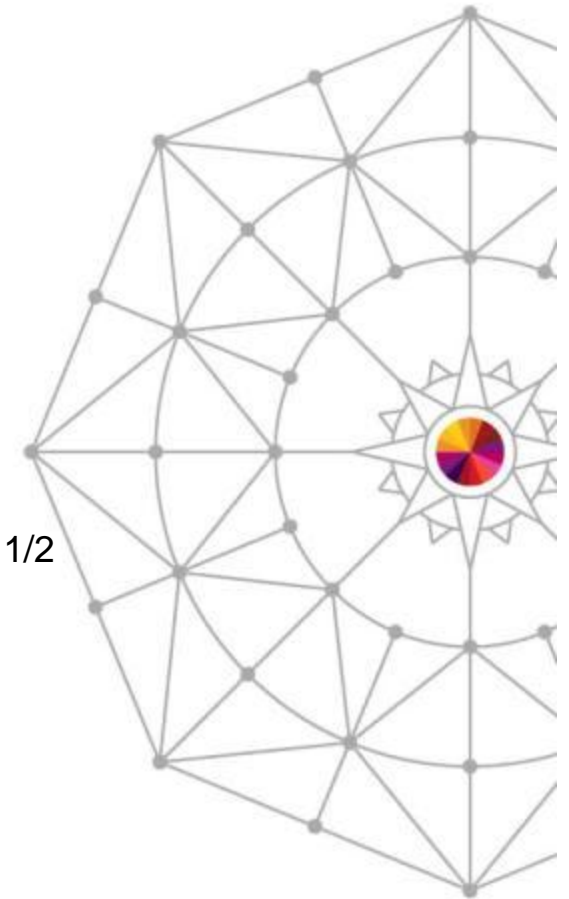




# z/OSMF V2R1: Configuration Assistant for z/OS Communications Server

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IBM

Tuesday, March 11, 2014: 12:15 PM - 01:15 PM MA, Gold Key 1/2  
Session Number 15196



# Agenda

- What is the Configuration Assistant and how can it help you (quick introduction)
- Configuration Assistant on Windows no longer provided as a download as of z/OS V2R1
- Configuration Assistant redesigned in V2R1 to improve performance, user experience, and integration with other z/OSMF plug-ins

# Overview of what the Configuration Assistant Provides

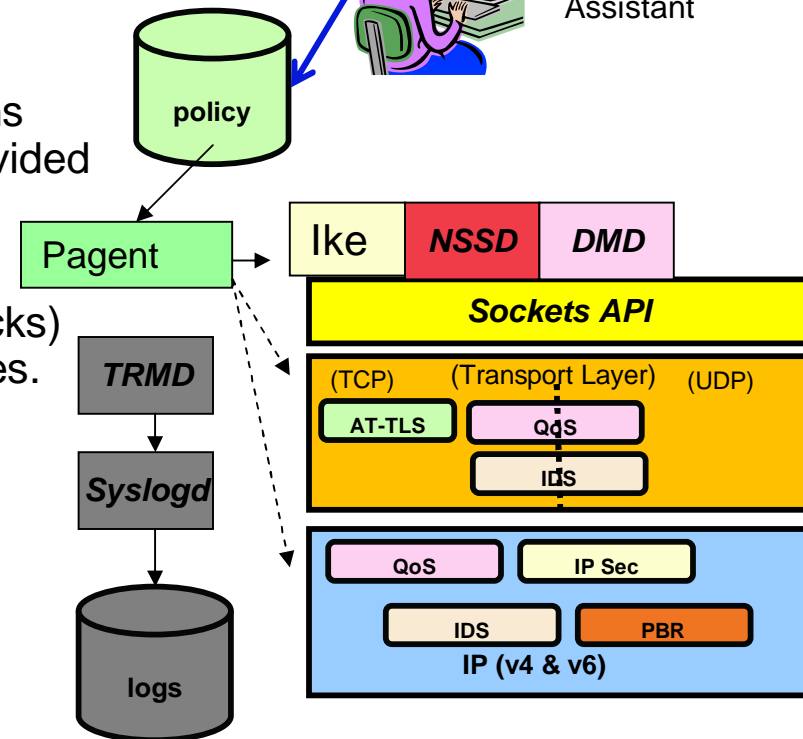


- **Tool to simplify configuration of z/OS Communications Server policy-based networking technologies**

- IP Security – IP Filter rules and VPN tunnels
  - Along with configuration for NSS and DMD daemons
  - Quickly create IP Sec policy to filter traffic to/from the network, or to secure and protect data
- Application Transport TLS (AT-TLS)
  - Create policies to secure your applications using SSL/TLS. Predefined rules are provided for many IBM z/OS applications!
- Intrusion Detection Services (IDS)
  - Detect signature events (ex:scans and attacks) that can cause a misuse of system resources.
- Policy-based Routing (PBR)
  - Create policies to allow TCP/IP to route traffic based upon criteria other than destination IP Address
- Quality of Service (QoS)
  - Create policies to influence the performance of TCP/IP traffic



Policy administrator using Configuration Assistant



# How can the Configuration Assistant Help?



- Simplifies about 6 chapters of publications documentation for the Policy-based networking technologies into “**a few clicks**”
- Provides a UI with wizards, helps, and tutorials that guide users through the configuration of policy rules providing a task-oriented approach
- Generates correct policy configuration (free from syntax errors)
- Provides health checks for configuration inconsistencies and recommends best practices      Ex: “Don’t forget filter rules to permit DNS and OMPRoute”
- Supports import of existing policy configuration flat files to get you started
- Also helps with setup of the policy-based networking environment-  
ex: daemons such as Policy Agent, Syslogd, TRMD,etc..
  - Step by step guidance. Sample started procedures and required SAF profiles

# Key Enhancements with the V2R1 Configuration Assistant

- With z/OS V2R1, the Configuration Assistant has been completely redesigned to better integrate with z/OSMF
  - This is the topic of this presentation
- For each new release, the Configuration Assistant supports new function in z/OS Communications Server in support of enhancements to the policy-based networking technologies
  - AT-TLS support for currency with z/OS System SSL
    - TLS V1.2 and new cipher suites
    - Renegotiation options (RFC 5746)
    - Elliptic Curve Cryptography (RFC 4492 and RFC 5480)
  - Details in [What's New](#) link on Configuration Assistant main page. Also, attend the z/OS Communications Server V2R1 Overview here at Share!

# Windows version of the Configuration Assistant is no longer provided

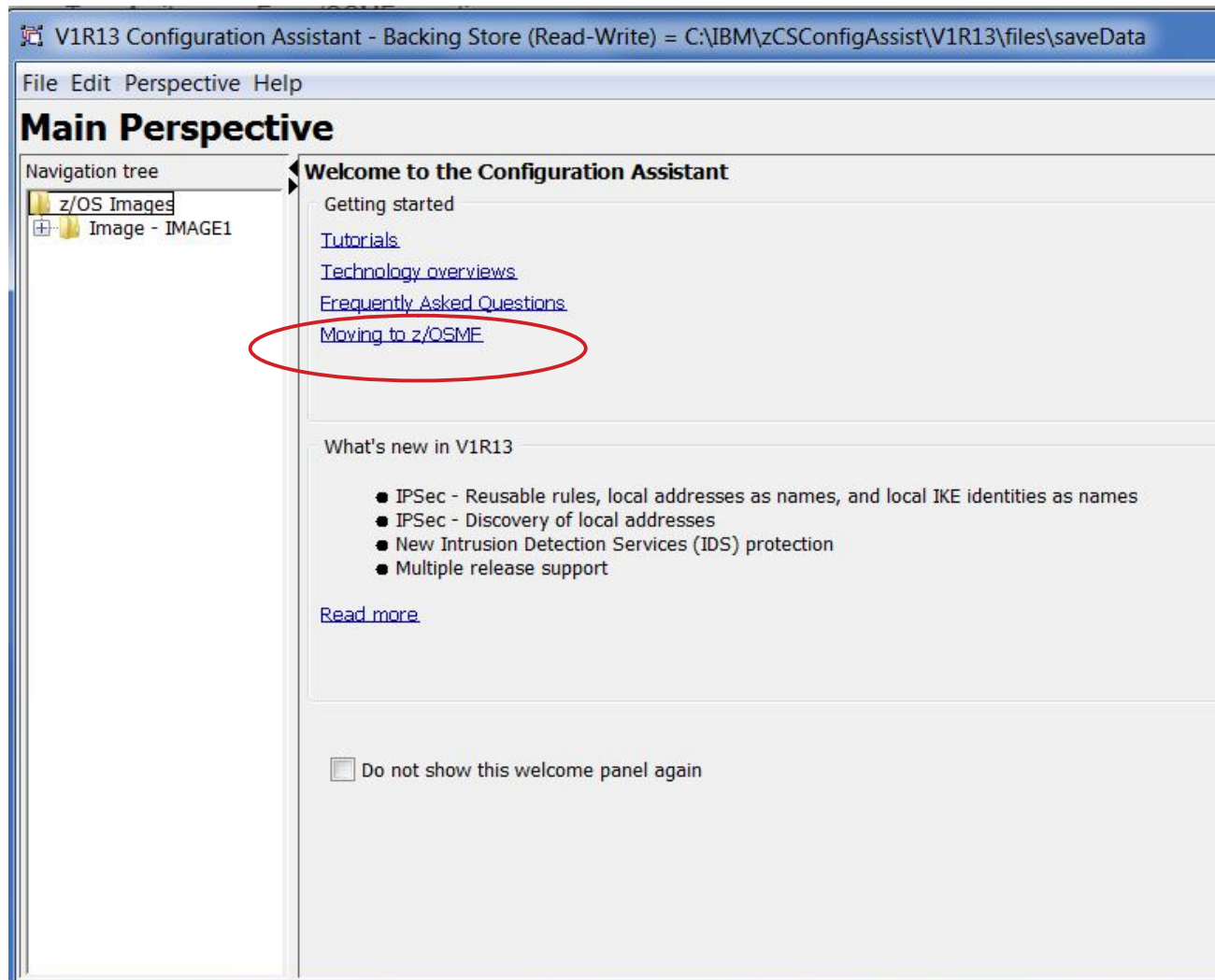


## Statement of Direction

z/OS V1R13 is planned to be the final release for which the IBM Configuration Assistant 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 the Windows-based IBM Configuration Assistant for z/OS Communications Server tool should migrate to the z/OS Management Facility (z/OSMF) Configuration Assistant. 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.

- As of z/OS V2R1, no longer providing the Microsoft Windows version
  - Configuration Assistant has been available with z/OSMF since z/OS V1R11
- As of z/OS V2R1, users must migrate to the Configuration Assistant that is a plug-in to z/OSMF.

# Recommended for moving to z/OSMF





## Background: Early integration of the Configuration Assistant with z/OSMF



- **Configuration Assistant has been available with z/OSMF since it was first introduced in the z/OS V1R11 timeframe**
  - Migrating Configuration Assistant from a Windows “fat client” to a web, browser-based application was not that difficult
    - Written in Java and used a UI framework (AUIML) that allowed for rendering the UI using SWING (desktop) or HTML (web).
  - Because of these features, it was fairly easy to integrate with z/OSMF
    - In V1R11, the Configuration Assistant was “loosely” integrated with z/OSMF
      - *Did not completely use the z/OSMF framework*
- In z/OS V2R1, the Configuration Assistant is fully integrated with z/OSMF



## Many benefits to the Configuration Assistant in z/OSMF

- z/OSMF is the new, strategic z/OS systems management console
  - Configuration Assistant provides the systems management function for policy-based network configuration
- Satisfies requirements from many customers to provide the Configuration Assistant as a browser-based application
- Provides the ability to have centralized product access for multiple users vs a “fat client”
  - Rather than downloading and managing several copies across workstations in the enterprise
- Runs on the platform its configuring and allows for centrally managing configuration backing stores
  - Configuration files can be saved locally to the shared file system (may not require FTP)
- Configuration Assistant as an IBM product vs “as-is tool” becomes more important and strategic for enhancing



# Many benefits to Configuration Assistant in z/OSMF...continued..



- z/OSMF provides official IBM product with support and delivery through official channels
  - Windows version has been “as-is” and “best-effort” for support
- Allows for easier integration with other z/OSMF plug-ins and applications in the future
  - Cross-product linking to provide value

# What is required to use the Configuration Assistant on z/OSMF?



- Recognize that migrating from Windows to z/OSMF is not trivial
  - z/OSMF must be installed and configured (setup) by an administrator
  - Requires administering/maintaining another z/OS application
- As z/OSMF grows, the benefits will out-weigh the start-up pains
- Configuration Assistant has no requirements for the installation of “other” supporting products or applications
  - Once z/OSMF is installed, users can begin using the Configuration Assistant
  - Don’t forget to migrate your backing stores!

# What does z/OSMF really provide?

- z/OSMF is a free, fully supported IBM product that provides a browser based UI that is a portal specifically for accessing z/OS systems management functions
  - IBM applications “plug-in” to z/OSMF: these are providers for systems management functions that are geared toward simplification of traditional z/OS tasks
  - Currently only supports approved, IBM-product plug-ins
  - V2R1 is based upon the new light-weight, WebSphere Application Server with Liberty Profile runtime – significantly improved installation, setup, memory consumption, and disk footprint
- z/OSMF provides a common framework for plug-ins (like the Config Assistant) that includes:
  - Provides a user login with authentication (z/OS user Id )
  - A common launch point which is panel with a navigator where applications like the CA can plug-in and be invoked
    - Each plug-in registers as a “task” which defines its invocation link ( html or jsp) . This link then appears in the z/OSMF navigator.

# System Admins “Log-in” and Access Configuration Assistant



IBM z/OS Management Facility Welcome guest

User ID

Password or pass phrase

Log in

- Welcome
- Links

Refresh

Welcome x

## Welcome to IBM z/OS Management Facility

IBM® z/OS® Management Facility (z/OSMF) provides a framework for managing various aspects of z/OS systems. By streamlining some traditional tasks and automating others, z/OSMF can help to simplify some areas of z/OS system management.

Log in to utilize and learn more about z/OSMF.

IBM z/OS Management Facility Welcome user1

- 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 various aspects of z/OS systems. By streamlining some traditional tasks and automating others, 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](#)

# What does z/OSMF really provide? cont..



- Defines common UI resources (panel elements) used across plug-ins to allow for common look and feel, providing consistency
  - Common panel widgets (UI elements) for common look and feel, ex: tables (common column filtering) , breadcrumbs, etc
  - Moving toward use of UI technology and designs that standardize across IBM products

Configuration Assistant (Home) > IPSec

**Breadcrumb** ← V2R1 Current Backing Store = NextPrototype

**Panel Title** ←

Help

Select a perspective: IPSec Tools

Systems Traffic Descriptors Security Levels Address Groups Requirement Maps Reusable Rules

Actions

Name	Description
Filter	Filter
abc	
All_other_traffic	IBM supplied: All traffic types
Centralized_Policy_Client	(VERIFY) IBM supplied: Centralized Policy Client
Centralized_Policy_Server	(VERIFY) IBM supplied: Centralized Policy Server
CICS	(VERIFY) IBM supplied: CICS traffic
CSSMTP	(VERIFY) IBM supplied: CSSMTP traffic
DNS	(VERIFY) IBM supplied: Domain Name Server traffic
EE	IBM supplied: Enterprise Extender (EE) traffic
FTP-Client	(VERIFY) IBM supplied: FTP Client traffic
FTP-Server	(VERIFY) IBM supplied: FTP Server traffic
FTP-Server-SSL	(VERIFY) IBM supplied: FTP Server SSL traffic using port 990
ICMP-Redirect-IP_V4	IBM supplied: IPv4 ICMP - Redirect traffic
ICMP-Redirect-IP_V6	IBM supplied: IPv6 ICMP - Redirect traffic
ICMP-Time_Exceeded-IP_V4	IBM supplied: IPv4 ICMP - Time Exceeded traffic
ICMP-Time_Exceeded-IP_V6	IBM supplied: IPv6 ICMP - Time Exceeded traffic
ICMP-Unreachable-IP_V4	IBM supplied: IPv4 ICMP - Unreachable traffic
ICMP-Unreachable-IP_V6	IBM supplied: IPv6 ICMP - Unreachable traffic

Total: 59, Selected: 0

**-Common panel widget**

**Table with filterable columns and Action menu**

## What does z/OSMF really provide? cont..

- Provides rules for translation. Japanese is currently supported.
- Defines browser products and levels supported.
  - Internet Explorer (IE8), IE9, and FireFox
- Key is that z/OSMF provides the framework for the plug-ins to create modern, service-oriented architectures when developing their functions!



# Pre-V2R1 Configuration Assistant did not integrate well

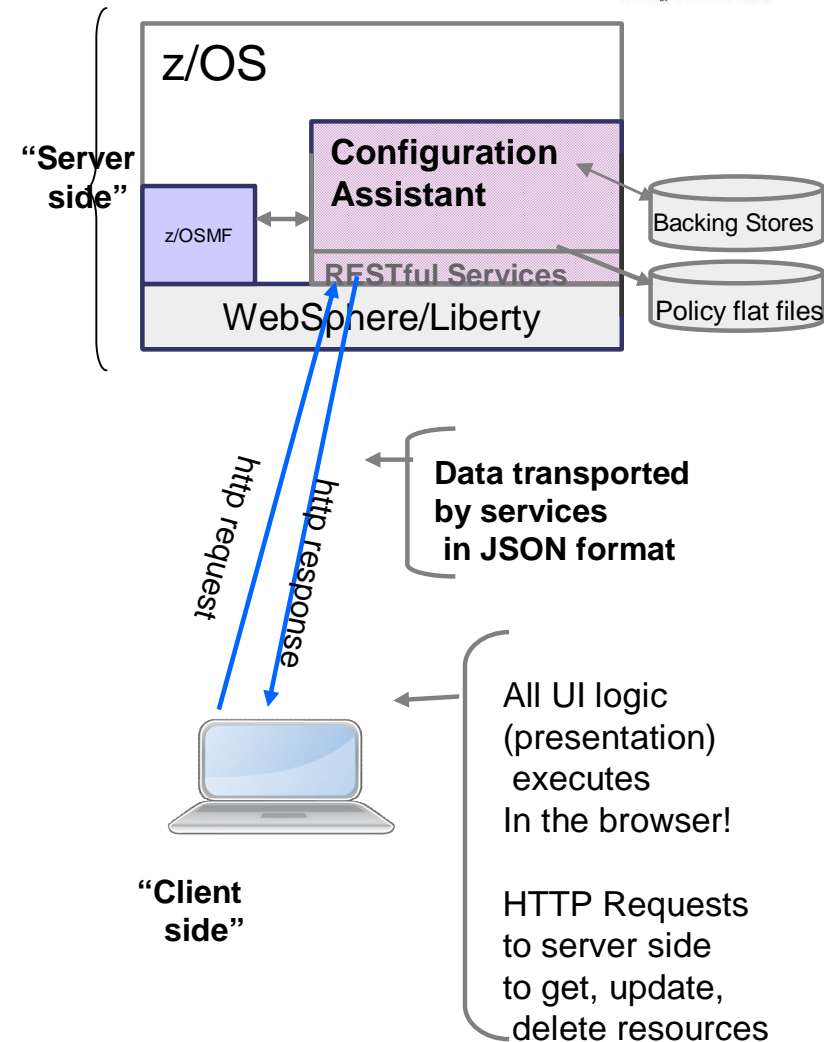
**SHARE**  
Technology · Connections · Results

- Pre-V2R1 Config Assistant did not integrate well into z/OSMF
  - Old UI framework used did not perform well (server-side performance)
    - Forced application logic to be tightly bound to UI presentation layer logic (not a good web application design)
  - 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 intended to provide consistency across plug-ins
- Pre-VR1 Config Assistant on z/OSMF did not look nor perform well

# Configuration Assistant becomes a modern web application



- Redesigned the Configuration Assistant to better integrate with z/OSMF and other plug-ins
  - Removed old UI infrastructure
- Uses a Web 2.0 design based upon “AJAX” (Asynchronous JavaScript and XML) which provides the 3- tier architecture
  1. The client side (browser) provides the UI and is based upon html, javascript, dojo, css, and z/OSMF common widgets
    - Allows for improved performance since much of the logic now executes in the browser
  2. The browser communicates with the server side, using the http protocol and accesses the server side resources through RESTful web services
    - Uses http verbs, ex: GET, POST, DELETE to manage resources defined as URI's
  3. On the server side, the Config Assistant defines and manages resources (ex: rules, traffic descriptors, security levels) which are defined with a URI for accessing through the services as just described in # 2.
    - Data exchanged over HTTP uses a JSON format instead of XML (lighter than XML)



# Much improved performance in Lab Testing



- Significantly improved performance vs V1R13 Config Assistant
- The usage model with the Configuration Assistant is not one that results in sustained driving of CPU since there's typically a lot of "think time" between clicks
- Tests conducted : IP Sec Filter Rule creation over 5 minute interval with EC12, 1 CPU, 2GB memory. Results:
  - Rules Created: 16 with V2R1, 6 with V1R13 **(2.6x)**
  - CPU Estimates (avg/rule): **V2R1 8x better than V1R13 (i.e. uses less CPU)**
  - Avg Response Time per Rule: V2R1 is approximately 2.5x better
- Some improvements due to overall improvements in z/OS V2R1, but most improvements due to the new "AJAX" design model.

Disclaimer: Tests conducted in the lab environment may not produce the same results in other environments.

# Summary of the Redesigned Configuration Assistant



- Better integration with z/OSMF and improved look and feel
- Much better performance and modern web design
- Provides foundation for expansion aligned with IBM and platform strategies

# V2R1 Configuration Assistant



- The Configuration Assistant has been redesigned, but all existing configuration backing stores for supported releases can be used without change!
  - Supported releases are V2R1, V1R13, and V1R12
- All panels are new; however, the same functions are provided
  - Significant change in the look and feel
  - No loss of function in terms of generating policy configuration for technologies
- A few areas where change is noticeable
  - One example is the Application Setup Tasks. Has been replaced with **Workflow**.
  - No longer have a “Main” perspective
  - Navigation tree for systems and reusable objects
- New function is provided
  - Enhanced backing store management
- Tool has been significantly reconstructed and well-tested, but- recommend users save a copy of their existing configuration backing stores!

# Repeat! Good place to start if migrating from Windows for the first time!



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.

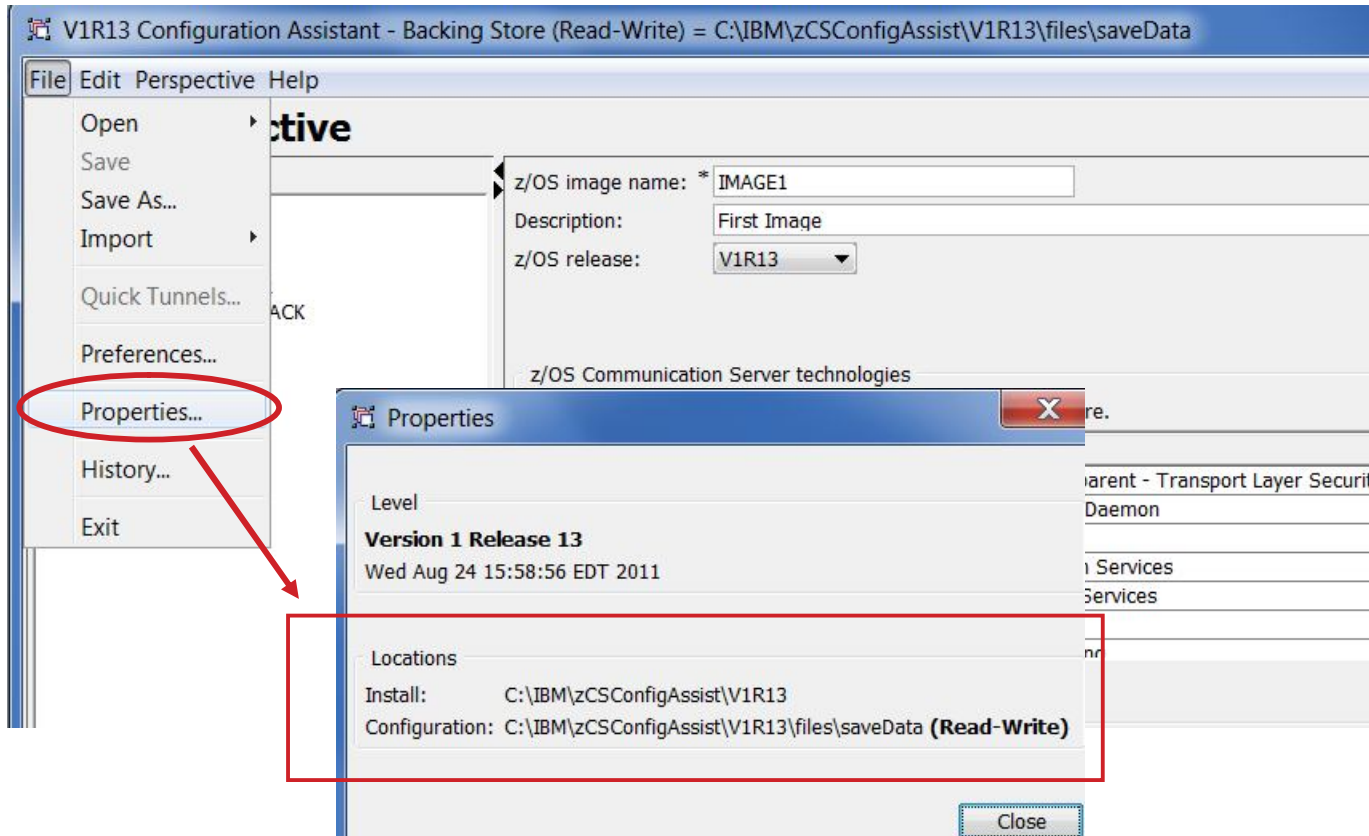
**Select a backing store for configuration:**

NextPrototype

**Learn more about Configuration Assistant:**

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

# Migrating to V2R1 from Windows



- 1) Locate backing stores
- 2) FTP to z/OS (Unix file)

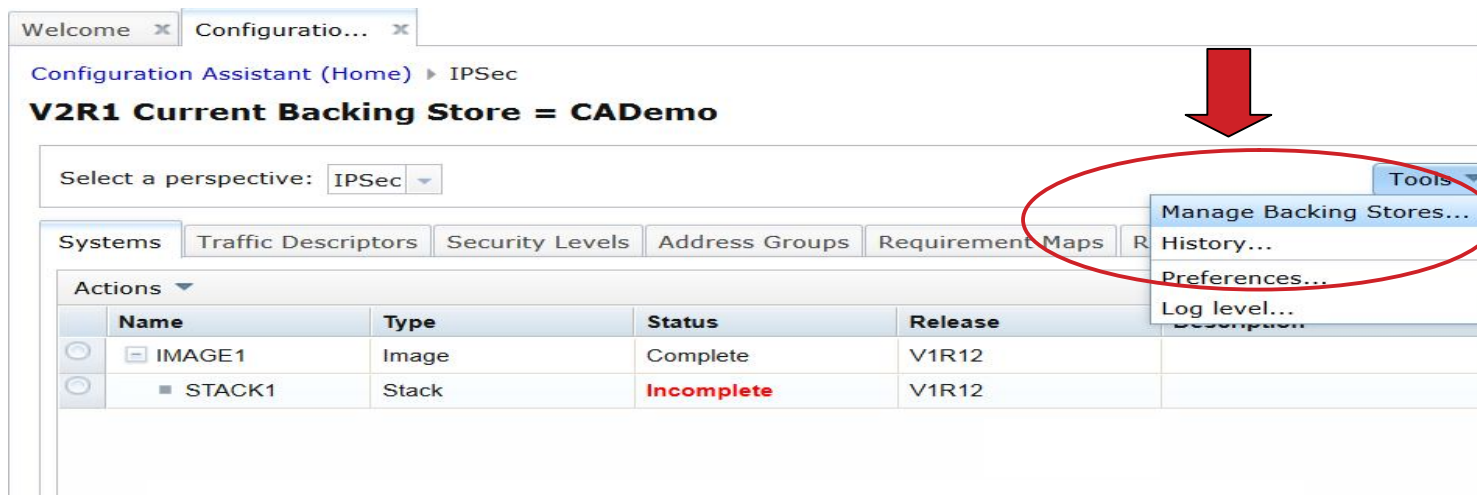




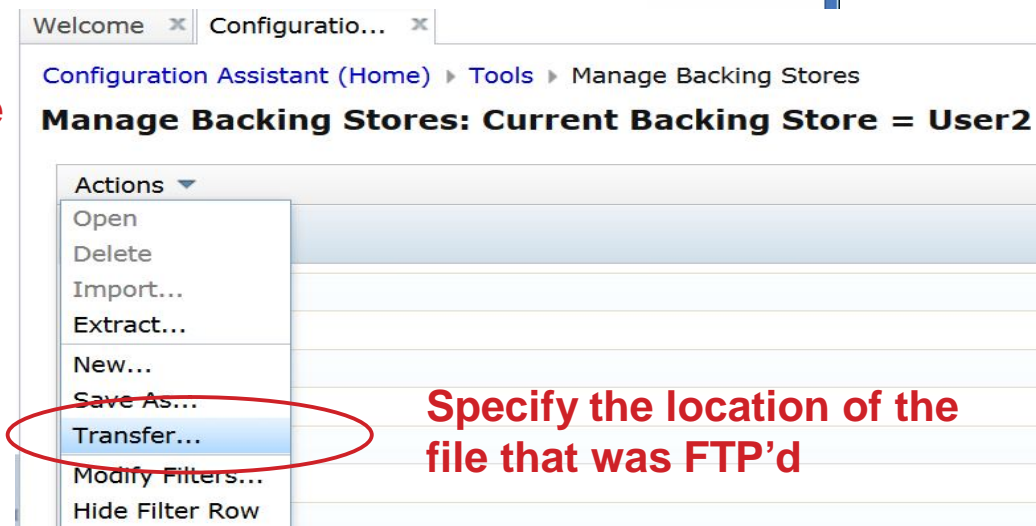
# Migrating to V2R1 from Windows continued...



3. In the V2R1 Configuration Assistant go to Manage Backing Stores to access the backing store FTP'd from Windows



4. The Transfer Action will transfer the backing store into the Config Assistant



# Comparing Pre V2R1 and V2R1 Configuration Assistant

A quick overview of some key differences

# PRE V2R1



- Discussion Features:**
- 1) Systems Navigation Tree
  - 2) Perspectives
  - 3) Main Perspective

The screenshot shows the SHARE configuration interface. At the top, there are tabs for 'Welcome' and 'Configuratio...'. Below the tabs, there is a navigation bar with 'Action', 'Perspective', and 'Main'. The 'Main' perspective is selected, and a dropdown menu is open showing options: AT-TLS, DMD, IPSec, IDS, NSS, QoS, and PBR. A red circle highlights the 'Main' perspective in the navigation bar, and another red circle highlights the 'Main Perspective' in the navigation tree. A red arrow points from the 'Main' perspective in the navigation bar to the 'Main Perspective' in the navigation tree. The navigation tree shows a hierarchy of folders: 'z/OS Images', 'Image - MVS', 'Stack - T...', 'Image - MVS203', 'Stack - TCPCS', 'Image - IMAGE1', 'Image - IMAGE2', and 'Image - V1R13'. A red arrow points from the text 'System Navigation Tree' to the navigation tree. The main content area is titled 'z/OS Communication Server technologies' and contains a table of technologies to configure. Below the table is a button 'Add a New z/OS Image...'. The text 'Work with settings for z/OS images' is also visible.

**System Navigation Tree**

**z/OS Communication Server technologies**

Select the technology you want to configure and click Configure.

Select	Technology	Description
<input type="radio"/>	AT-TLS	Application Transparent - Transport L
<input type="radio"/>	DMD	Defense Manager Daemon
<input type="radio"/>	IPSec	IP Security
<input type="radio"/>	IDS	Intrusion Detection Services
<input type="radio"/>	NSS	Network Security Services
<input type="radio"/>	QoS	Quality of Service
<input type="radio"/>	PBR	Policy Based Routing

Work with settings for z/OS images

Add a New z/OS Image...



# V2R1

No "Main Perspective"

Welcome x Configuratio... x

Configuration Assistant (Home) > IPSec

**V2R1 Current Backing Store = CADemo**

Select a perspective: IPSec

- AT-TLS
- DMD
- IDS
- IPSec
- NSS
- PBR
- QoS

Name	Status	Release	Description
IMAGE1	Complete	V1R12	
STACK1	Incomplete	V1R12	

Total: 2, Selected: 0

Home Save

# Pre V2R1



Welcome x Configuratio... x

Action Perspective

- Main
- AT-TLS
- DMD
- IPSec
- IDS
- NSS
- QoS
- PBR

**Main Perspective**

Navigation tree

- z/OS Images
- Image - MVS203
- Image - MVS203
- Stack - TCPCS
- Image - IMAGE1
- Image - IMAGE2
- Image - V1R13

**V1R13 Configuration Backing Store (Read-Write) = saveData**

z/OS Communication Server technologies

Select the technology you want to configure and click Configure.

Select	Technology	Description
<input type="radio"/>	AT-TLS	Application Transparent - Transport L
<input type="radio"/>	DMD	Defense Manager Daemon
<input type="radio"/>	IPSec	IP Security
<input type="radio"/>	IDS	Intrusion Detection Services
<input type="radio"/>	NSS	Network Security Services
<input type="radio"/>	QoS	Quality of Service
<input type="radio"/>	PBR	Policy Based Routing

Work with settings for z/OS images

Add a New z/OS Image...

To work with a specific z/OS image or TCP/IP stack, select the



# Pre V2R1

## Discussion Features:

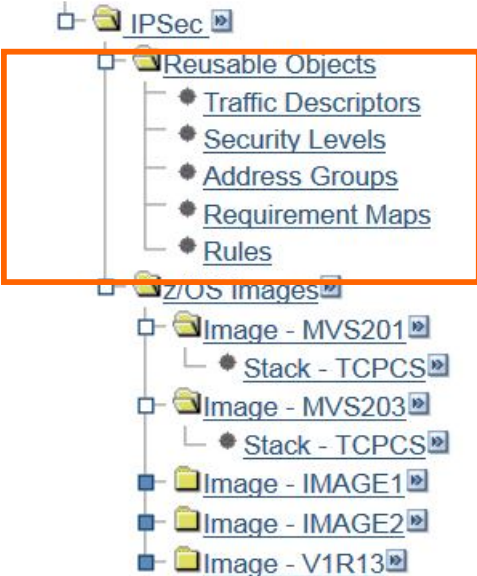
- 1) The Technology Perspective's Reusable Objects
- 2) Same objects for each technology in V2R1!
  - Displayed and accessed differently



Welcome | Configuratio... |  
Action | Perspective |  
**V1R13 Configuration Assistant - Backing Store (Read-Write) = sa**

### IPSec Perspective

Navigation tree



### Work with reusable objects



### Work with settings for z/OS images

Add a New z/OS Image...

To work with a specific z/OS image or TCP/IP stack, s  
TCP/IP stack from the navigation tree.

Main Perspective



# V2R1

## Reusable Objects Tabs

Welcome x Configuratio... x

Configuration Assistant (Home) > IPsec

**V2R1 Current Backing Store = Diane\_IPSEC\_FF**

Select a perspective: IPsec ▾ Tools

Systems Traffic Descriptors Security Levels Address Groups Requirement Maps Reusable Rules

Actions ▾

	Name	Type	Status	Release	Description
<input type="radio"/>	A	Image	Complete	V2R1	Imported from Policy Data
<input type="radio"/>	TCPCS	Stack	Complete	V2R1	Imported from Policy Data

Total: 2, Selected: 0

Home Save

# Pre V2R1



Welcome x Configuratio... x

Action ▾ Perspective ▾

**V1R13 Configuration Assistant - Backing Store (Read-Write) = saveData**

**IPsec Perspective** Work with reusable objects

Navigation tree

- IPsec ▾
  - Reusable Objects
    - Traffic Descriptors
    - Security Levels
    - Address Groups
    - Requirement Maps
    - Rules
  - z/OS Images ▾
    - Image - MVS201 ▾
      - Stack - TCPCS ▾
    - Image - MVS203 ▾
      - Stack - TCPCS ▾
    - Image - IMAGE1 ▾
    - Image - IMAGE2 ▾
    - Image - V1R13 ▾

Traffic Descriptors  
Security Levels  
Address Groups  
Requirement Maps  
Rules

**Work with settings for z/OS images**

Add a New z/OS Image...

To work with a specific z/OS image or TCP/IP stack, s  
TCP/IP stack from the navigation tree.

Main Perspective



# Backing Store Management

## Discussion Features:

- 1) Backing store management is a hodge-podge
- 2) In V2R1, much improved!

The screenshot shows the IBM z/OS Management Facility interface. A red arrow points to the 'Action' menu, which is open. The menu items are:

- Open (sub-menu: Open Default Backing Store, Open Existing Backing Store..., Create a New Backing Store)
- Save
- Save As...
- Delete...
- Tools (sub-menu: Collect Problem Determination Information..., Transfer Backing Store file to z/OSMF..., Extract Backing Store file...)
- Import (sub-menu: ...)
- Quick Tunnels...
- Preferences...
- History...

The interface also shows a tree view on the left with 'z/OS Images' expanded, listing images like 'Image - MVS201', 'Image - MVS203', 'Image - IMAGE1', 'Image - IMAGE2', and 'Image - V1R13'. A table at the bottom right lists traffic descriptor objects:

Select	Name	Description
<input type="radio"/>	All_other_traffic	IBM supplied: All traffic types
<input type="radio"/>	Centralized_Policy_Clie	(VERIFY) IBM supplied: Centralized Policy Client
<input type="radio"/>	Centralized_Policy_Ser	(VERIFY) IBM supplied: Centralized Policy Server
<input type="radio"/>	CICS	(VERIFY) IBM supplied: CICS traffic
<input type="radio"/>	CSSMTP	(VERIFY) IBM supplied: CSSMTP traffic



# V2R1 Improved Backing Store Management



Welcome x Configuratio... x

Configuration Assistant (Home) ▶ IPsec

**V2R1 Current Backing Store = CADemo**

Select a perspective: IPsec ▾

Tools ▾

- Manage Backing Stores...
- History...
- Preferences...
- Log level...

Systems Traffic Descriptors Security Levels Address Groups Requirement Maps R

Actions ▾

	Name	Type	Status	Release	Description
○	[-] IMAGE1	Image	Complete	V1R12	
○	▪ STACK1	Stack	Incomplete	V1R12	

# V2R1 Manage Backing Stores Details



Welcome x Configuratio... x

“Locked” could be another status

Configuration Assistant (Home) ▶ Tools ▶ Manage Backing Stores

Manage Backing Stores: Current Backing Store = CADemo

Status is “moment in time”.  
Use the “Refresh” button to update.

Actions ▼			
Name Filter	▲	Status Filter	Time Last Updated Filter
<input checked="" type="radio"/> CADemo		Current	2013-01-24 15:50:52
<input type="radio"/> CADemoAKT		Available	2013-01-24 15:50:52
<input type="radio"/> CATestIPSec		Available	2013-07-25 08:26:27
<input type="radio"/> DianeBS_ATTLS_FF		Available	2013-01-24 15:50:53
<input type="radio"/> DianeBS_ATTLS_IE8		Available	2013-04-01 12:52:18
<input type="radio"/> DianeBS_ATTLS_IE9		Available	2013-01-24 15:50:54
<input type="radio"/> DianeBS_DMD_FF		Available	2013-01-24 15:50:54
<input type="radio"/> DianeBS_DMD_IE8		Available	2013-01-24 15:50:54
<input type="radio"/> DianeBS_DMD_IE9		Available	2013-01-24 15:50:55
<input type="radio"/> DianeBS_IPSEC_LAN_FF		Available	2013-01-24 15:50:56
<input type="radio"/> DianeBS_IPSEC_LAN_IE8		Available	2013-01-24 15:50:58
<input type="radio"/> DianeBS_IPSEC_LAN_IE9		Available	2013-01-24 15:50:58
<input type="radio"/> DianeBS_testswing		Available	2013-01-24 15:50:59
<input type="radio"/> DianeBS_testswing2		Available	2013-01-24 15:50:59

Total: 69, Selected: 1

Refresh Last refresh: Jul 30, 2013 2:18:36 PM local time (Jul 30, 2013 6:18:36 PM GMT)

Close



# V2R1 Backing Store Management Actions



Welcome x Configuratio... x

Configuration Assistant (Home) ▶ Tools ▶ Manage Backing Stores

## V2R1 Current Backing Store = xyz

Actions ▼				
		▲ Status Filter		Time Last Updated Filter
<input type="radio"/>	IE8	Available		2013-01-24 15:51:15
<input type="radio"/>	IE9	Available		2013-01-24 15:51:15
<input type="radio"/>	re	Available		2013-01-24 15:51:15
<input type="radio"/>		Available		2013-01-24 15:51:16
<input type="radio"/>		Available		2013-05-02 15:41:14
<input type="radio"/>		Available		2013-01-24 15:51:16
<input type="radio"/>		Available		2013-01-24 15:51:16
<input type="radio"/>		Available		2013-01-24 15:51:16
<input type="radio"/>		Available		2013-01-24 15:51:17
<input type="radio"/>	R8Store	Available		2013-01-24 15:51:17
<input type="radio"/>	R9Store	Available		2013-01-24 15:51:17
<input type="radio"/>	rtt	Available		2013-01-24 15:51:18
<input type="radio"/>	saveData	Available		2013-04-23 22:41:47
<input type="radio"/>	TEST	Available		2013-01-24 15:51:18

Total: 71, Selected: 1

Refresh Last refresh: Jul 30, 2013 2:38:01 PM local time (Jul 30, 2013 6:38:01 PM GMT)



# Pre-V2R1 Message Popups for Errors



Welcome [X] Configuratio... [X]

### Modify Traffic Type - TCP

Local port	Remote port
<input checked="" type="radio"/> All ports	<input checked="" type="radio"/> All ports
<input type="radio"/> Single port: *Port: <input type="text" value="100"/>	<input type="radio"/> Single port: *Port: <input type="text" value="100"/>
<input type="radio"/> Port range: *Lower port: <input type="text" value="100"/> *Upper port: <input type="text" value="101"/>	<input type="radio"/> Port range: *Lower port: <input type="text" value="100"/> *Upper port: <input type="text" value="101"/>
<input type="radio"/> All ephemeral ports	<input type="radio"/> All ephemeral ports

**Indicate the TCP connect direction**

Either  Inbound only  Outbound only

**Permit / Deny only settings**


Only applicable when mapped to IPSec Permit or Deny security levels, otherwise ignored.

**Advanced Permit / Deny settings**

Advanced...

OK Cancel

**Error:**



This traffic type and traffic details are already in this traffic descriptor.

OK







# V2R1 Messages are Inline (part of panel)

Welcome x Configuratio... x

Configuration Assistant (Home) > IPsec > Traffic Descriptor > Traffic Type - TCP

### New Traffic Type - TCP

Messages  1  0  0

 **CAMSGE:** This traffic type and traffic details are already in this traffic descriptor.

Details | Advanced

Local port

- All ports
- Single port
  - \* Port:
- Port range
  - \* Lower port:  \* Upper port:
- Ephemeral ports

Remote port

- All ports
- Single port
  - \* Port:
- Port range
  - \* Lower port:  \* Upper port:
- Ephemeral ports

Indicate the TCP connect direction

- Either
- Inbound only
- Outbound only

OK Cancel



# Application Setup Tasks now Integrated with z/OSMF Workflow Plug-in



- Removed Application Setup Tasks from the Configuration Assistant plug-in and moved to the Workflow plug-in
- Application Setup Tasks are associated with each Configuration Assistant technology at the Image level
  - Help with setup of the Policy-based networking environment: Step by step instructions for SAF profile and configuration file setup, etc., for the policy agent and other required daemons (syslogd, TRMD, IKE, etc)
  - Targeted toward new policy users or new technologies
  - In many cases, tasks are repeated for each Image (repetitive)
- Workflow provides a common place for setup tasks that can be tailored for each system where needed.
  - Upon entering the workflow task, users must “create” a new workflow
  - Create the Configuration Assistant workflows
- Workflows consist of a set of steps which are like instructions. Once the workflow is created, the workflow engine drives the user through the workflow steps using a wizard (best viewed with a quick demo).

# Application Setup Tasks Refresher



V1R13 Configuration Assistant - Backing Store (Read-Write) = C:\IBM\zCSCConfigAssist\V1R13\files\saveData

File Edit Perspective Help

## IPSec Perspective

Navigation tree

- IPSec
  - Reusable Objects
    - Traffic Descriptors
    - Security Levels
    - Address Groups
    - Requirement Maps
    - Rules
  - z/OS Images
    - Image - IMAGE1**
      - Stack - TCPIP1
      - Stack - STACK2
      - Stack - NEWSTACK

Image Information | IKE | NSS

z/OS image name: \* IMAGE1

Description: First Image

z/OS release: V1R13

Add New TCP/IP Stack...

**Application Setup Tasks...** Perform initial setup tasks including RACF directives and

Install Configuration Files... View the produced configuration files, install the summary.





# Application Setup Tasks Refresher cont..



V1R13 Configuration Assistant - Backing Store (Read-Write) = C:\IBM\zCSCConfigAssist\V1R13\files\saveData

File Edit Perspective Help

### 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		Incomplete	
Policy Agent - RACF Directives		Incomplete	
Policy Agent - RACF Directives for dat...		Incomplete	
IKED - RACF Directives			
ipsec Command - RACF Directives			
Syslogd - RACF Directives			
TRMD - RACF Directives			
Policy Agent Configuration - Image IM...			
Syslogd - Configuration			

Task Details... Display All Instructions

Permanently save backing store after performing

#### Task: RACF Directives for Policy Agent Startup

**Instructions** View steps for completing this task.

View Contents... Show contents of the file.

Install File... Install the file to the z/OS file system.

Attach comment:

Mark task as complete

OK Help ?

# Application Setup Tasks Refresher cont..



## RACF Directives for Policy Agent startup

Before starting the Policy Agent daemon, you must authorize Policy Agent to access appropriate system resources.

### Before you begin

1. The sample setup specifies 'PAGENT' as the user name defined to run the Policy Agent application. If a different occurrence where 'PAGENT' is used as a user name.
2. Review the instructions for the Policy Agent Startup task. Once Policy Agent is started, it will start and monitor IKED, SYSLOGD, and TRMD.

### Install the sample job

Included below is a RACF job that you can use to prepare for Policy Agent execution.

1. Select Install to deliver the RACF job to the target system. The name of the file on that system will be - /etc/c
2. The first portion of the job defines a RACF user of PAGENT.
3. The next portion of the job permits PAGENT to the BPX.DAEMON facility. The BPX.DAEMON facility is optional.
4. The next portion of the job grants users the ability to control Policy Agent. Change the ID parameter of the PAGENT or stop Policy Agent.
5. The next portion of the job defines a SERVAUTH profile INITSTACK that allows applications to open a socket. PAGENT and OMPROUTE are permitted to this profile.
6. Add a valid JOB card to the beginning of the job and submit it for execution.

```
//RPAGENT JOB RPAGENT,CLASS=A,NOTIFY=&SYSUID
/** Configuration Assistant, 2014.03.08 09:47:45
/** RACF Directives for Pagent startup
/** 1. Define user PAGENT to the STARTED class
/** 2. Permit user PAGENT to the BPX.DAEMON facility
/** Note that BPX.DAEMON is optional and the PERMIT
```

Required JCL

# Help for using the Workflow Engine Plug-in



Workflows 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:

saveData ▼ Open

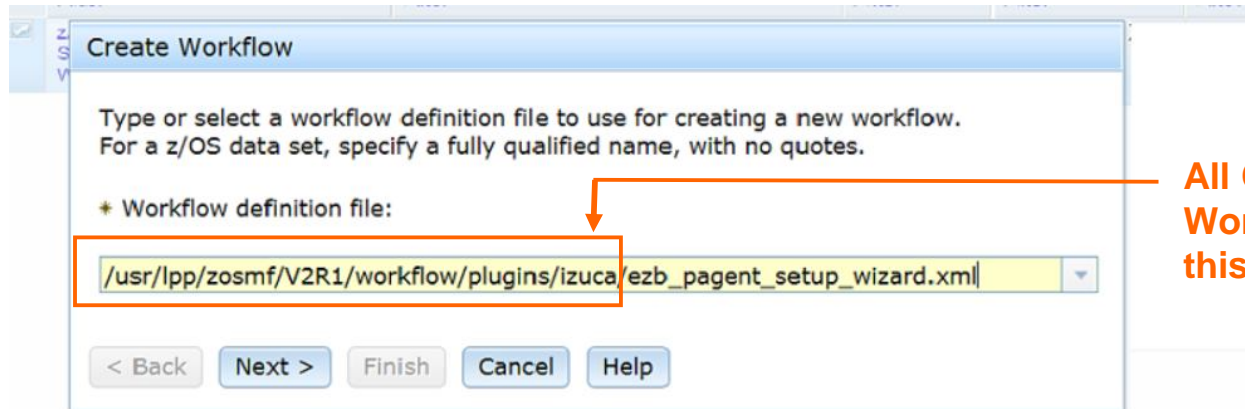
### Learn more about Configuration Assistant:

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.
Application Setup Tasks	Workflows to guide the setup of required applications.
Tutorials	Link to tutorials.
FAQs	Link to Frequently Asked Questions.





# From Tutorial: Finding the List of Workflows



All Configuration Assistant Workflows are in this directory.

## Workflows for Policy-based Networking

- **ezb\_pagent\_setup\_wizard.xml** - This workflow provides the setups for setting up the Policy Agent (Pagent). Pagent is required for all of the policy-based networking technologies: IPSec, AT-TLS, IDS, PBR, and QoS. Pagent uses syslogd for logging.
- **ezb\_dmd\_setup\_wizard.xml** - This workflow provides the steps for setting up the Defense Manager Daemon (DMD). DMD also uses TRMD and Syslogd for logging.
- **ezb\_ike\_setup\_wizard.xml** - This workflow provides the steps for setting up to run the IKE daemon (iked). The IKE daemon uses syslogd for logging.
- **ezb\_nss\_setup\_wizard.xml** - This workflow provides the steps for setting up the Network Security Services (NSS) daemon. The NSS daemon uses syslogd for logging.
- **ezb\_trmd\_setup\_wizard.xml** - This workflow provides the steps for setting up the Traffic Regulation Management Daemon (TRMD). This is used with IPSec, DMD, and IDS technologies for logging. It works in conjunction with Syslogd to provide logging.
- **ezb\_syslogd\_setup\_wizard.xml** - This workflow provides the steps for setting up Syslogd.
- **ezb\_tcpip\_profile\_sample\_wizard.xml** - This workflow provides a sample Tcp/Ip profile which contains common statements required to enable AT-TLS and IP Security, and additionally includes port reservation statements for running daemons.

# z/OSMF Workflow Plug-In



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 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](#)



# Create the workflows



IBM z/OS Management Facility Welcome user1

Workflows Lo

**Workflows**

Simplifies tasks through guided step-based workflows, and provides administrative functions for assigning workflow responsibilities and tracking progress.

Actions ▾

Workflow Name Filter	Description Filter	Version Filter	Vendor Filter	Owner Filter	System Filter	Percent Complete
<input type="checkbox"/> z/OS Communications Server: Setup to run Traffic Regulation Management Daemon (TRMD) - Workflow_0	z/OS Communications Server: Setup to run Traffic Regulation Management Daemon (TRMD)	1.0	IBM	user1	XESDEV.MVS160 (MVS160_001)	0%
<input type="checkbox"/> z/OS Communications Server: Setup for Syslogd - Workflow_0	z/OS Communications Server: Setup for Syslogd				XESDEV.MVS160 (MVS160_001)	0%
<input type="checkbox"/> Setting up to run IP Defensive Filters with Defense Manager Daemon (DMD) - Workflow_0	Setting up to run IP Defensive Filters with Defense Manager Daemon (DMD)				XESDEV.MVS160 (MVS160_001)	0%
<input type="checkbox"/> Set up to run Network Security Services (NSS) - Workflow_0	Set up to run Network Security Services (NSS)				XESDEV.MVS160 (MVS160_001)	0%
<input type="checkbox"/> z/OS Communications Server: IP Security with IKE - Workflow_0	z/OS Communications Server: IP Security with IKE				XESDEV.MVS160 (MVS160_001)	11%
<input type="checkbox"/> z/OS Communications Server: Install Sample Profiles for TCP/IP Components - Workflow_0	z/OS Communications Server: Install Sample Profiles for TCP/IP Components	1.0	IBM	user1	XESDEV.MVS160 (MVS160)	0%
<input type="checkbox"/> z/OS Communications Server: Setup to run Policy Agent - Workflow_0	z/OS Communications Server: Setup to run Policy Agent	1.0	IBM	user1	XESDEV.MVS160 (MVS160)	0%

**Create Workflow**

Type or select a workflow definition file to use for creating a new workflow. For a z/OS data set, specify a fully qualified name, with no quotes.

\* Workflow definition file:

< Back   Next >   Finish   Cancel   Help

Total: 7, Selected: 0

Refresh   Last refresh: Aug 9, 2013 9:56:38 AM local time (Aug 9, 2013 1:56:38 PM GMT)





# Configuration Assistant-Provided Workflows

## Workflows

Simplifies tasks through guided step-based workflows, and provides administra





<input checked="" type="checkbox"/> <input type="checkbox"/> Actions ▾			
	Workflow Name Filter	Description Filter	V F
<input type="checkbox"/>	z/OS Communications Server: Setup to run Traffic Regulation Management Daemon (TRMD) - Workflow_0	z/OS Communications Server: Setup to run Traffic Regulation Management Daemon (TRMD)	1
<input type="checkbox"/>	z/OS Communications Server: Setup for Syslogd - Workflow_0	z/OS Communications Server: Setup for Syslogd	1
<input type="checkbox"/>	Setting up to run IP Defensive Filters with Defense Manager Daemon (DMD) - Workflow_0	Setting up to run IP Defensive Filters with Defense Manager Daemon (DMD)	1
<input type="checkbox"/>	Set up to run Network Security Services (NSS) - Workflow_0	Set up to run Network Security Services (NSS)	1
<input type="checkbox"/>	z/OS Communications Server: IP Security with IKE - Workflow_0	z/OS Communications Server: IP Security with IKE	1
<input type="checkbox"/>	z/OS Communications Server: Install Sample Profiles for TCP/IP Components - Workflow_0	z/OS Communications Server: Install Sample Profiles for TCP/IP Components	1
<input type="checkbox"/>	z/OS Communications Server: Setup to run Policy Agent - Workflow_0	z/OS Communications Server: Setup to run Policy Agent	1

# Thank You



# For more information



URL	Content
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<a href="http://www.ibm.com/systems/z/hardware/networking/">http://www.ibm.com/systems/z/hardware/networking/</a>	IBM Mainframe System z networking
<a href="http://www.ibm.com/software/network/commserver/">http://www.ibm.com/software/network/commserver/</a>	IBM Software Communications Server products
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<a href="http://www.redbooks.ibm.com">http://www.redbooks.ibm.com</a>	ITSO Redbooks
<a href="http://www.ibm.com/software/network/commserver/zos/support/">http://www.ibm.com/software/network/commserver/zos/support/</a>	IBM z/OS Communications Server technical Support – including TechNotes from service
<a href="http://www.ibm.com/support/techdocs/atmastr.nsf/Web/TechDocs">http://www.ibm.com/support/techdocs/atmastr.nsf/Web/TechDocs</a>	Technical support documentation from Washington Systems Center (techdocs, flashes, presentations, white papers, etc.)
<a href="http://www.rfc-editor.org/rfcsearch.html">http://www.rfc-editor.org/rfcsearch.html</a>	Request For Comments (RFC)
<a href="http://www.ibm.com/systems/z/os/zos/bkserv/">http://www.ibm.com/systems/z/os/zos/bkserv/</a>	IBM z/OS Internet library – PDF files of all z/OS manuals including Communications Server
<a href="http://www.ibm.com/developerworks/rfe/?PROD_ID=498">http://www.ibm.com/developerworks/rfe/?PROD_ID=498</a>	RFE Community for z/OS Communications Server
<a href="https://www.ibm.com/developerworks/rfe/execute?use_case=tutorials">https://www.ibm.com/developerworks/rfe/execute?use_case=tutorials</a>	RFE Community Tutorials

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