

2012

IBM System z Technical University

Enabling the infrastructure for smarter computing

CICS TS : Platform Management Update

zAI12

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CICS meets the cloud

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CICS Cloud Enablement

Monday

0830 *General Session*

Tuesday

1030 CICS TS : Introduction to Applications as first class entities

1300 CICS TS: Introduction to Platforms as deployment targets

Wednesday

0900 CICS TS: Application Management Update

1030 CICS TS: Platform Management Update

1300 *CICS in the Cloud: Hands-On Lab*

1615 *CICS Tools Family Update*

Thursday

Pain Points

Deploying and un-deploying applications is a high skill complex job due to the number of separate artifacts

Customers would like to see usage / charging, availability / SLA at the application level

Elastic scale is a requirement, but it needs to be managed within the constraints of the customers resources and business environment

Pain Points

Deploying and un-deploying applications is a high skill complex job due to the number of separate artifacts

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Getting started with cloud-style deployment

- **Stage 1: Create a platform**
- **Stage 2:** Create an application
- **Stage 3:** Add application entry points
- **Stage 4:** Add resources for the application
- **Stage 5:** Add a policy

Platform Discovery using CICS DA

Discover topology

Simplified setup of CICSplex SM Single System Image

Create region types by managing existing standalone Regions

Use cloning to easily expand existing region types

Scale the Platform by activating and deactivating Regions

Demonstration: CICS Deployment Assistant

The screenshot displays the Eclipse IDE interface for the CICS Cloud Platform Definition Assistant. The main window is titled "Platform Definition (RETAIL)" and shows the following details:

- Attributes:** A table listing properties for the platform definition.
- Property Value Table:**

Property	Value
▼ Basic	
Description	
Name	RETAIL
Platform Directory	/u/webster/CICSEXP3/retail.production/platform/retail.production.platform/
▼ Definition Signature	
Change Agent	DREPAPI
Change Release	0680
Change Time	21-Sep-2012 16:06:41
Change User ID	CICSUSER
Create Time	21-Sep-2012 16:06:41

The Project Explorer on the left shows the project structure:

- cart.application
- retail.production.platform

The bottom status bar indicates: "IZE0100I Connected us...ibm.com on port 27055 | Fetching children of CICSEXP3 | CICSEXP3 (CICSplex)"

Why CICSplex System Manager?

Single System Image through CICS Explorer
leveraging existing capability

Compatibility with existing resources definitions:
BAS, RTA, WLM

Full autoinstall and recovery of Application and
Platform resources

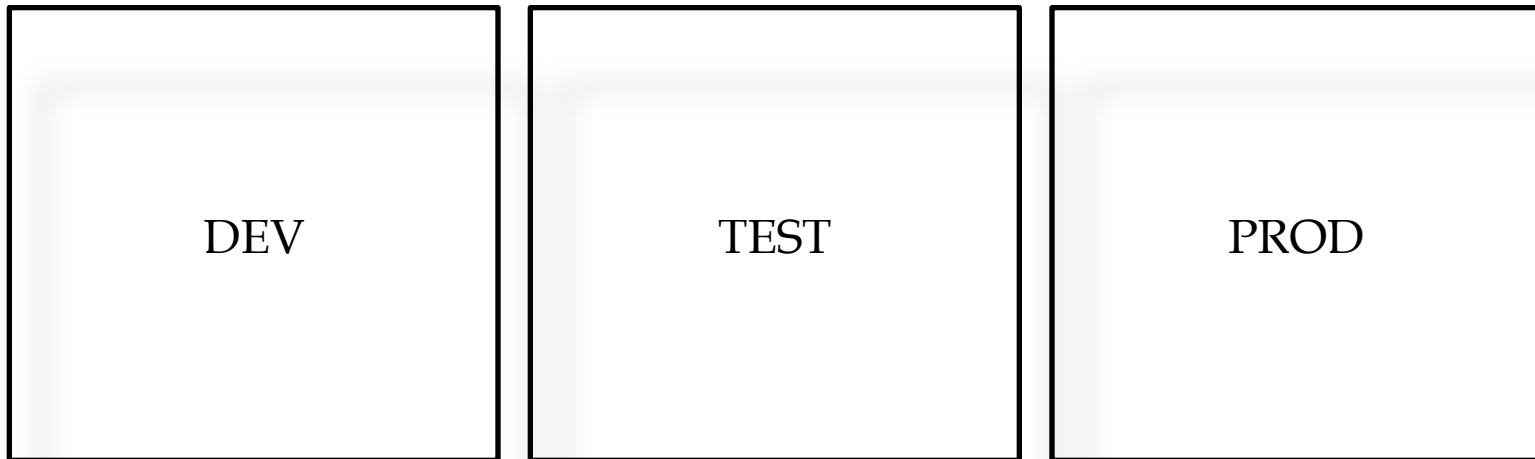
Platform Autoinstall and Recovery

Platform recovered over CICSplex restart and all CICS bundle re-installed before any Application

CICS bundles autoinstalled when a Region started within a region type before any Application

No local catalog

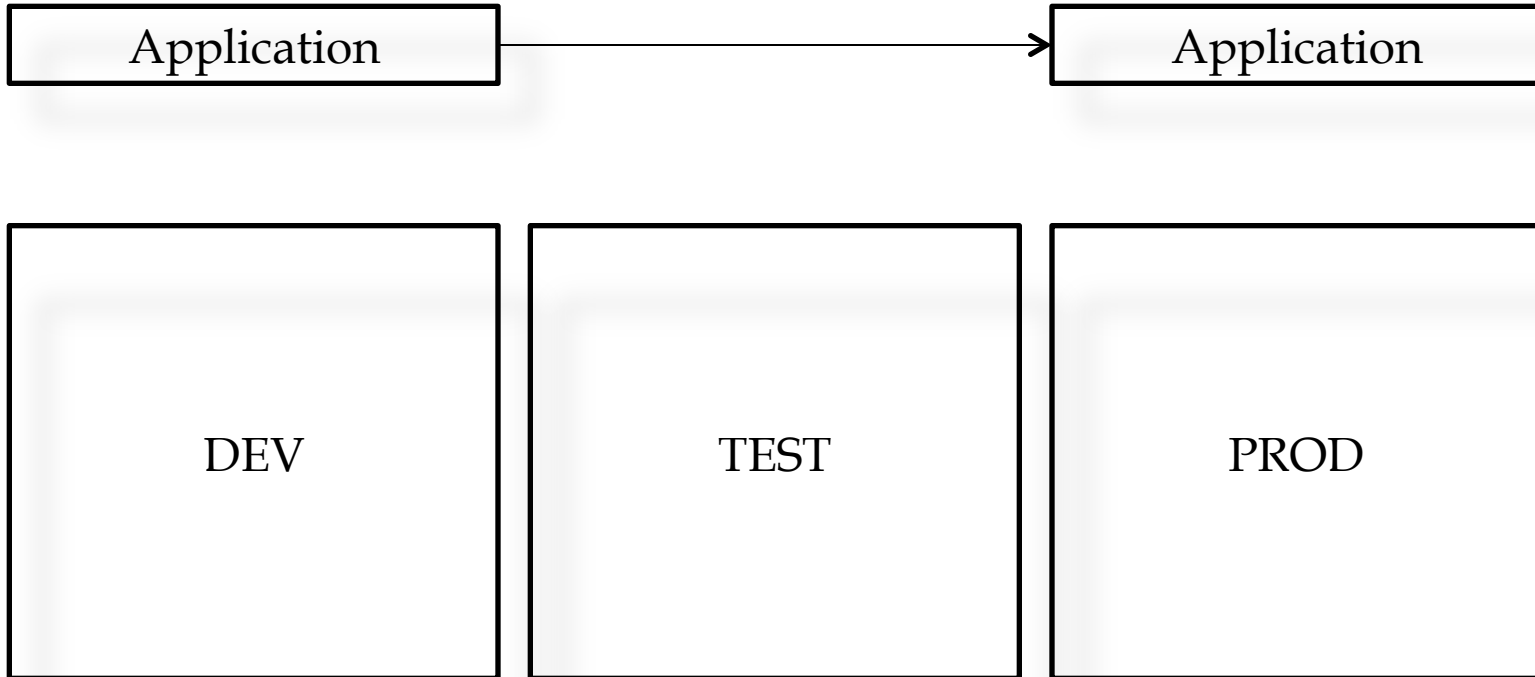
Now back to those pesky* developers



*Troublesome; annoying: *a pesky mosquito*

<http://http://www.thefreedictionary.com/pesky>

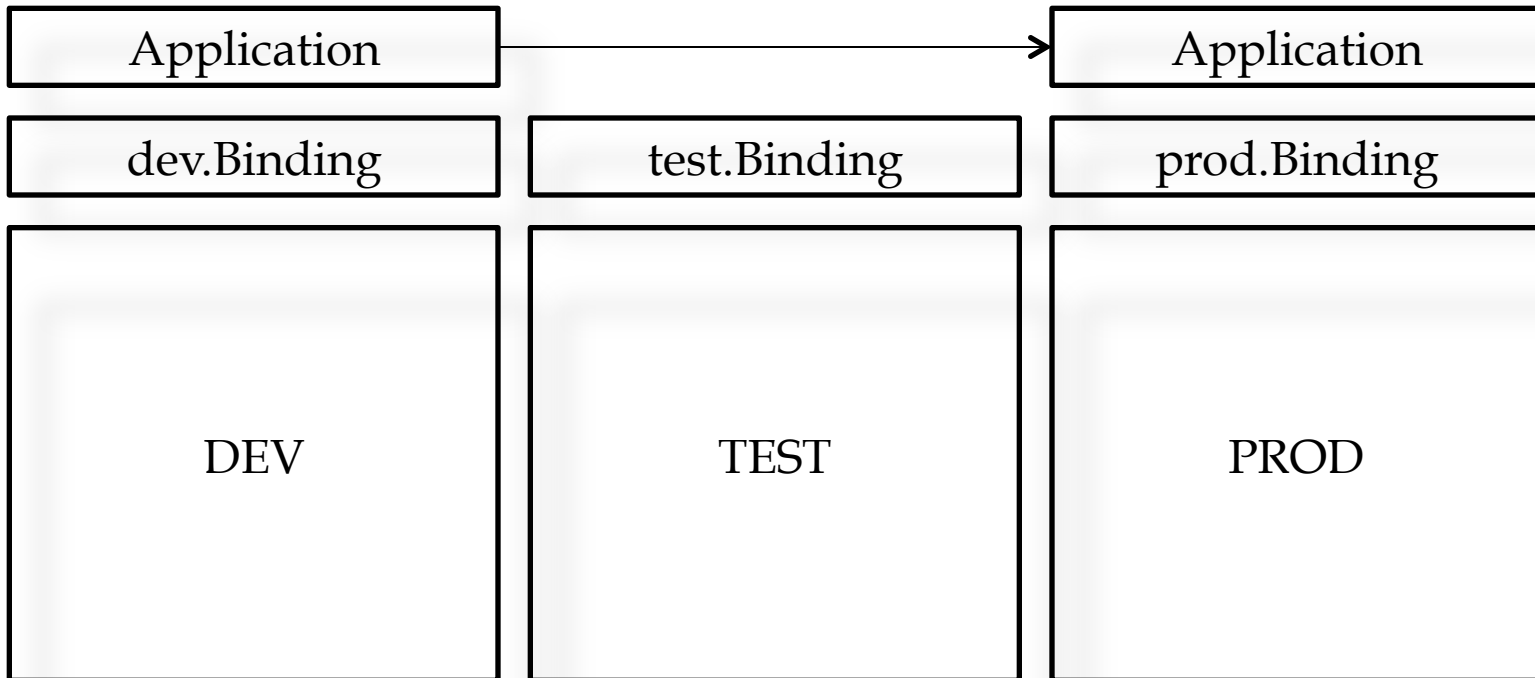
How do I move an Application from Development through Test to Production?



*Troublesome; annoying: *a pesky mosquito*

<http://http://www.thefreedictionary.com/pesky>

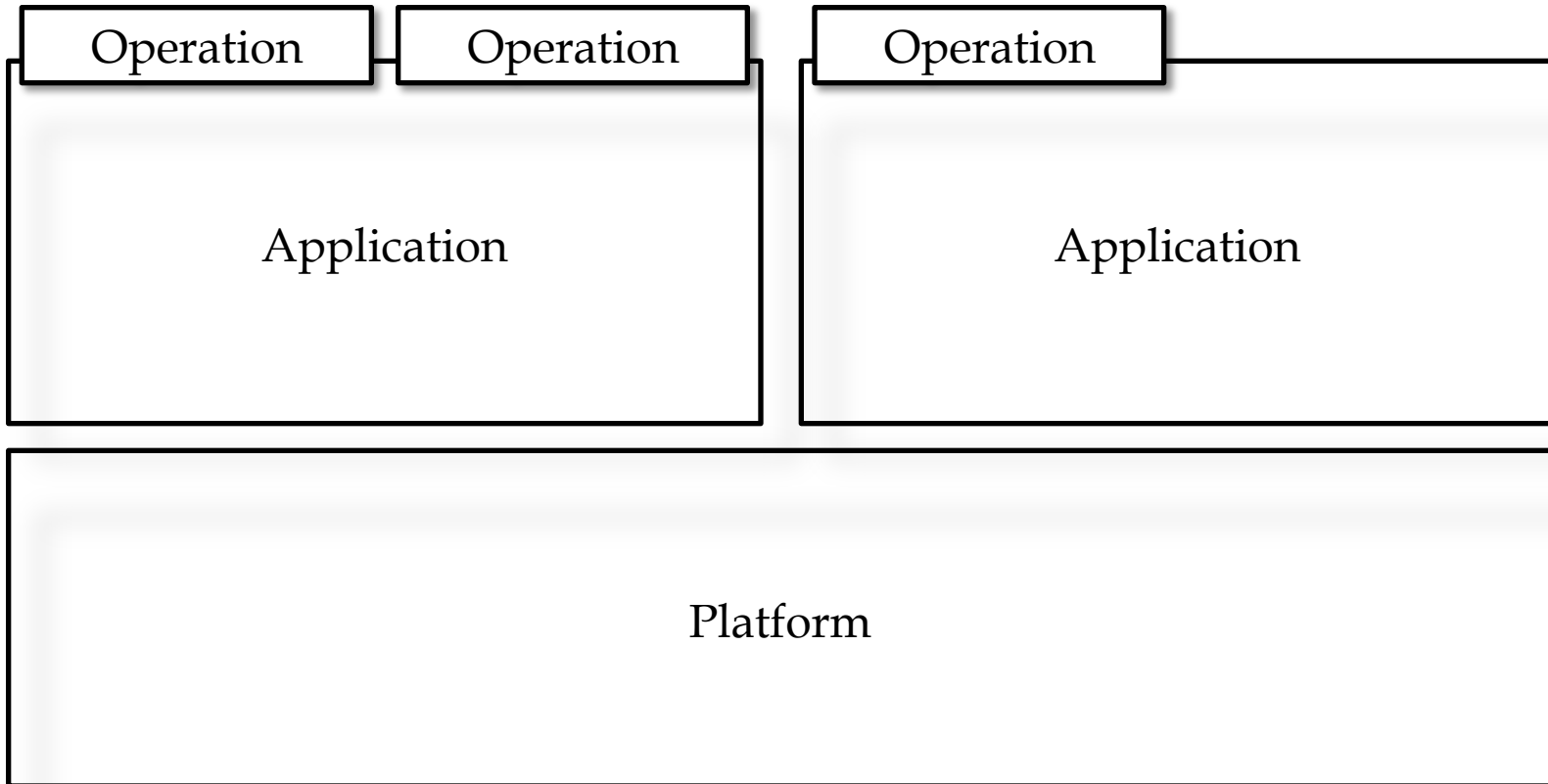
Answer: use Application Bindings



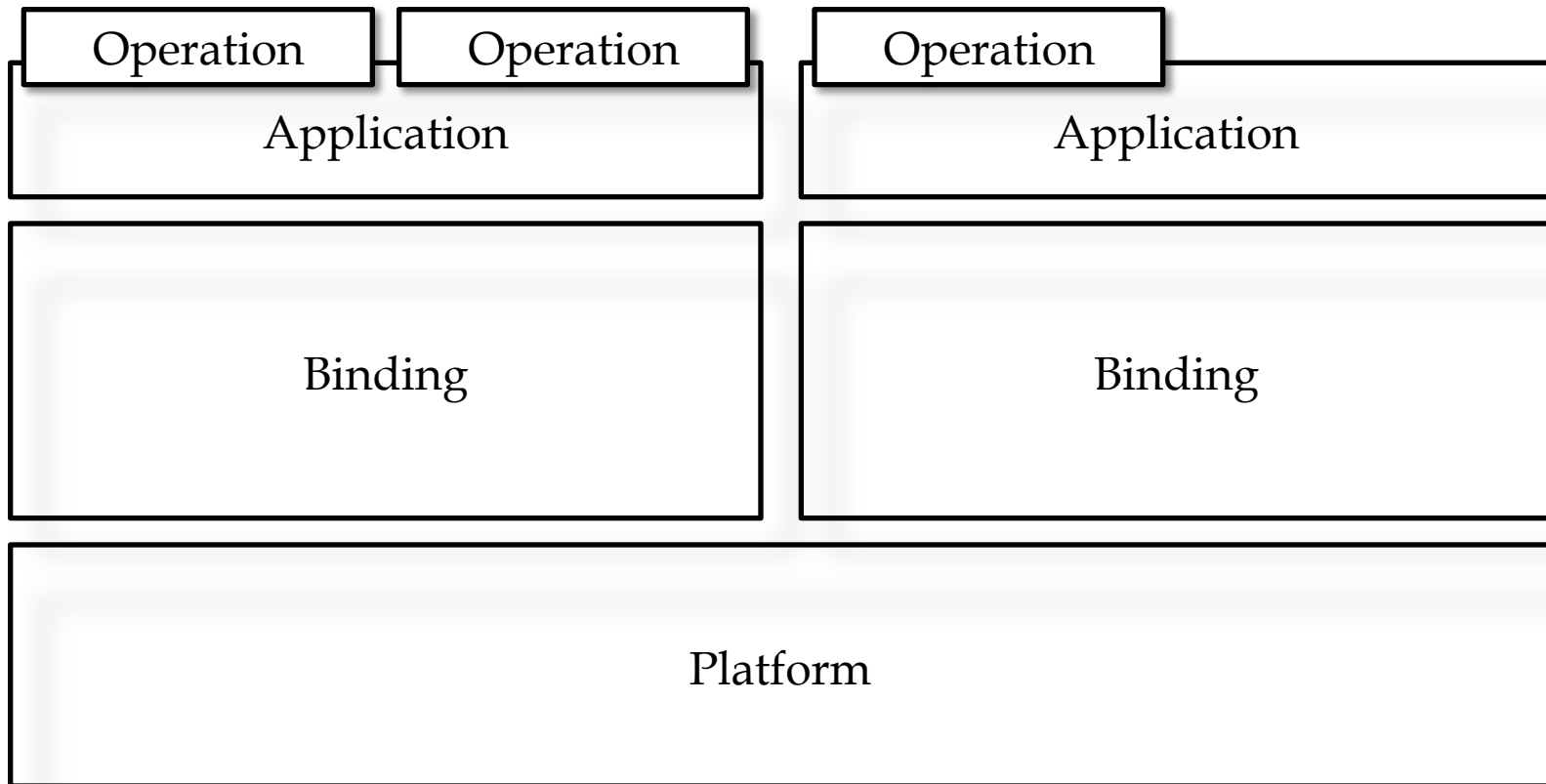
*Troublesome; annoying: *a pesky mosquito*

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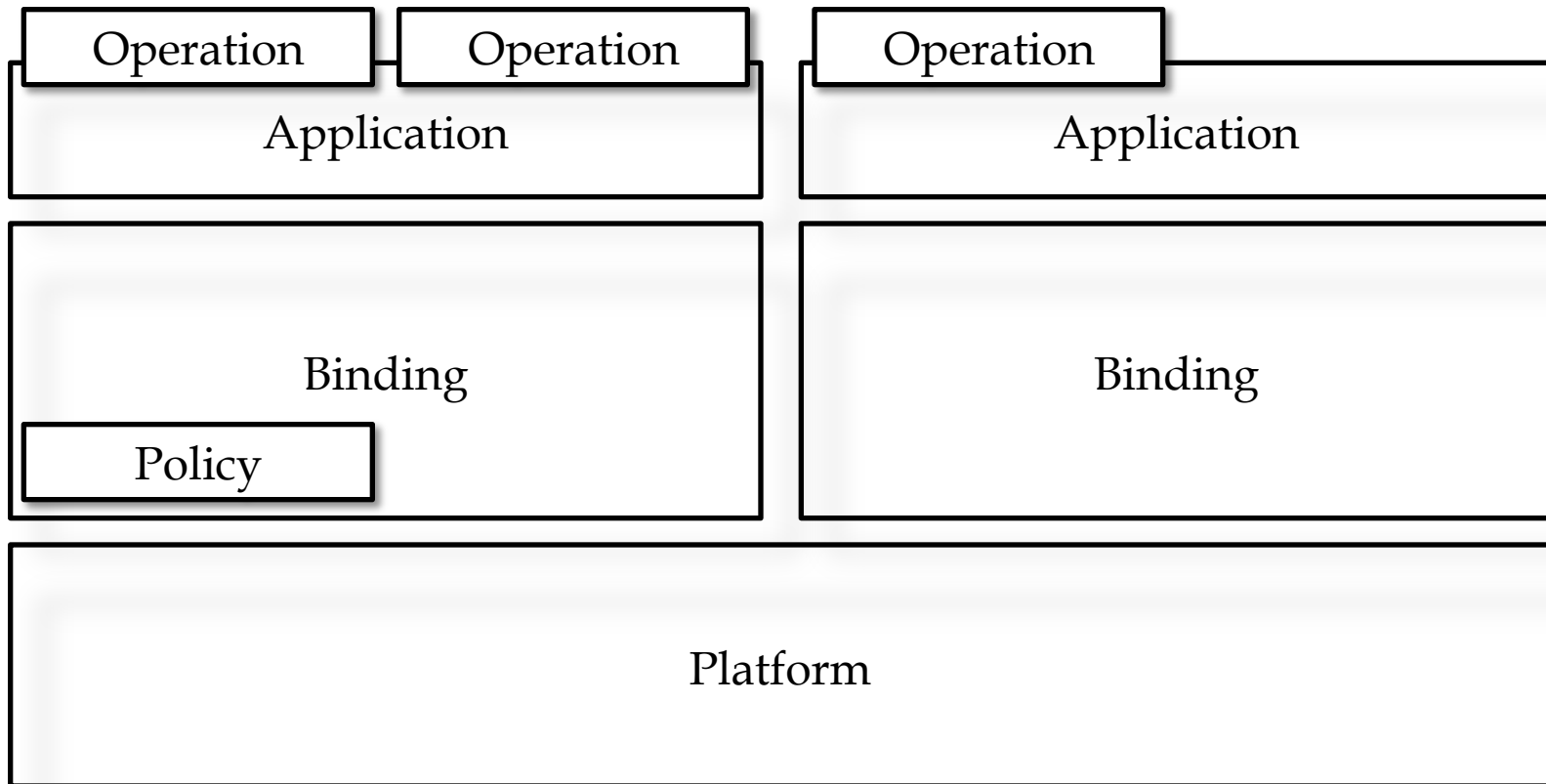
Policy Scoping: Platform, Application or Operation



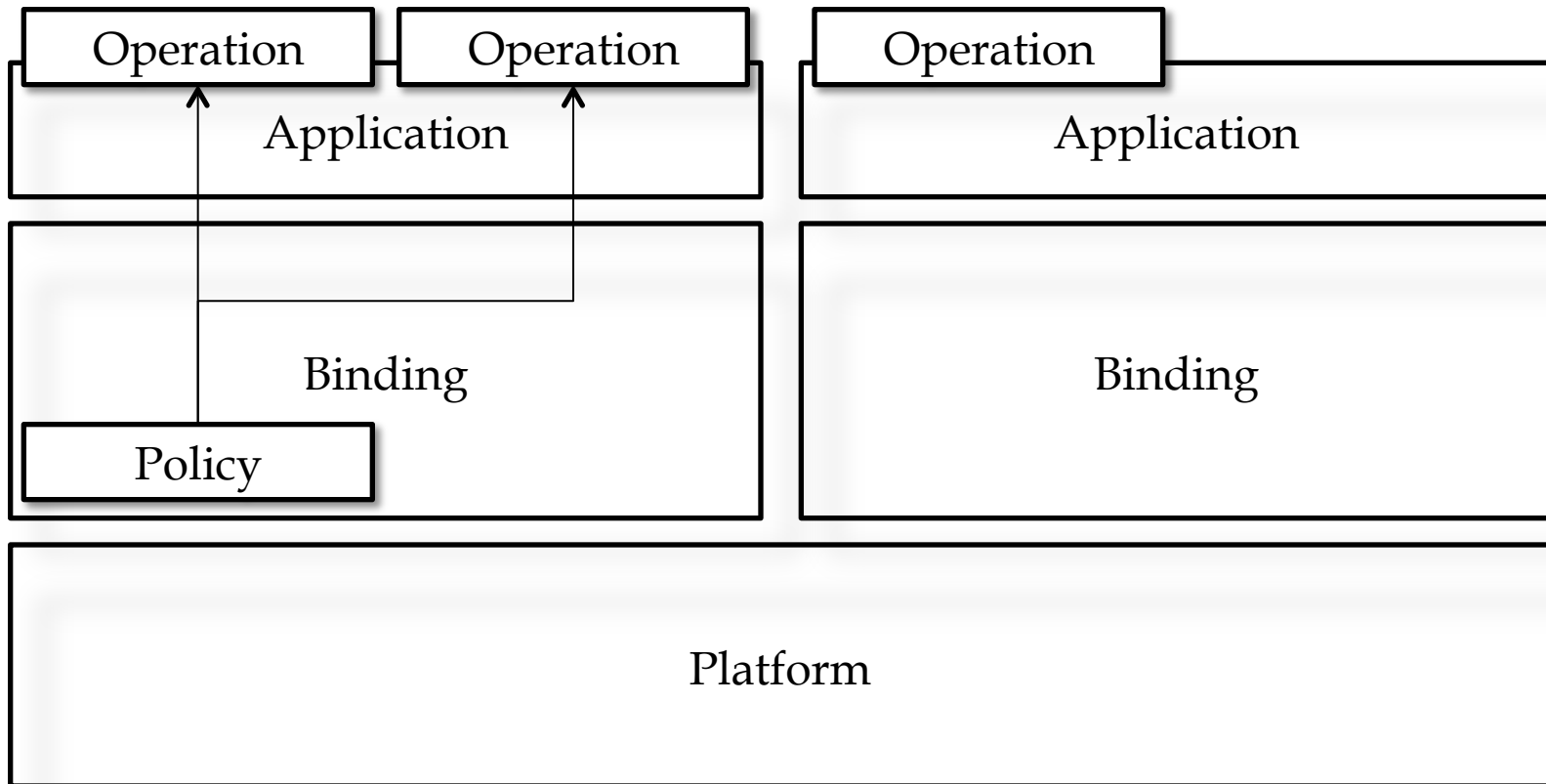
Policy Scoping: Application Binding



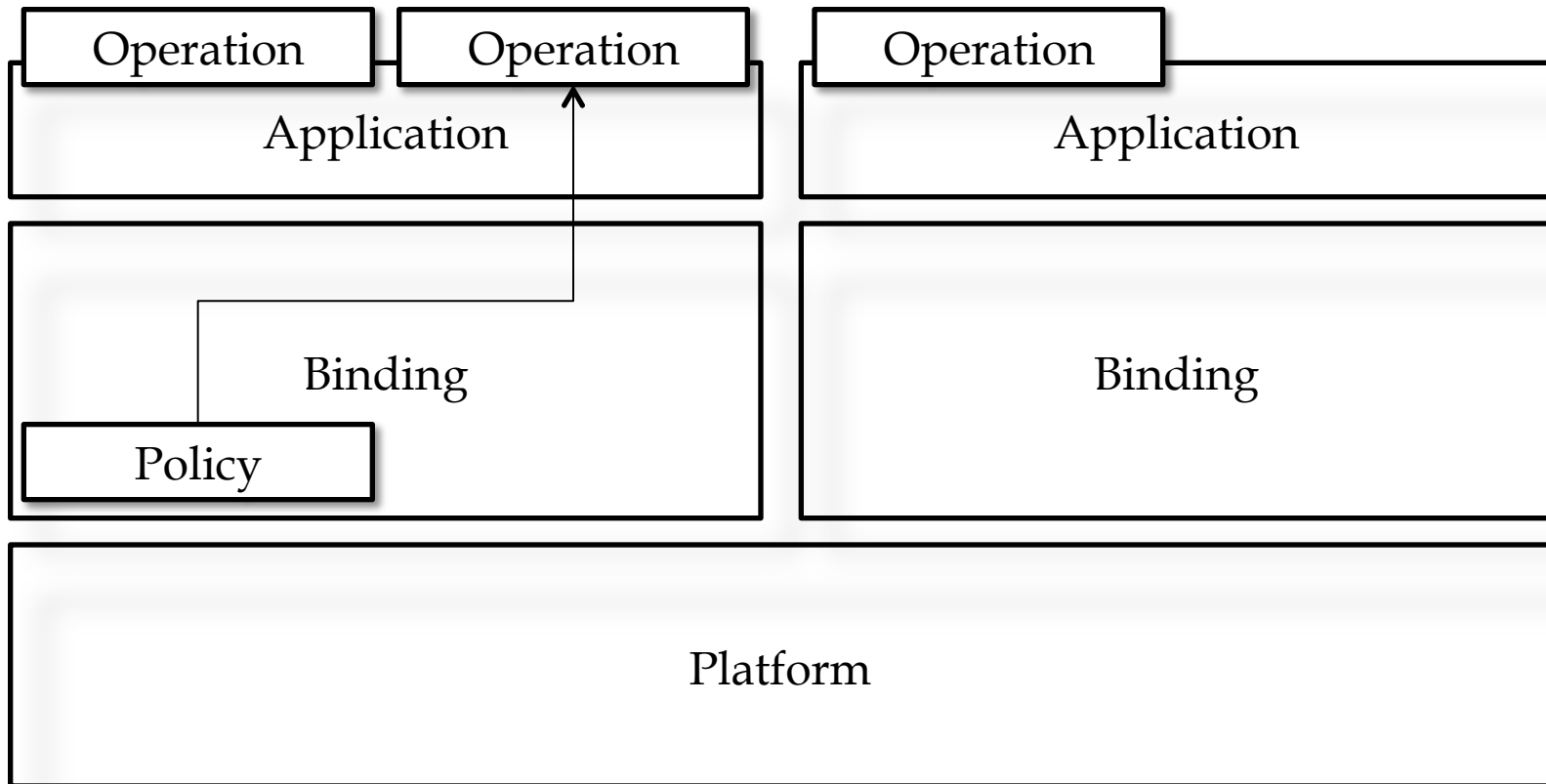
Policy Scoping: Application Binding



Policy Scoping: Application Binding



Policy Scoping: Application Binding



New First Class ~~Concept~~ Resources

- **Application & Application Binding**
- Platform
- Policy

Application Binding

An Application Binding bundle

A collection of zero or more CICS bundles

A set of deployment rules

Life-cycle with Application as a single entity

Removes direct dependency between Application and Platform

Application Binding Package

Name

org.maw.banking.binding.Loans

Version

1.2.1

Additional CICS bundles

Resources

Dependencies

Deployment Rules

CICS bundle -> region type

Policy

Application Binding Lifecycle – Choose Platform

Create Application bundle project

Create Binding bundle project

Application Binding Lifecycle – Additional Bundles Included

Create Application bundle project

Create Binding bundle project

Export Application package to zFS

Application Binding Lifecycle – Use Deployment Rules

Create Application bundle project

Create Binding bundle project

Export Application package to zFS

INSTALL Application onto a Platform

ENABLE/DISABLE Application

DISCARD Application

Application Binding Lifecycle – Logically part of Application

Create Application bundle project

Create Binding bundle project

Export Application package to zFS

INSTALL Application onto a Platform

ENABLE/DISABLE Application

DISCARD Application

Application status (DISABLED | ENABLING | ...)

Demonstration: Application Binding

The screenshot displays the Eclipse IDE interface for configuring a Platform Definition (RETAIL) in the CICS Cloud environment. The main window shows the 'Platform Definition (RETAIL)' configuration page, which includes a table of attributes.

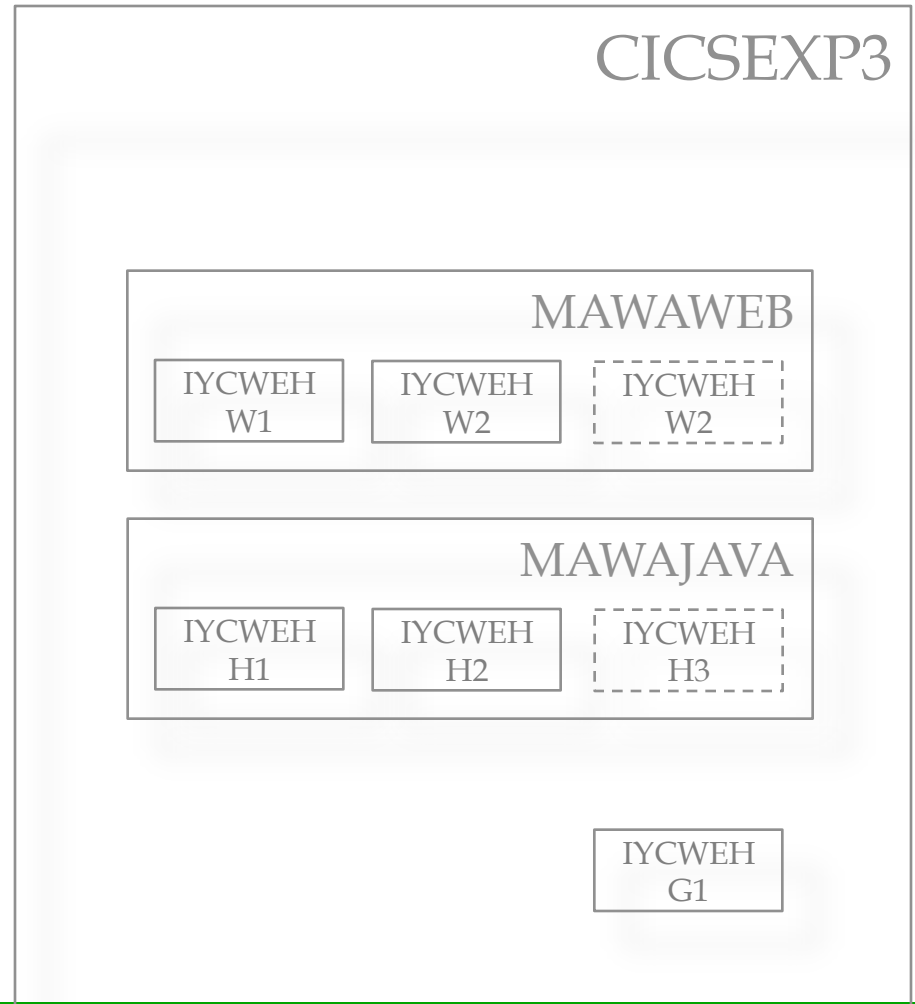
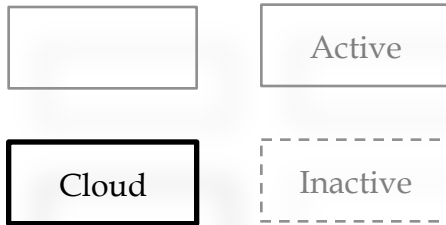
Platform Definition (RETAIL) Attributes:

Property	Value
Basic	
Description	
Name	RETAIL
Platform Directory	/u/webster/CICSEXP3/retail.production/platform/retail.production.platform/
Definition Signature	
Change Agent	DREPAPI
Change Release	0680
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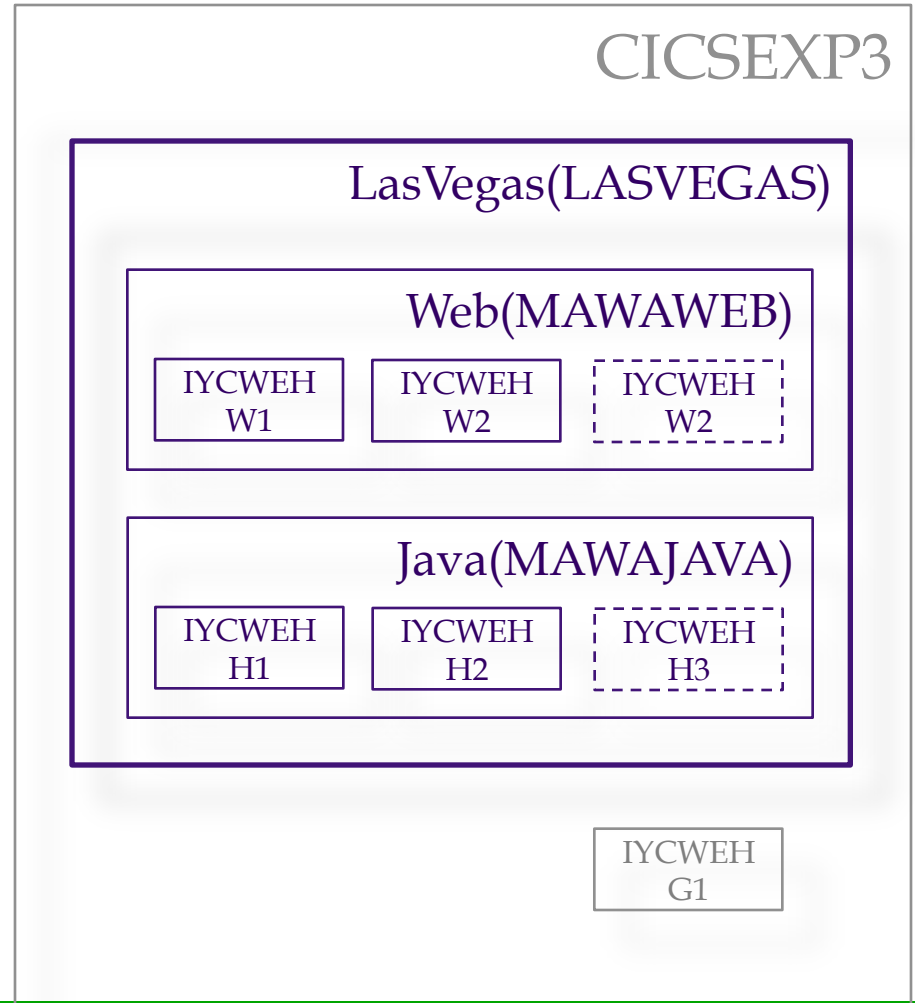
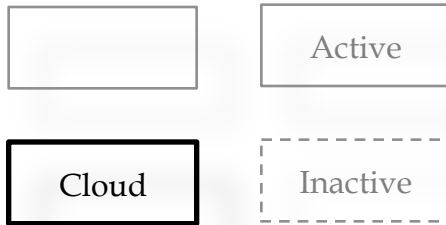
The interface also shows the 'Project Explorer' on the left, listing the project structure: `cart.application` and `retail.production.platform`. The 'Problems' view at the bottom shows 0 items.

At the bottom of the IDE, the status bar indicates: `IZE01001 Connected us...ibm.com on port 27055`, `Fetching children of CICSEXP3`, and `CICSEXP3 (CICSplex)`.

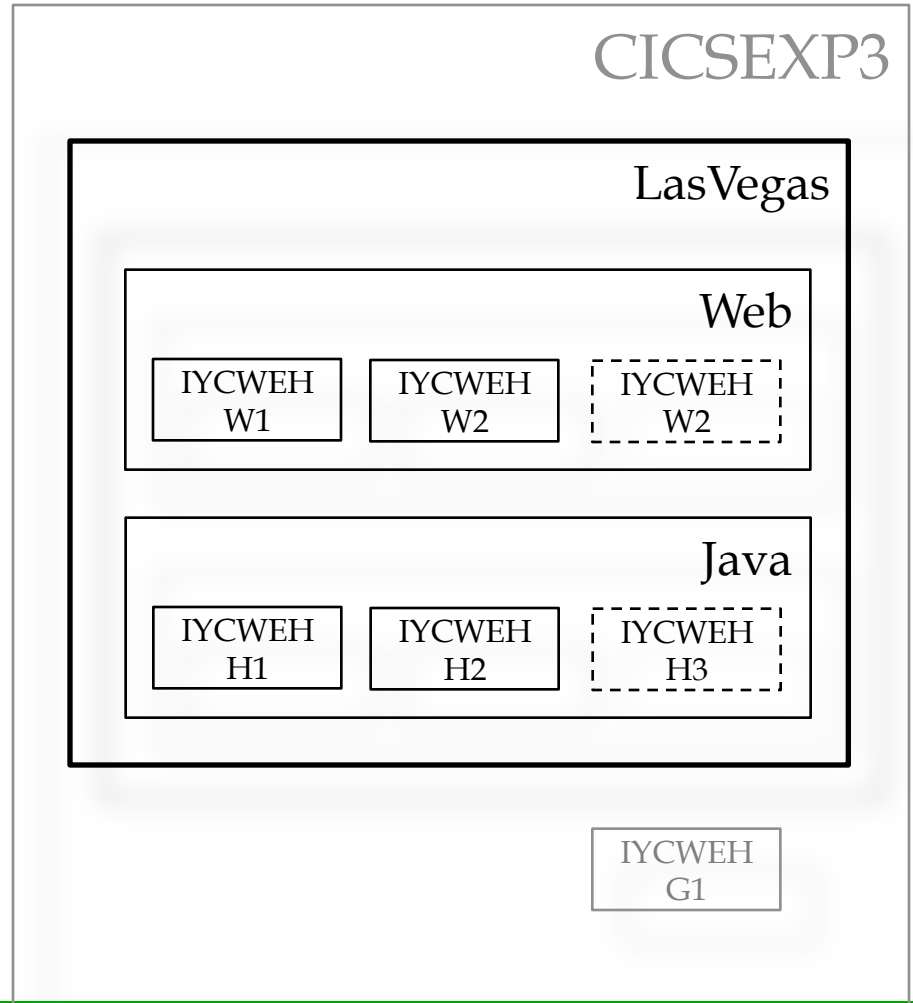
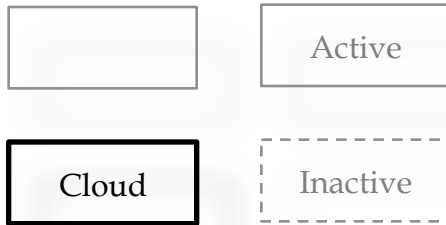
Existing CICSplex CICSEXP3



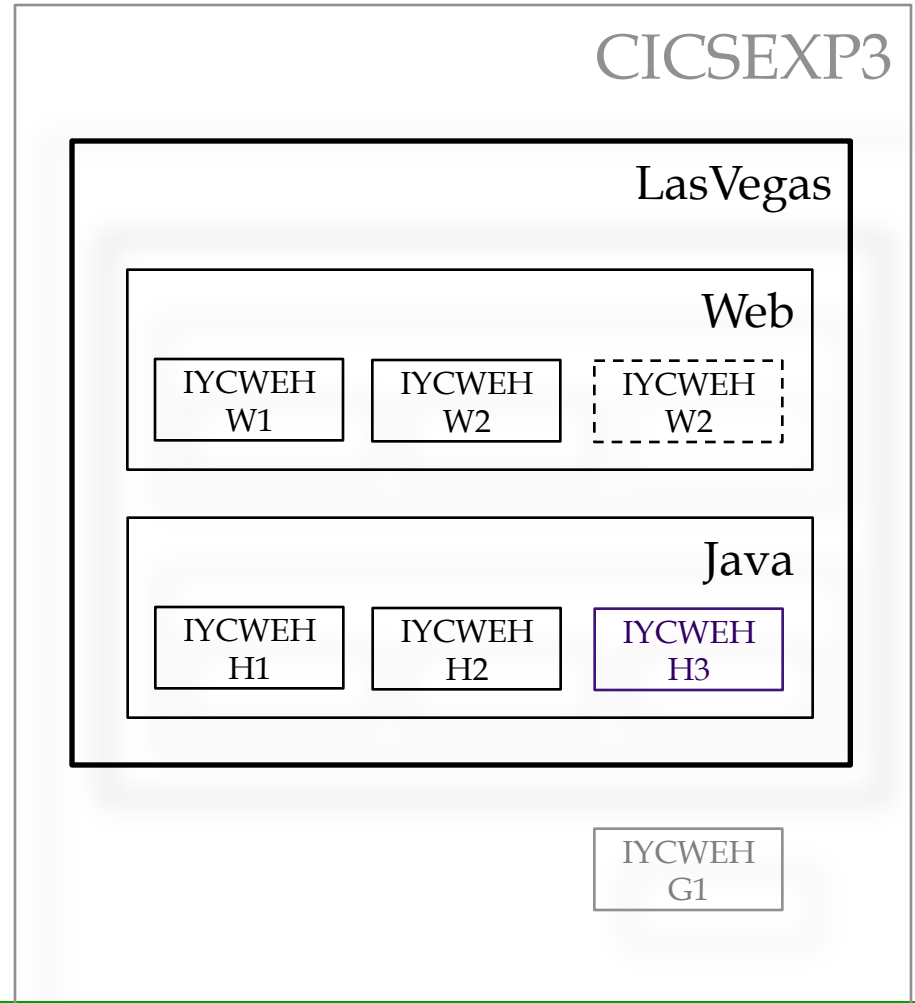
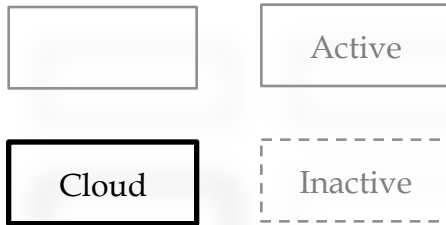
Adopt Groups in CICSEXP3



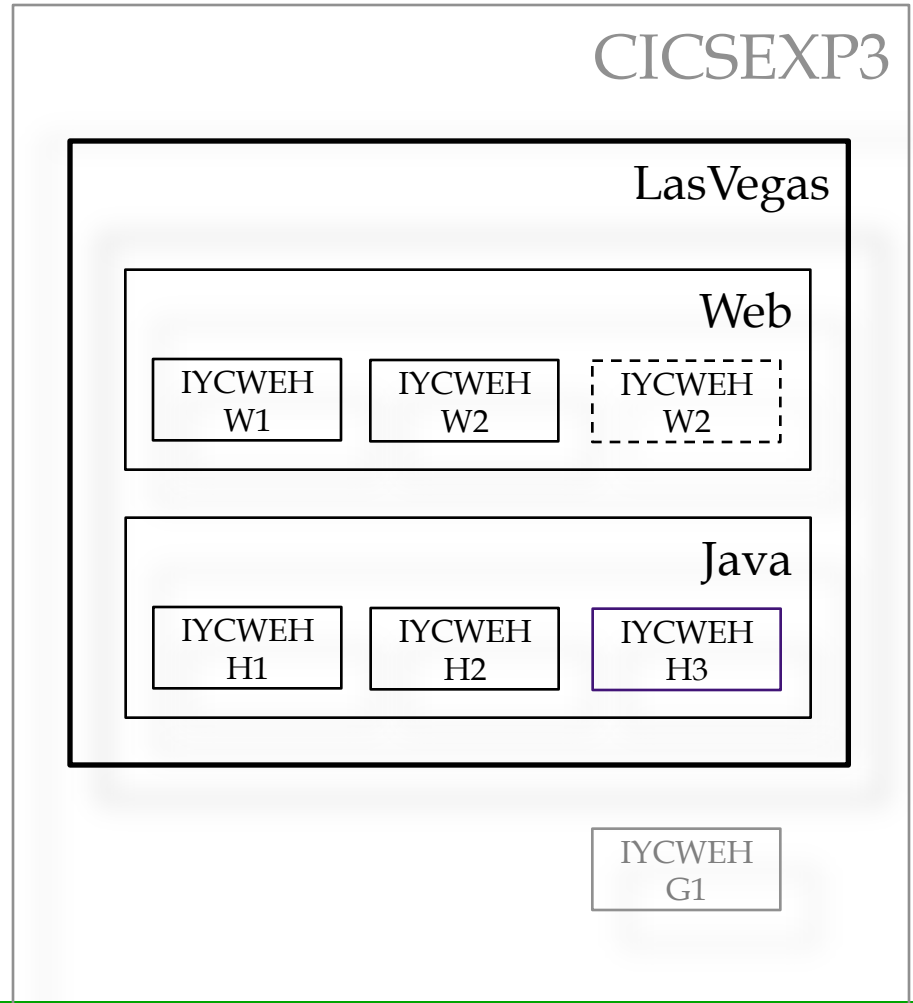
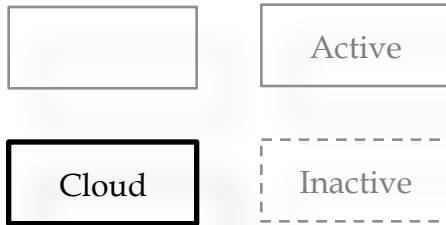
Adopt Groups in CICSEXP3



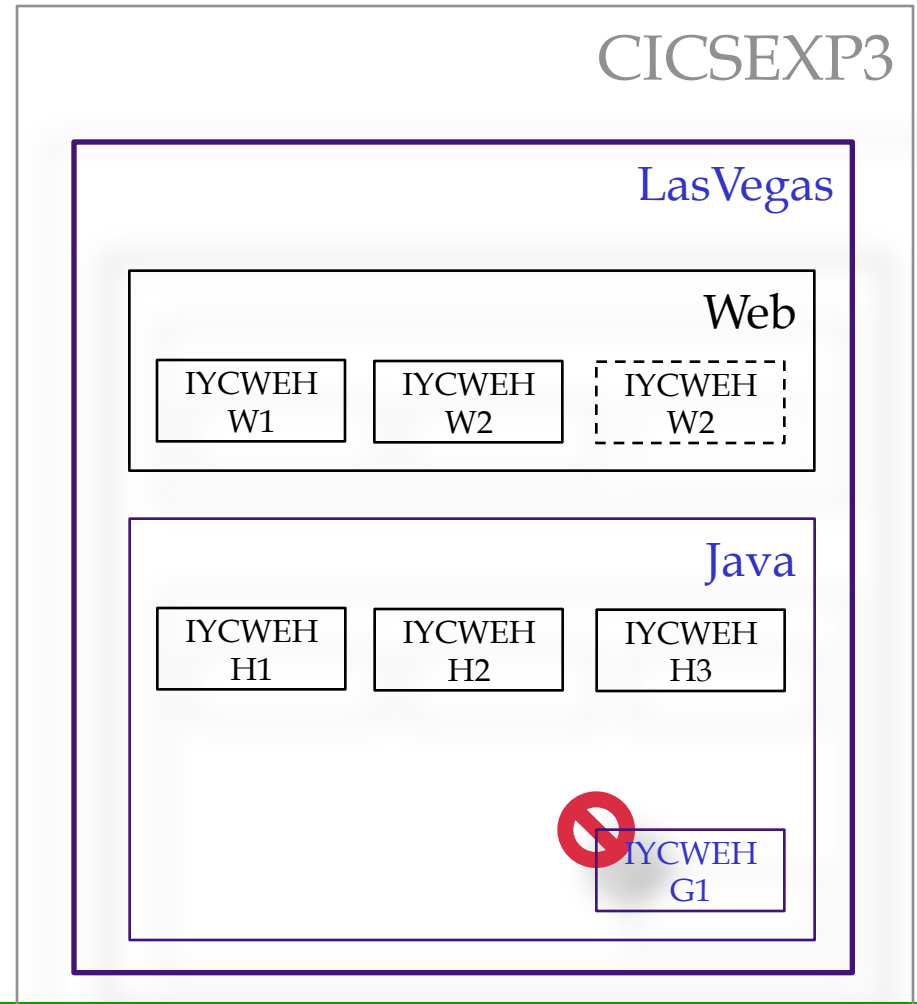
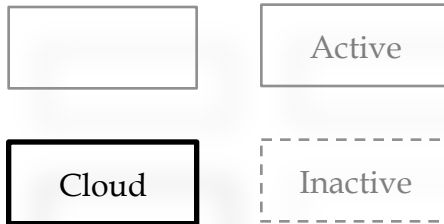
START/STOP Regions



ADDBUNDLE & REMOVEBUNDLE



Control Topology Changes



Standard zFS Directory Structure

```
/var/cicsts/CICSEXP3/platforms/berlin.platform  
/var/cicsts/CICSEXP3/platforms/lasvegas.platform  
/var/cicsts/CICSEXP3/platforms/...
```

```
/var/cicsts/CICSEXP3/berlin/applications  
/var/cicsts/CICSEXP3/berlin/bindings  
/var/cicsts/CICSEXP3/berlin/bundles  
/var/cicsts/CICSEXP3/berlin/platform/lasvegas.platform
```


New Security Profiles

- **CLOUD.DEF.context**
- **CLOUD.PLATFORM.context**
- **CLOUD.APPLICATION.context**

The screenshot shows the IBM Software Information Center interface. The search bar contains 'platform security' and the scope is set to 'All topics'. The left sidebar shows a tree view of search results, with 'Security for cloud-style deployments' highlighted. The main content area displays the breadcrumb path: 'CICS Transaction Server for z/OS, Version 5.1 > Securing > Security for CICSplex SM > Implementing CICSplex SM security'. Below this, the heading 'Security for cloud-style deployments' is shown, followed by a paragraph explaining that resources in a cloud-style deployment can be secured by creating RACF security profiles for CICSplex SM. A second paragraph explains that security for cloud-style deployments is set up similarly to other CICSplex SM components, involving identifying sets in security profiles and giving users authority to manage these resources.

Software information center

Search: Go Scope: All topics

Contents

- Security for CICSplex SM
 - Implementing CICSplex SM security
 - Determining who requires access to CICSplex SM
 - General requirements for CICSplex SM security
 - Creating profiles for the CICSplex SM data sets
 - Defining the CICSplex SM started tasks
 - Defining the CICSplex SM transactions in a CMAS
 - Defining the CICSplex SM transactions in a managed environment
 - Defining the CICSplex SM transactions for a WUI
 - Specifying CICSplex SM resource names in profile
 - Security for cloud-style deployments**
 - Activating simulated CICS security
 - Activating security parameters

CICS Transaction Server for z/OS, Version 5.1 > Securing > Security for CICSplex SM > Implementing CICSplex SM security

» **Security for cloud-style deployments**

You can secure resources in a cloud-style deployment by creating RACF® security profiles for CICSplex® SM to cover platforms and applications in a CICSplex.

Security for cloud-style deployments is set up in a similar way to security for other CICSplex SM components. You control access to a specific set of views (and their associated action commands) by identifying the set in a security profile. With these security profiles, you can give users authority to install, enable or disable, inquire on, or discard platforms and applications, and ensure that unauthorized users cannot create and administer these resources.

Platform Management using CICS Configuration Manager

Create Application and Platform definitions

Audit updates

Maintain consistency of non-bundle resources

Demonstration: CICS Configuration

The screenshot displays the Eclipse IDE interface for configuring CICS Cloud. The main window shows the 'Platform Definition (RETAIL)' configuration page. The left sidebar contains the 'Cloud Explorer' and 'Project Explorer' views. The 'Cloud Explorer' shows the server 'EHCM' and the CICSplex 'CICSEXP3' with a tree view including 'Belvedere ACTIVE,DISABLED', 'Decking ACTIVE,EMPTY', 'PIPERA', and 'RETAIL'. The 'Project Explorer' shows the project structure with 'cart.application' and 'retail.production.platform' selected.

The 'Platform Definition (RETAIL)' configuration page displays the following attributes:

Property	Value
▼ Basic	
Description	
Name	RETAIL
Platform Directory	/u/webster/CICSEXP3/retail.production/platform/retail.production.platform/
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The 'Attributes' tab is active, and the 'Problems' view shows 0 items. The status bar at the bottom indicates 'IZE01001 Connected us...ibm.com on port 27055' and 'Fetching children of CICSEXP3'.

Summary

An Application Binding is be used to deploy the same Application to different Platforms

A Platform can evolve to meet the requirements of new or updated Applications and changing operational demands

CICS DA can help you quickly set up your Platform

CICS Configuration Manager enables you to efficiently manage the new Application & Platform definitions

Questions?

More Information

- “CICS TS”
 - <http://www.ibm.com/cics/>
- developerWorks Community
 - <https://www.ibm.com/developerworks/mydeveloperworks/blogs/cicsdev/>
- “Did you say mainframe?! ” Podcasts
 - <http://itunes.apple.com/us/podcast/did-you-say-mainframe-!/id275831334>

CICS TS Highlights

Monday

1030

CICS Portfolio update

1300

CICS TS: A Technical Overview

Tuesday

0900

CICS TS: Touching the Cloud - Introducing Enterprise Services

1030

CICS TS: Introduction to Applications as first class entities

1030

CICS Portfolio update

1300

CICS TS: Introduction to Platforms as deployment targets

1430

CICS TS: A Technical Overview

Wednesday

0900

CICS TS: Application Management Update

1030

CICS TS: Platform Management Update

1300

CICS in the Cloud: Hands-On Lab

1615

CICS Tools Family Update

Thursday

1030

CICS TS: Support for WebSphere Application Server Liberty profile

1300

CICS TS: Java and the JVM Server

1430

CICS TS: Scalability Enhancements