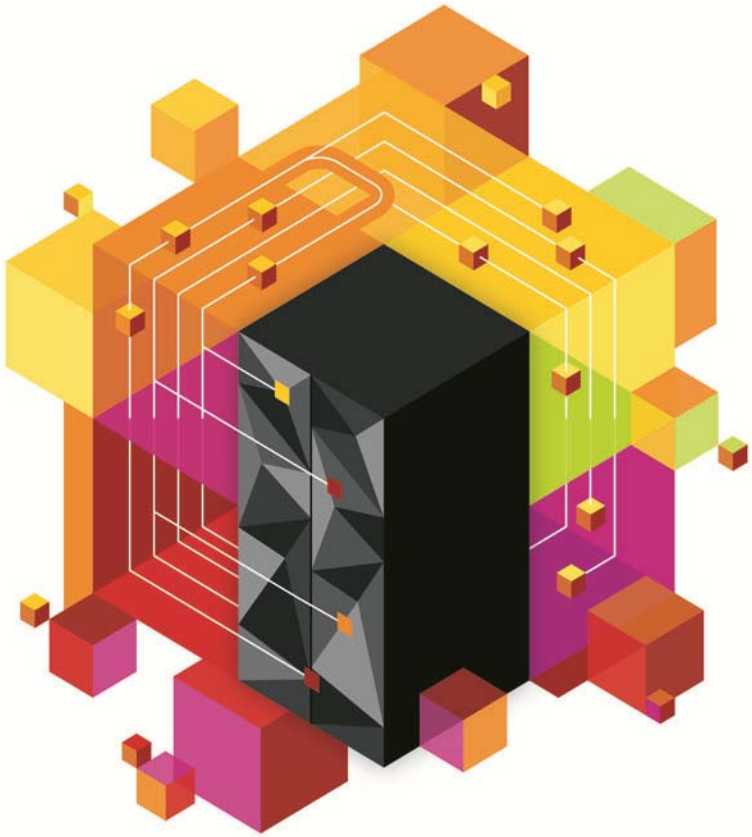
CICS V5.1

Portfolio and Platforms



Presenter – Title

Date

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Session Agenda

- **CICS Portfolio Overview**
- **What is a platform?**
  - The challenge of multiple CICS regions
- **Cloud Computing**
- **Discovery and provisioning with CICS Deployment Assistant**
- **CICS Platforms**

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CICS Transaction Server continues to power the planet

- CICS TS is the world's premier enterprise class transaction processor
- CICS TS enables customers to create and maintain a competitive advantage
- CICS TS continues to deliver innovative and essential new technologies

Large scale business critical workloads, some > 1bn transactions per day

Many of the worlds largest companies run their business on CICS

CICS web services is the most widely adopted CICS feature in recent history

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Focus on solving three key customer challenges

- Ongoing operational pressure to drive down costs and improve efficiency
- Increased business pressure to deliver faster and with greater agility
- Ability to manage and exploit the rapidly changing technology landscape

Operation Efficiency:	*Service Agility:*	*Cloud Enablement:*
Controlling cost	*Deliver results faster*	*A long term investment*

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The new CICS Transaction Server V5.1 delivers…

Operational Efficiency

- *Greater capacity* - achieve cost savings through consolidation
- *Managed operations - reduce cost and risk through automation*
- *Increased availability* - reduce the need for planned downtime
- *Deeper insight - Improve decision making and audit readiness*

100+ requirements satisfied!

Service Agility

- *First-class applications* - create agile services from existing assets
- *First-class platforms* - create agile service delivery platforms
- *Modern interfaces* - build rich web experiences for critical applications
- *Foundational enhancements* - extend core capabilities

… with Cloud Enablement

consistent with the IBM Cloud Computing strategy

positions customers for the next transformational era in technology

moves towards a cloud oriented service delivery platform

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Upgrade and integrated core foundational tools suite - Five core CICS Tools – Day one CICS TS V5.1 exploitation

Fully integrated with CICS TS & CICS Explorer

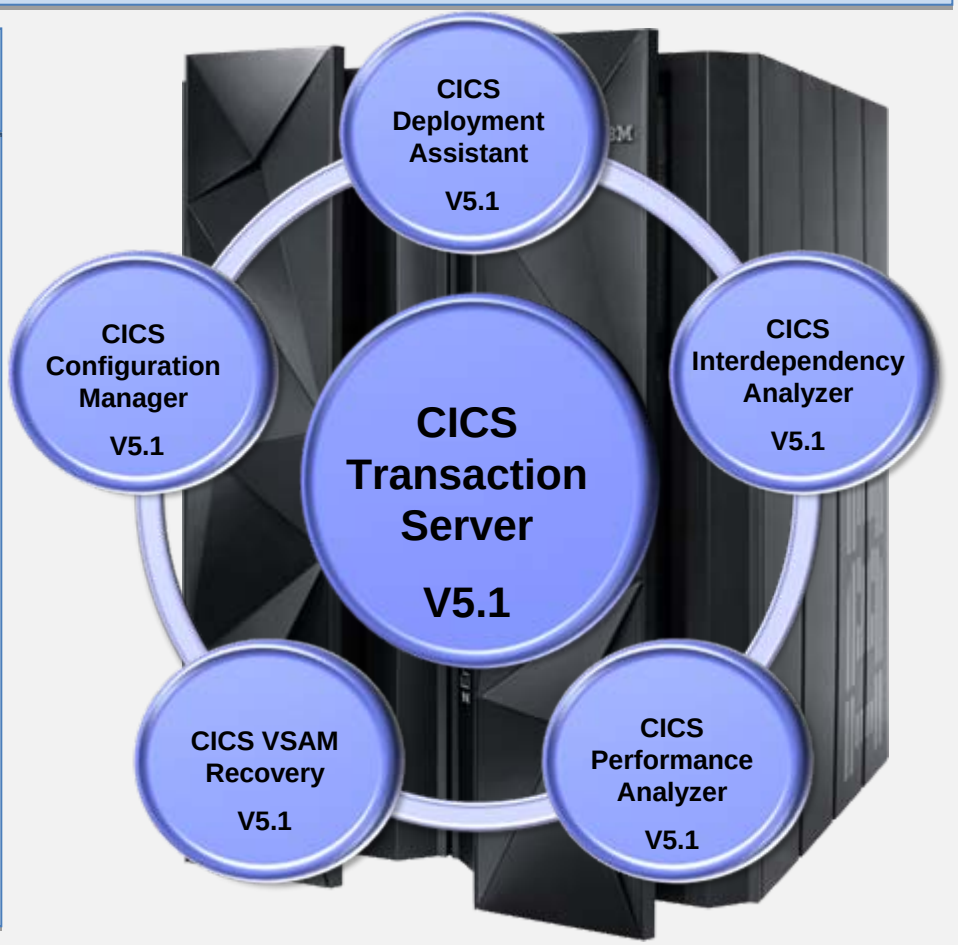
Discovery and visualization aids insight into application and platform dependencies

•Automation speeds service delivery and ensures standardization and governance

•Modern, integrated user interfaces lower skills barrier

•Day-1 exploitation of CICS TS V5.1 new capabilities reduces time to value

•Five core tools support and extend the CICS runtime



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Once upon a time life was simple

CICS Region

Applications

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Then we had to split regions due to Virtual Storage Constraint

CICS Region	CICS Region	CICS Region
Application 1	Application 2	Application 3

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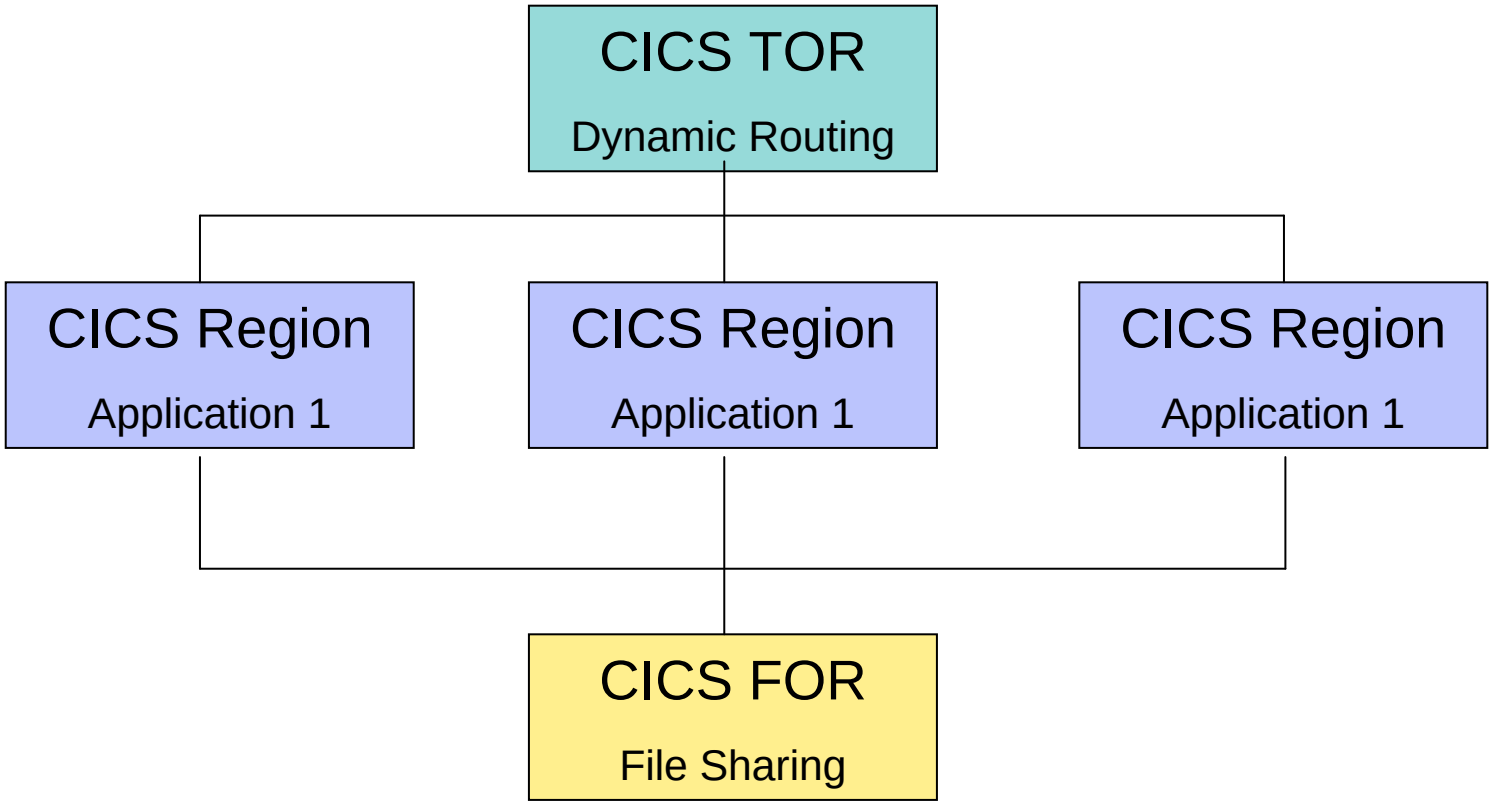
Then applications required higher availability



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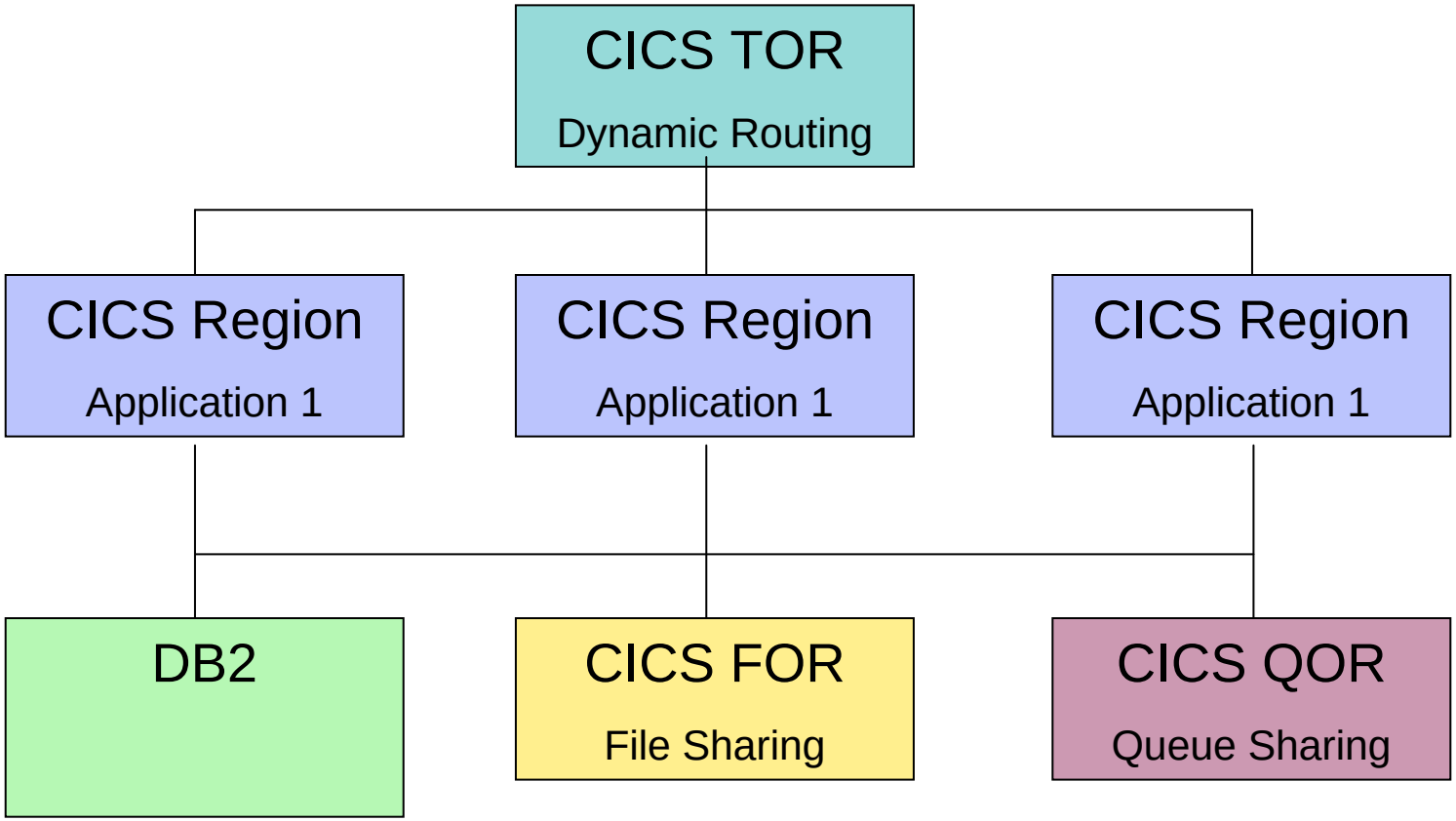
The region proliferation continued



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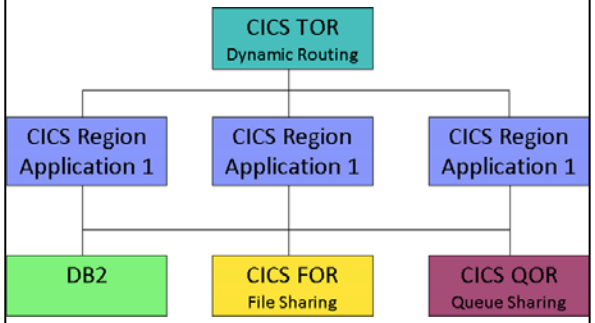
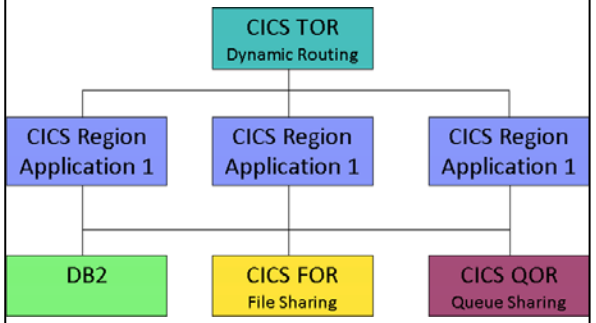
And we added even more regions

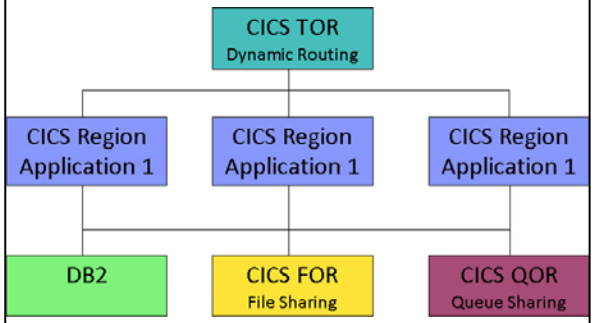
System Test



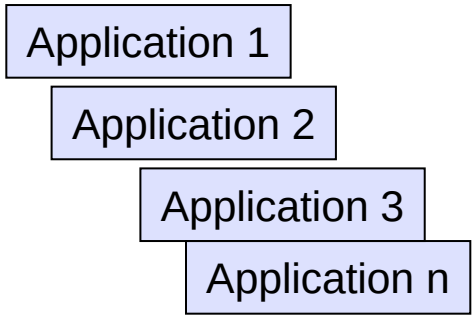
Quality Assurance



Production



Development



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And then along came Cloud…

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The NIST Definition of Cloud Computing

Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. This cloud model promotes availability and is composed of five ***essential characteristics****, three* ***service models****, and four* ***deployment models****.*

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Cloud Computing

- **Deployment models**
  - *Private cloud*
  - Community cloud
  - Public cloud
  - Hybrid cloud
- **Service models**
  - *Cloud software as a service (SaaS)*
  - *Cloud platform as a service (PaaS)*
  - Cloud infrastructure as a service (IaaS)

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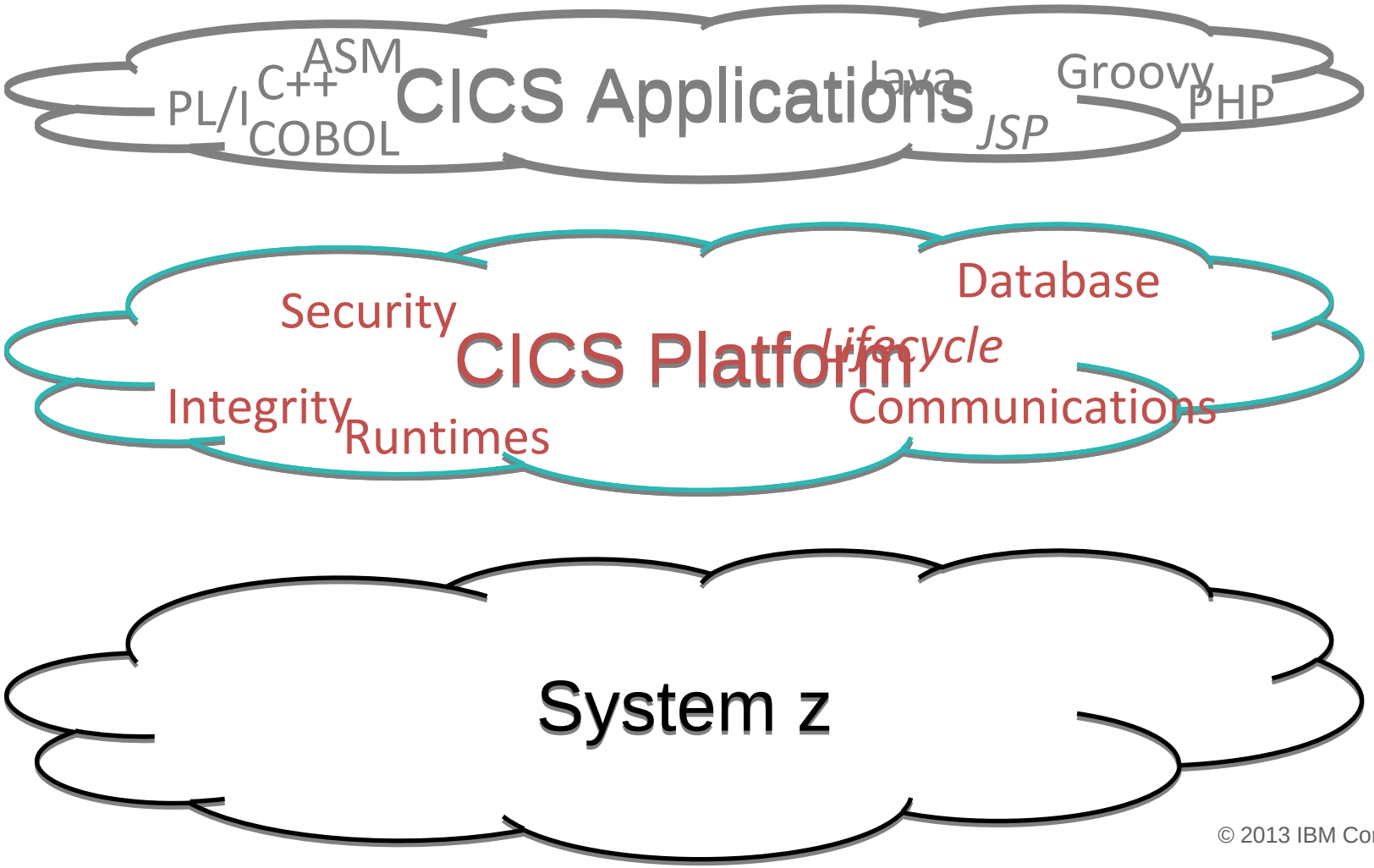
Cloud Computing…

- **Cloud service models**



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Essential Characteristics of Cloud

- **On-demand self-service**
  - A consumer can unilaterally provision computing capabilities, such as server time and network storage, as needed automatically without requiring human interaction with each service provider
- **Broad network access**
  - Capabilities are available over the network and accessed through standard mechanisms that promote use by heterogeneous thin or thick client platforms (e.g., mobile phones, tablets, laptops, and workstations)
- **Resource pooling**
  - The provider's computing resources are pooled to serve multiple consumers using a multi-tenant model, with different physical and virtual resources dynamically assigned and reassigned according to consumer demand ...
- **Rapid elasticity**
  - Capabilities can be elastically provisioned and released, in some cases automatically, to scale rapidly outward and inward commensurate with demand. To the consumer, the capabilities available for provisioning often appear to be unlimited ...
- **Measured service**
  - Cloud systems automatically control and optimize resource use by leveraging a metering capability at some level of abstraction appropriate to the type of service ... Resource usage can be monitored, controlled, and reported, providing transparency for both the provider and consumer of the utilized service

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CICS Transaction Server provides a solid foundation

How do we make CICS applications and management more agile?

*"How can I deploy **applications** in CICS more easily?"*

On-demand Self Service

CICS Explorer and the collection of portfolio tools enable a greater degree of automation

Broad Network Access

CICS put SOA at its core, delivering greater integration and connectivity across the enterprise

Resource Pooling

CICS is a first-class resource manager built to efficiently manage system and application resources

*"How can I better manage my CICS **platform**?"*

Rapid Elasticity

CICS WLM, combined with z/OS, enables CICS to rapidly respond to fluctuating workload demands

Measured Service

CICS has extensive monitoring and statistics to enable customers to understand the cost of their applications running in CICS

System z and z/OS

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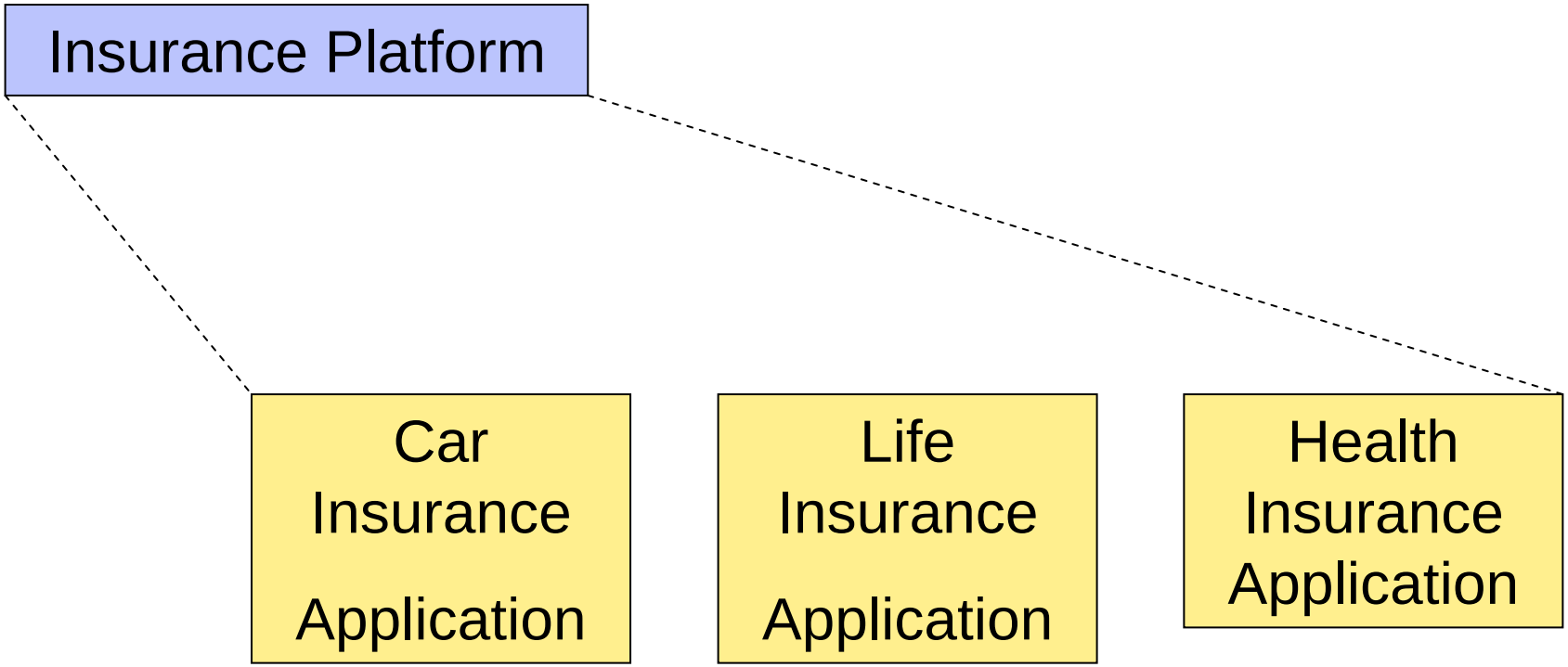
We need life to be simple again



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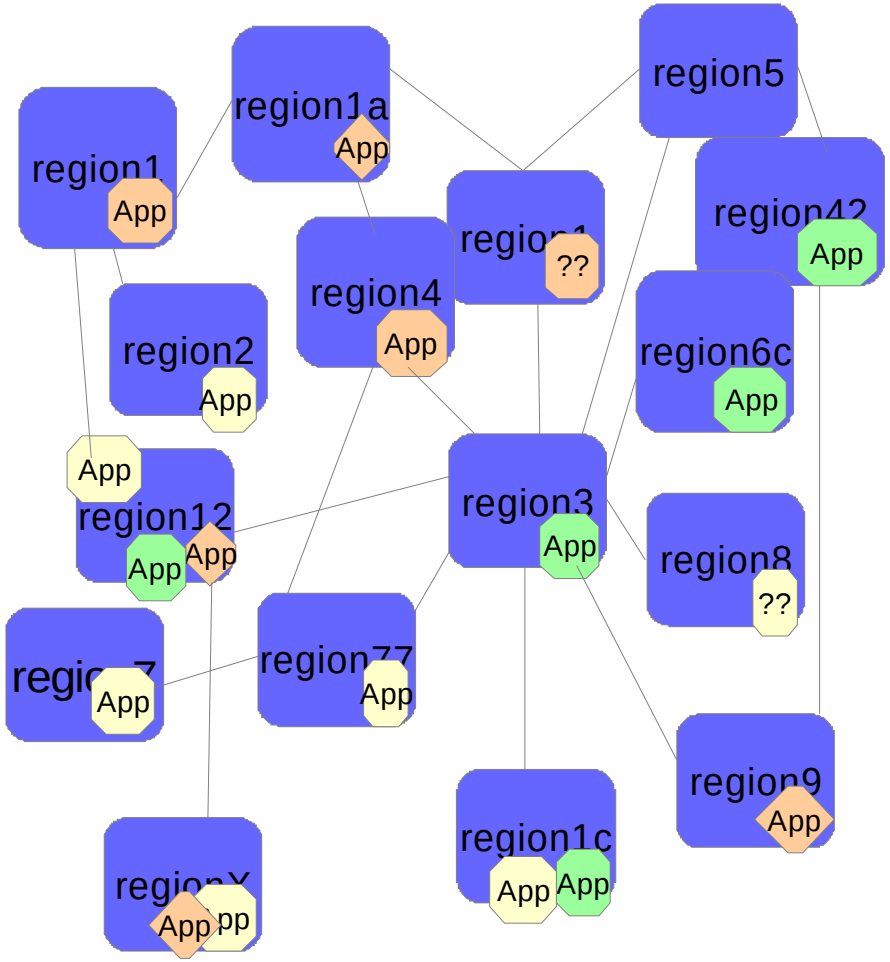
CICS before Platform as a Service

before...



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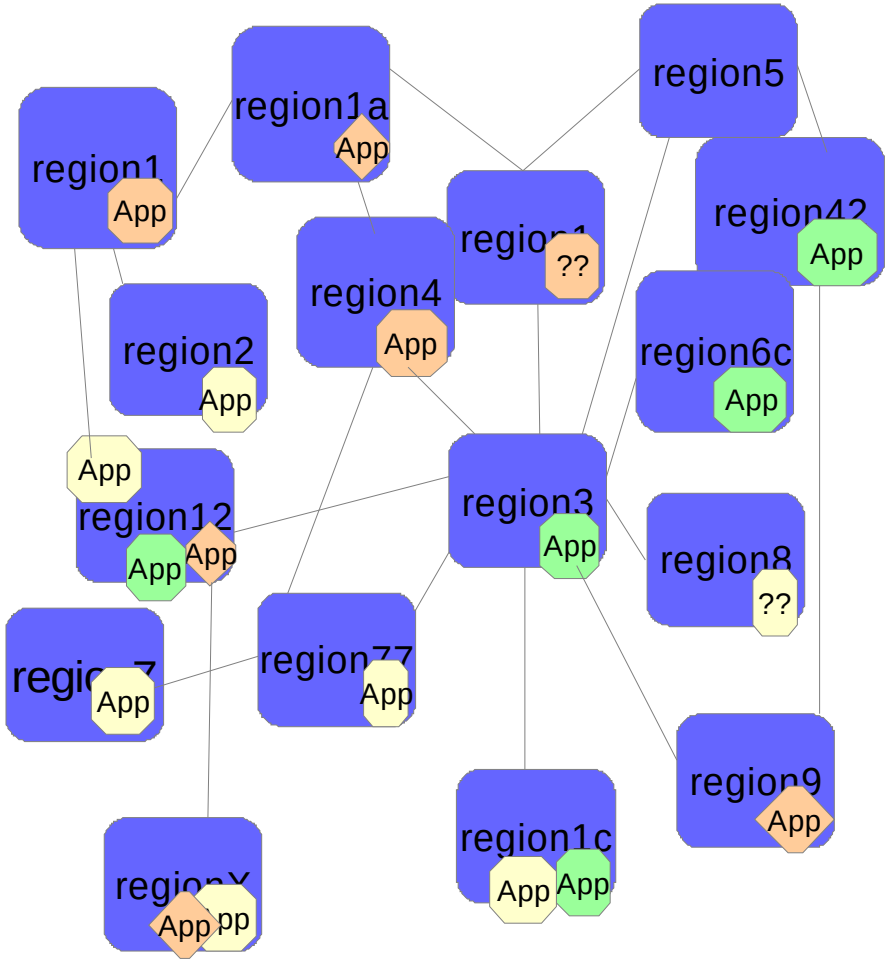
CICS after Platform as a Service…

before...



... after

CICS Applications

- CoreBanking
- Transfers
- Dividends

CICS Platform

- InboundWebGateway:
  - region1, region2, region3
- CoreAOR
  - region1a, region1c, region 6c, region 5
- TransfersAOR
  - region77, region42, region7
- DataAccess
  - region1c, region6c

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CICS Platform as a Service

- **What is a CICS Platform?**
  - A grouping of selected CICSPlex SM managed regions
    - Consists of different region types
      - e.g. TOR, AOR, FOR
    - Deploy, manage and control the platform as a single entity
      - CPSM System Group (CSYSGRP) used to represent a single region type
- **What is a CICS Region Type?**
  - A grouping of like regions where an application can be deployed
    - Part of the Platform Definition

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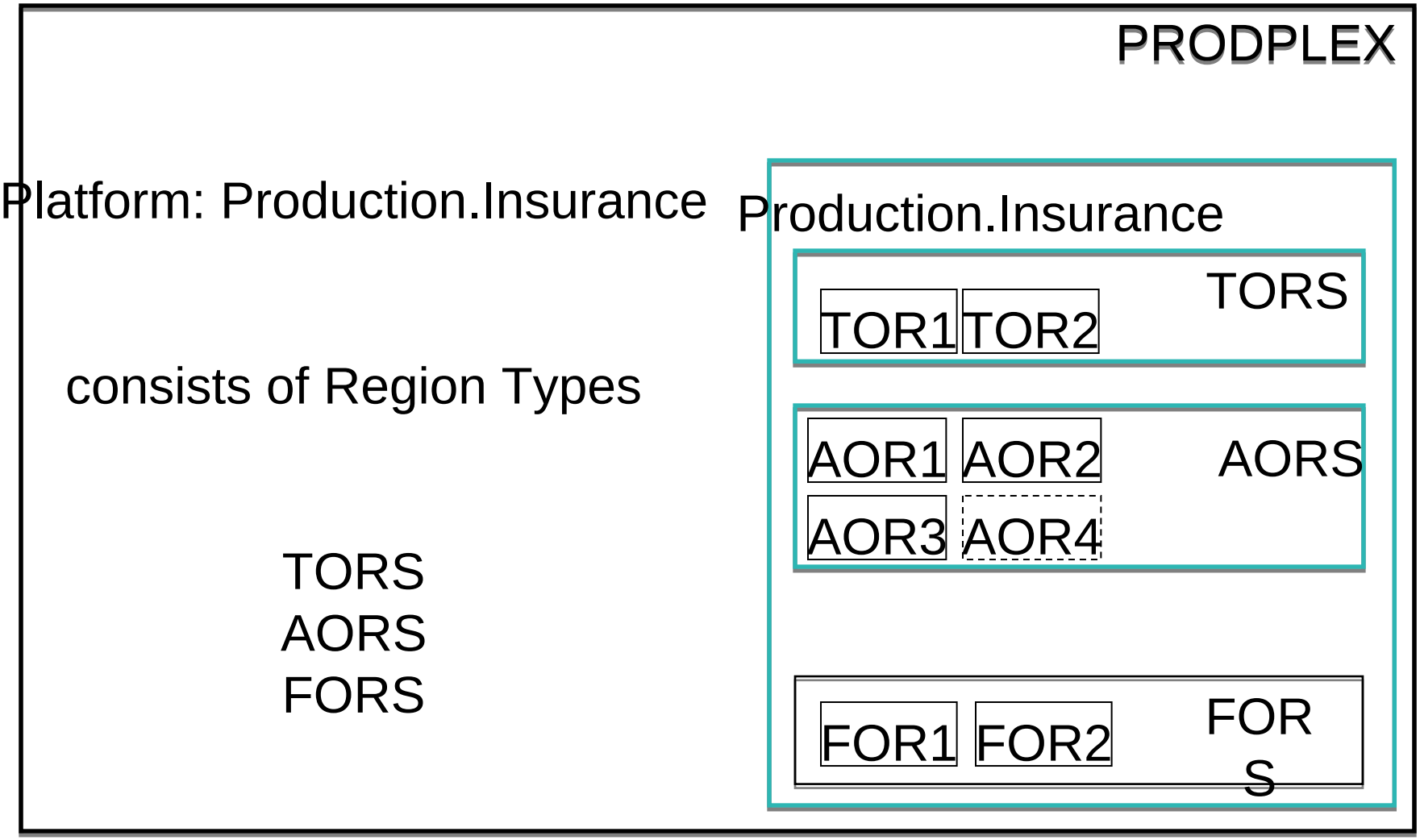
CICS Platform as a Service

- **An example of a CICSPlex and a Platform**



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What is running on your System z ?
Who knows how to obtain this information?

- **Skills**
  - Who knows what the current system topology looks like?
    - Who has the skills to discover the current topology?
    - Where is the knowledge?
- **Efficiently obtaining topology information**
  - Reporting
- **Time to value and Return on your investment**
  - Discovery
- **Where are your investments?**
  - What address spaces are executing in your Sysplex?
    - What are all these address spaces?
    - What could be affecting your MLC?
  - Which MVS images are my CICS assets executing within?
  - What is connected to what?

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CICS Deployment Assistant for z/OS

What is it?

- A tool to help provision the CICS Environment, providing discovery and visualization features that provide insight into the overall CICS Eco-system.

What's its value?

- Topology Visualization
- Simplify tasks, save time, and reduce risk
- Automate many complex provisioning activities
- Significantly reduce the time required to validate CICS topology

How does it enhance the management of CICS?

- Discovery and Modelling of CICS systems and applications
- Deployment perspective integrates with CICS Explorer Advanced Topology Visualization
- Automated creation, deployment, customization, and control of CICS regions
- Edit files, submit JCL, view output
- Simplify tasks, save time, and reduce risk

Why is this tool important?

- Improved speed to market
- Reduced chance of failure
- Controlled, governed deployment
- Optimize hardware resources
- Plan for mergers and acquisitions
- Help with understanding applications
- Reduce ongoing life cycle costs for managing new CICS systems

CICS PROVISIONING

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Why use CICS DA ?

Discovery

- **Discover your Sysplex and CICS assets**
- **Visualize the assets graphically as well as their interconnections**
  - truly understand your CICS topology
  - understand which sub-systems are running where, and how they are interconnected
- **Discovery data exporting for reporting**
  - make informed decisions involving your CICS environment
- **Web-style tagging of discovered entities**
  - Customize how you view your environment

Deployment

- **Clone CICS regions**
  - automated facility for cloning regions
  - quicker and less risk than manual activity
- **Plexify an unmanaged CICS region**
  - automated facility to add regions to CICSPlex SM
- **Create a CPSM environment**
  - use Models and cheat sheets
- **Create a new CICS region**
  - provides standard method for creating new regions

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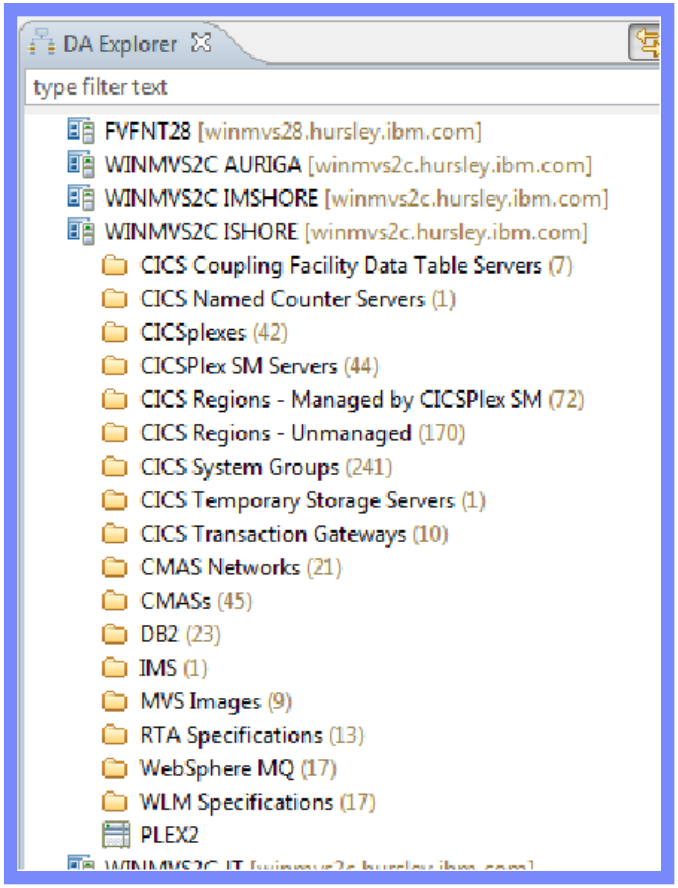
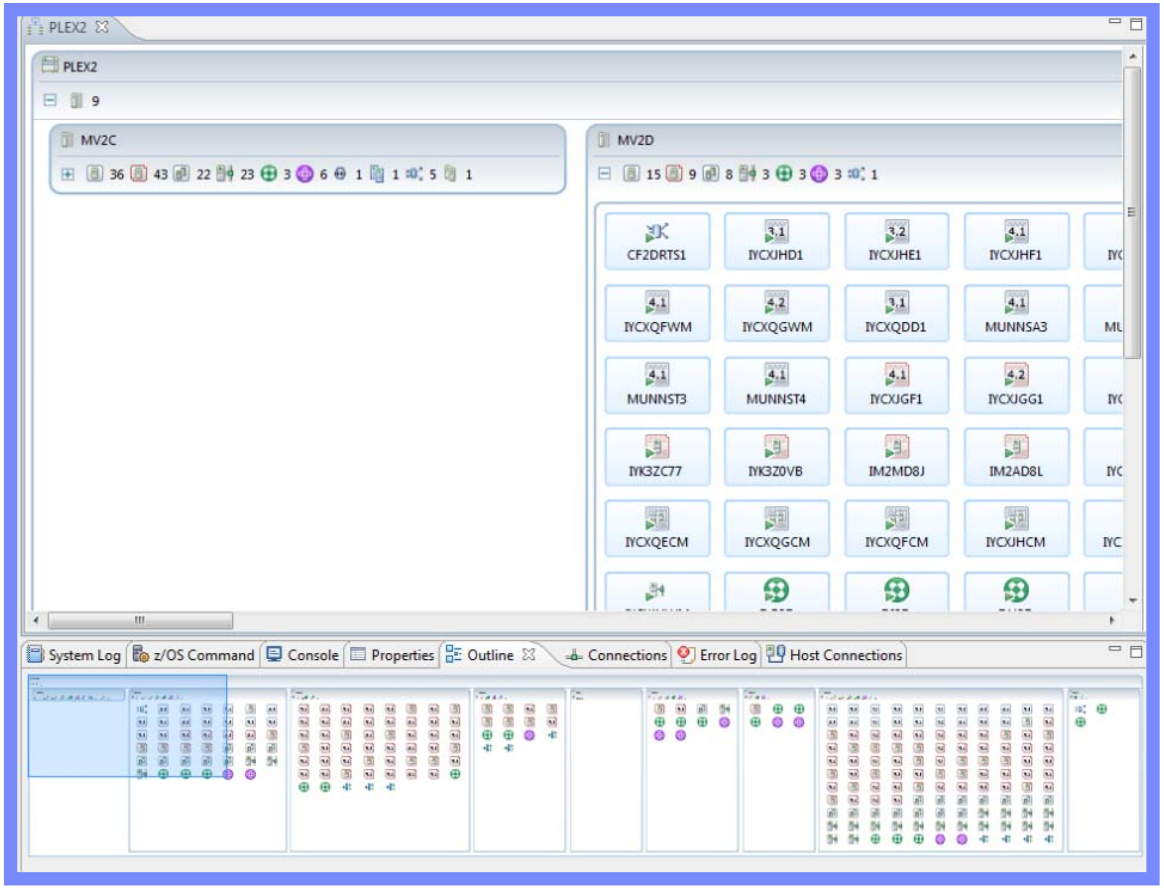
CICS Deployment Assistant V5.1…

Discovery

Tree View



Graphical Visualisation



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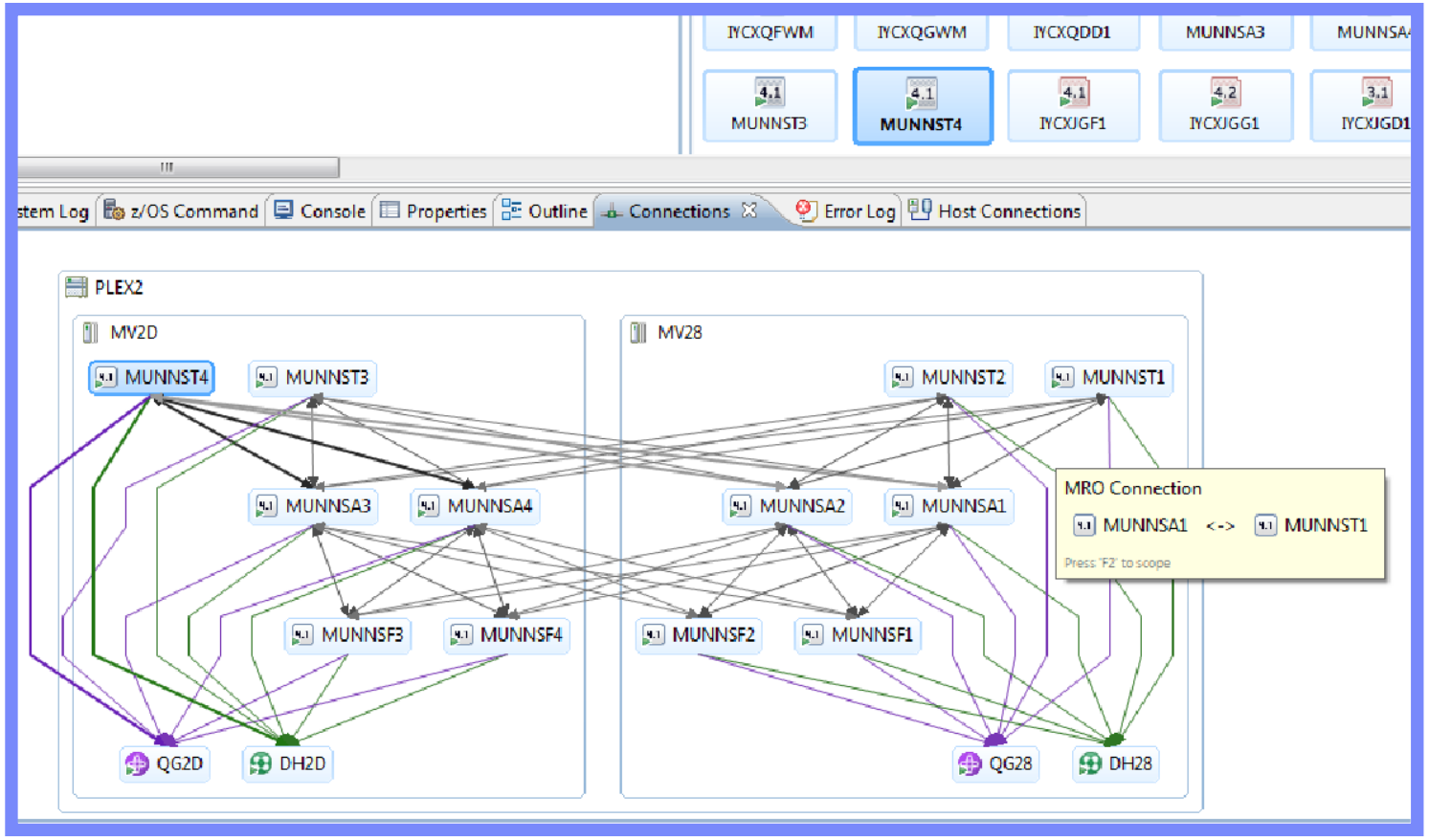
CICS Deployment Assistant V5.1…

Discovery

Scoped connections view



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CICS Deployment Assistant V5.1

Editors and Tagging

- Editors
  - Provides base level of information about discovered entities
    - Shows
    - Start/Stop policies
    - Tags
    - Job name
    - User ID
    - Connections
    - MVS Image

- Tagging
  - Manual Web2.0 style tagging on discovered entities
    - Aids reporting and visualisation filtering

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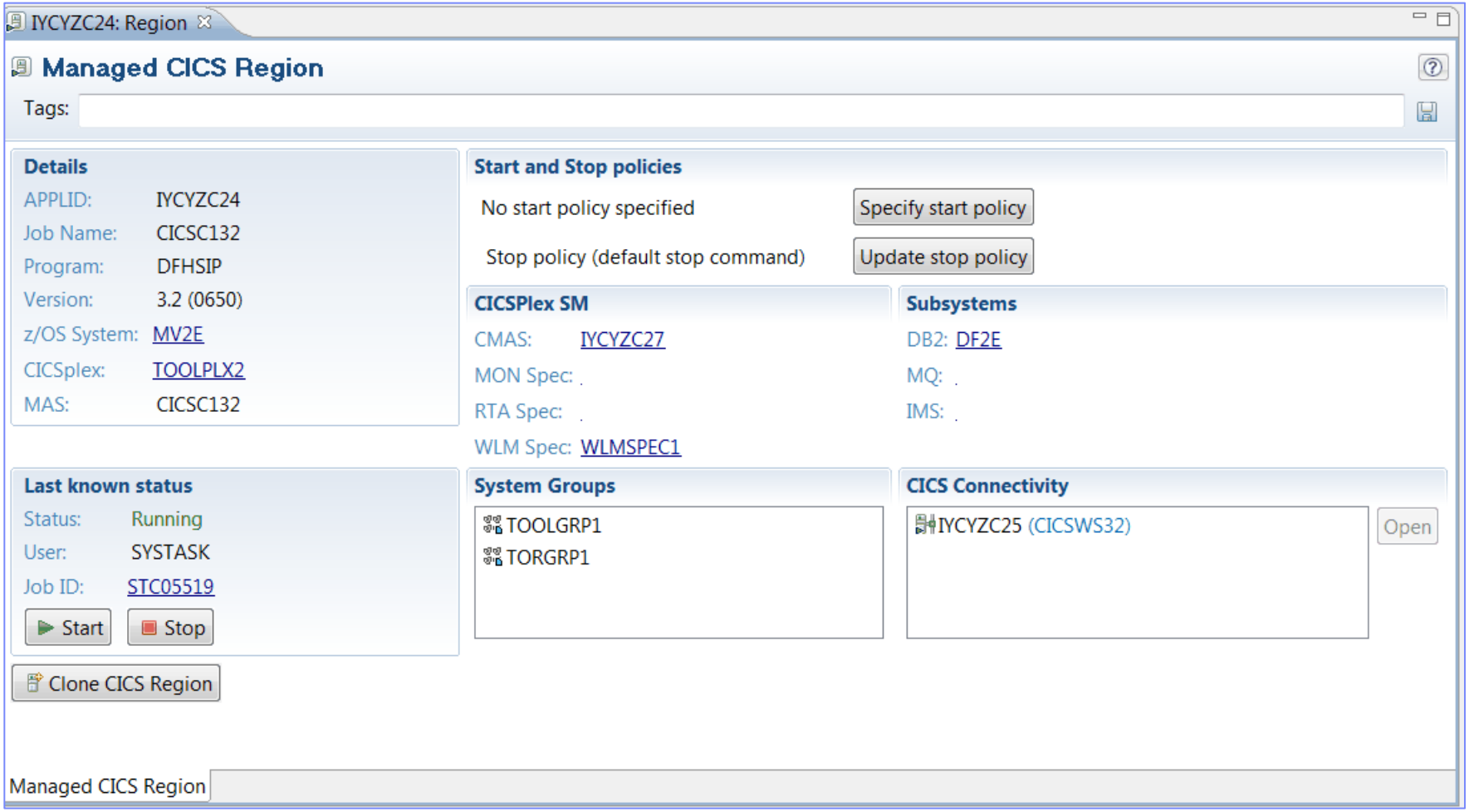
CICS Deployment Assistant V5.1…

"Managed CICS Region" Editor



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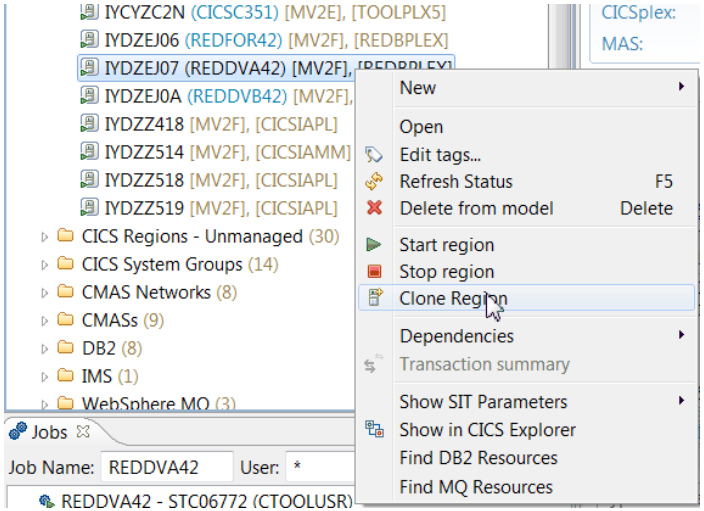
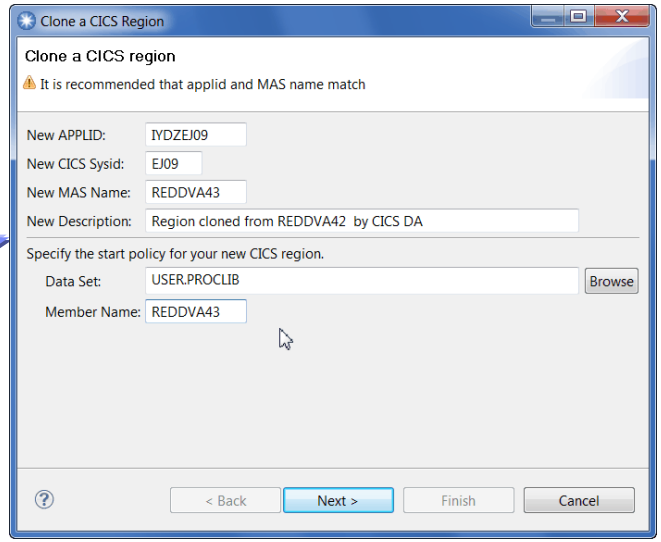
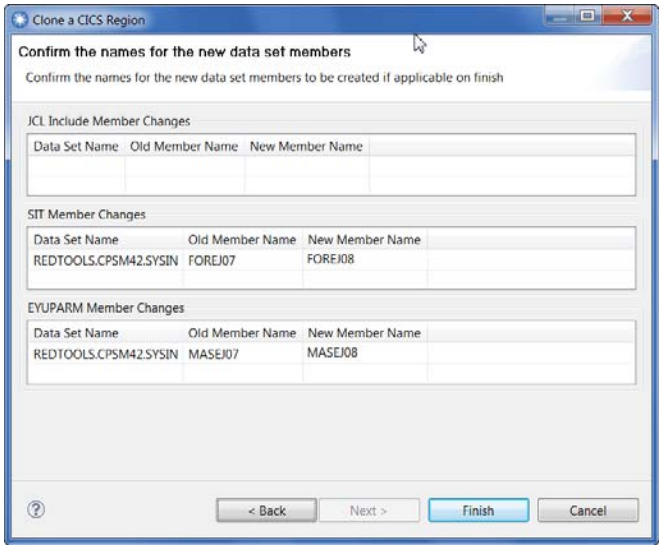
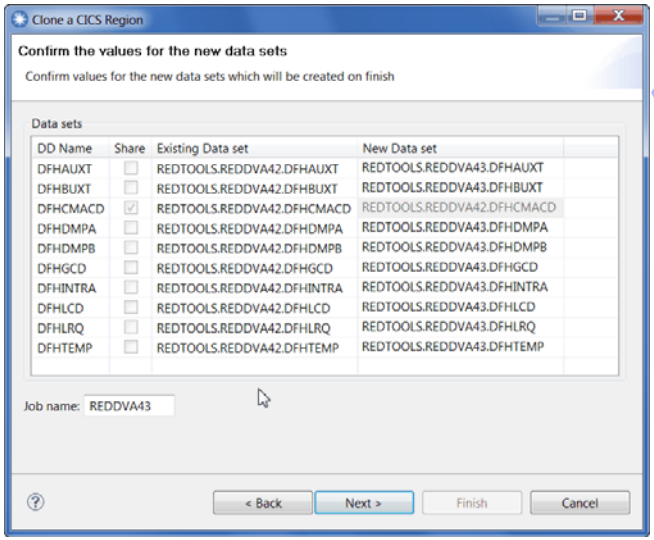
DA - Clone a managed region









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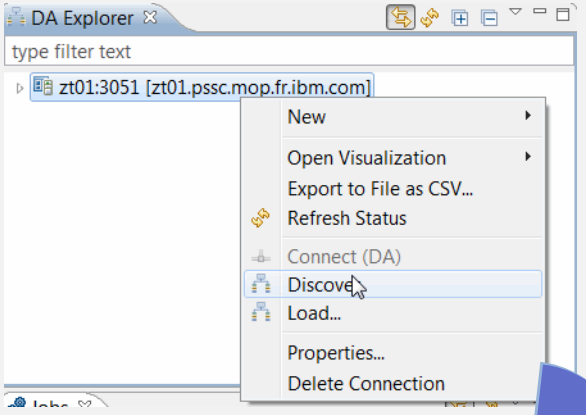
DA - Plexify your unmanaged regions

Benefits

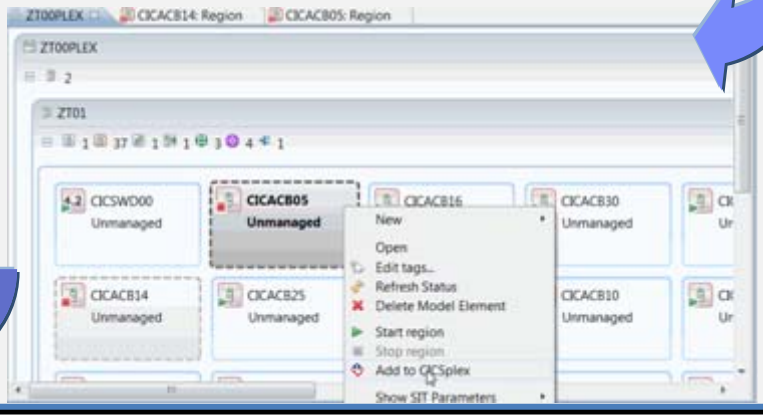
- 3 steps to a managed region
- Manage your region from the CICS SM Explorer perspective

Discover

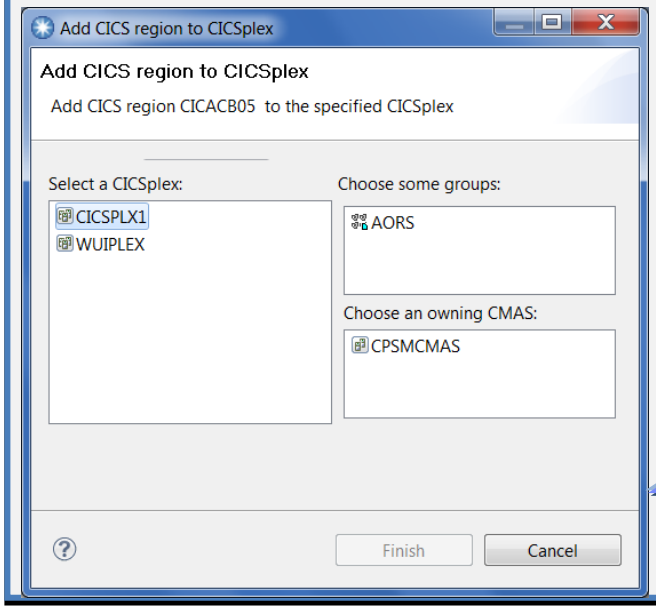


Visualize

Unmanaged regions



Manage



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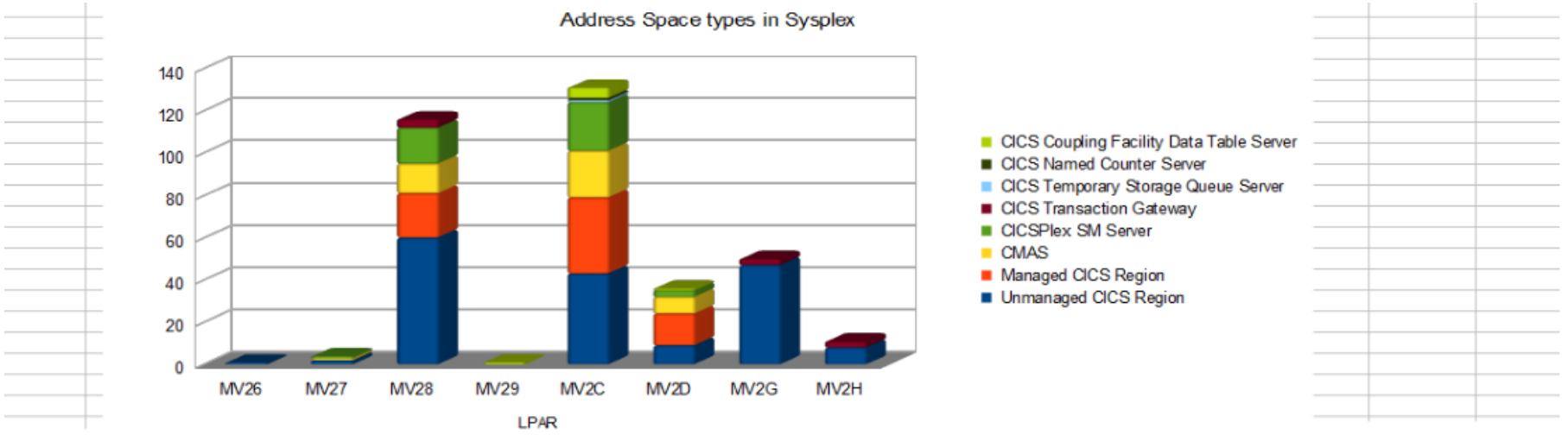
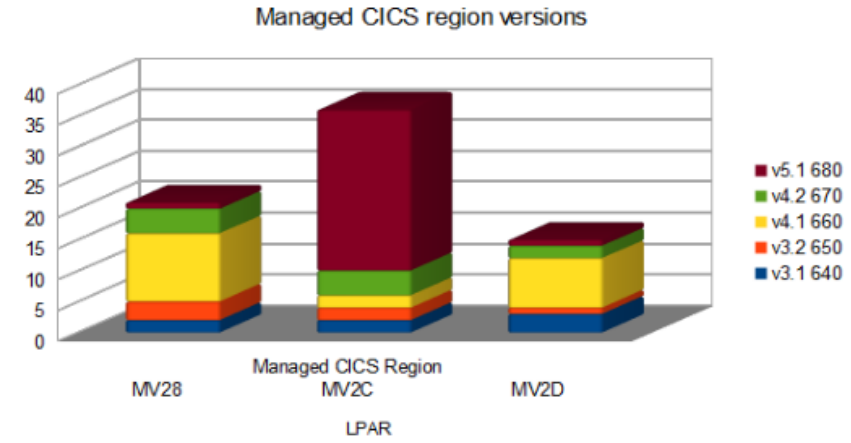
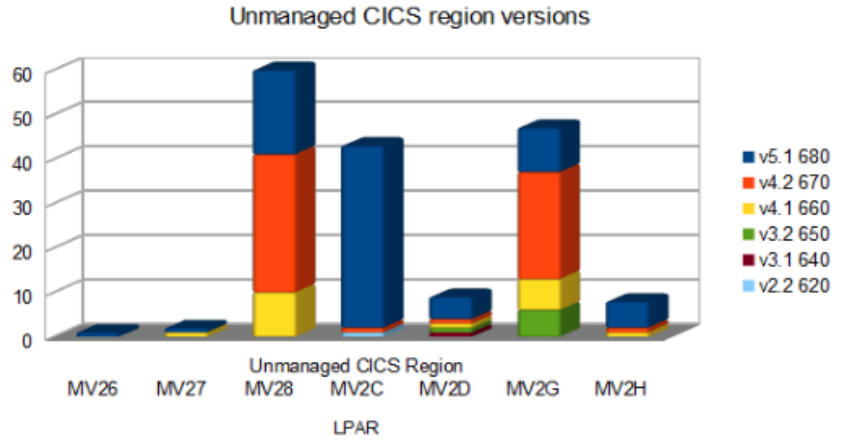
CICS Deployment Assistant v5.1

Reporting from the DA model







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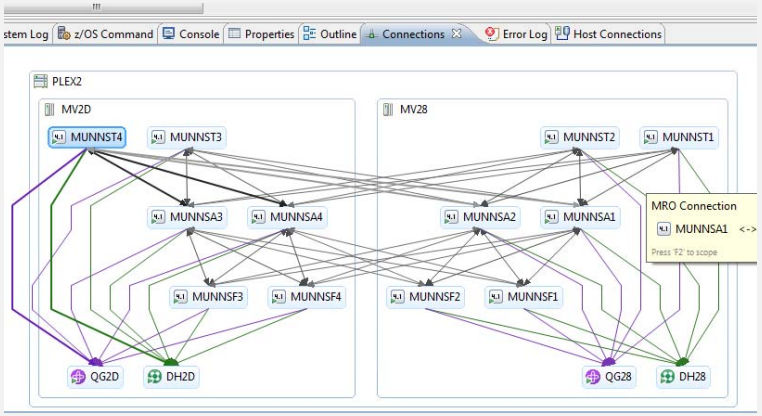
CICS Deployment Assistant for z/OS V5.1

What's new in CICS DA V5.1…

- Enriched discovery of over 30 entities
- Improved visualization with tagging and filtering
- Connections view with scoping
- Export model for external reporting
- CICS TS V5.1 upgrade cheat sheet
- Tagging and filtering of model elements
- New navigators
- Clone JCL improvements
- IPv6 support
- Virtual IP addressing support
- Serviceability enhancements

CICS DA enables you to…

- Visualize and manage your CICS topology
- Discover existing regions and sus-systems
- Automation creates new CICSplex
- Plexify and clone CICS regions
- Start and stop a CICS region



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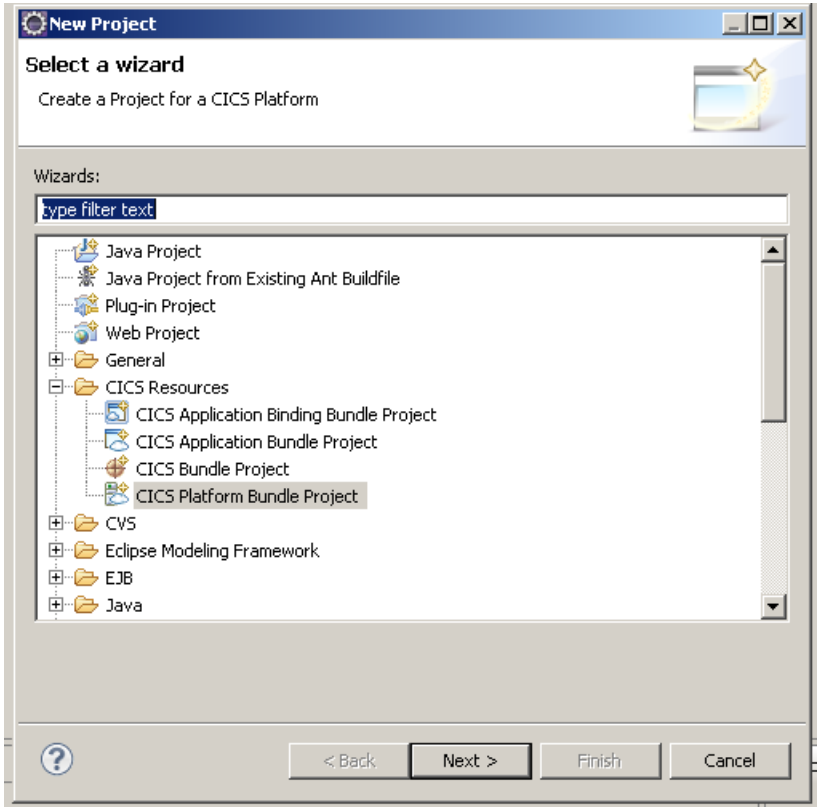
Define the Platform

- **Create a new Platform Project**



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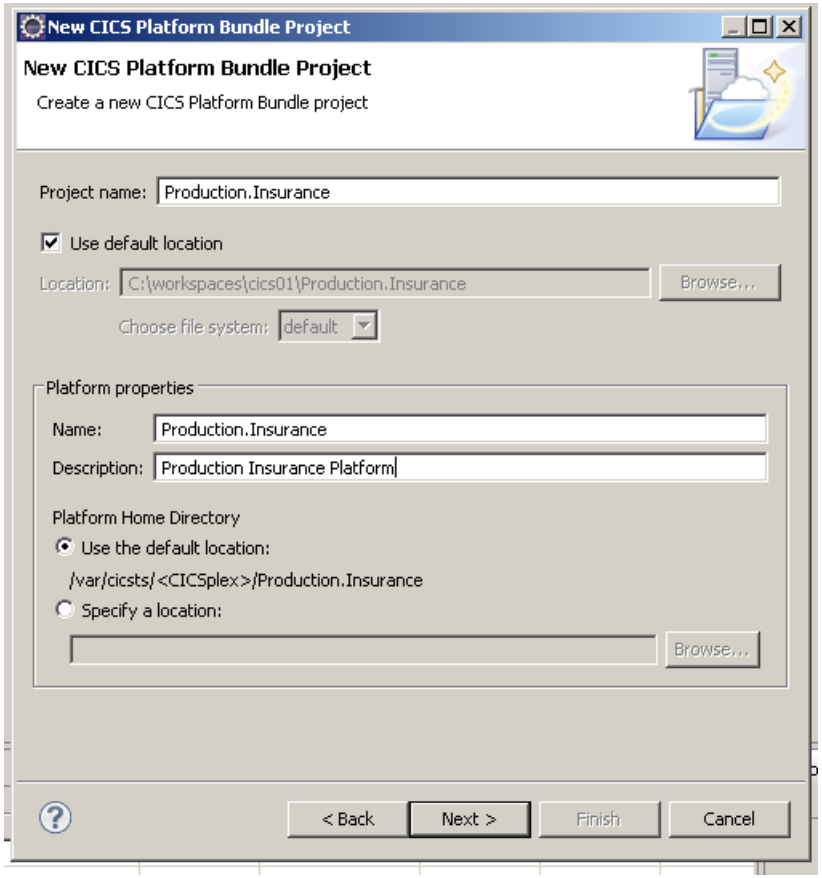
Define the Platform…

- **Name the Platform Bundle Project**



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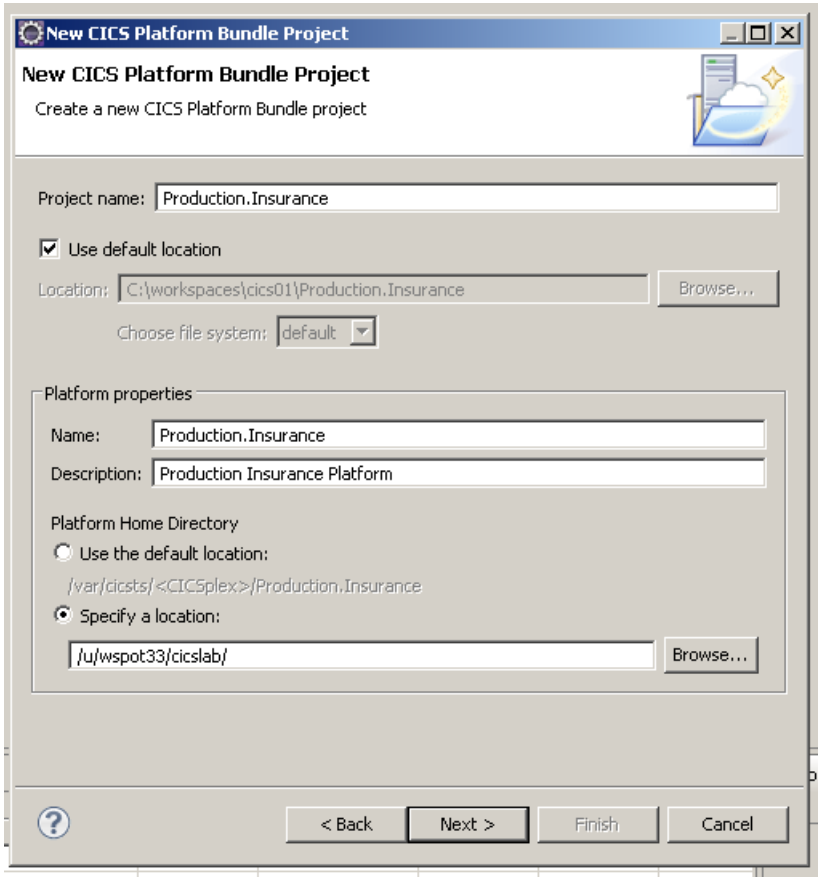
Define the Platform…

- **Specify the Platform Home Directory**



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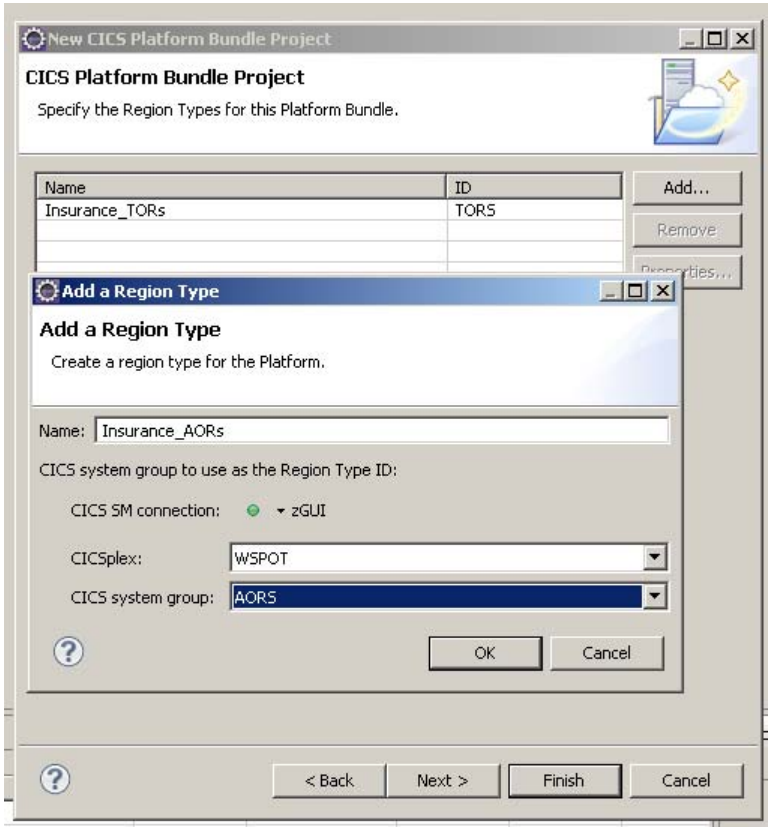
Define the Platform…

- **Specify the Region Types included in this Platform**



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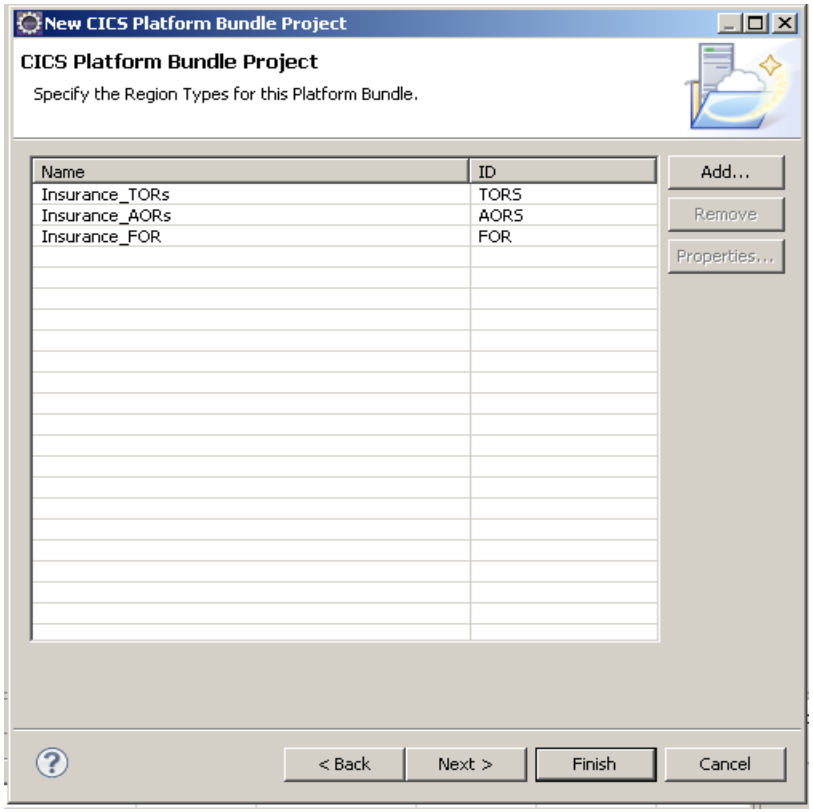

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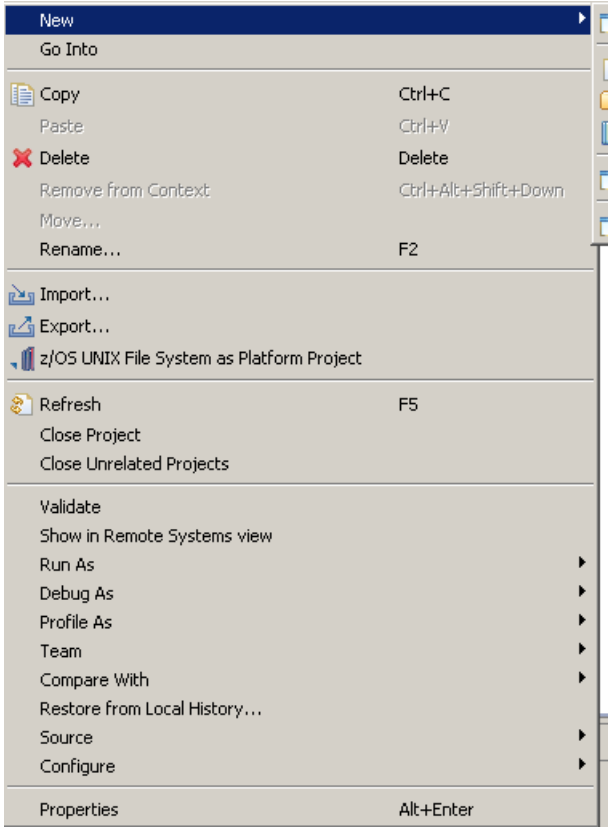
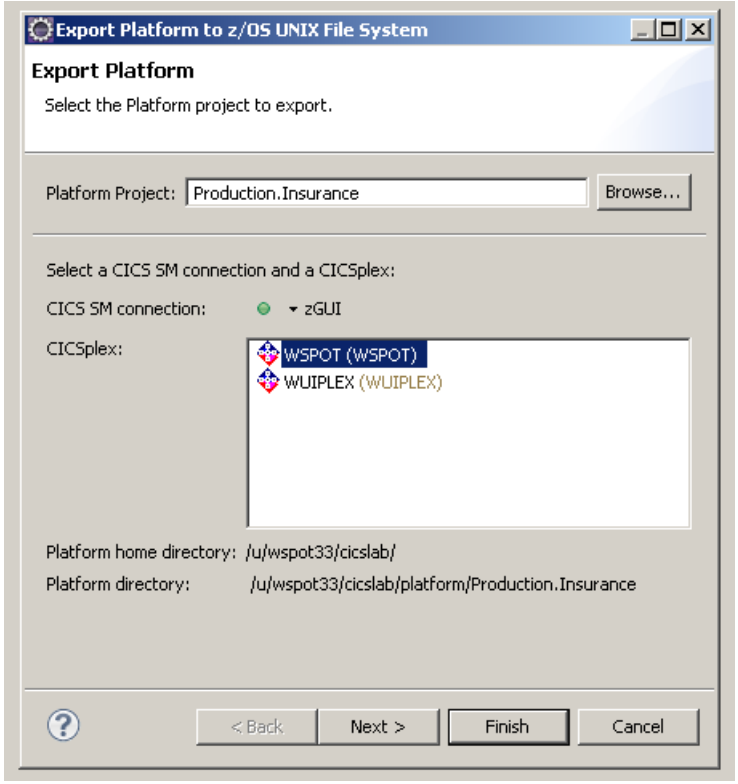
Define the Platform…

- **Export the Platform Project to zFS**





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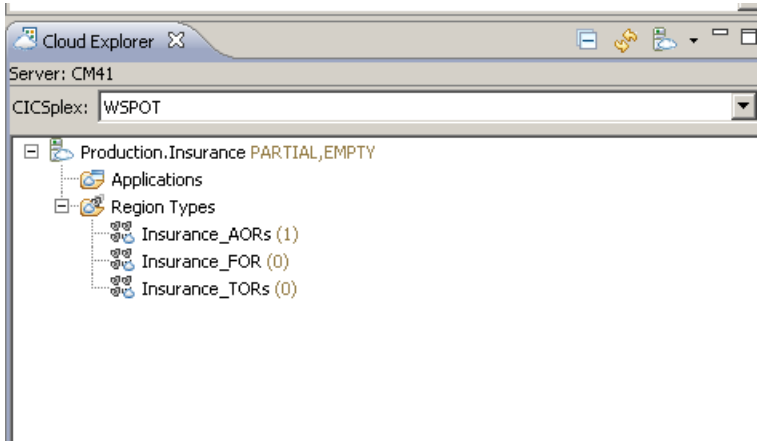
Define the Platform…

- View the Platform in the Cloud Explorer



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Summary

- **The challenge of multiple CICS regions**
  - Life started out simple and became more complex
- **Cloud Computing**
  - Private clouds
  - Platform as a Service
  - Software as a Service
- **CICS Platforms and Deployment Assistant**
  - Life is becoming simple again

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CICS Resources

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Find out more

Register for Impact 2013 today

-30 CICS related sessions

- 2 Labs

-Meet CICS Technical specialists

-Hear about the latest CICS V5.1 Portfolio release

-http://www-01.ibm.com/software/websphere/events/impact/registration.html

CICS Smart Seminars

Arrange a customized CICS agenda at your location and hear about the CICS topics you want to hear about. Contact your local IBM representative or send an Email to cicssem@uk.ibm.com or Fred Marschner marschne@us.ibm.com

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CICS Developer Trial

- Available from Jan 11th 2013
- No charge trial, fixed expiry date
- Does not start SVC period
- For non-production environments
- Available through IBM ShopzSeries
- PID 5655-CIC

Based on CICS TS V5.1

- (with restrictions)
  - Performance
  - Capacity
  - License

https://www.ibm.com/developerworks/connect/cicsdev

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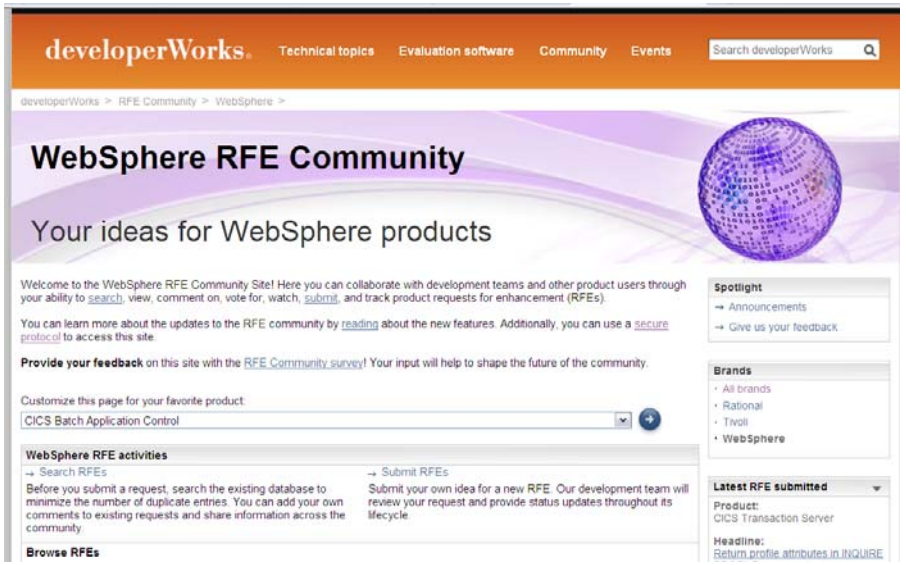
Raising new requirements with RFE

- **You can now raise and track requirements using the new IBM RFE system for**
  - CICS Transaction Server
  - CICS Explorer
  - TXSeries
  - WXTR
  - IBM CICS Tools
  - CICS Transaction Gateway
  - PD Tools - coming soon (target end Jan 2012)



- **All previous FITS requirements have been processed, and either be transferred to RFE or closed and returned**
- **All brands https://www.ibm.com/developerworks/rfe/ - select Brand: WebSphere**
- **WebSphere only https://www.ibm.com/developerworks/rfe/?BRAND_ID=181**
- **Select Product Family: Transaction Processing - for CICS Transaction Server, TXSeries, and WXTR**
- **Select Product Family: Enterprise Tooling - for the CICS Tools, CICS Transaction Gateway, and PD Tools**
- **Raise CICS Explorer base requirements against the Explorer component of CICS TS.**
- **Raise plug-in requirements against the Explorer component of related product.**

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www.ibm.com/cics

CICS Explorer Forum

ibm.com/developerworks/forums/forum.jspa?forumID=1475&start=0

CICS-L list Forum

listserv.uga.edu/archives/cics-l.html

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Key documents

- **Analyst papers**
  - Lustratus Research - New project platform section for CICS Users ftp://public.dhe.ibm.com/software/htp/cics/pdf/Lustratus_Research_Paper_New_project_platform_selection_for_CICS_users.pdf
  - Branham Group: IBM CICS Tools: Unrealized Productivity Gains and True Cost Savings ftp://public.dhe.ibm.com/software/htp/cics/tools/IBM_CICS_Tools_Whitepaper_2009.pdf
  - Software Strategies: IBM z/OS Problem Determination Tool Suite Leads Again https://www14.software.ibm.com/webapp/iwm/web/preLogin.do?lang=en_US&source=swg-rszswg
- **IBM Redbooks**
  - **CICS Transaction Server from Start to Finish**, SG24-7952-00
  - **Smarter Banking with CICS Transaction Server**, SG24-7815-00
  - **Implementing Event Processing with CICS**, SG24-7792
  - **CICS and SOA: Architecture and Integration**, SG24-5466-06
  - **Implementation of Popular Business Solutions with CICS Tools**, REDP-4824-00
  - **Threadsafe considerations for CICS**, SG24-6351-04
  - **Architects guide to CICS on System z**, SG24-8067-00
  - **CICS Transaction Server Application Architecture**, Redbooks solution guide

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Next Session

CICS V5.1 *Applications*

- **Application Packaging**
  - Bundles
  - Application Projects
- **Application Deployment**
  - Bindings
  - Appdef
- **Modernization and the Liberty web container**

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