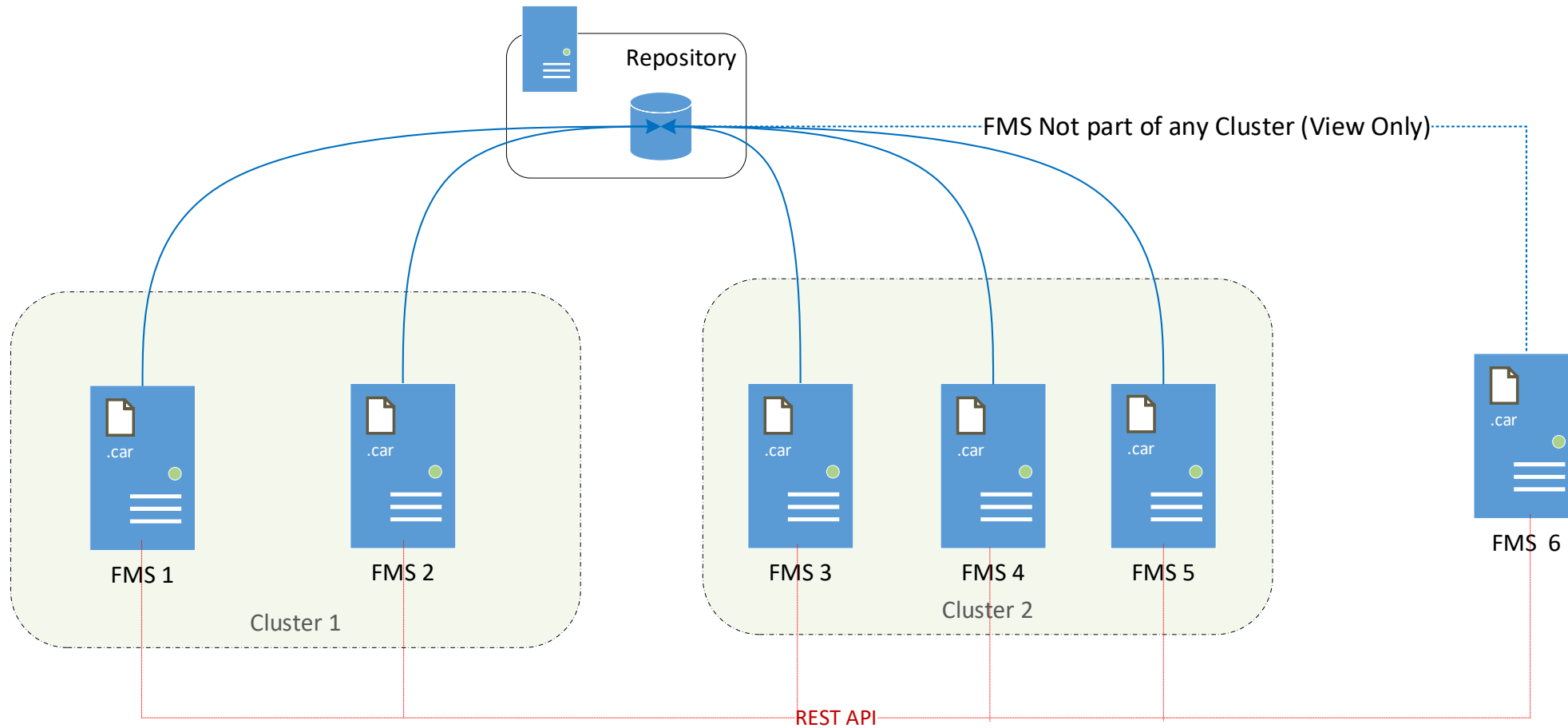
# Centralized Config – Highlights

- Easy to deploy
- Lots of options
- User friendly UI
- **Remote Administration** of solution across servers
- **Master Server Synchronization** mode
- Ability to inject items into clusters
- Automatically syncs changes to many items done on one FMS server to other servers:
  - Creation
  - Deletion
  - Modification

# Centralized Config – Highlights

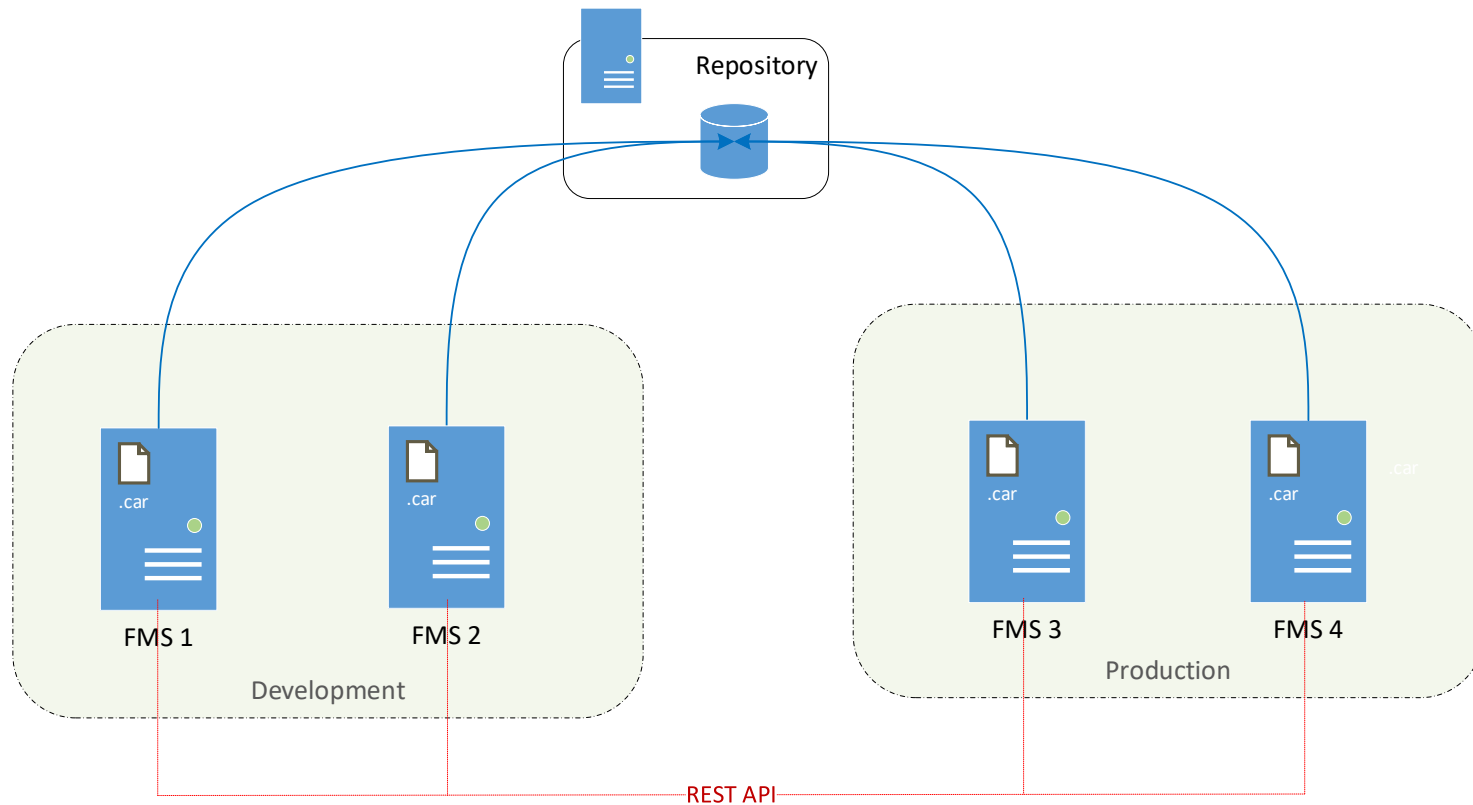
- Cluster the servers such as a change in the cluster will only impact servers that are part of that cluster.
- Monitor the status of changes from any FMS
- Track on which FMS a change happened and when.
- Receive alerts on failures.
- Obtain and audit trail of all activities.
- Flow Injection

# Centralized Config – High Level

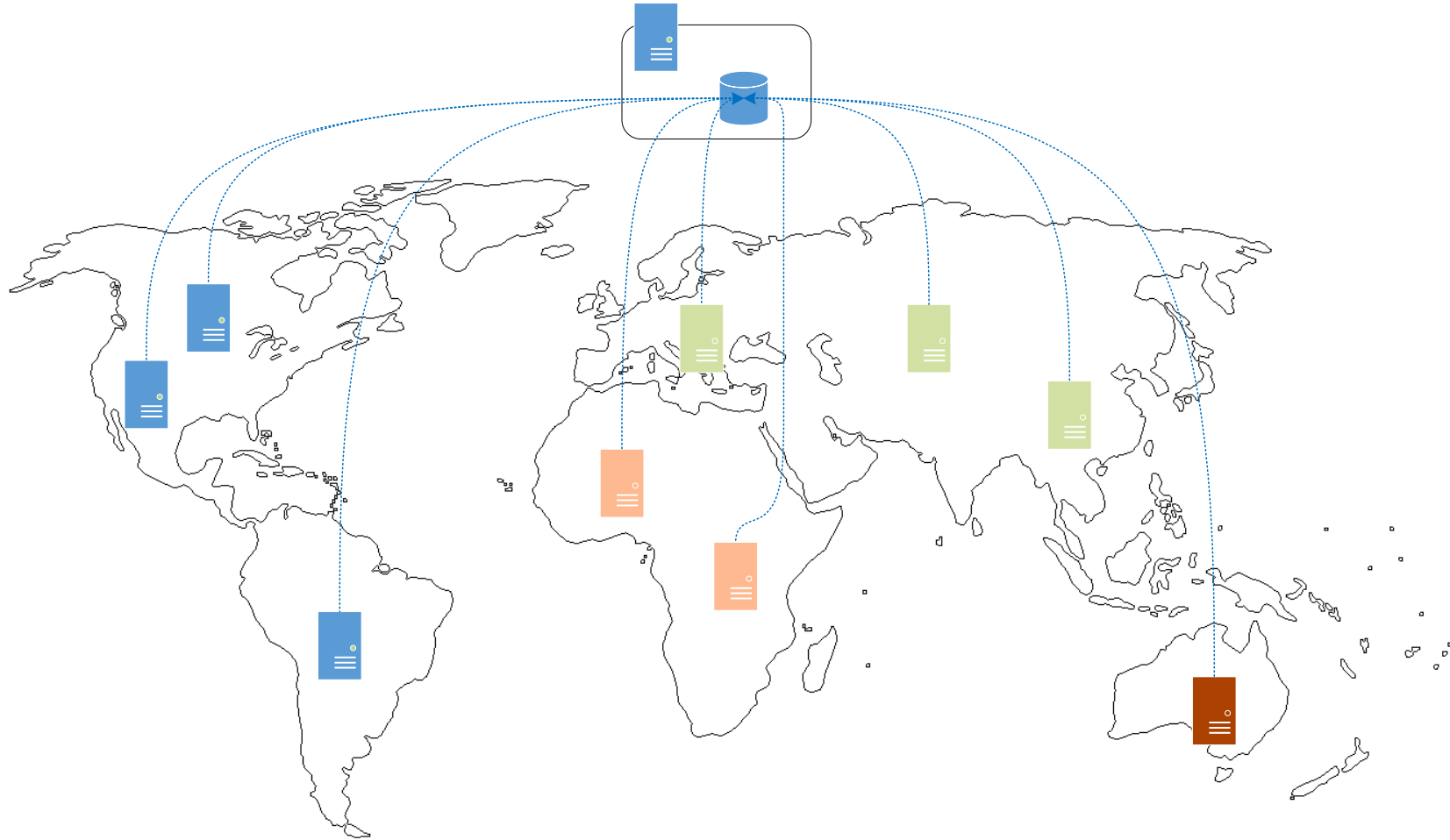


# Centralized Config – Use Case 1

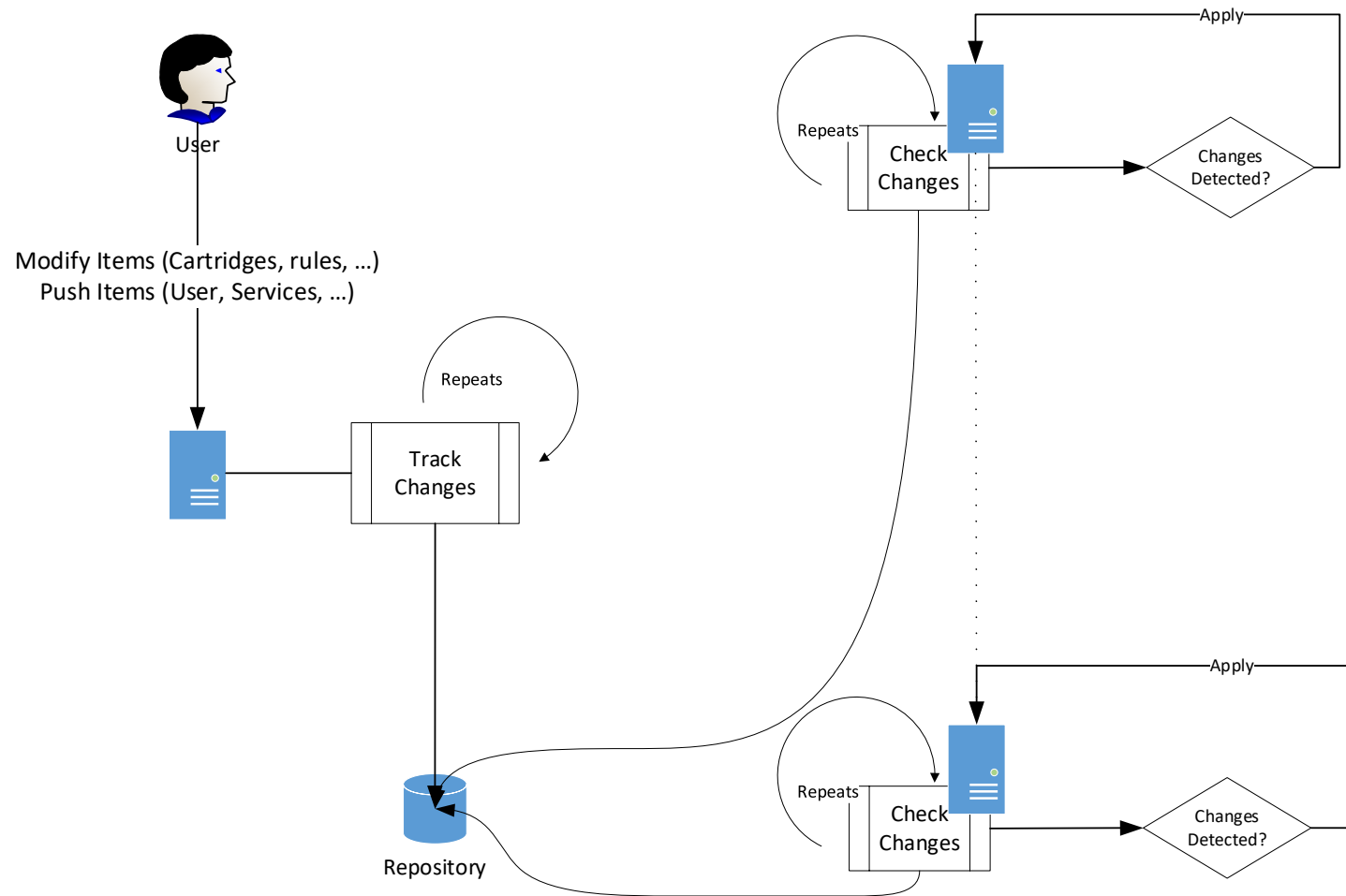
- Manage Development and Production separately.



# Centralized Config – Use Case 2



# Centralized Config – Flow







# Centralized Config – Items Synced

- Administrative items:
  - Cartridges
    - Disabled
    - Enabled
    - Installed
    - Uninstalled
  - Sync Created, Deleted and Modified for the following items:
    - Schedules
    - Registry Variables
    - Derived Metrics
    - Rules
    - Blackouts



# Centralized Config – **Items Synced** - Continued

- Agent Properties
  - Secondary ASP (Lists used by agents)
    - Created
    - Deleted
    - Modified
  - Default Primary ASP (Default properties for an agent type)
    - Modified
- Persistence Policies
  - Sync Created, Deleted and Modified for the following items:
    - Lifecycle
    - Retention Policies
    - Default Lifecycle
    - Schemas
    - Grouping Policies







# Centralized Config – **Items Synced** - Continued

- Services
- Security Items
  - LDAP
  - Roles
  - Groups
  - Users
- WCF Resources
  - User Scripts

# Centralized Config – Defining Clusters

**Centralized Config Cluster Settings**

 Join |  DB Settings |  Initialize System |  Unjoin


Cluster Name:

Host Name (FQDN):

IP Address:

Port:

Protocol:

Is Master:  This server must join a cluster before toggling the master flag.

Is Licensed: YES

**Join Cluster** ✕

Choose or enter the name of the cluster to join:

Development

Production

Worldwide

Join

Cancel

# Centralized Config – Changing Settings

▼ Bookmarks

There are no bookmarks

▶ Homes

▶ Dashboards

▼ Foglight Servers

Local FMS

Host Name

fms-593 8080

Centralized Config Registry Settings - Local FMS

Save | Undo | Filter

Name ▲	Value	
■ Configuration		
PSO.CentralizedConfig.ConfigVersion	1.0.4.0	Indicates the version of the Foglight configuration. Depending on the FMS version it may need t
■ Debug		
PSO.CentralizedConfig.Debug	false	Whether or not to enable debug mode in the Centralized Configuration solution
■ Foglight Management Server (FMS)		
PSO.CentralizedConfig.FMS.GracePeriod	24	Number of hours that an FMS can be offline and still be considered as online.
PSO.CentralizedConfig.FMS.TasksScript.PingRate	60	Rate in minutes at which the FMS Tasks script should make itself known to be still running. If th
■ Notification		
PSO.CentralizedConfig.Email.Admin		Email address of the Centralized Config administrator
■ Sync Engine		
PSO.CentralizedConfig.Sync.Administration.Blackouts.Enable	true	Should Blackouts be synced.
PSO.CentralizedConfig.Sync.AgentProperties.SecondaryASP.MinCount	2	Indicates the minimum usage count a Secondary ASP must have before it is considered for sync
PSO.CentralizedConfig.Sync.PersistencePolicies.Enable	true	Should Persistence Policies be synced.
PSO.CentralizedConfig.Sync.Security.Enable	true	Should Security be synced.
PSO.CentralizedConfig.Sync.Services.Enable	true	Should Services be synced.
PSO.CentralizedConfig.Sync.Services.RemoveServicesNotInSource	false	When a service is being synced, should services not found in the source service be removed fro

# Centralized Config – Rule Management

The screenshot displays the 'Centralized Config Rule Management' interface at <http://fms-593:8080>. The left sidebar shows navigation options: Bookmarks, Homes, Dashboards, and Foglight Servers. Under Foglight Servers, 'Local FMS' is selected, and 'fms-593 8080' is highlighted under 'Host Name'.

The main content area shows a table of rules with columns for 'Category / Title' and 'Enabled'. The rules are categorized into 'Alerting', 'Task', 'Automation', and 'Clean Up'.

Category / Title	Enabled
<b>Alerting</b>	
<b>Foglight Management Server</b>	
Offline	
<b>Task</b>	
Failed	
<b>Automation</b>	
Tasks	
<b>Clean Up</b>	
Delete Cluster Wide Deleted Items	
Delete Cluster Wide Uninstalled Cartridges	

A modal dialog titled 'Define Settings for Rule "PSO - Centralized Config Failed Task"' is open, showing configuration options for the 'Failed' task rule. The dialog includes the following settings:

- Handles generating alarms and emails for any failed task on the current FMS.
- Generate Alarm: ☒ (Check the box to enable alarm generation, uncheck to disable.)
- Alarm Severity:  (When an alarm is generated what severity should the alarm represent.)
- Generate Email: ☒ (Check the box to enable email generation, uncheck to disable. Please note that an email is not generated if "Generate Alarm" is disabled.)
- Email Recipient:  (Comma separated list of email addresses.)

Buttons for 'Apply' and 'Cancel' are located at the bottom right of the dialog.

# Centralized Config – Pushing Items

The screenshot displays the Foglight user interface. On the left, the 'Foglight Servers' sidebar shows a tree view with 'Local FMS' selected. Below it, a table lists server details:

	Cluster	Host Name
	Development	fms-5938

The main panel, titled 'Centralized Config Push Items - Local FMS', contains a toolbar with 'Cancel Push', 'Security', 'Persistence Policies', 'Select All', 'Select None', and 'Push'. Below the toolbar is a list of configuration items, each with a checkbox:

- ☐ (unselected)
- ☐ Blackout
- ☐ Lifecycle
- ☐ Retention Policy
- ☐ Default Lifecycle
- ☐ Schema
- ☐ Grouping Policy
- ☐ Service
- ☐ LDAP
- ☐ Role
- ☐ Group
- ☐ User
- ☐ User Script
- ☐ JVM Setting
- ☐ Database Password

# Centralized Config – Inject Items

The screenshot displays the Foglight Centralized Config interface. On the left, the 'Navigation' pane shows the 'Expert View' and a list of 'Foglight Servers'. The 'Local FMS' section is expanded, showing a table with columns 'Host Name' and 'Cluster'. The table contains one entry: 'fms-593 8080' in the 'Host Name' column and 'Development' in the 'Cluster' column. A green arrow icon is next to the host name.

The main panel is titled 'Centralized Config Items To Inject - <http://fms-593:8080>'. It features a toolbar with an 'Inject Items' button (a blue square with a green plus sign) and buttons for 'Select All', 'Select None', and 'Cancel "Inject"'. A dropdown menu is open from the 'Inject Items' button, listing various item types: Blackout, Cartridge, Database Password, Default Lifecycle, Derived Metric, Group, Grouping Policy, JVM Setting, LDAP, Lifecycle, Primary ASP, Registry Variable, Retention Policy, Role, Rule, Schedule, Schema, Secondary ASP, Service, Threshold, and User.

The main panel also has a table with columns 'Target Cluster' and 'Item Type'. The 'Target Cluster' column has a checkbox. The 'Item Type' column has a dropdown arrow. The text 'There Is No Data To Display' is visible in the table area.



# Centralized Config – Items Not To Sync

▼ Bookmarks

There are no bookmarks

► Homes

► Dashboards

▼ Foglight Servers

Local FMS

Search

Cluster Host Name

Development fms-593

Centralized Config Items Not To Sync - <http://fms-593:8080>

Reload Internal Add Items (Cluster Level) Add Items (FMS Level) Select All Select None Cancel "Do Not Sync"

Item Type	Name	Not Synchronizable	
		On Cluster	On FMS
<input type="checkbox"/>			
<input type="checkbox"/> Cartridge		⏻	⏻
<input type="checkbox"/> Cartridge		⏻	⏻
<input type="checkbox"/> Cartridge		⏻	⏻
<input type="checkbox"/> Registry Variable		⏻	⏻
<input type="checkbox"/> Registry Variable		⏻	⏻

Blackout

Cartridge

Database Password

Default Lifecycle

Derived Metric

Group

Grouping Policy

JVM Setting

LDAP

Lifecycle

Primary ASP

Registry Variable

Retention Policy

Role

Rule

Schedule

Schema

Secondary ASP

Service

Threshold

User

# Centralized Config – Administration Items

The screenshot displays the Foglight Administration console. On the left, the 'Clusters' sidebar shows a tree view with 'WorldWide' selected. The main panel is divided into two sections. The top section, 'Foglight Servers', contains a table of server configurations. The bottom section, 'Cartridges', contains a table of installed cartridges. Both tables include search bars and view toggles.

**Cluster Settings**

Cluster Name
Development
Production
<b>WorldWide</b>

**Foglight Servers**

	Host Name	IP Address	Port	Last Ping
<input checked="" type="radio"/>	fms	192.168.0.171	8080	7/28/16 5:33 AM
<input type="radio"/>	fms_AFRICA	192.168.0.176	8080	7/28/16 5:21 AM
<input type="radio"/>	fms_ASIA_1	192.168.0.177	8080	7/28/16 5:22 AM
<input type="radio"/>	fms_ASIA_2	192.168.0.178	8080	7/28/16 5:23 AM
<input type="radio"/>	fms_AUSTRALIA	192.168.0.179	8080	7/28/16 5:24 AM
<input type="radio"/>	fms_NA_1	192.168.0.180	8080	7/28/16 5:24 AM
<input type="radio"/>	fms_NA_2	192.168.0.181	8080	7/28/16 5:25 AM
<input type="radio"/>	fms_SA	192.168.0.182	8080	7/28/16 5:25 AM

View by: Administration | Agent Properties | Persistence Policies | Services | Security | WCF Resources

**Cartridges**

Name	Version	State	Last User Update
Active-Directory	5.6.8	Enabled	-
ApacheAgent	5.6.5	Enabled	-
ApacheMonitor	5.6.5	Enabled	-
Apache-UI	5.6.5	Enabled	-
ApplicationServers-Common	5.9.7.1	Enabled	-

# Centralized Config – Agent Properties

The screenshot displays the Foglight management console. On the left, a sidebar shows the navigation menu with 'Homes', 'Dashboards', and 'Clusters'. Under 'Clusters', 'Cluster Settings' is selected, and 'WorldWide' is chosen from the 'Cluster Name' list. The main panel, titled 'Foglight Servers', shows a table of servers with columns for selection, status, host name, IP address, port, and last ping. Below this, a 'View by' section allows switching between 'Administration', 'Agent Properties' (selected), 'Persistence Policies', 'Services', 'Security', and 'WCF Resources'. The 'Agent Properties' view shows a table of agent types with columns for selection, agent type, deleted status, and last user update.

		Host Name	IP Address	Port	Last Ping
<input checked="" type="radio"/>	✓	fms	192.168.0.171	8080	7/28/16 5:33 AM
<input type="radio"/>	✓	fms_AFRICA	192.168.0.176	8080	7/28/16 5:21 AM
<input type="radio"/>	✓	fms_ASIA_1	192.168.0.177	8080	7/28/16 5:22 AM
<input type="radio"/>	✓	fms_ASIA_2	192.168.0.178	8080	7/28/16 5:23 AM
<input type="radio"/>	✓	fms_AUSTRALIA	192.168.0.179	8080	7/28/16 5:24 AM
<input type="radio"/>	✓	fms_NA_1	192.168.0.180	8080	7/28/16 5:24 AM
<input type="radio"/>	✓	fms_NA_2	192.168.0.181	8080	7/28/16 5:25 AM
<input type="radio"/>	✓	fms_SA	192.168.0.182	8080	7/28/16 5:25 AM

View by: Administration | Agent Properties | Persistence Policies | Services | Security | WCF Resources

Secondary ASPs | Primary ASPs

	Agent Type	Deleted	Last User Update
✓	ActiveDirectory	<input type="radio"/>	-
✓	ApacheAgent	<input type="radio"/>	-
✓	DB_Auto_Discovery_Azure	<input type="radio"/>	-
✓	DB_Azure_Database	<input type="radio"/>	-
✓	DB_Azure_Instance	<input type="radio"/>	-
✓	DB_SSP	<input type="radio"/>	-

# Centralized Config – Persistence Policies

The screenshot displays the Foglight management console. On the left, a sidebar shows the navigation menu with 'Clusters' selected. Under 'Clusters', 'Cluster Settings' is active, showing a list of clusters: Development, Production (selected), and WorldWide. The main panel is titled 'Foglight Servers' and shows a table of servers. Below this, there are tabs for 'View by: Administration | Agent Properties | Persistence Policies | Services | Security | WCF Resources'. The 'Persistence Policies' tab is selected, showing a table of policies.

		Host Name	IP Address	Port	Last Ping
<input checked="" type="radio"/>	✓	fms_PROD_1	192.168.0.174	8080	7/28/16 5:19 AM
<input type="radio"/>	✓	fms_PROD_2	192.168.0.175	8080	7/28/16 5:20 AM

	Name	Deleted	Last User Update
✓	AccountActivity		-
✓	ActiveAccounts		-
✓	AgentMessages		-
✓	ApplicationConfiguration		-
✓	ApplicationResponseTime		-
✓	ApplicationResponseTimeHistory		-

# Centralized Config – Services

The screenshot displays the Foglight management console. On the left, the 'Clusters' sidebar shows three clusters: 'Development' (selected), 'Production', and 'WorldWide'. The main area is titled 'Foglight Servers' and contains a table of server details. Below this, a 'View by' section allows switching between different views, with 'Services' currently selected, showing a list of service categories.

	Host Name	IP Address	Port	Last Ping
<input checked="" type="radio"/>	fms_DEV_1	192.168.0.172	8080	7/28/16 5:17 AM
<input type="radio"/>	fms_DEV_2	192.168.0.173	8080	7/28/16 5:18 AM

	Topology Type	Name	Deleted	Last User Update
<input checked="" type="checkbox"/>	FSMCategory	Application Servers	<input type="checkbox"/>	-
<input checked="" type="checkbox"/>	FSMCategory	PSO Admin Pack	<input type="checkbox"/>	-
<input checked="" type="checkbox"/>	FSMService	PSO Auto Maintenance	<input type="checkbox"/>	-
<input checked="" type="checkbox"/>	FSMService	PSO Centralized Config	<input type="checkbox"/>	-
<input checked="" type="checkbox"/>	FSMCategory	User Host Groups	<input type="checkbox"/>	-
<input checked="" type="checkbox"/>	FSMCategory	Virtualization	<input type="checkbox"/>	-

# Centralized Config – Security

The screenshot displays the Foglight management console. On the left, a sidebar shows the navigation menu with 'Homes', 'Dashboards', and 'Clusters'. Under 'Clusters', 'Cluster Settings' is selected, showing a list of clusters: Development, Production, and WorldWide. The 'WorldWide' cluster is selected. The main panel is titled 'Foglight Servers' and contains a table of servers. Below the table, there are tabs for 'LDAP', 'Roles', 'Groups', and 'Users'. The 'LDAP' tab is active, showing a table with LDAP configurations.

		Host Name	IP Address	Port	Last Ping
<input type="radio"/>	✓	fms	192.168.0.171	8080	7/28/16 5:33 AM
<input type="radio"/>	✓	fms_AFRICA	192.168.0.176	8080	7/28/16 5:21 AM
<input type="radio"/>	✓	fms_ASIA_1	192.168.0.177	8080	7/28/16 5:22 AM
<input type="radio"/>	✓	fms_ASIA_2	192.168.0.178	8080	7/28/16 5:23 AM
<input checked="" type="radio"/>	✓	fms_AUSTRALIA	192.168.0.179	8080	7/28/16 5:24 AM
<input type="radio"/>	✓	fms_NA_1	192.168.0.180	8080	7/28/16 5:24 AM
<input type="radio"/>	✓	fms_NA_2	192.168.0.181	8080	7/28/16 5:25 AM
<input type="radio"/>	✓	fms_SA	192.168.0.182	8080	7/28/16 5:25 AM

View by: Administration | Agent Properties | Persistence Policies | Services | Security | WCF Resources

LDAP Roles Groups Users

	Name	Last User Update
✓	LDAP Default Configuration	-

# Centralized Config – WCF Resources

The screenshot displays the Foglight management console. On the left, a sidebar shows the navigation menu with 'Homes', 'Dashboards', and 'Clusters'. Under 'Clusters', 'Cluster Settings' is active, showing a list of clusters: Development, Production, and WorldWide (selected). The main panel is titled 'Foglight Servers' and contains a table of server instances. Below this table, a tabbed interface shows 'WCF Resources' for the selected cluster.

**Foglight Servers Table:**

		Host Name	IP Address	Port	Last Ping
<input type="radio"/>	✓	fms	192.168.0.171	8080	7/28/16 5:33 AM
<input type="radio"/>	✓	fms_AFRICA	192.168.0.176	8080	7/28/16 5:21 AM
<input type="radio"/>	✓	fms_ASIA_1	192.168.0.177	8080	7/28/16 5:22 AM
<input type="radio"/>	✓	fms_ASIA_2	192.168.0.178	8080	7/28/16 5:23 AM
<input type="radio"/>	✓	fms_AUSTRALIA	192.168.0.179	8080	7/28/16 5:24 AM
<input checked="" type="radio"/>	✓	fms_NA_1	192.168.0.180	8080	7/28/16 5:24 AM
<input type="radio"/>	✓	fms_NA_2	192.168.0.181	8080	7/28/16 5:25 AM
<input type="radio"/>	✓	fms_SA	192.168.0.182	8080	7/28/16 5:25 AM

**WCF Resources Table:**

	WCF Module	Resource	Deleted	Last User Update
✓	user:foglight	storage/coreDashboards-scriptHolder.xml	ⓘ	-

# Centralized Config – System Requirements

- **Minimum required FMS version**

5.9.3

- **Supported Databases**

## **Minimum Version**

Microsoft SQL

2008 (version 10.0.1600 or later)

Oracle

9i R2

MySQL

5.1.45

PostgreSQL

9.4.0