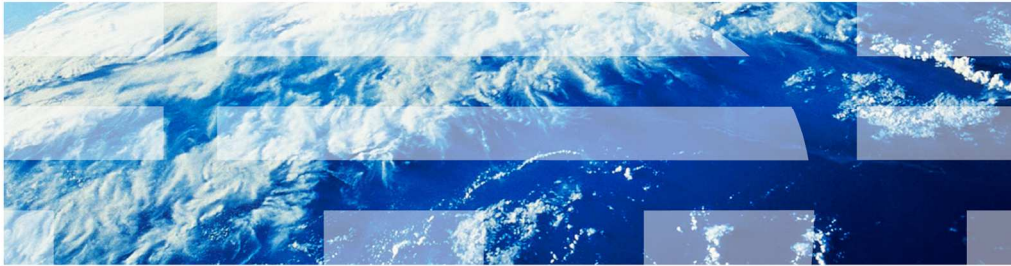


# z/OS V2R1 Communications Server

## Configuration Assistant



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This presentation introduces the new function of the Configuration Assistant for z/OS® V2R1 Communications Server. The Configuration Assistant is a tool that provides a graphical user interface. It can help to simplify the configuration of the z/OS Communications Server policy-based networking functions: AT-TLS, DMD, IDS, IPsec, NSS, PBR, and QoS.

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In this presentation, some background information is provided on the Configuration Assistant. Then the problem and the solution, addressed by the new function, are described in detail.

## Background (1 of 4)

- Configuration Assistant for z/OS Communications Server is a plug-in to z/OSMF (z/OS Management Facility)
- z/OSMF and browser-based access is the strategic platform and access method for the Configuration Assistant

z/OS V1.13 is planned to be the final release for which the IBM Configuration Assistant for z/OS Communications Server tool that runs on Microsoft Windows will be provided by IBM. This tool is currently available as an as-is, nonwarranted web download. Customers who currently use Windows-based IBM Configuration Assistant for z/OS Communications Server tool should migrate to the z/OS Management Facility (z/OSMF) Configuration Assistant application. The IBM Configuration Assistant for z/OS Communications Server that runs within z/OSMF is part of a supported IBM product and contains all functions supported with the Windows tool.

- You must migrate to z/OSMF

The Configuration Assistant for z/OS Communications Server is a plug-in to z/OSMF. The Windows version of the Configuration Assistant will no longer be available with z/OS V2R1.

## Background (2 of 4)

- z/OSMF is a freely available, fully supported IBM product that provides a web-based systems management portal with graphical user interface for z/OS
  - Runs on z/OS and is based upon WebSphere® Application Server Liberty (light-weight web server runtime)
  - Several z/OS products provide plug-ins to z/OSMF (WLM, Capacity Provisioning, and so forth)

z/OSMF provides a common framework for all plug-ins, like the Configuration Assistant to use. This framework allows the plug-ins to use common services and present a consistent appearance. It runs on z/OS, and is based on the WebSphere Application Server Liberty profile, which is a light-weight web server runtime.

## Background (3 of 4)

z/OSMF provides a common framework for plug-ins

- A launch point for the UI console which is panel with a navigator where applications like the CA can plug-in and be invoked
- Provides a set of registration services for the applications that want to plug in
- Each application exploiter registers as a “task” which defines its invocation link (html or jsp) from the browser side. This link is displayed in the z/OSMF navigator
- Provides a user login for authentication
- Provides a user registration and role repository and services
  - You are assigned a role and the role includes which Configuration Assistant tasks you can access

z/OSMF has a launch point for the UI console which is panel with a navigator where applications like the CA can plug-in and be invoked. It provides a set of registration services for the applications that want to plug in. Each application exploiter registers as a “task” which defines its invocation link (html or jsp) from the browser side. This link is displayed in the z/OSMF navigator. It also provides a user login for authentication, user registration and role repository, and services. You are assigned a role and the role includes which Configuration Assistant tasks you can access.

## Background (4 of 4)

- Provides Java services for “logging” on the “server” side for problem determination. This uses WebSphere Application Server logging services
- On the “browser/client” side, there is also service for logging within your javascript that send the log messages back to the server
- z/OSMF panel widgets provide a “message manager” for displaying messages on panels. z/OSMF provides messages “IZUxxx”. Exploiters can define and use their own messages
- Provides rules for translation. Japanese is currently supported
- Defines browser products and levels supported
  - Exploiters must comply

Additionally, z/OSMF common framework services provide support for common panel features, such as breadcrumbs, a message manager, and common logging services. z/OSMF provides rules for translation. Japanese is currently supported. In addition, z/OSMF defines browser products and levels supported.

## Problem statement

- The previous Configuration Assistant did not integrate well into z/OSMF
  - Based upon heavy (server-side performance), AUIML UI framework
    - Forced application logic to be tightly bound to UI presentation layer logic
  - Not based upon the z/OSMF framework; therefore, presented a different look, feel, and behavior than other z/OSMF plug-ins
    - Use of z/OSMF common UI widgets provides consistency across plug-ins
  - Using the “AUIML framework”, the Configuration Assistant did not look nor perform well

Unlike the other z/OSMF plug-ins, the Configuration Assistant did not integrate well into z/OSMF since it was not based upon the common framework. It previously used an AUIML UI framework and presented a different appearance. It also did not perform as well.

## Solution: Redesign the Configuration Assistant

The Configuration Assistant is redesigned to better integrate with z/OSMF and other plug-ins

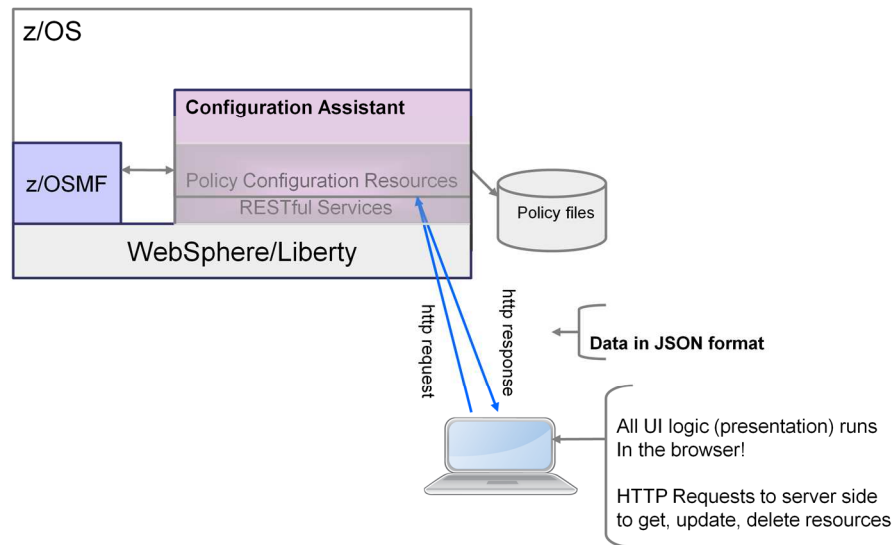
- Removed old UI infrastructure (AUIML)
- New architectural model based upon Ajax design model which provides this 3-tier approach:
  1. The UI is based upon html, JavaScript, dojo, css, and z/OS common widgets. This allows for improved performance because much of the logic now executes in the browser
  2. The browser (client side in JavaScript) communicates asynchronously with the server side CA application using the http protocol
  3. On the server side, CA resources (ex: rules, traffic descriptors, security levels) are defined with a URI. They are then accessed through RESTful services (based upon http verbs- GET, POST, DELETE). This allows for a Services Oriented Architecture (SOA)
    - Data exchanged using a JSON format (lighter than XML)

**This improved UI has an appearance that integrates nicely with z/OSMF and provides much improved performance**

The solution was to redesign the Configuration Assistant to use the z/OSMF common framework, and to improve its design model as a web application. The configuration assistant within z/OSMF removed old UI infrastructure. It contains a new architectural model based on the Ajax design model, which provides this 3-tier approach. The three tiers are as follows. First the UI is based upon html, JavaScript, dojo, CSS, and z/OS common widgets and allows for improved performance because much of the logic now runs in the browser. Second, the browser (client side in JavaScript) communicates asynchronously with the server side CA application using the http protocol. Third, on the server side, CA rules, traffic descriptors, and security levels are defined with a URI. These are all accessed through RESTful services, based upon http verbs such as GET, POST, DELETE. This allows for a Services Oriented Architecture Data exchanged using a JSON format, which is lighter than XML.



## Configuration Assistant's new architectural model



This is a picture that displays an overview of the new Configuration Assistant design model. Note the transfer of data between z/OSMF and the Configuration Assistant along with the separate policy files and requests delivered using HTTP.

## Much improved performance

- Significantly improved performance versus V1R13 Configuration Assistant
  - Tests conducted : Manual IP sec filter rule creation over five minute interval with EC12, one processor, 2GB memory
    - Rules created: 16 with V2R1, six with V1R13 **(2.6x)**
    - Processor estimates (average/rule): V2R1 8x better than V1R13 (that is, uses less processor)
    - Average response time per rule: V2r1 is approximately 2.5x better
- Some improvements due to overall improvements in z/OS V2R1, but most improvements because of the new “Ajax” design model
- The new WebSphere Application Server Liberty profile also provides a much lighter-weight runtime and significant improvement to installation

The new design greatly improves the performance from the previous version of the Configuration Assistant. Early tests reveal a variety of ways that performance improves, including two and a half times better response time. This new design allows for more client side processing – in the browser.

## Differences and similarities between the old and new Configuration Assistant

- The Configuration Assistant has been redesigned, but all configuration backing stores for supported releases can be used without change
- All panels are new; however, the same functions are provided
  - There are changes in the appearance
  - No loss of function but mostly changes in the way things are done
    - One example is the application setup tasks
    - Enhanced backing store management
- Because the tool has significantly been reconstructed, save a copy of their existing configuration backing stores
  - Even though it has been well-tested

The new Configuration Assistant still provides the same functions, and if the level of the backing store is supported with z/OS V2R1, then the existing backing stores will work. All panels are new, but the same functions are provided with the benefit of enhanced backing store management.

IBM

## Migrating from Windows to z/OSMF

IBM z/OS Management Facility Welcome kim

- Welcome
- Notifications
- Workflows
- Configuration
  - Configuration Assistant
- Links
  - czuktest
  - ShopzSeries
  - Support for z/OS
  - System z Redbooks
  - WSC Flashes & Techdocs
  - z/OS Basics Information Center
  - z/OS Home Page
  - z/OS Internet Library
  - z/OSMF Administration
  - z/OSMF Settings

Refresh

Welcome x Configuratio... x

### Welcome to V2R1 Configuration Assistant for z/OS Communications Server

Use this task to create and manage configuration for z/OS Communications Server policy-based networking functions.

**Select a backing store for configuration:**

NextPrototype

**Learn more about Configuration Assistant:**

What's New	See what is new in this release.
Getting Started	First time users can learn about Configuration Assistant.
Migrating to z/OSMF	Migrate backing stores from Windows to z/OSMF.
Tutorials	Link to tutorials.
FAQs	Link to Frequently Asked Questions.

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You should see Migrating to z/OSMF if you previously used the Windows version of the Configuration Assistant.

## Integrated application setup tasks into the z/OSMF workflow

- Removed application setup tasks in the Configuration Assistant and moved to the workflow task
  - Associated with each Configuration Assistant technology at the Image level
  - In many cases, tasks are repeated for each image (repetitive)
    - Workflow provides a common set of tasks that can be tailored for each system where needed. In most cases, configuration is the same
  - Upon entering the workflow task, you must “create” a new workflow
    - Specify the Configuration Assistant workflows
  - Workflows consist of a set of steps which are like instructions. Once the workflow is created, the workflow engine drives you through the workflow steps using a wizard.
    - The wizard has many features and is best viewed with a quick demonstration.

The Configuration Assistant provides new support for application setup tasks. This functions helped users to perform the setup tasks required to run each Configuration Assistant technology. Many of these tasks are the same for each technology. Setup tasks include, for example, configuration and setup to run the Policy Agent, Syslogd, and TRMD. With V2R1, the application setup tasks are now associated with the z/OSMF workflow plug-in. Workflows are provided and can be created. Workflows are a set of steps, like instructions and once created, the workflow drives through the steps using a wizard.

## Existing application setup tasks from image

**IPSec Perspective**

Application Setup Tasks for Image IMAGE1

This panel contains tasks to enable IP Security for z/OS image IMAGE1.

- Select the task and click **Task Details**.
- Steps: - Follow the instructions on the panel.
- As you finish each task, change its status to **Complete**.

List of setup tasks

Task name	Last completion date	Status	Comment
Installation Location Setup	2012-09-18 20:53:56	Complete	
Policy Agent - RACF Directives	2012-09-18 20:54:03	Complete	
Policy Agent - RACF Directives for dat...		Incomplete	
IKED - RACF Directives		Incomplete	
ipsec Command - RACF Directives		Incomplete	
Syslogd - RACF Directives		Incomplete	
TRMD - RACF Directives		Incomplete	
Policy Agent Configuration - Image IM...		Incomplete	

Task Details...    Display All Instructions

Permanently save backing store after performing

**Task: Configure Installation Location Setup for Image IMAGE1**

Instructions    View steps for completing this task.

Location Information...    Set location information for this image.

Attach comment:

Mark task as complete

OK    Help ?

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These three panels display a view of the original application setup tasks in the Configuration Assistant.

## New z/OSMF workflow task

IBM z/OS Management Facility

- Welcome
- Notifications
- Workflows
- Configuration
  - Configuration Assistant
- Links
- z/OSMF Administration
- z/OSMF Settings

Refresh

Welcome x

### Welcome to IBM z/OS Management Facility

IBM® z/OS® Management Facility (z/OSMF) provides a framework for managing z/OS systems. z/OSMF can help to simplify some areas of z/OS system management.

To learn more about z/OSMF, visit the links in the Learn More section.

To start managing your z/OS systems, select a task from the navigation area.

Learn More:

- [What's New](#)
- [z/OSMF tasks at a glance](#)
- [Getting started with z/OSMF](#)

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The application setup tasks have been converted to workflows and you will use the workflow engine in z/OSMF to perform their setup tasks for the policy agent, internet key exchange daemon, network security server, and defense manager daemon.

## Things to think about

- Install z/OSMF
- Migrate your backing stores if migrating from Windows
- Enjoy the new Configuration Assistant

Install z/OSMF, migrate your backing stores and then enjoy the new Configuration Assistant.



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