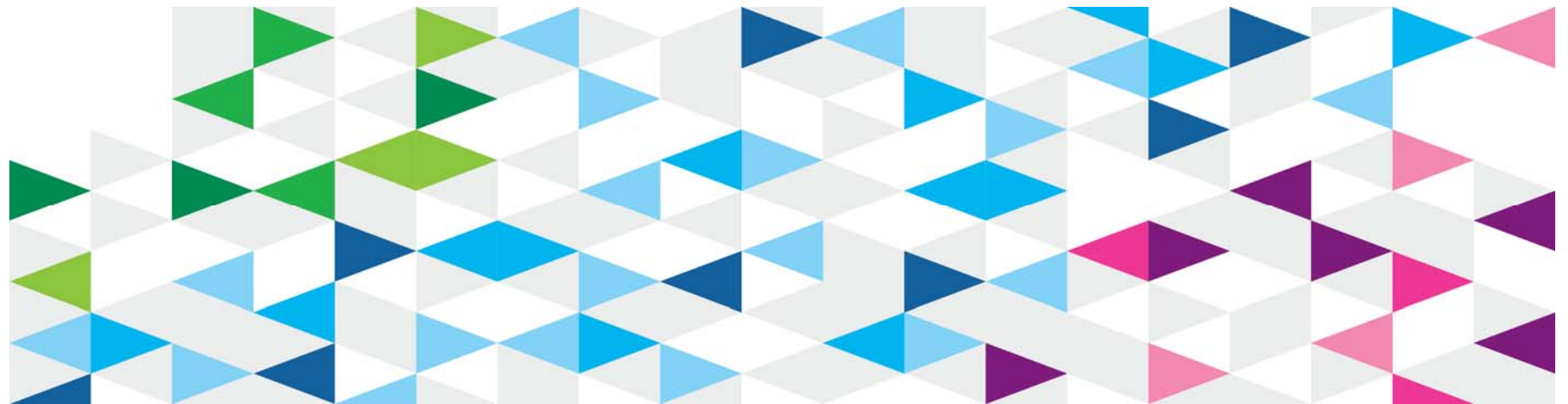


CICS Real World Mobile Examples and Demos

Andy Armstrong,
CICS System Test – Senior Inventor
IBM Hursley - UK

George Bogner
CICS Client Technical Specialist
IBM S&D North America

Michael Lavacca
zRational Client Technical Specialist
IBM S&D North America



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Performance is based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput or performance that any user will experience will vary depending upon many factors, including considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve results similar to those stated here.

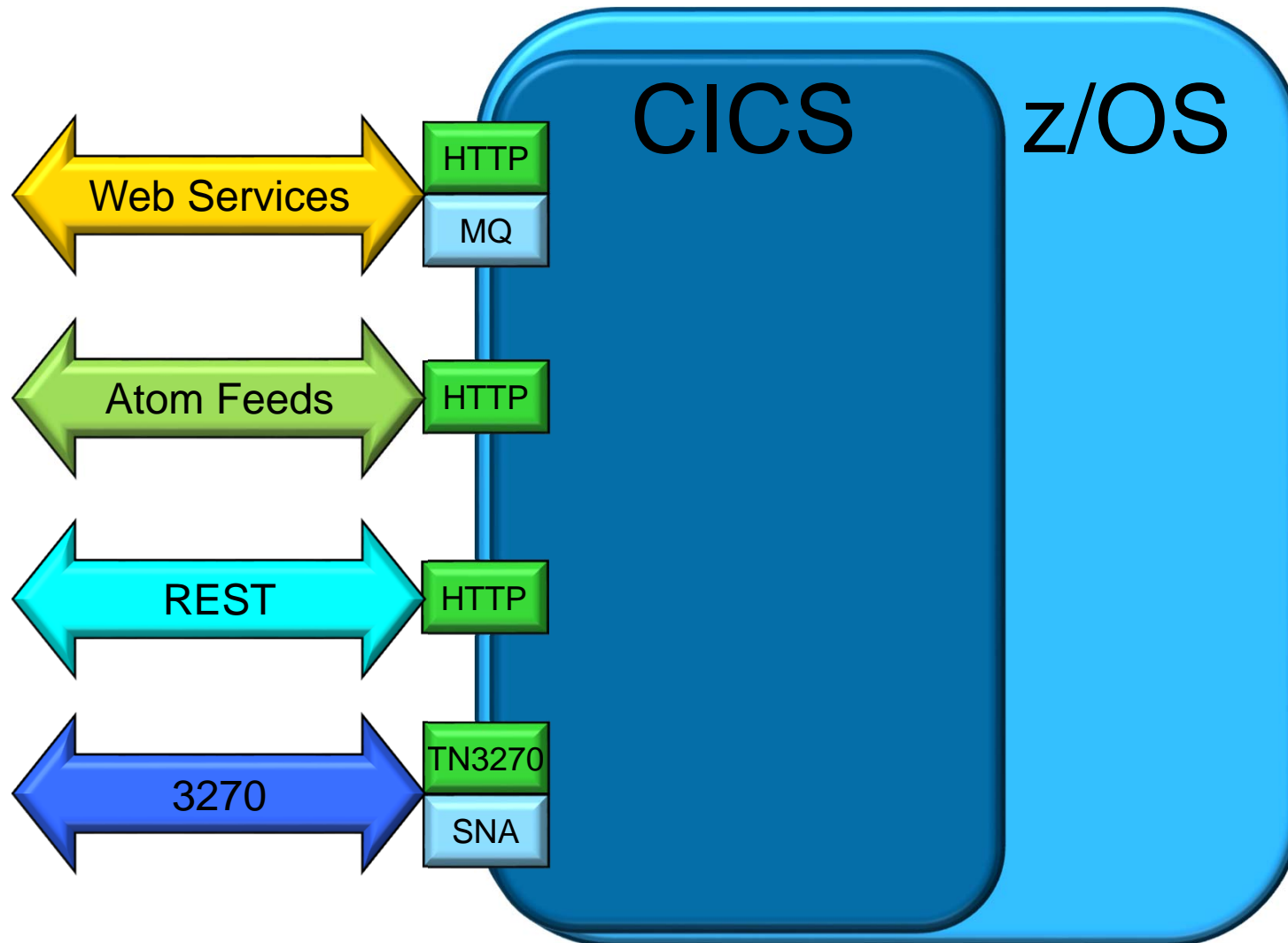
10 Billion devices by 2020

61% of CIOs put mobile as priority

45% increased productivity with mobile apps

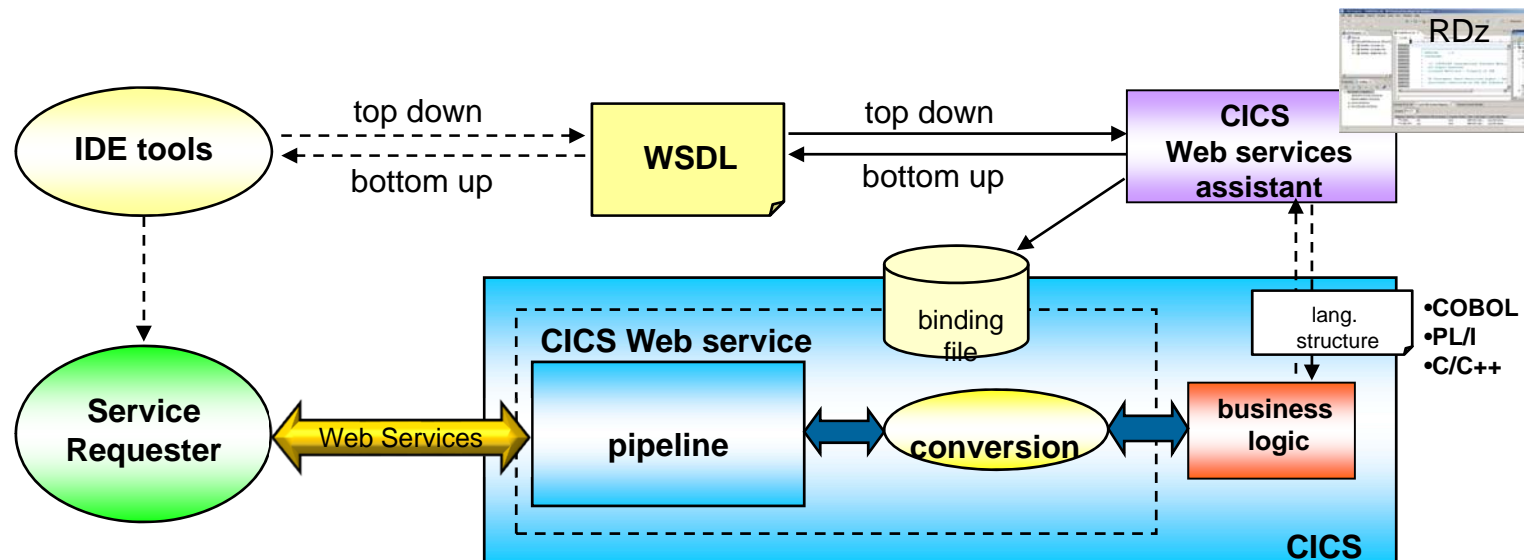






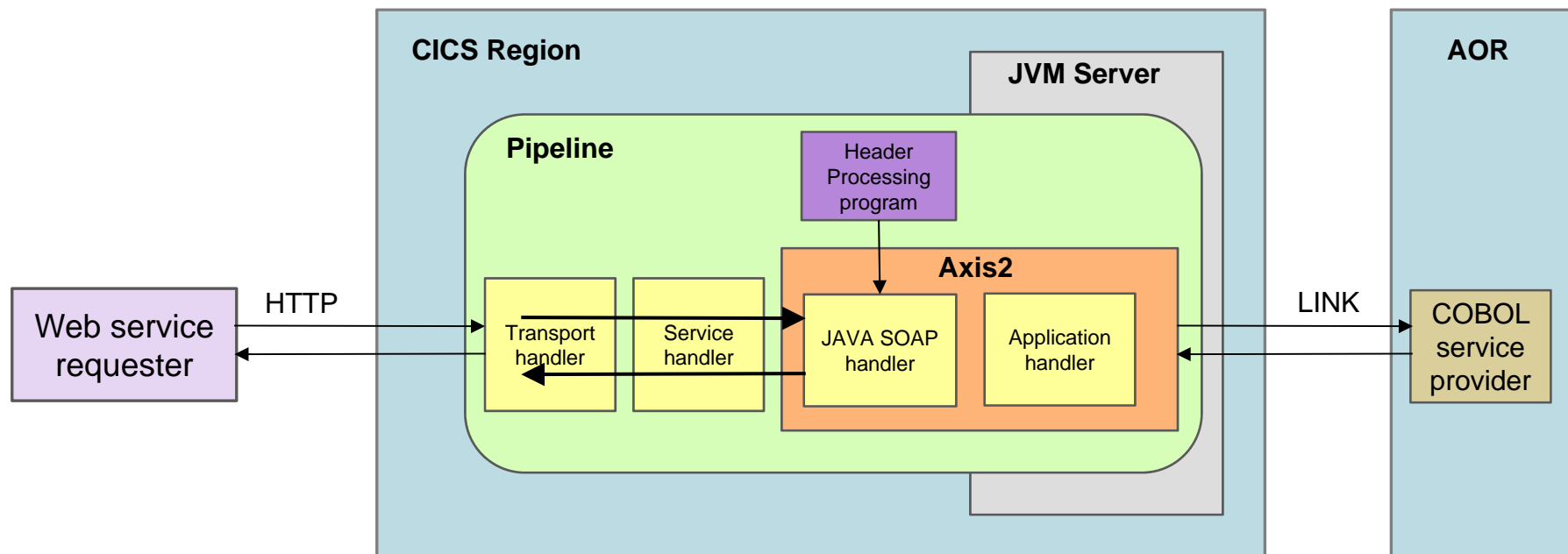


- CICS provides the necessary tools and runtime
 - WSDL can be generated from a utility or RDz
 - a bottom up approach from an existing application
 - Utility or RDz can generate language structures from WSDL
 - a top down approach to a new CICS service provider programs
 - For CICS service requester programs
 - CICS provides XML-language structure (COMMAREA) conversion



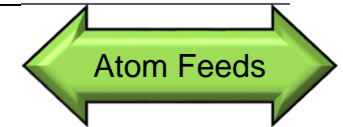


- **CICS includes the Axis2 technology to run Java web services**
 - Axis2 is an open source web services engine from the Apache foundation
- **Axis2 is a Java-based implementation of a web services SOAP engine**
 - Java workload is eligible for running on a zAAP processor
- **Supports the JCICS API, so you can LINK to existing CICS Applications**

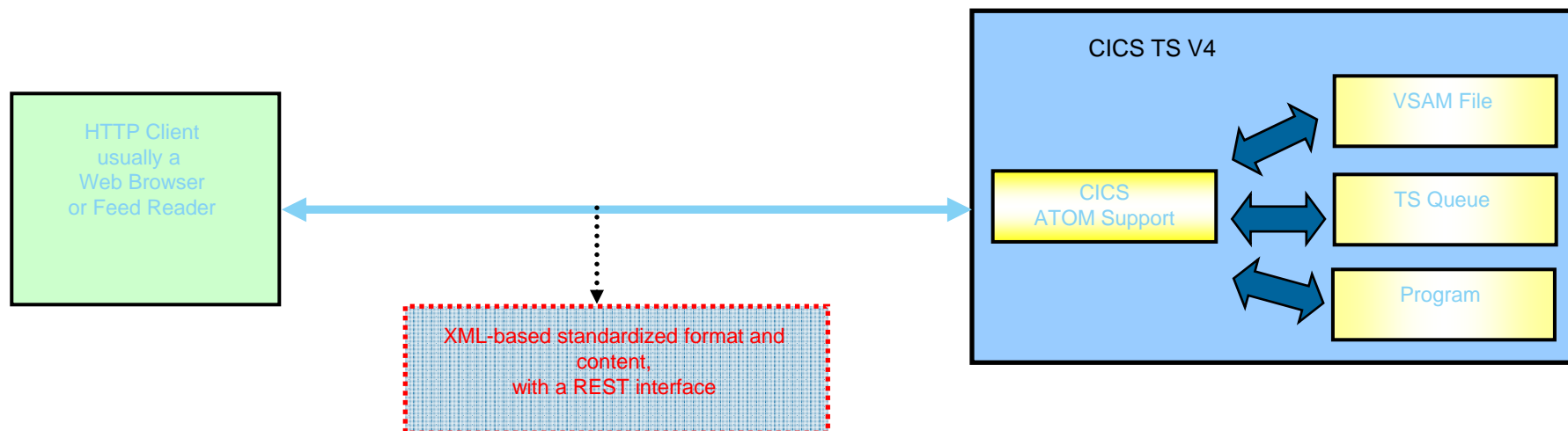


CICS ATOM Support

Impact2013



- Standard way to publish data locked inside CICS
 - Provides access using REST
 - (Representational State Transfer)
- Allows rapid development of media-rich browser-based “Situational Applications”
- Allows injection of CICS data into “business mashups”
- Participation in modern fashionable technology
- Leverage existing CICS HTTP support



CICS TS Feature Pack for Mobile Extensions



Impact2013



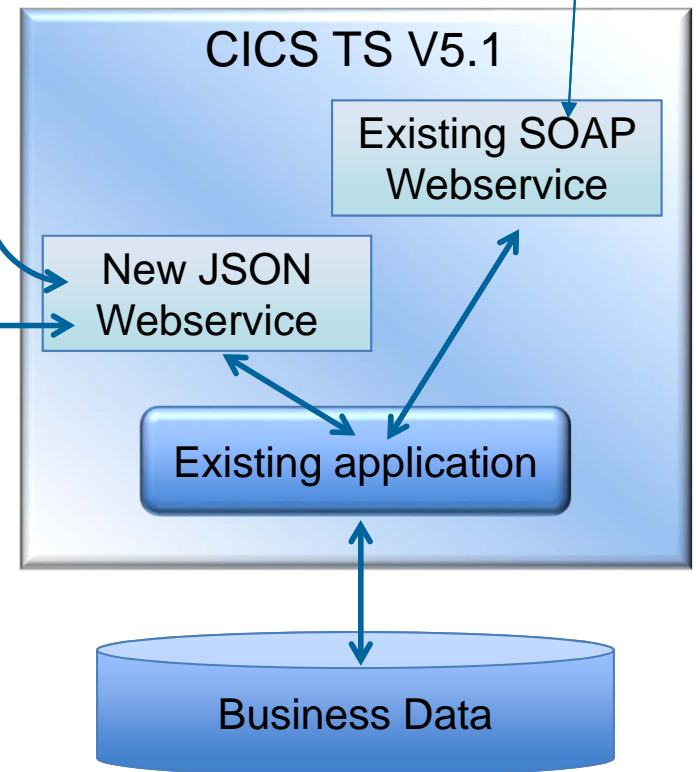
Exposing an existing CICS application as a JSON callable service

Existing SOAP Webservices remain unaffected by the introduction of new mobile based clients.



Use **DFHLS2JS** to generate a JSON Schema corresponding to the language structure of the existing CICS application.
CICS Pipeline processing converts the request into the correct format

WSBIND



CICS TS Feature Pack for Mobile Extensions



Impact2013



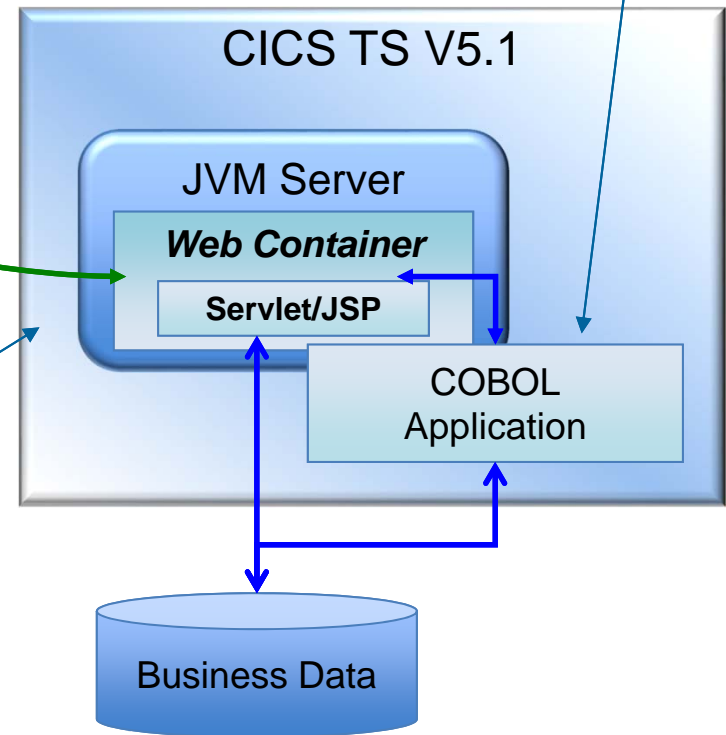
RESTful services can now be hosted within the CICS Web Container, with new support for the JAX-RS API

Link to existing C/C++, COBOL, PL/I, and Java applications to exploit existing enterprise applications and services



Exploit the web container's servlet/JSP features to develop rich mobile content, building on available skills.

Ideal location to develop and host a RESTful interface to established and tested enterprise applications and services





Statement of direction

IBM makes the following statements of general direction:

IBM intends to deliver a new version of the IBM CICS Transaction Server (CICS TS) Feature Pack for Dynamic Scripting. This new version of the feature pack will add PHP support to CICS TS V5.1. Existing releases of this Feature Pack already provide PHP support for CICS TS V4.1 and CICS TS V4.2.

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- CICS Catalog Manager Application
 - COBOL based CICS application
 - VSAM File
 - Separate Presentation Logic and Business Logic
 - Callable Interface - Commarea

```

CICS DDS0363 REGION - RUNCICS v5.1 13:47:59

*****\ *****\ *****\ *****\ (R)
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```

CICS EXAMPLE CATALOG APPLICATION - Main Menu

Select an action, then press ENTER

Action . . . . 1. List Items
                2. Order Item Number
                3. Exit

F3=EXIT  F12=CANCEL
    
```

```

CICS EXAMPLE CATALOG APPLICATION - Inquire Catalog

Select a single item to order with /, then press ENTER

Item  Description                      Cost  Order
-----
0010  Ball Pens Black 24pk              2.90  -
0020  Ball Pens Blue 24pk               2.90  -
0030  Ball Pens Red 24pk                 2.90  -
0040  Ball Pens Green 24pk              2.90  -
0050  Pencil with eraser 12pk            1.78  /
0080  Highlighters Assorted 5pk          3.89  =
0070  Laser Paper 28-lb 108 Bright 500/ream 7.44  -
0080  Laser Paper 28-lb 108 Bright 2500/case 33.54 -
0090  Blue Laser Paper 20lb 500/ream     5.35  -
0100  Green Laser Paper 20lb 500/ream     5.35  -
0110  IBM Network Printer 24 - Toner cart 169.56 -
0120  Standard Diary: Week to view 8 1/4x5 3/4 25.99 -
0130  Ball Pens Assorted 24pk             18.85  -
0140
0150
    
```

```

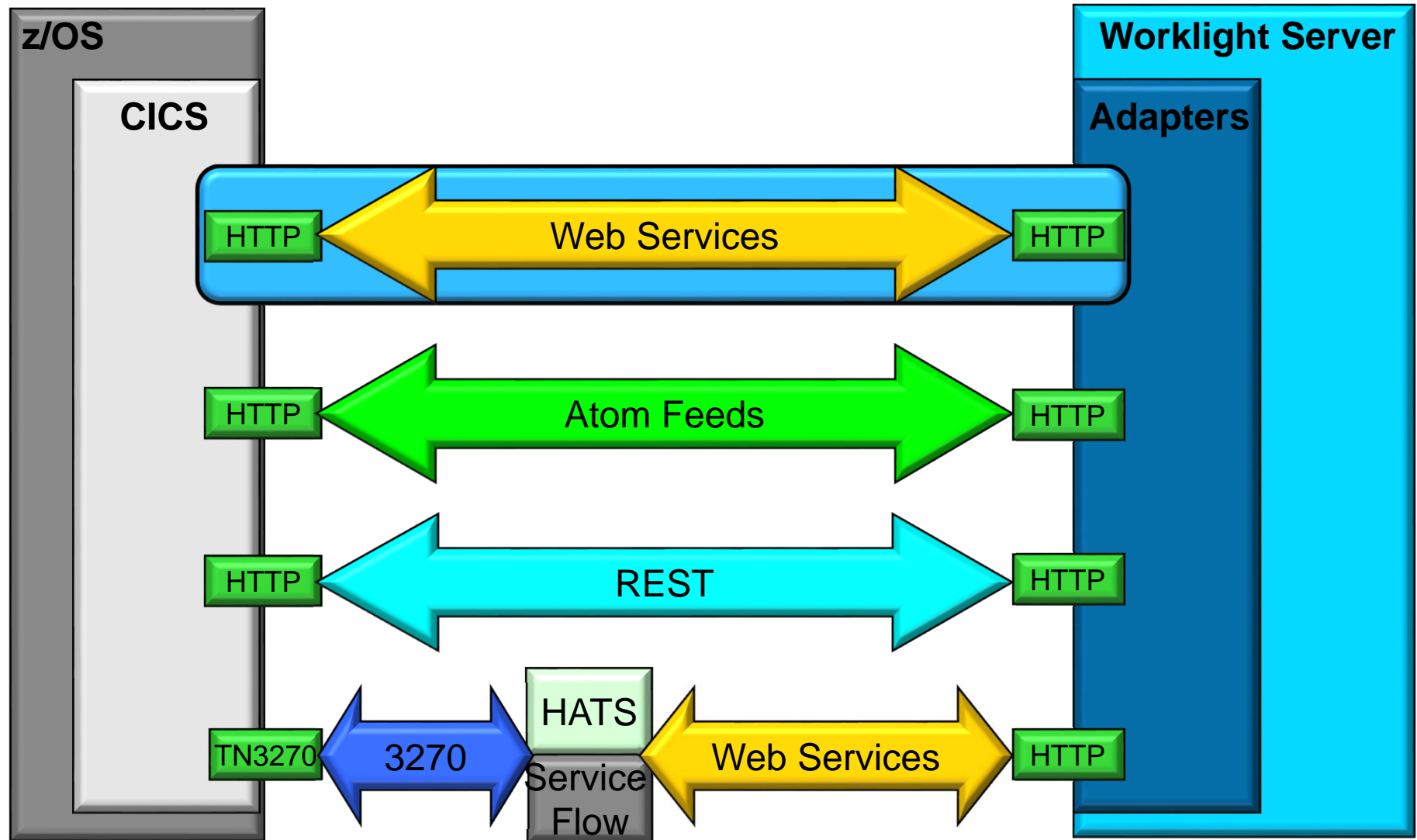
CICS EXAMPLE CATALOG APPLICATION - Details of your order

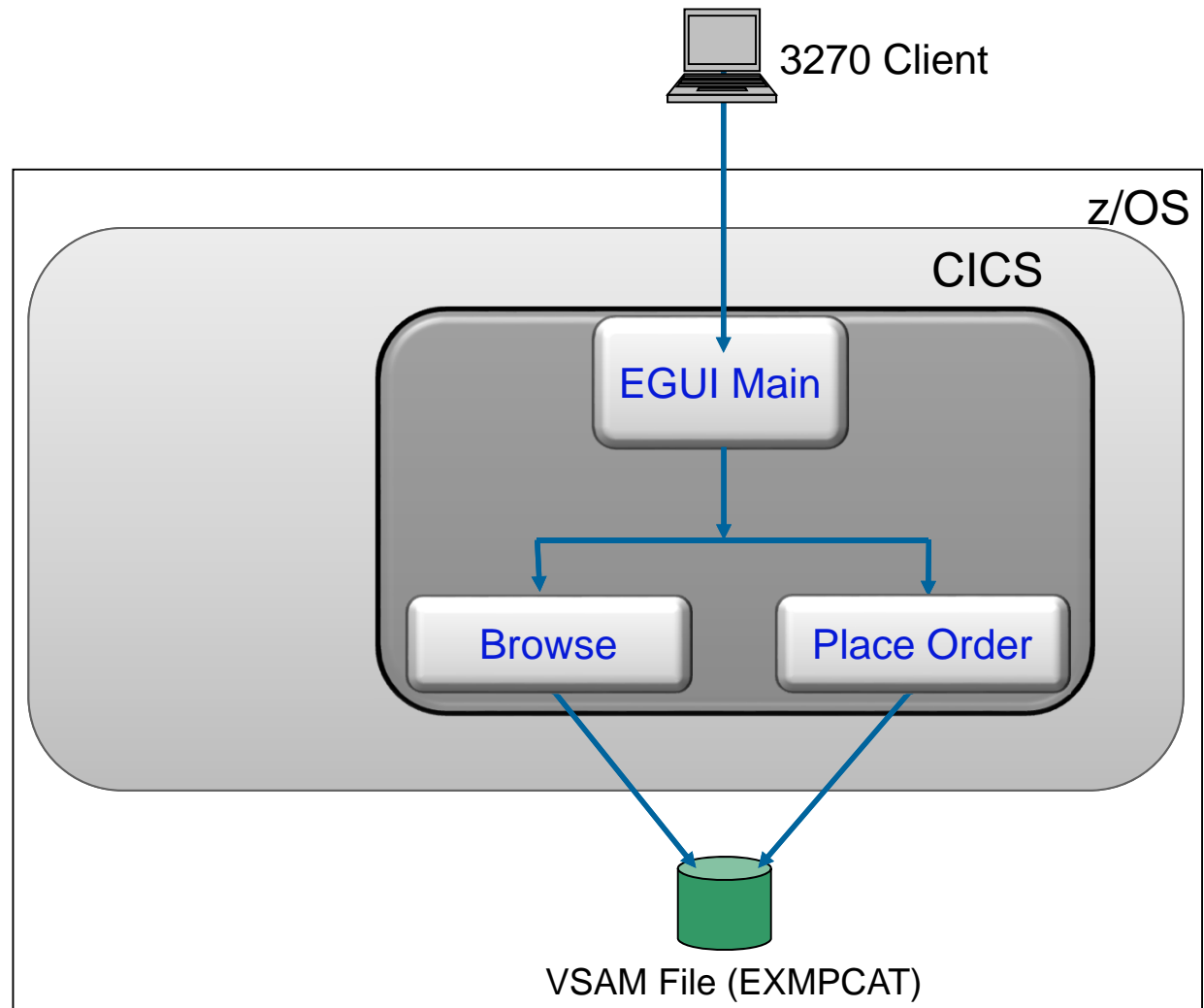
Enter order details, then press ENTER

Item  Description                      Cost  Stock  On Order
-----
0050  Pencil with eraser 12pk            1.78  0067  000

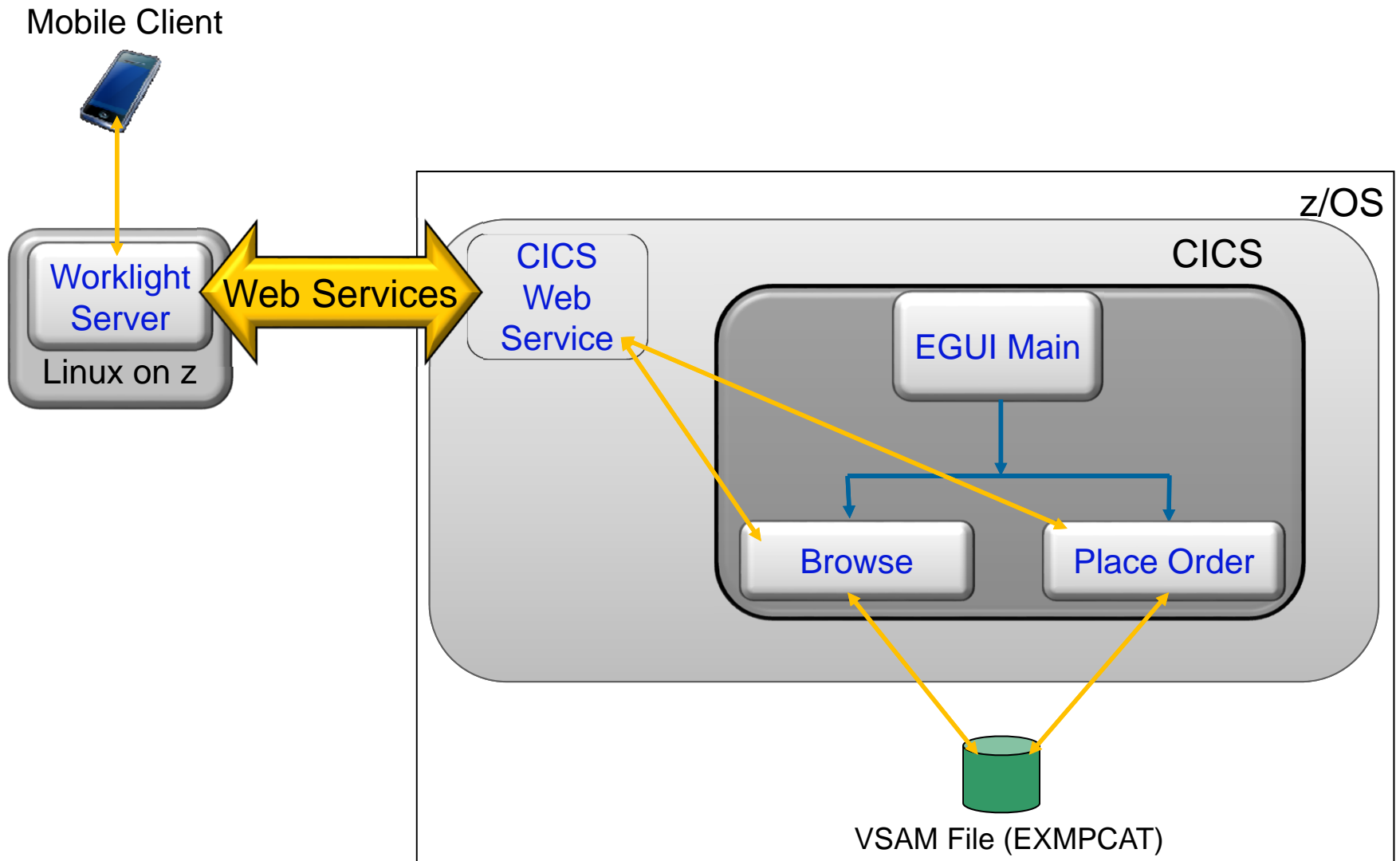
Order Quantity: 3
User Name: George
Charge Dept: CICSUSRS

F3=EXIT  F12=CANCEL
    
```

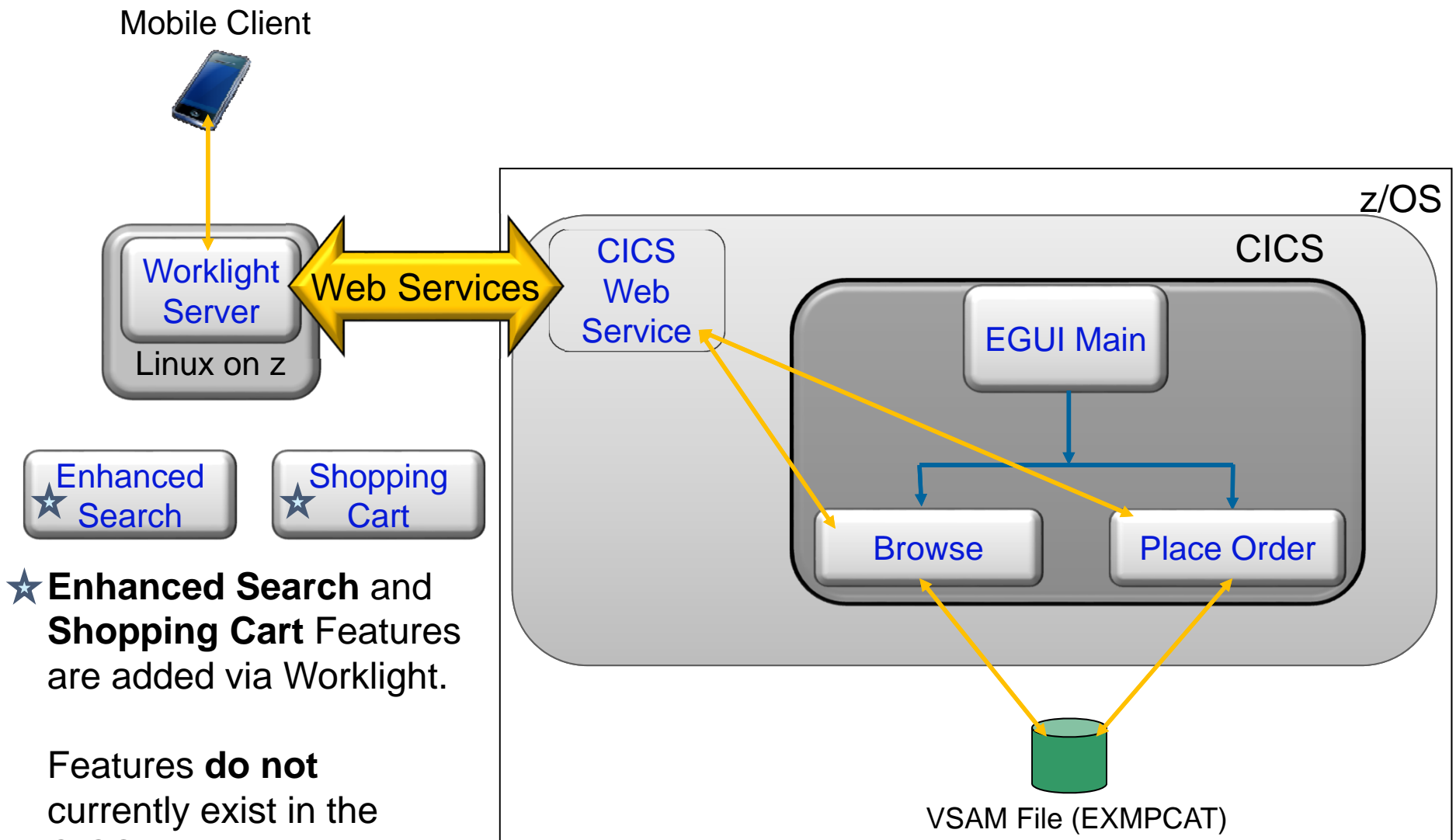




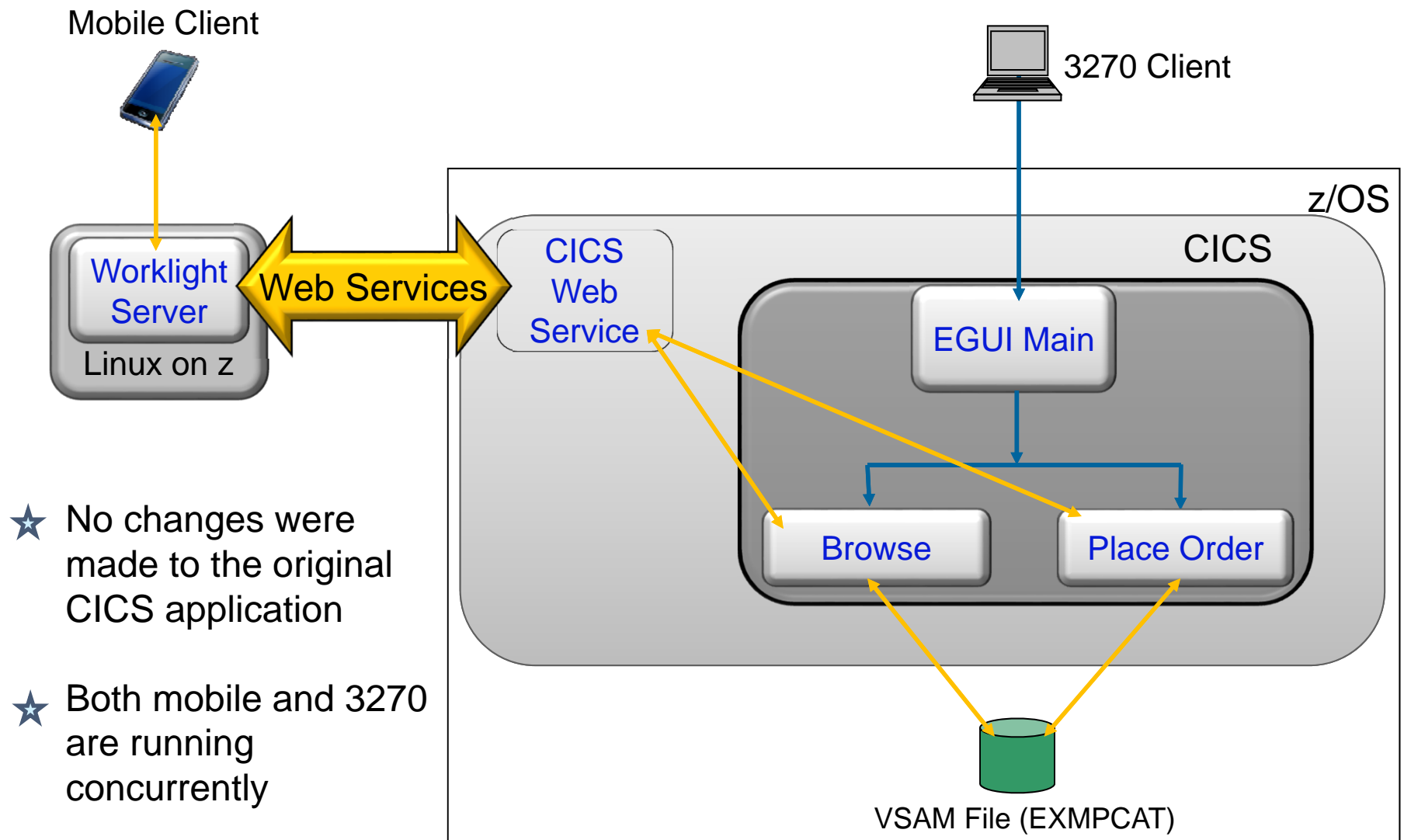
Worklight Modernizes the CICS Web Service Enabled App **Impact2013**



Worklight Modernizes the CICS Web Service Enabled App **Impact2013**



Worklight Modernizes the CICS Web Service Enabled App **Impact2013**



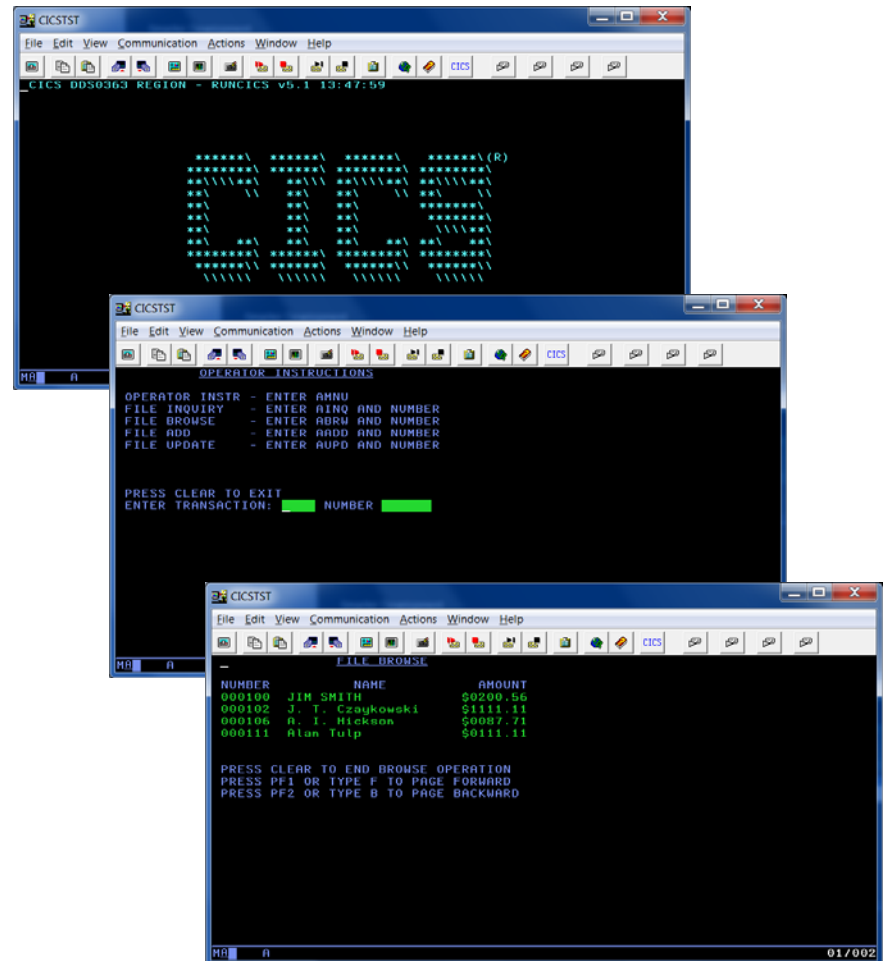
➤ CICS Transaction Server

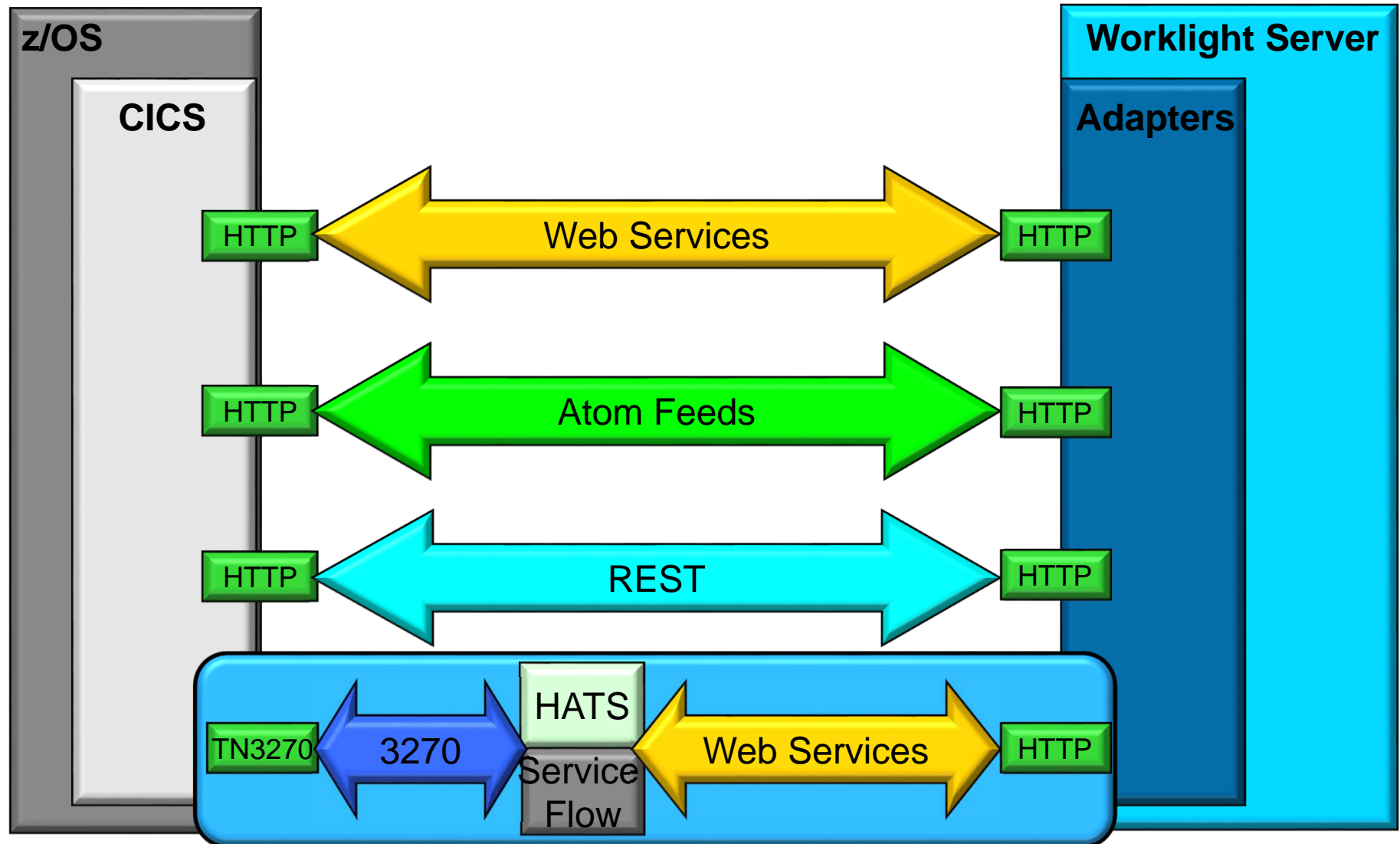
- 3270 based CICS application
- COBOL business logic using BMS
- VSAM data stored in file FILEA

➤ Hosted on zOS

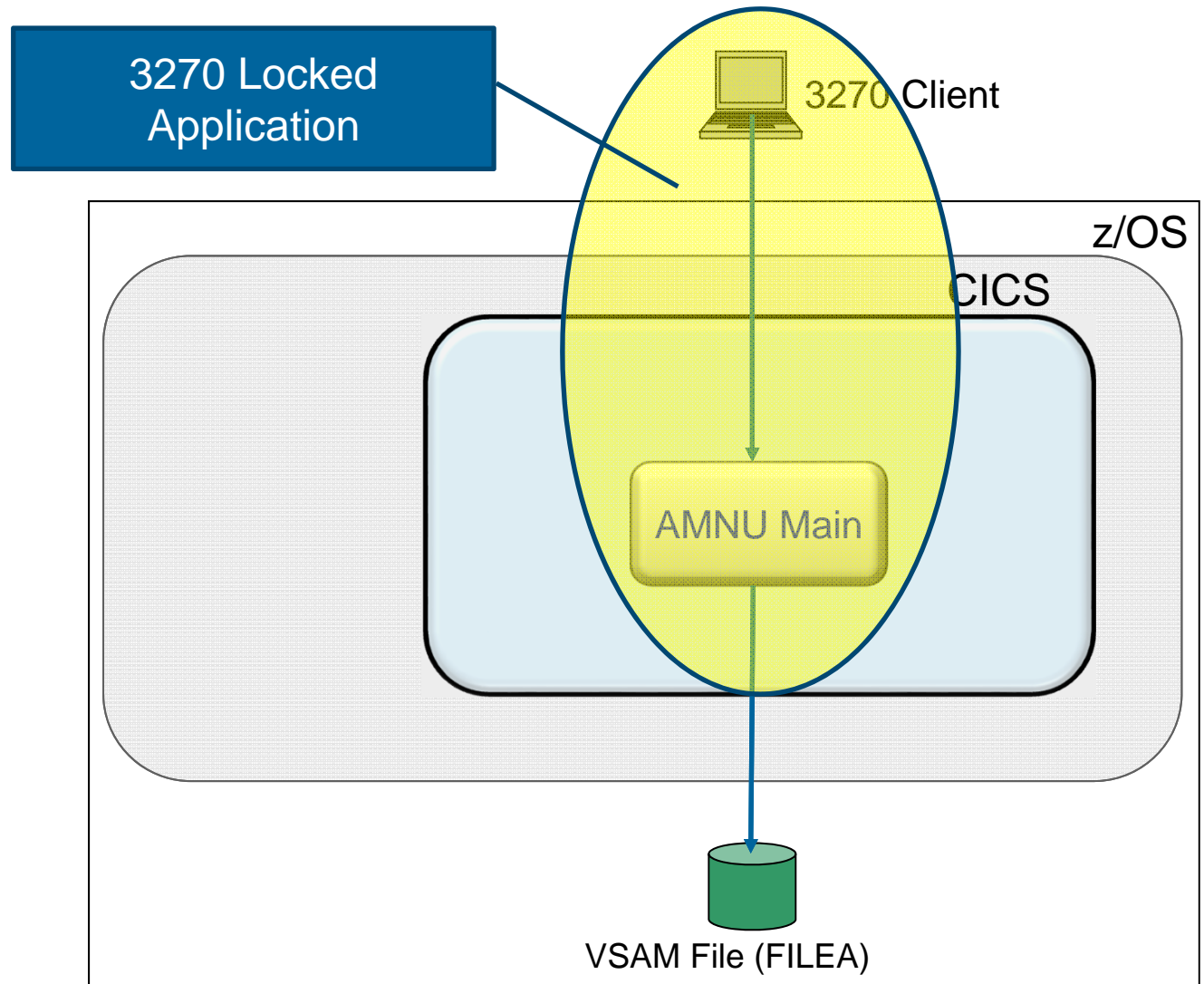
➤ Transaction AMNU provides

- Browse and Inquire functions
- Add and Update functions
- **3270 Emulator access ONLY**

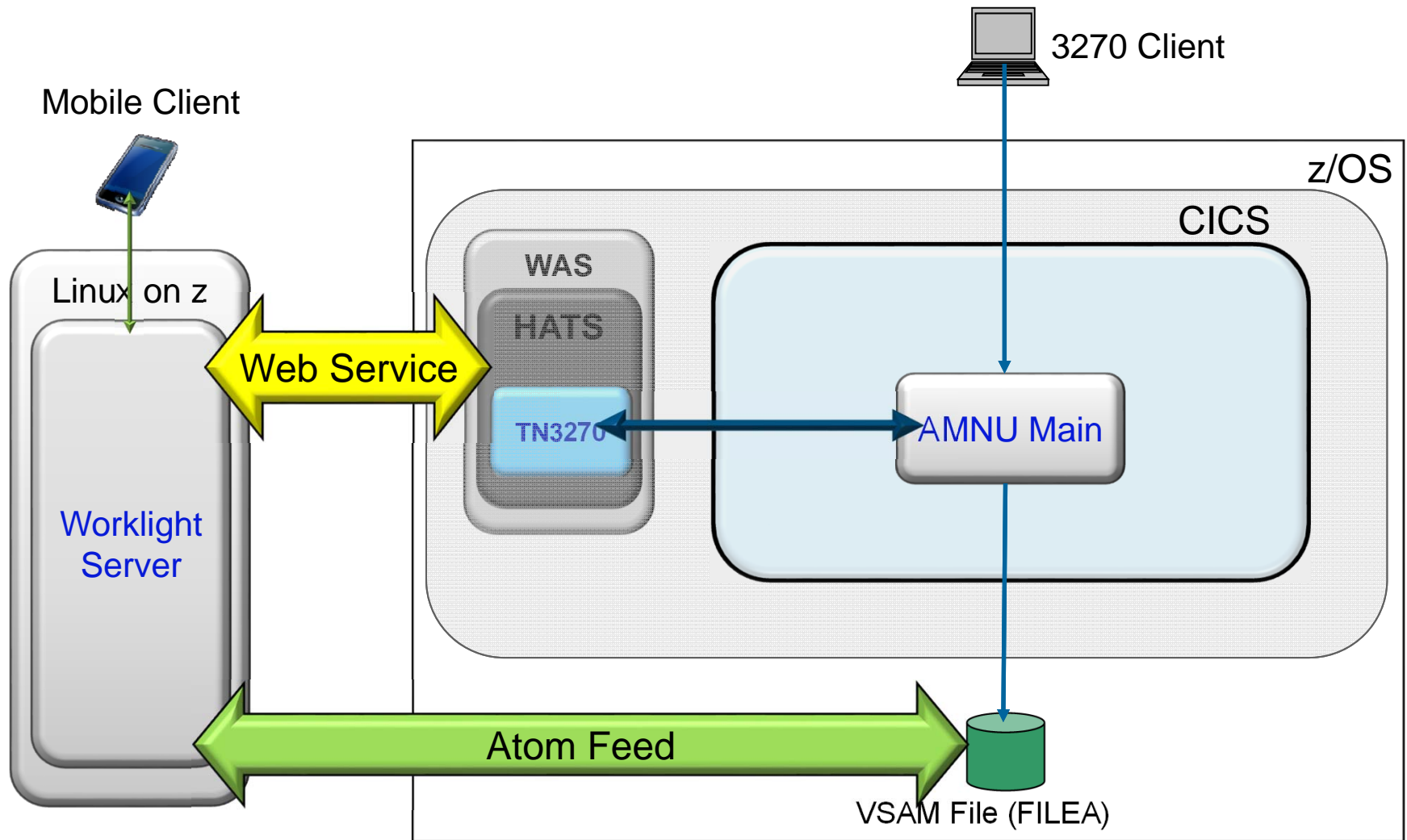




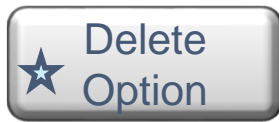
Worklight V5 Modernizes a CICS/VSAM 3270 only Application **Impact2013**



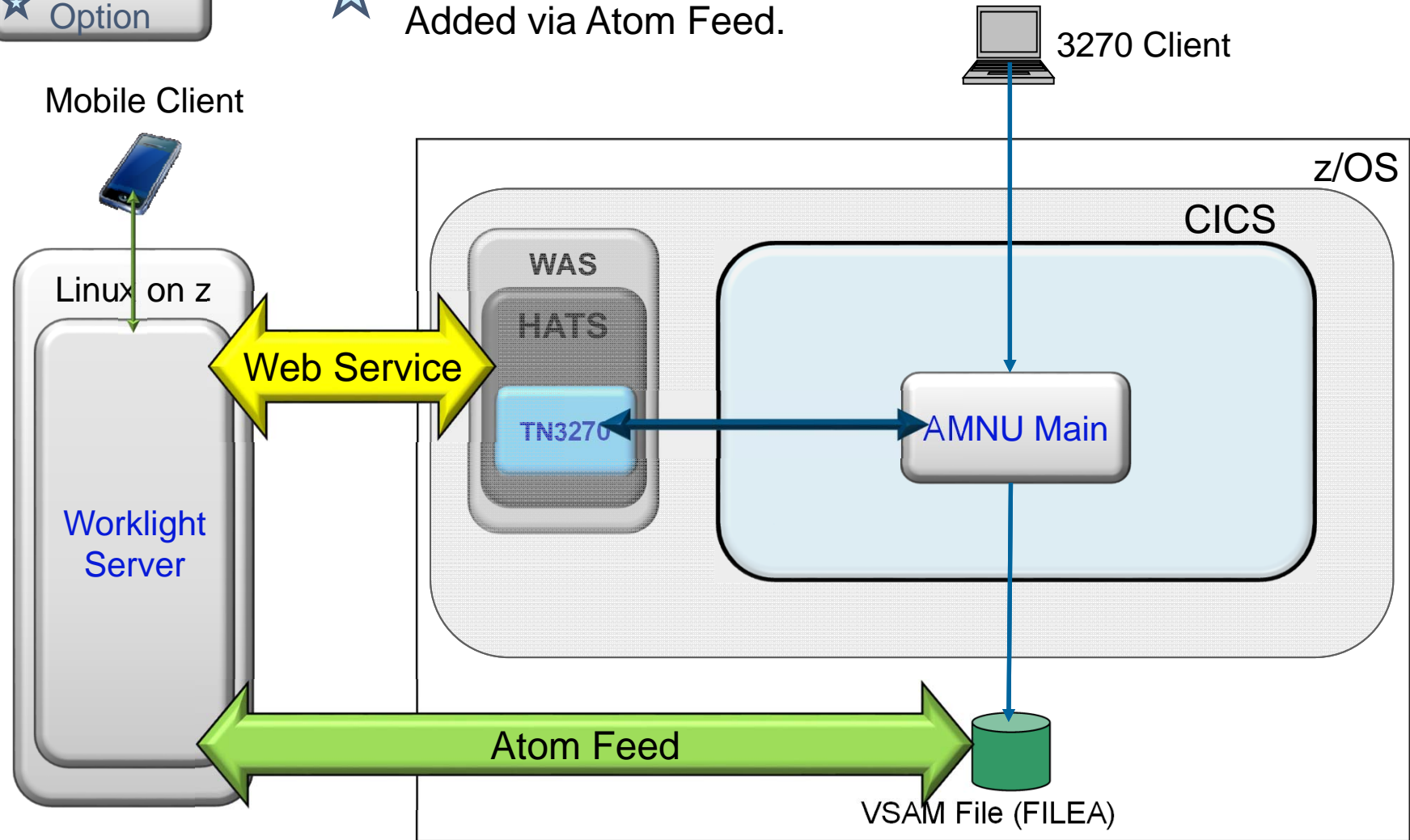
Worklight V5 Modernizes a CICS/VSAM 3270 only Application **Impact2013**



Worklight V5 Modernizes a CICS/VSAM 3270 only Application **Impact2013**



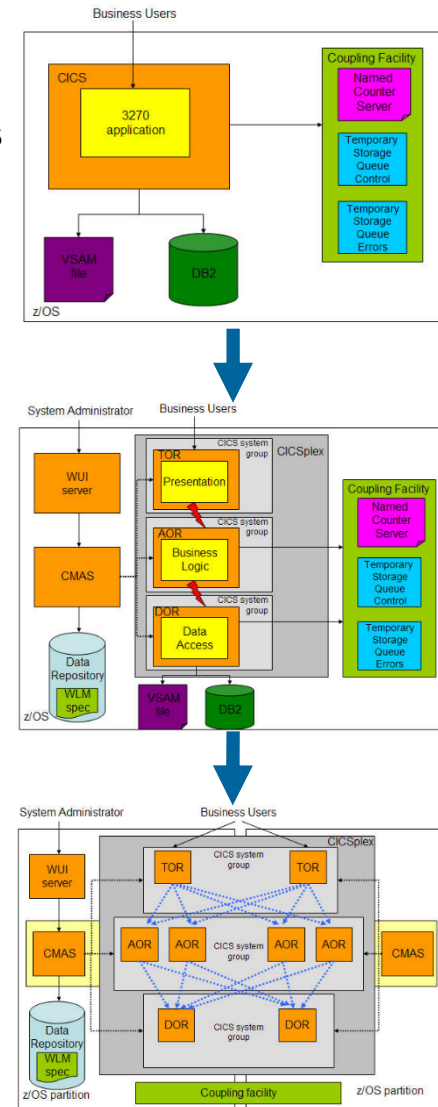
★ Delete Feature is Added via Atom Feed.



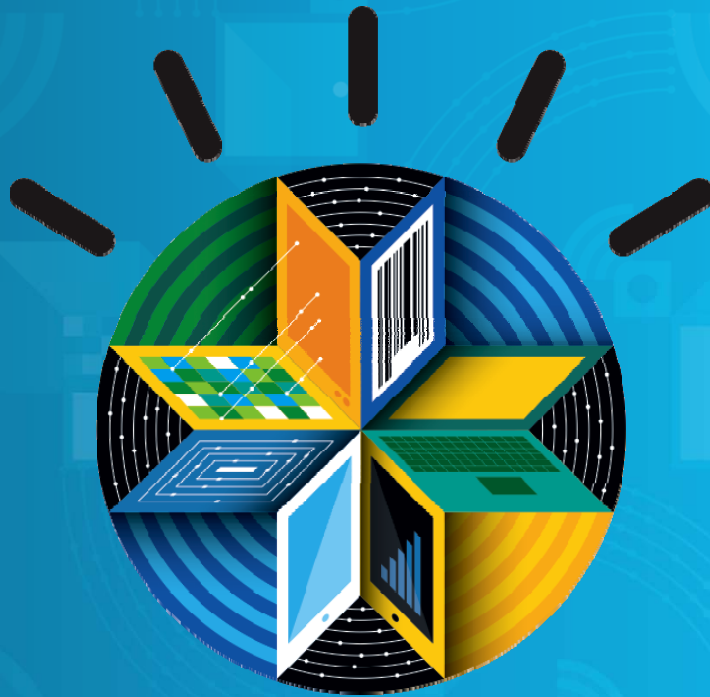
23 ★ Listing via Atom Feed

- **Out of the box...**
 - 27 Compiled modules
 - Source code, approx. 10,000 lines of COBOL
 - CICS Resource definitions for DB2, VSAM, TCPIP Service, Pipeline, Bundle, TSQueue, BMS Maps, programs and transactions.
 - Documentation
 - Configuration scripts
 - JCL
 - Sample customer data
 - Capable of running entirely in a single region
 - 4 Scenarios as part of the information center
- **Pre-reqs:**
 - DB2
 - Workload Simulator (for scenario 4, see next slide)

- **Supported Configs**
 - Single Region
 - Static routing:
 - TOR, AOR, DOR
 - Dynamic routing
 - Multi-region
 - WLM



IBM MobileFirst



The Broadest Portfolio of Mobile Solutions

IBM MobileFirst Platform

IBM MobileFirst Management

IBM MobileFirst Security

IBM MobileFirst Analytics



IBM MobileFirst Platform

For clients that need to:

- Quickly develop and deploy high quality mobile apps across multiple platforms
- Seamlessly connect rich mobile applications to enterprise data and services

IBM MobileFirst Platform offers:

- ✓ Native, web, or hybrid app development
- ✓ Tools to build & test high quality apps for many devices
- ✓ Management, security, continuous delivery & distribution of apps
- ✓ Easy connectivity to existing data & services for mobile usage
- ✓ On-premises or managed service delivery

Available Today!

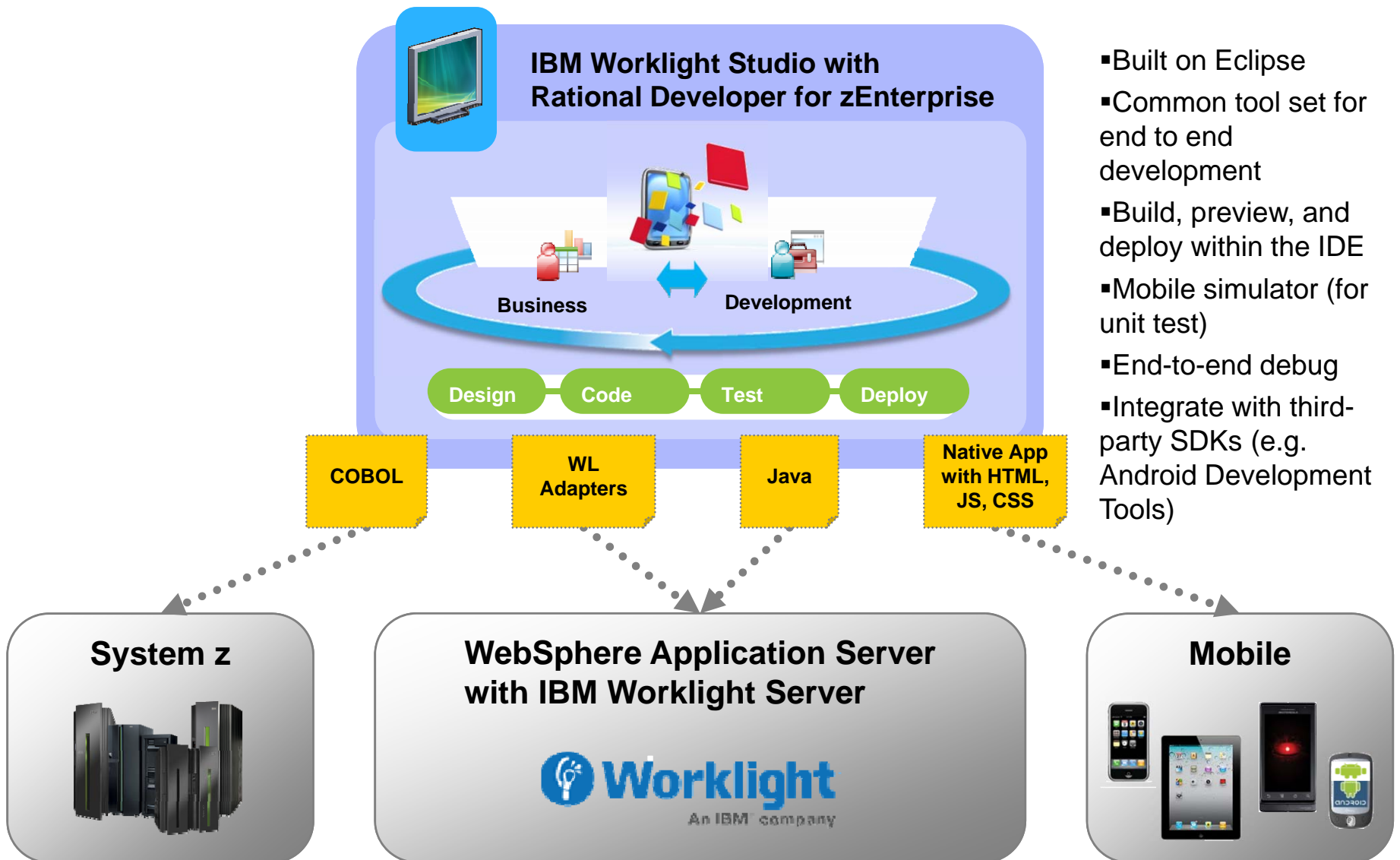
- Automated testing for high quality mobile apps (Beta available!)
- Streamlined deployment for private clouds on PureApplication System
- Single sign-on across multiple apps on a device
- Latest versions of all major mobile OS's (iOS, Android, Windows, and BlackBerry)

IBM Worklight

IBM Rational Test Workbench

IBM Mobile Application Platform Management

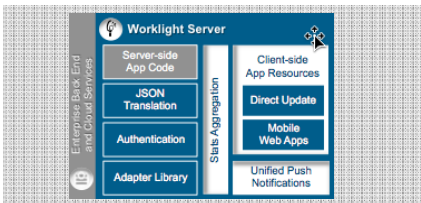
Develop Mobile Apps with Rational Developer for System z **Impact2013**





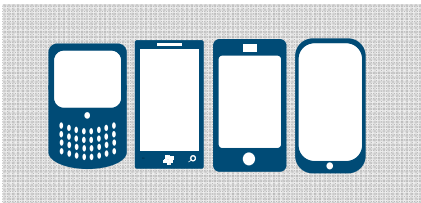
Worklight Studio

The most complete, extensible environment with maximum code reuse and per-device optimization



Worklight Server

Unified notifications, runtime skinning, version management, security, integration and delivery



Worklight Runtime Components

Extensive libraries and client APIs that expose and interface with native device functionality



Worklight Console

A web-based console for real-time analytics and control of your mobile apps and infrastructure

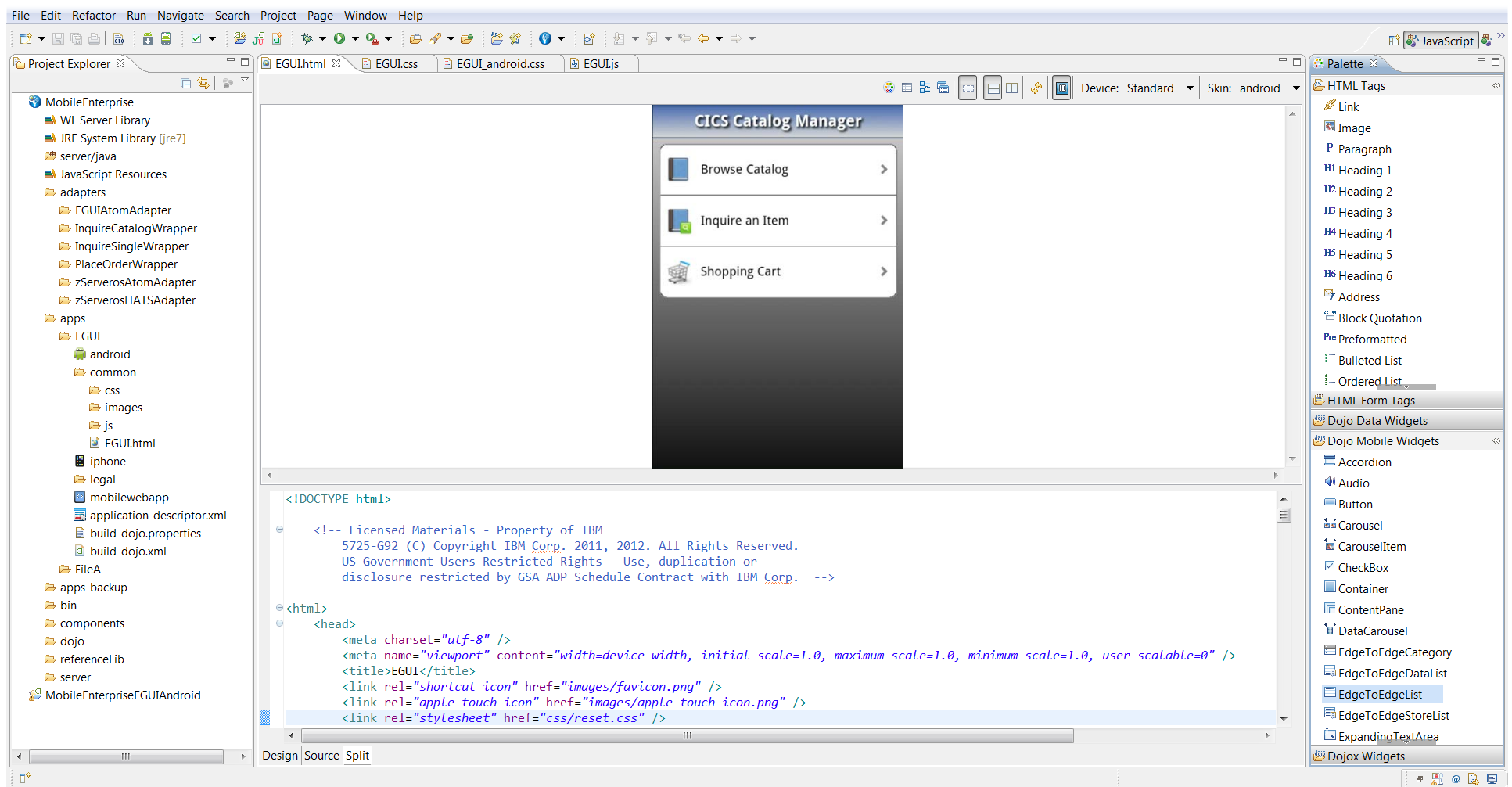


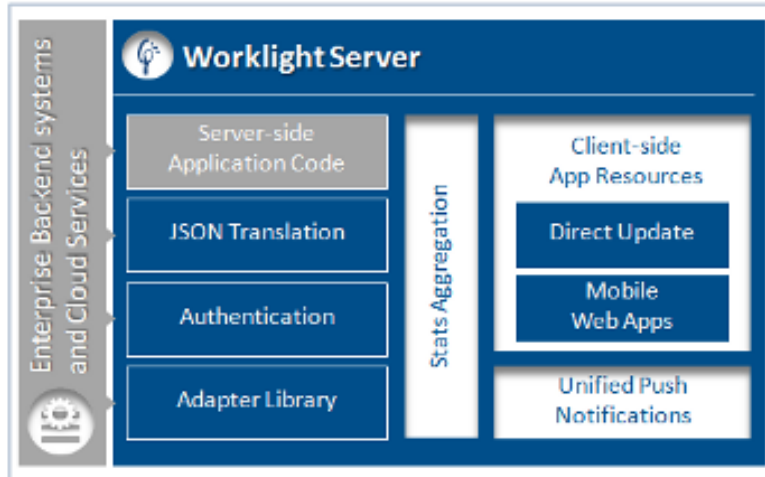
Worklight Application Center

A cross-platform private mobile application store focused on the needs of a development organization or a team



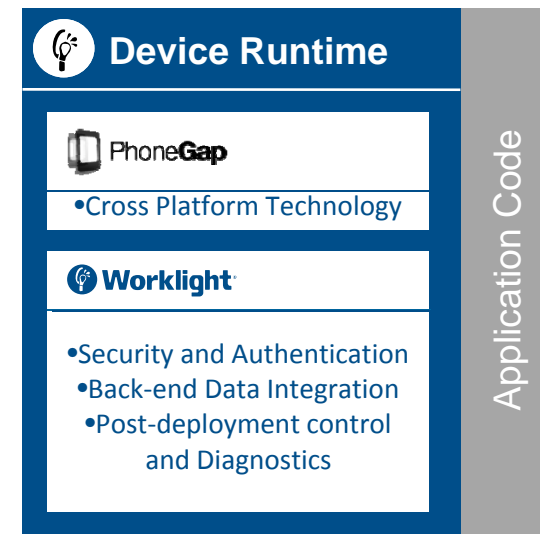
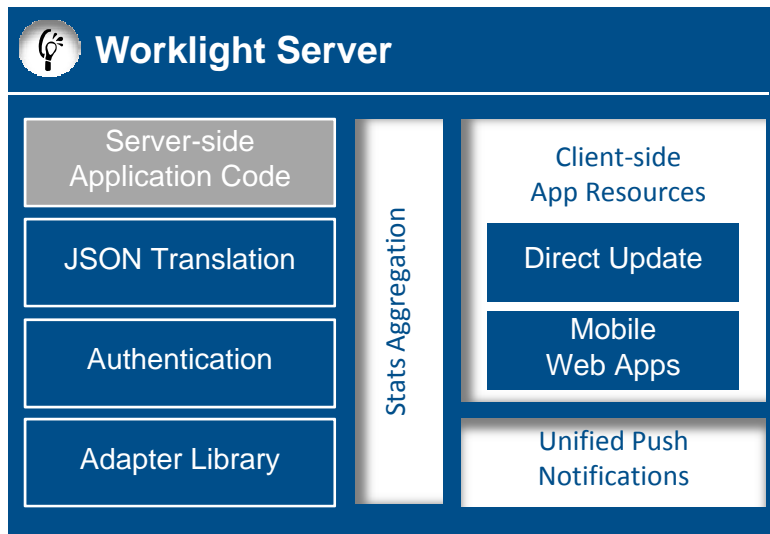
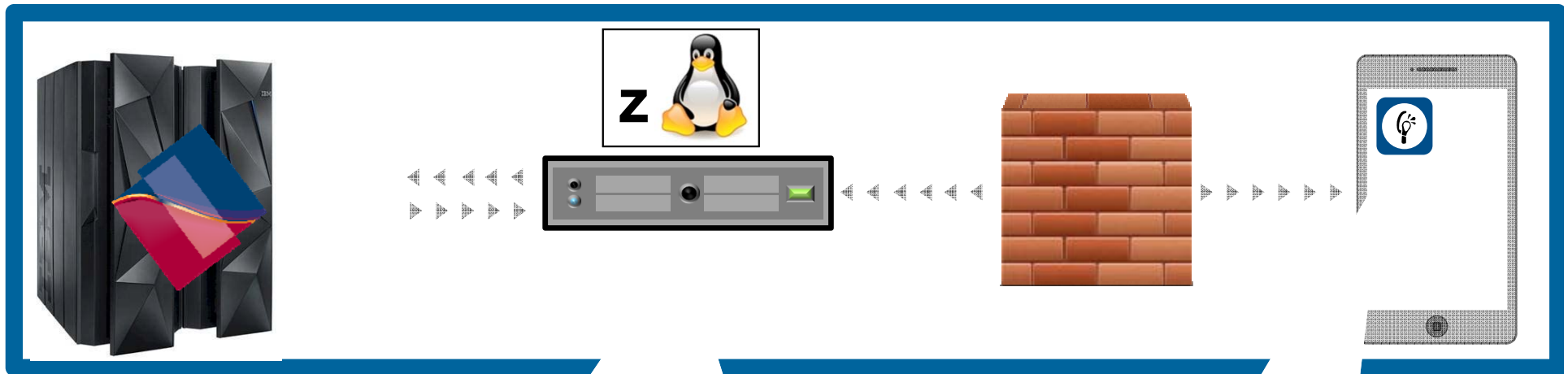
- Eclipse based, most complete, extensible Mobile IDE
- Build rich mobile application using open standard technologies and commonly available skills
- Single shared code base for all multiple platforms - cross-platform compatibility
- Compatible with:
 - Sencha Touch
 - JQuery
 - Dojo
 - PhoneGap
- Device SDK integration to allow direct
- Tooling for back-end connectivity utilities (Worklight Adapters)

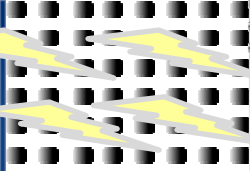
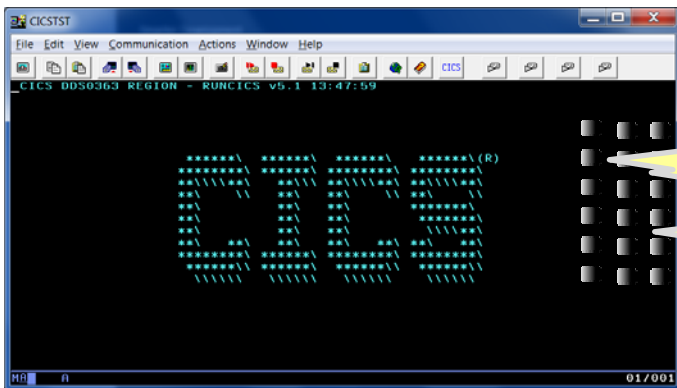


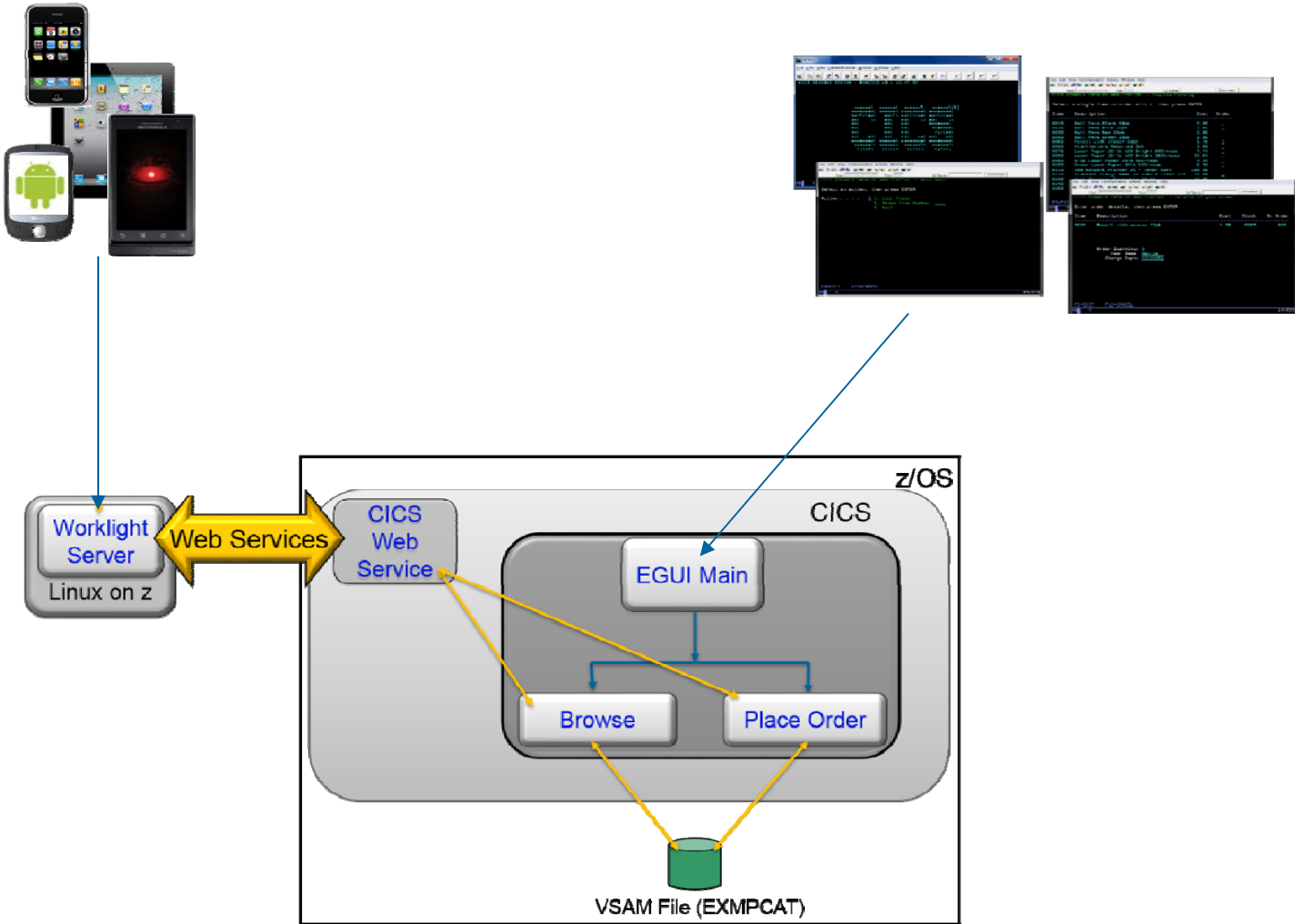


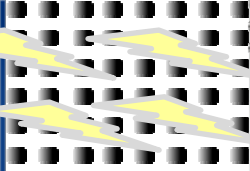
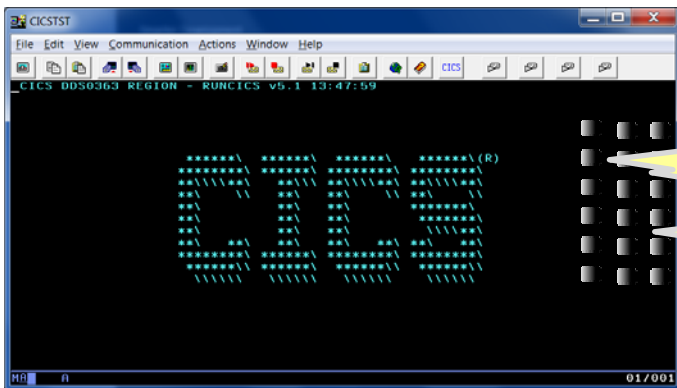
A middleware component which delivers unified notifications, version management, security features, and integration services

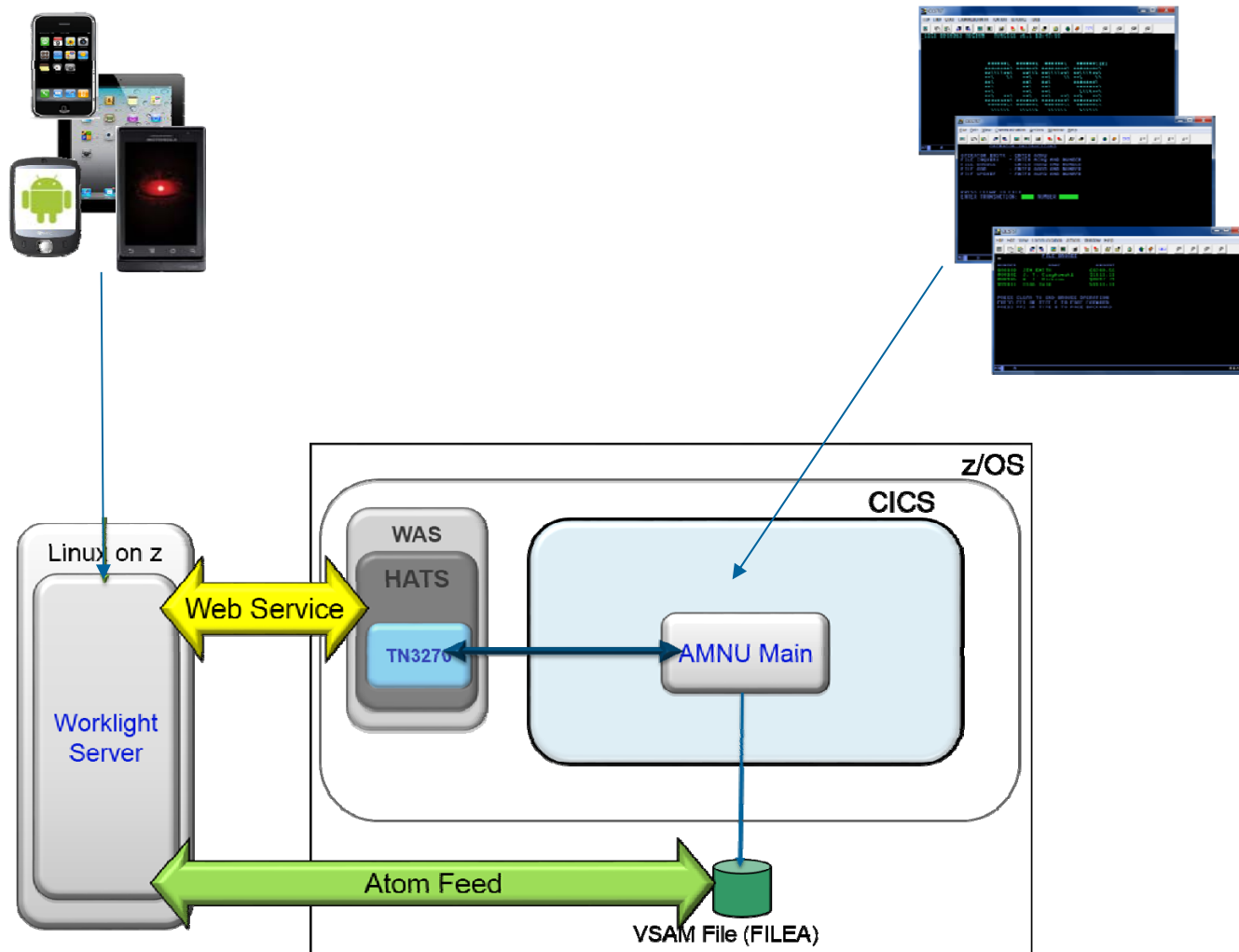
- Distribution of mobile web apps
- Enterprise connectivity:
- Secure client/server connectivity
- Direct access to enterprise back-end data and transaction capabilities
- Authentication enforcement
- Client control:
- Application version management and remote disabling
- Direct update of application code
- Unified Push Notifications
- Aggregation of usage statistics

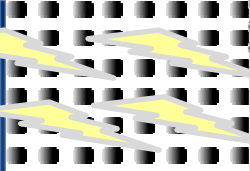
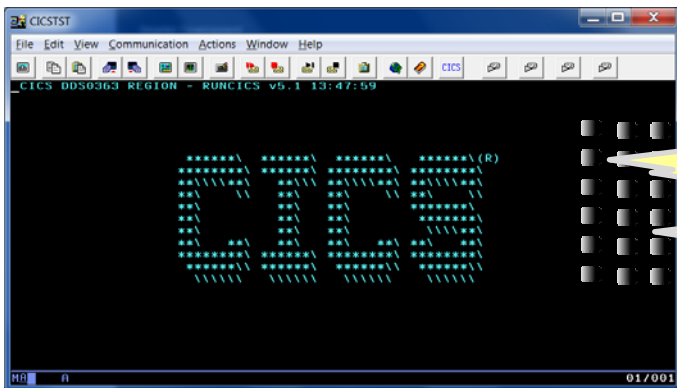


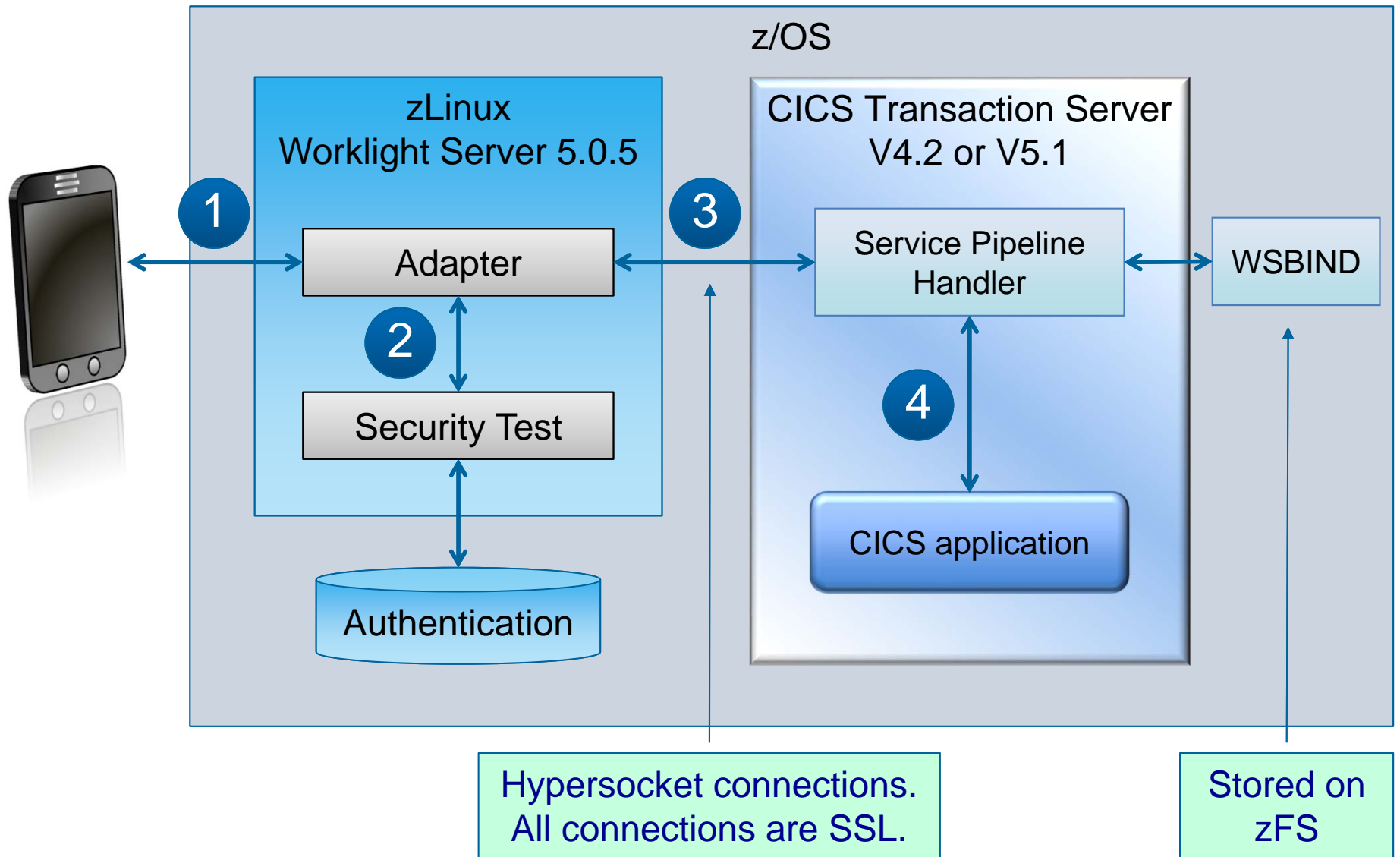












Developing for multiple mobile platforms

- Highly fragmented set of platforms, devices, languages, and tools **increases cost and complexity of development and test**
- Choosing not to support one or more platforms **reduces the reach of an application**



Delivering high quality apps that engage users and meet business objectives

- Poor quality can **negatively impact brand image**
- Bad ratings and comments can **cause other users to avoid trying an app**

Customer Ratings



Integrating with enterprise systems

- Recreating instead of leveraging existing business logic **increases maintenance costs and risk of inconsistent behavior**
- Lack of ready back-end services **slows front-end development and increases potential for last minute integration issues**



Meeting accelerated time to market requirements

- Hand-off errors and delays between teams **slows progress and responsiveness to features and fixes**
- Misalignment of stakeholders **results in late rework and increased cycle times**

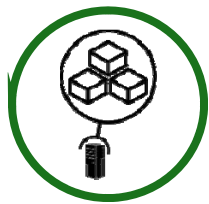


Mobile is a unique opportunity to re-think the way businesses interact with customers, employees and partners

The IBM portfolio allows you to:



Build & Connect



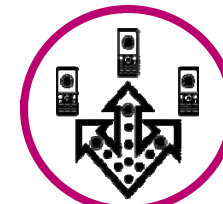
Build mobile applications
Connect to, and run backend systems in support of mobile

Manage & Secure



Manage mobile devices, services and applications
Secure my mobile business

Extend & Transform



Extend existing business capabilities to mobile devices
Transform the business by creating new opportunities

"When a lot of folks talk about mobile they think about just the device or the apps on it. IBM has done a good job of realizing that for the enterprise there is more: management, security, transformations needed on the back end and integration." - Michael Facemire, senior analyst at Forrester

Questions...

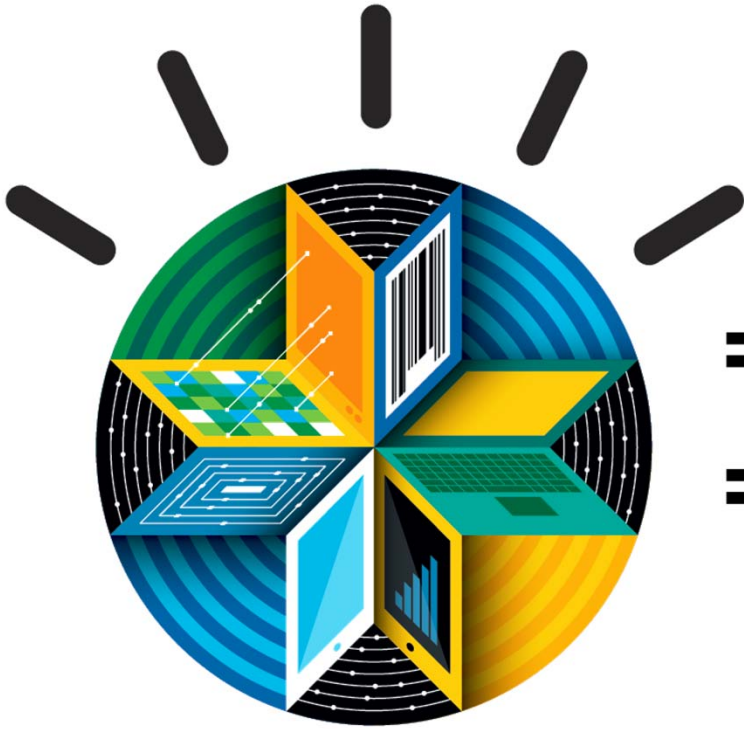


We love your Feedback!

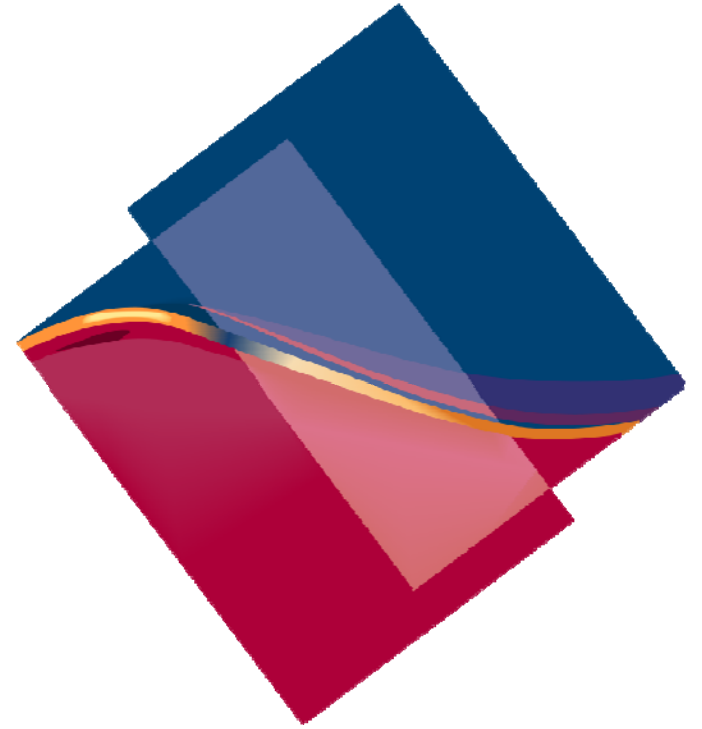
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