IBM

Take service agility, operational efficiency, and cloud enablement to a new level with

CICS Transaction Server for z/OS V5.2

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CICS@ 45

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Even though the world is awash in unstructured data, it's the transactional data that decision makers are focused on right now. And since the mainframe holds the vast majority of that data, it has a real role to play.

80%

of world's corporate data resides or originates on mainframes

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Systems of Engagement

With >10 billion connected mobile devices, you need a platform that provides…

Scalability

scale to handle the huge number of transactions

Reliability

deliver proven mobile end-to-end integration

Security

ensure that your customer data is protected

Integrate with CICS on System z

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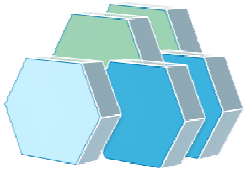
Cloud platforms & integration

Instant services, runtimes, and infrastructure for cloud based applications.

Integration with existing Systems of Engagement



SOFTLAYER®
an IBM Company

Clients using TXSeries who need to balance costs against growth.

TXSeries on Softlayer for cloud-style scalability

Simplified system management and rapid application deployment.

On premise pattern based cloud deployment.

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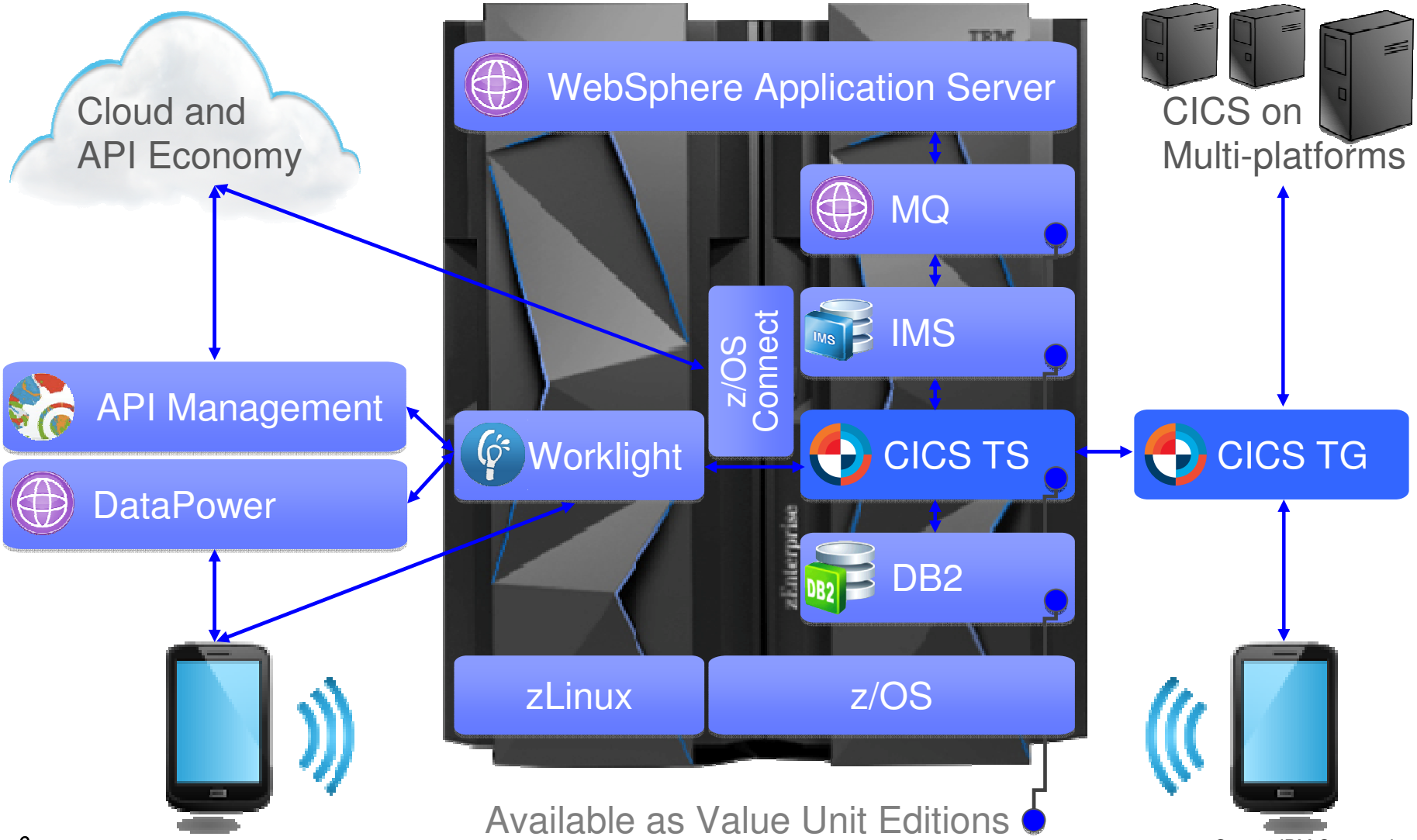
Systems of Engagement Meet Systems of Record



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CICS TS V5 Vision

Service Agility

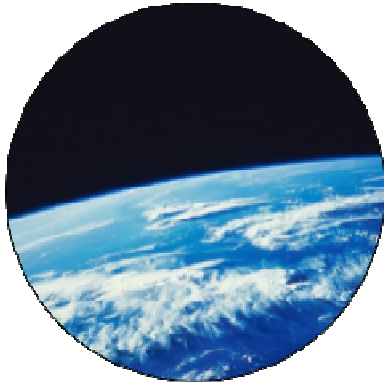
Runtime support for production ready web applications.

Integration with mobile applications.

Operational Efficiency

Increased system capacity and capability to achieve more with less.

Automatic control of critical resources using policies.



Cloud Enablement

Simplified system management and rapid application deployment.

On premise pattern based cloud deployment.

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Purpose

IBM CICS Transaction Server V5

is the premier enterprise grade mixed language application server

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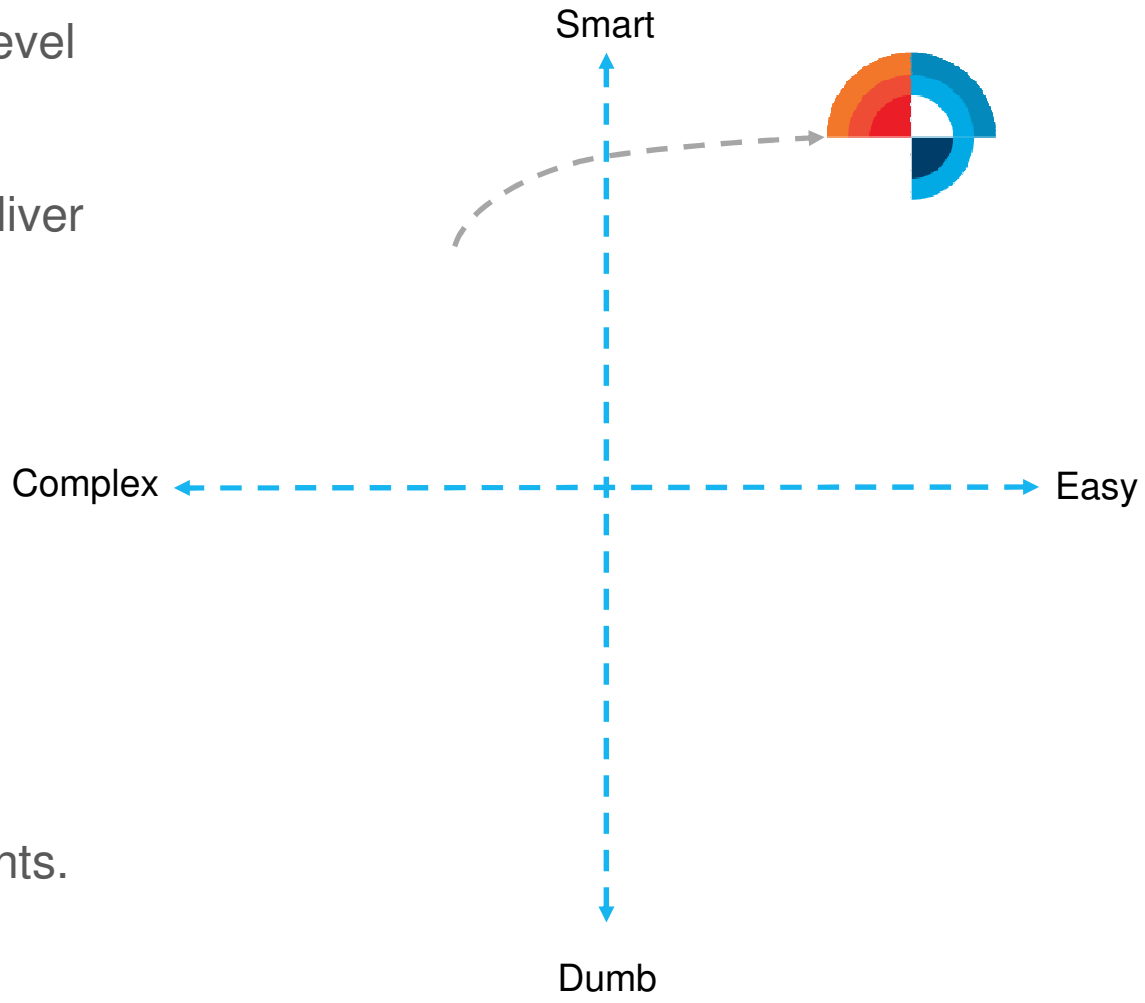
CICS Vision

As CICS has got smarter, the level of complexity has increased.

CICS TS V5 will continue to deliver more advanced capabilities.



At the same time, CICS will simplify common tasks, and provide automatic features to better manage your environments.

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CICS Transaction Server V5.1

Service Agility

A production-ready web container, built on IBM WebSphere Application Server Liberty Profile, for the deployment of lightweight Java servlets and Java Server Pages (JSPs).

Operational Efficiency

Greater capacity is delivered through significant vertical and horizontal scalability enhancements. Fewer regions can now run the same workload.

Cloud Enablement

First-class applications enable the creation of agile services from existing assets. First-class platforms enable applications to be rapidly promoted from development and test environments into production.

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CICS Transaction Server V5.2

Service Agility. Operational Efficiency. Cloud Enablement

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CICS Transaction Server V5.2

1. Integrates mobile capabilities and broadens the web programming model, ***without requiring additional middleware***

2. Support distributed security standards and automatically safeguard critical runtime resources, ***without requiring additional system code***

3. Deploy and manage several versions of a multi-program application and run them concurrently, ***without requiring additional regions***

* Various work on the Technical Foundation

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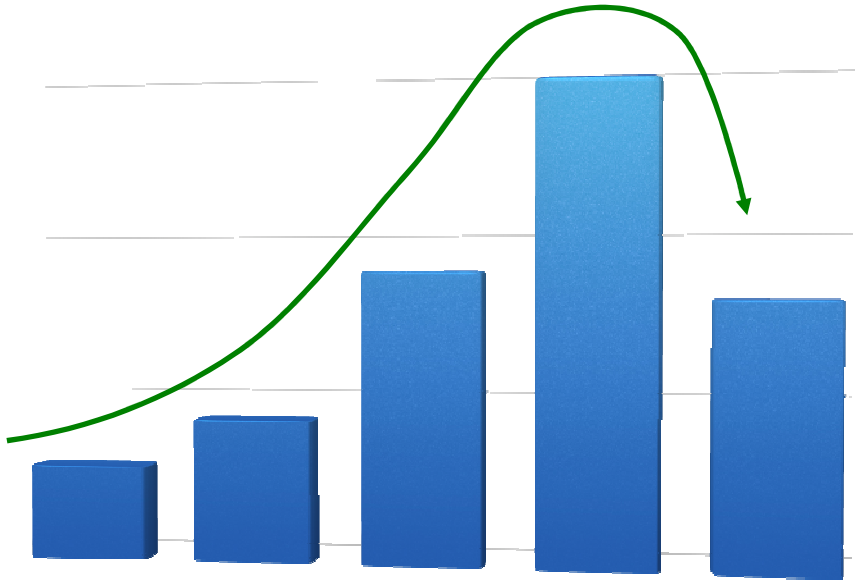
Service Agility

1

Integrates mobile capabilities and broadens the web programming model, ***without requiring additional middleware***



Number of systems

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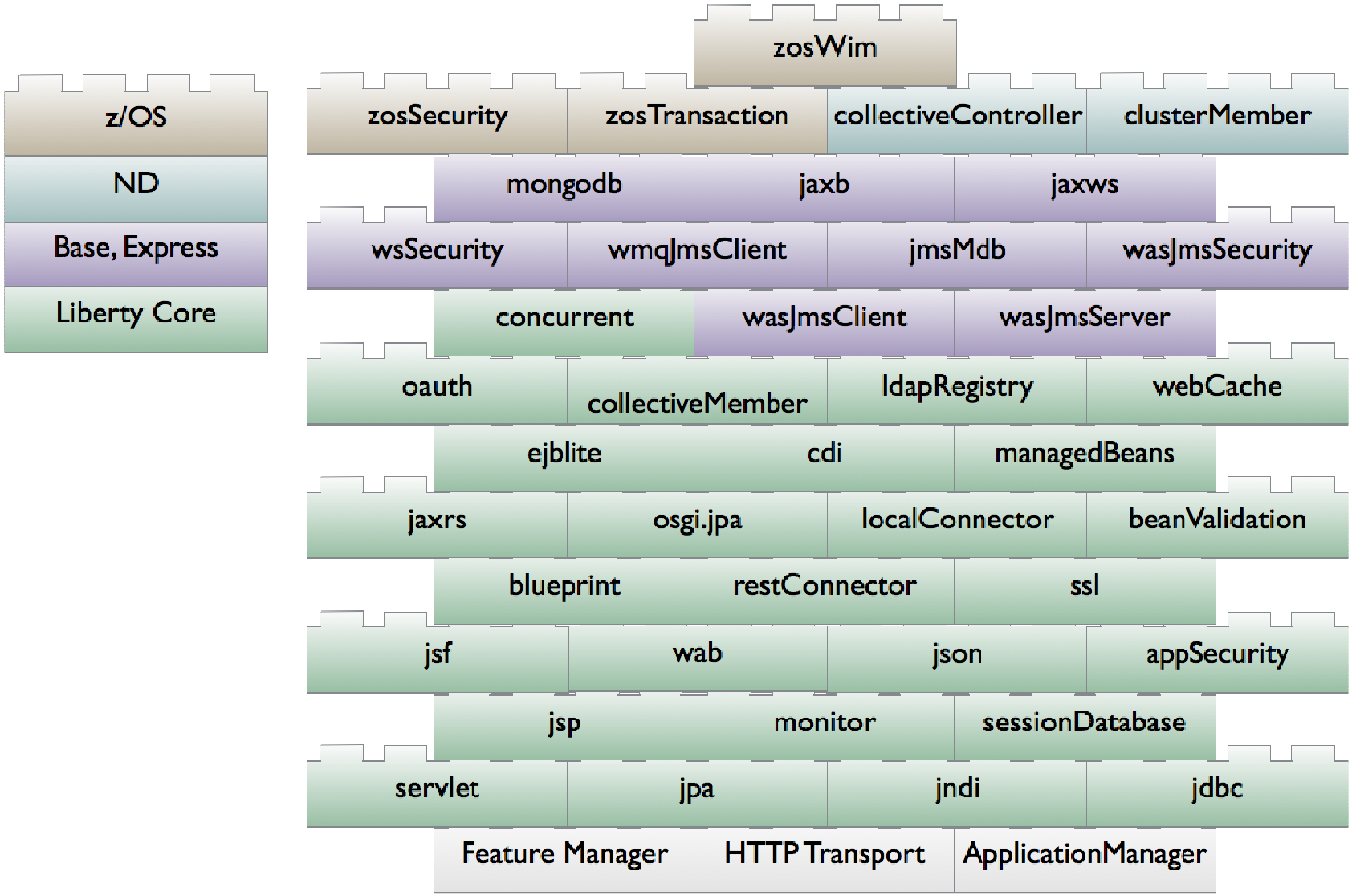
WebSphere Application Server Liberty Profile



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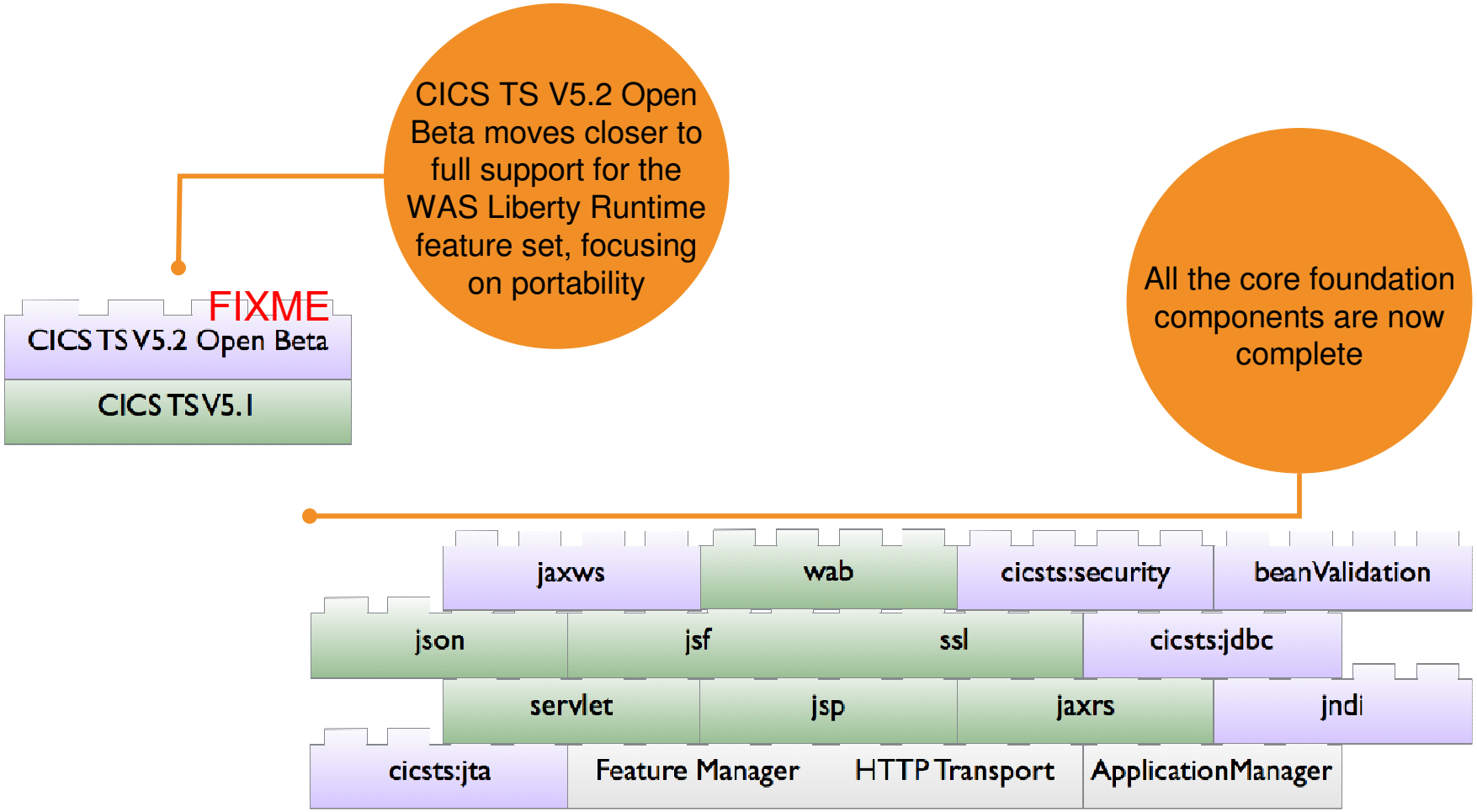
WebSphere Application Server Liberty Profile within CICS TS V5.2



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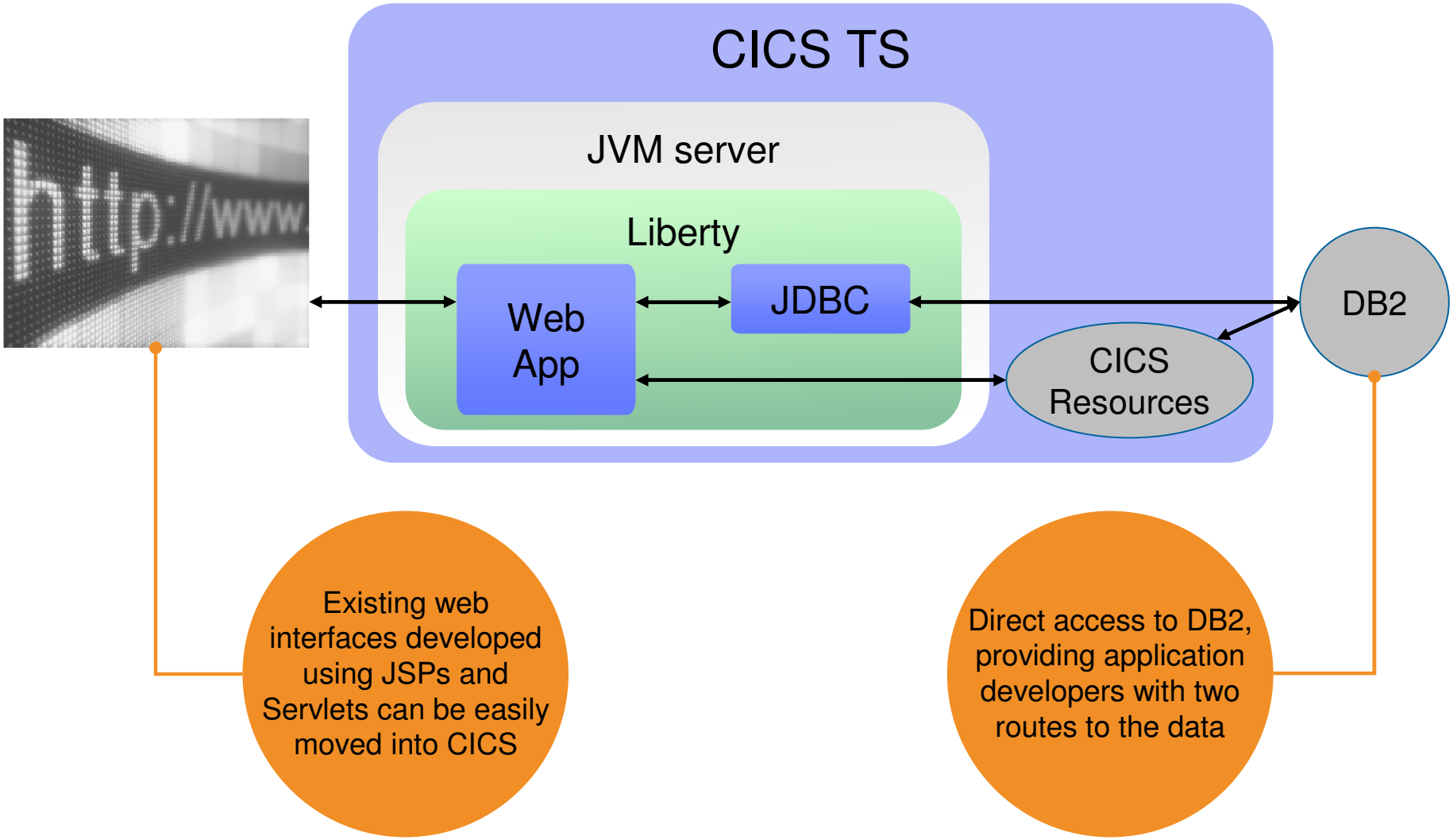
Liberty Web Apps in CICS TS V5.2



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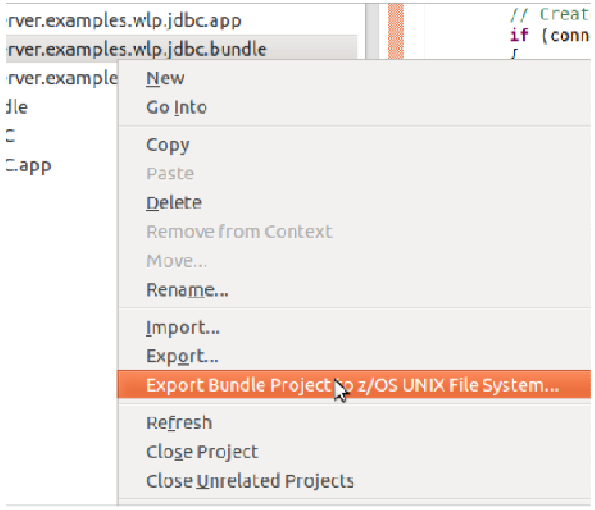
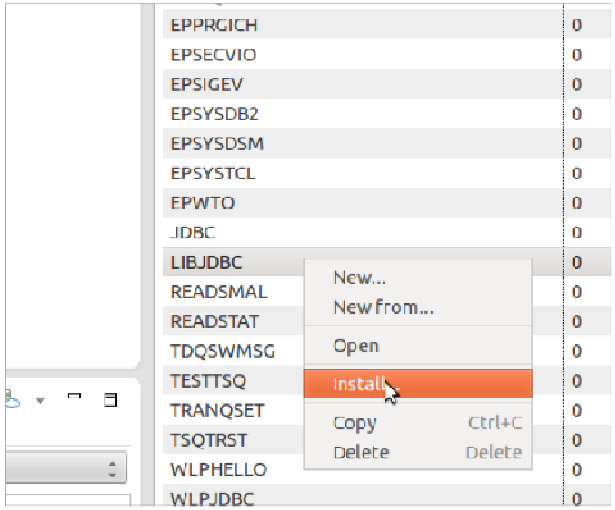
Liberty scenario

Move JSP or Servlet presentation code into CICS Transaction Server

```
 */
protected void doGet(HttpServletRequest request, HttpServletRes
{
    // obtain the WHERE clause and connection type from the rec
    String whereClause = request.getParameter("whereClause");
    String connectionType = request.getParameter("connectionTyp

    // set the response contentType and character encoding
    response.setContentType("text/xml");
    response.setCharacterEncoding(ASCII);

    // Cache the Response output stream
    ServletOutputStream out = response.getOutputStream();

    // begin writing XML to the response output stream
    StringBuilder xml = new StringBuilder();

    // Create a DB2 sample with DB2 connection
    CICSDB2DynamicSQLExample db2Sample = null;
    try
    {
        db2Sample = new CICSDB2DynamicSQLExample(connectionType
    }
    catch (Exception e)
```





A

Step 1

Modify application data logic to make JCICS API calls or direct JDBC calls, if required

B

Step 2

Package application into a EBA for deployment into CICS Liberty

C

Step 3

Install CICS application into CICS Liberty Server and enable using the CICS Explorer

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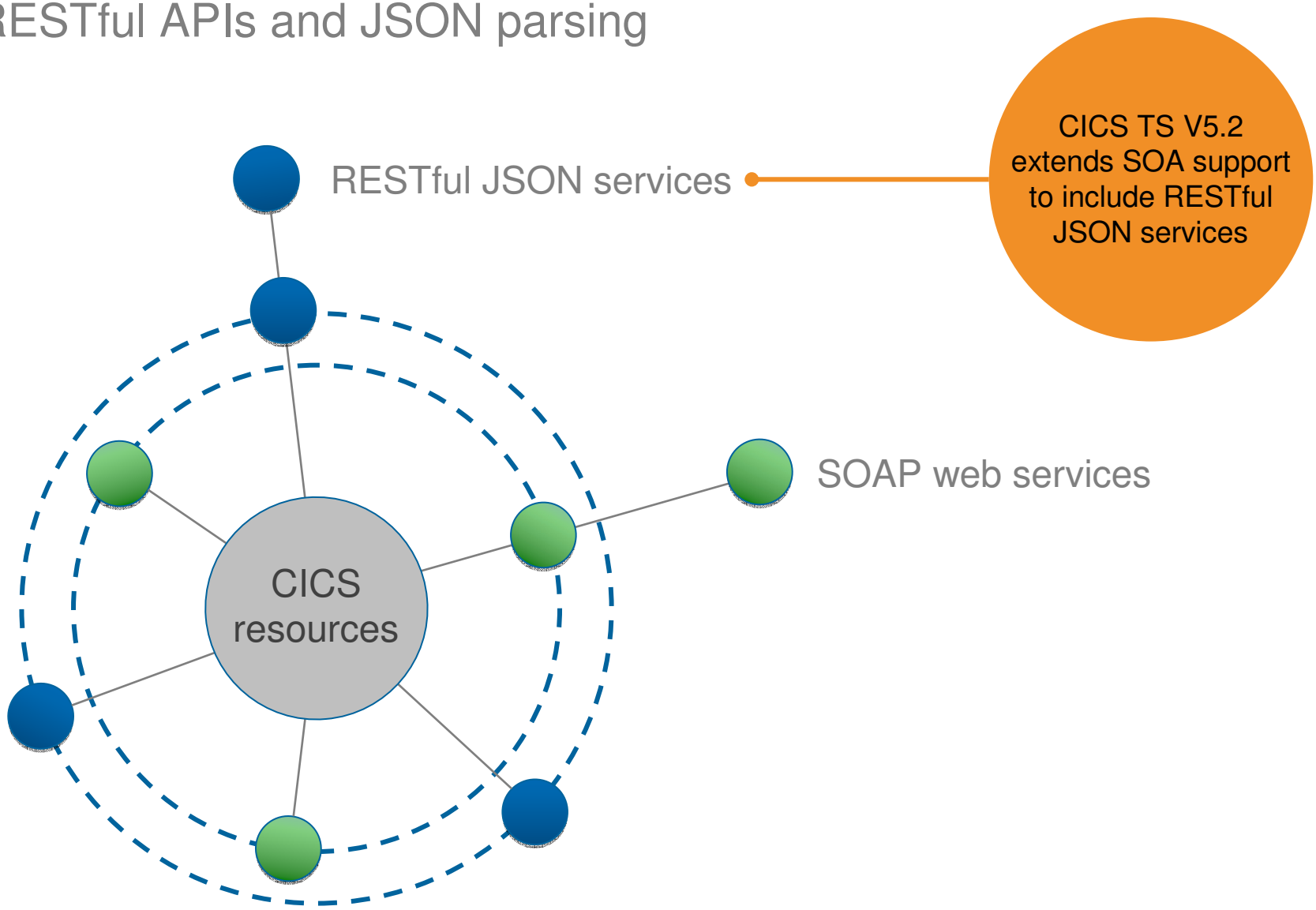
RESTful APIs and JSON parsing



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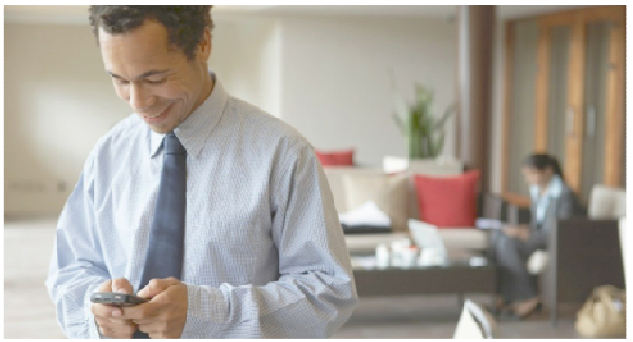
Mobile scenario

Connect directly to CICS from Worklight using end-to-end JSON

```
function getCustomerDetails(custNum) {
    var pathURL = "GENAPP/getCustomerDetails";
    var request=
        {
            "LGICUS01Operation":{
                "ca" : {
                    "ca_request_id" : "01ICUS",
                    "ca_return_code" : "00",
                    "ca_customer_num" : custNum,
                    "ca_num_policies" : ""
                    }
            }
        };
```



A

Step 1

DFHLS2JS to generate the JSON artefacts for the target CICS service.

B

Step 2

Mobile developer uses JSON schema to build a Worklight adapter.

C

Step 3

Frontend mobile developer calls the Worklight adapter which calls the service hosted in CICS.

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Operational Efficiency

2

Support distributed security standards and automatically safeguard critical runtime resources, ***without requiring additional system code***

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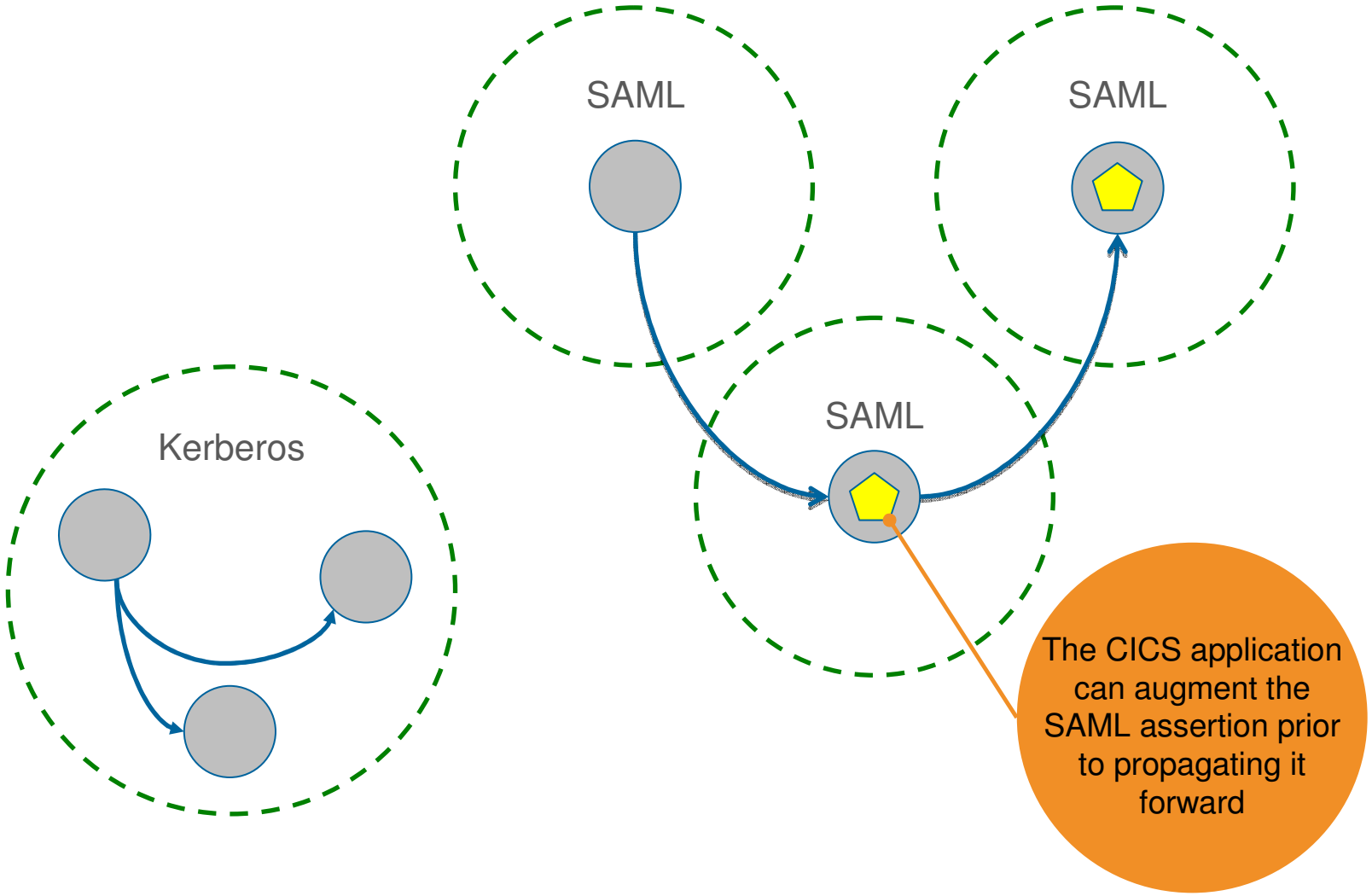
SAML and Kerberos security



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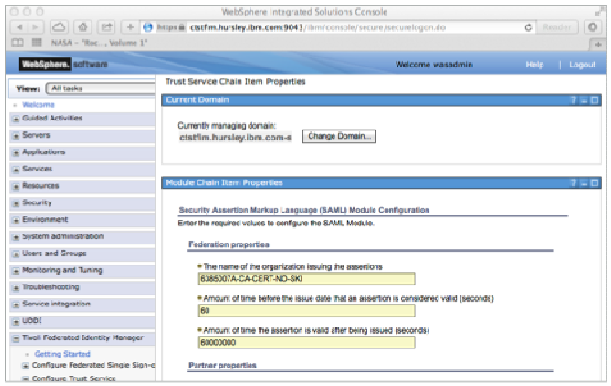
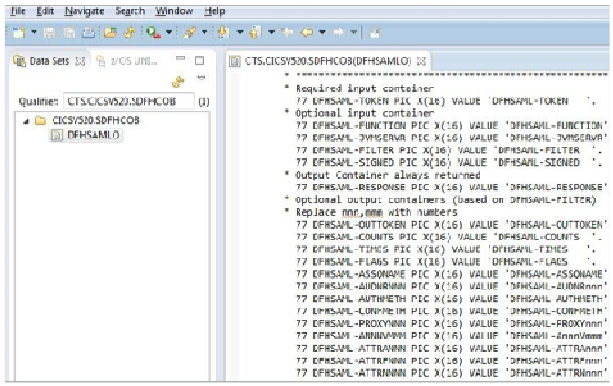
SAML Security scenario

A CICS application developer writes a COBOL program with behavior that's dependent on the SAML security token





A

Step 1

Client requests SAML assertion from Tivoli Federated Identity Manager or Datapower

B

Step 2

CICS COBOL application extracts SAML containers from DFHSAML channel

C

Step 3

The application can add additional attributes to the assertion for downstream components

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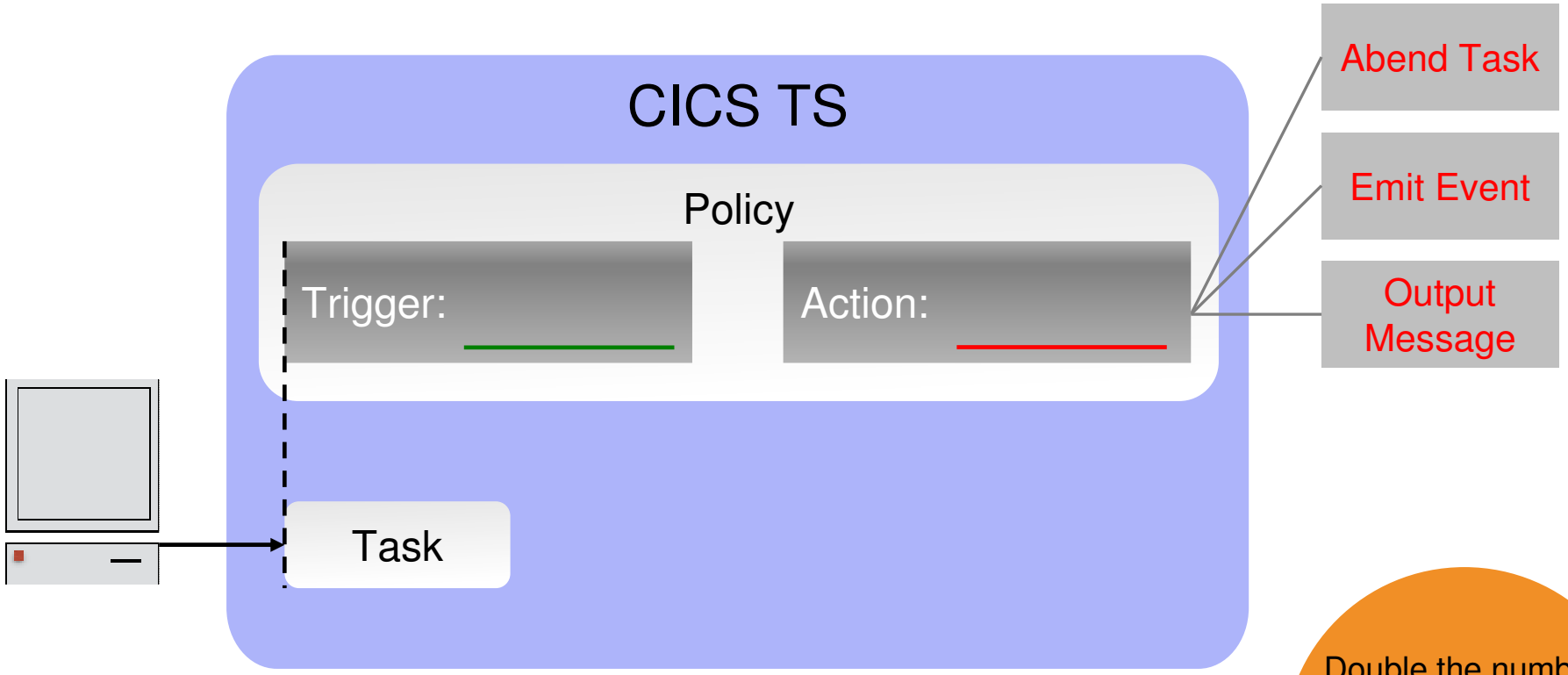
SAML and Kerberos security



New Triggers	Cumulative Time	Syncpoint	Start	TSQ/TDQ
CICS V5.1	DB2 SQL	Files	Storage	CPU Time

Double the number of triggers are available to provide greater level of control to CICS

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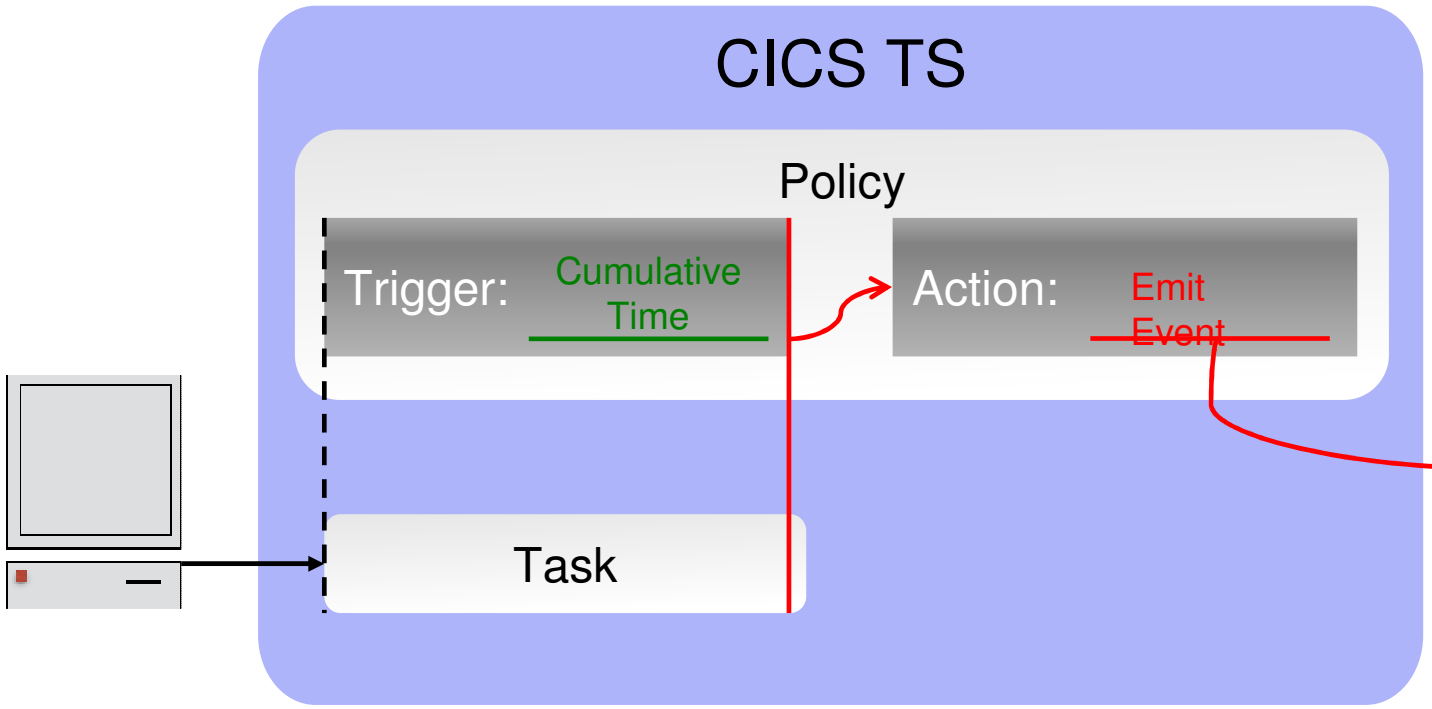
SAML and Kerberos security



Whilst a policy operates within a region, it can be deployed to a platform, or associated with a specific application

Dashboard Update

New Triggers	Cumulative Time	Syncpoint	Start	TSQ/TDQ
CICS V5.1	DB2 SQL	Files	Storage	CPU Time

A range of powerful actions can be specified for each policy threshold breach

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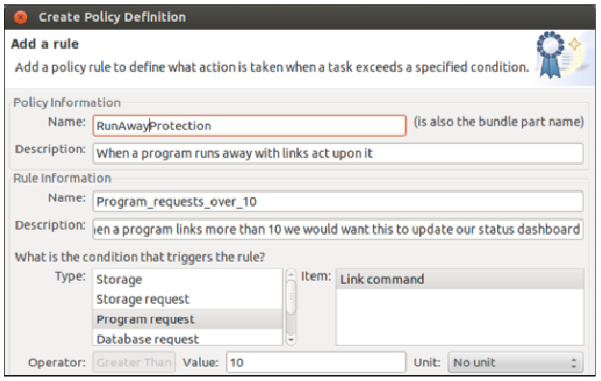
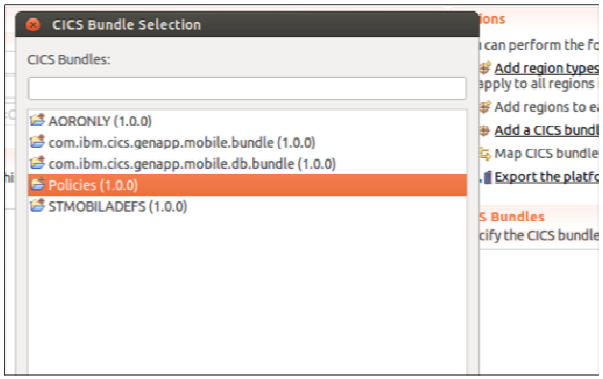
Policy scenario

Define a policy to trigger an event when an application consumes too much total elapsed CPU time





A

Step 1

Define the policy thresholds and trigger action that CICS should take

B

Step 2

Associate the policy with the appropriate platform or application and deploy

C

Step 3

When the threshold is breached, CICS triggers an event, updating an operations dashboard

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Cloud Enablement

3

Deploy and manage several versions of a multi-program application and run them concurrently, ***without requiring additional regions***

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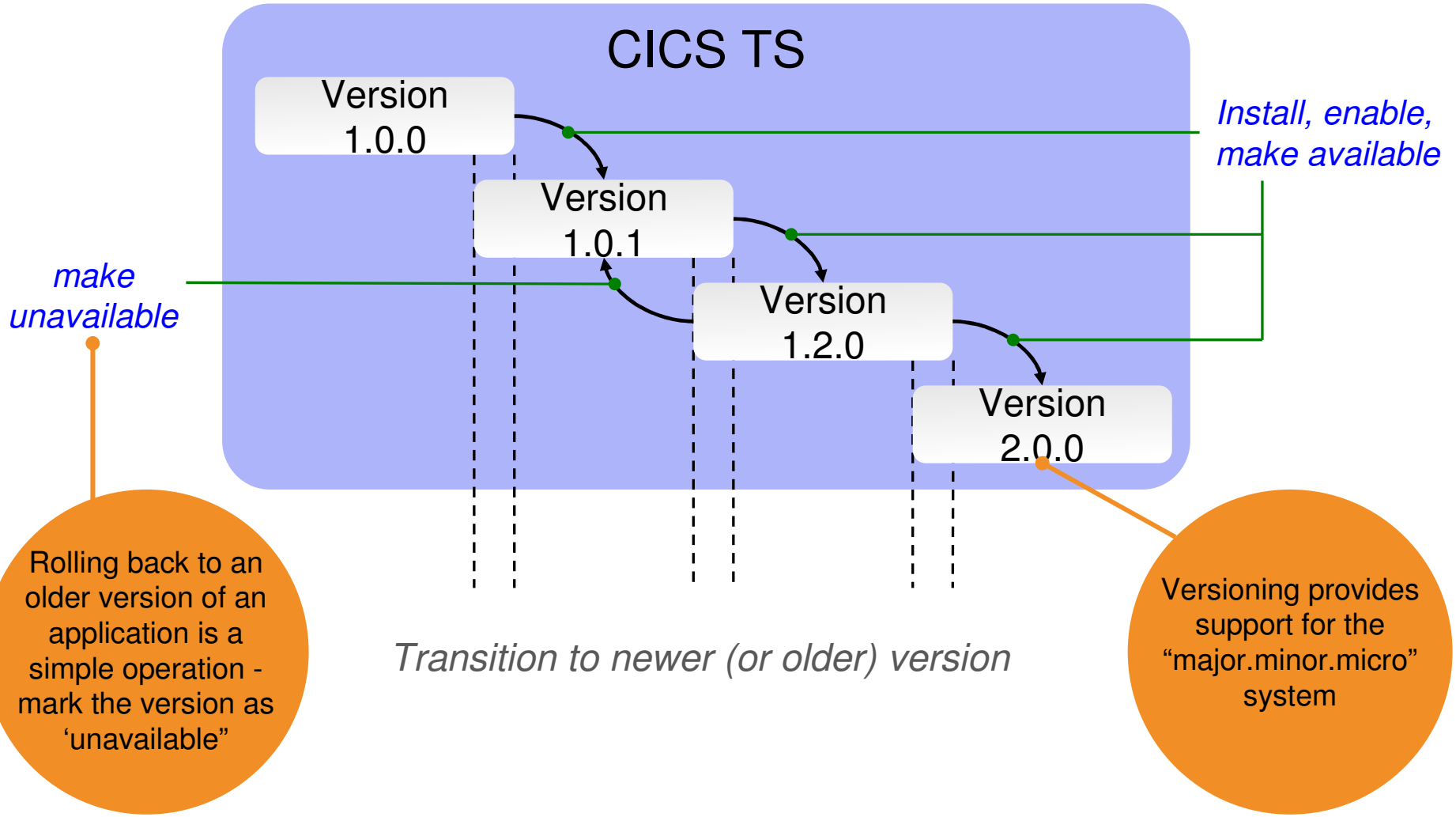
Multi-versioning



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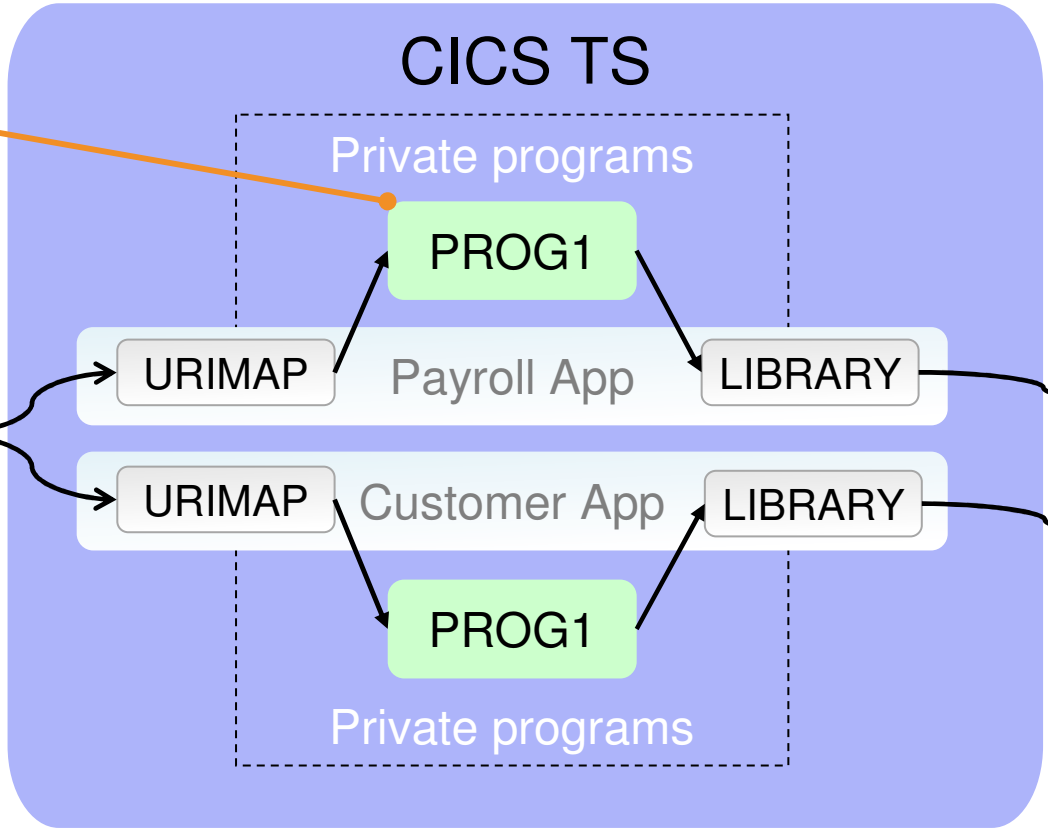
Multi-versioning

Application packaging helps you consolidate onto fewer regions by providing private program definitions



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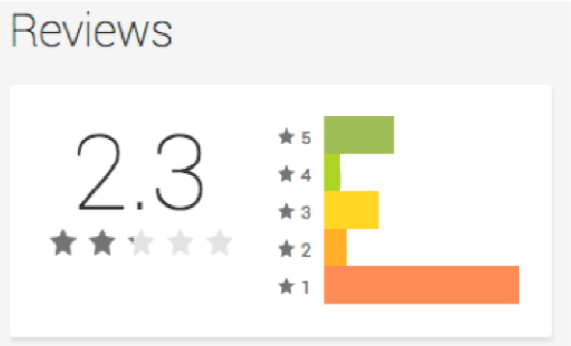
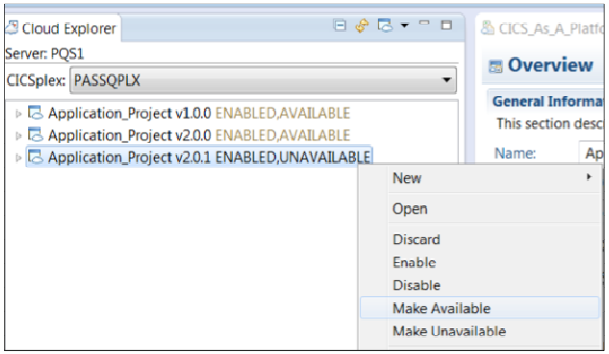
Multi-versioning scenario

A bug has been found and an urgent fix is required immediately





A

Step 1

After fixing the bug in the code, repackage it with a new micro version number

B

Step 2

Once installed, switching to a new version of the application is simply a case of making it “available”

C

Step 3

CICS takes care of moving clients to the new version of the application across all regions within a platform

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Solution Packs for CICS and z/OS – convenience and affordability

Four Tools Solution Packs

CICS Optimization Solution Pack for z/OS V5.2

Quickly optimize performance and availability of CICS systems and applications with CICS Interdependency Analyzer, CICS Deployment Assistant, CICS Performance Analyzer, CICS Configuration Manager

IBM Problem Determination Solution Pack for z/OS V1.1

Cost effective problem analysis for z/OS sub-systems and languages with both GUI & 3270 interface with File Manager for z/OS, Fault Analyzer for z/OS, Debug Tool for z/OS, Workload Simulator for z/OS and OS/390, Hour Glass, Data Set Commander

CICS Modernization Solution Pack for z/OS V5.1

Understand deployed CICS application and system resources, connect from non-mainframe devices, and create CICS infrastructure to support the increased workload with CICS Interdependency Analyzer, CICS Deployment Assistant, CICS Transaction Gateway for z/OS

IBM Problem Determination Testing Solution Pack for z/OS V1.1

Reduce testing time, improve application reliability and user diagnosis capabilities, and improving user's ability to regulate and monitor testing activities with Debug Tool for z/OS , Workload Simulator for z/OS and OS/390, Hour Glass

Upgrade from standalone products using trade-ups

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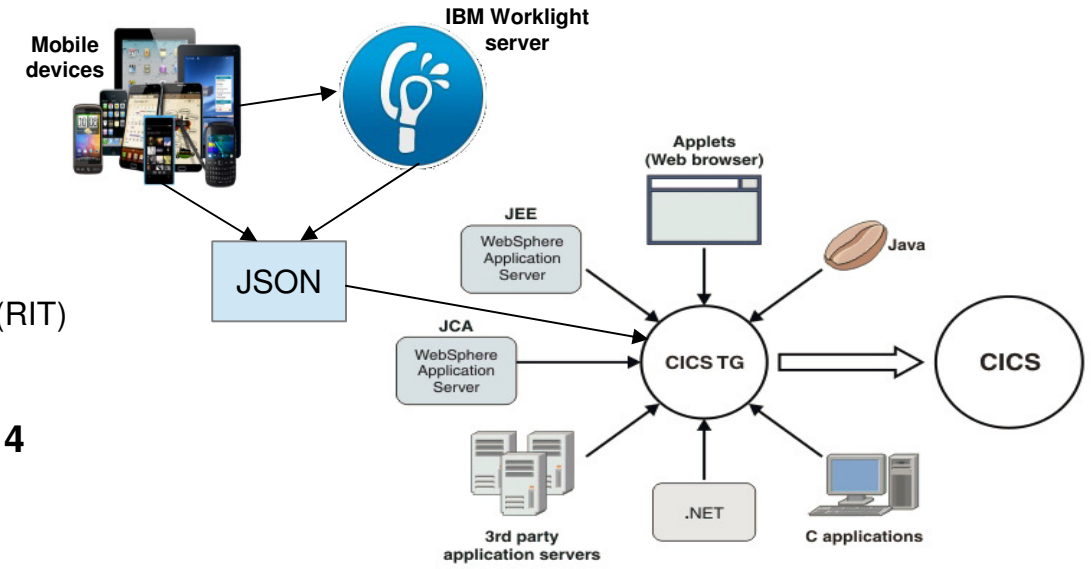
CICS TG for z/OS V9.1 open beta

Mobile integration and more

What's in it?

- **Mobile integration** (JSON web services)
- Access to channel data for request monitoring
- Systems management for IPIC connections
- IPIC heartbeat
- SSL connectivity for .NET
- Integration with IBM Rational Integration Tester (RIT)



Open beta available Friday, April 25th 2014

- Built upon the V9.0 foundation
- Not for production use
- Time limited
- The CICS TG plug-in for CICS Explorer V5.2 is also available

Try it out and tell us what you think at

ibm.com/cics/openbeta

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Resources

- English web pages updated for V5.2 – translated versions will appear within 3 months
- Updated datasheets on product web pages - zip
- Announcement letters – CICS TS link, CICS Tools link
- Launch presentations and replays – CICS community – CICS V5.2 launch wiki page
- Analyst report: IBM CICS Tools: Discovery and Optimization for the Next Generation link
- Prezi: Threadsafety & Consolidation - extracting optimum performance from CICS
- Social media
  - Catch up with CICS on Facebook at CICS Hursley or WebSphere and CICS Support
  - Check out our CICS videos on YouTube
  - Follow IBM_CICS on Twitter
  - Track multiple social channels by using the CICS Social Media Aggregator.
  - Interact with CICS development on CICSdev and the CICS and WebSphere Support Blog
- Subscribe to
  - CICSbuzz http://www-01.ibm.com/software/htp/cics/enews/
  - Quarterly Support Newsletter for CICS Transaction Server and CICS Tools

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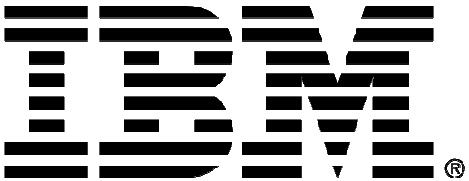
IBM Resources

- Launch presentations and replays – CICS community – CICS V5.2 wiki page
- CICS V5.2 Messaging Guide – to be available on wiki
- Impact presentations with CICS V5.2 content – to be available on wiki
- Sales plays and kits (current at V5.1 – will be updated for V5.2)
  - CICS New Workload – link
  - CICS and PD Tools – link
  - CICS TS – link
  - CICS Tools – link
  - PD Tools Family master sales link

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