



IBM Software Group

CICS Test Drive

Feel the Power



ON DEMAND BUSINESS™

Preface

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CICS Performance Analyzer

CICS Historical Analysis for solving today's business problems



ON DEMAND BUSINESS™

CICS Performance Analyzer

- **What does it do?**

- ▶ ISPF Dialog to build, maintain and submit reports
- ▶ Extensive Tabular Reports and Graph Reports
- ▶ Create Historical Databases that include trend and capacity information
- ▶ Comprehensive Batch Reporting and Analysis from SMF data
- ▶ Online Statistics Reporting Capability

- **Benefits**

- ▶ Improves tuning and capacity planning analysis
- ▶ Improve transaction response time
- ▶ Provides detailed performance bottleneck analysis
- ▶ Uncovers trends leading to poor CICS performance or even outages
- ▶ Helps plan capacity for optimal performance



CICS Performance Analyzer for z/OS (CICS PA)

Key features

- ▶ Comprehensive Performance Reporting and Analysis for CICS
- ▶ Including DB2, WebSphere MQ, and MVS System Logger
- ▶ Extensive Tabular Reports and Extract Data Sets
- ▶ Historical Database (HDB)
- ▶ Trending and Capacity Planning
- ▶ ISPF Dialog to build, maintain, and submit reports and extracts
- ▶ Comprehensive reporting of CICS Statistics data
- ▶ Ease of Use
- ▶ **Threadsafe metrics like TCB use by transaction, dispatch and CPU time, number of TCB switches etc**

CICS Support

- ▶ CICS TS V1.3, V2.x and V3.x

New in CICS PA V2.1

•CICS TS V3.2 support including:

- Compressed SMF type 110 records
- Higher precision (12-byte) clock
- New and updated statistics data

•Extended integration with OMEGAMON XE for CICS

- Report on 3rd party systems monitored by OMEGAMON (Adabas, CA-IDMS, CA-Datcom, Supra)
- Report on Resource Limit Warnings

•New and updated sample reports

- Transaction Profiling reports
- Distribution reports

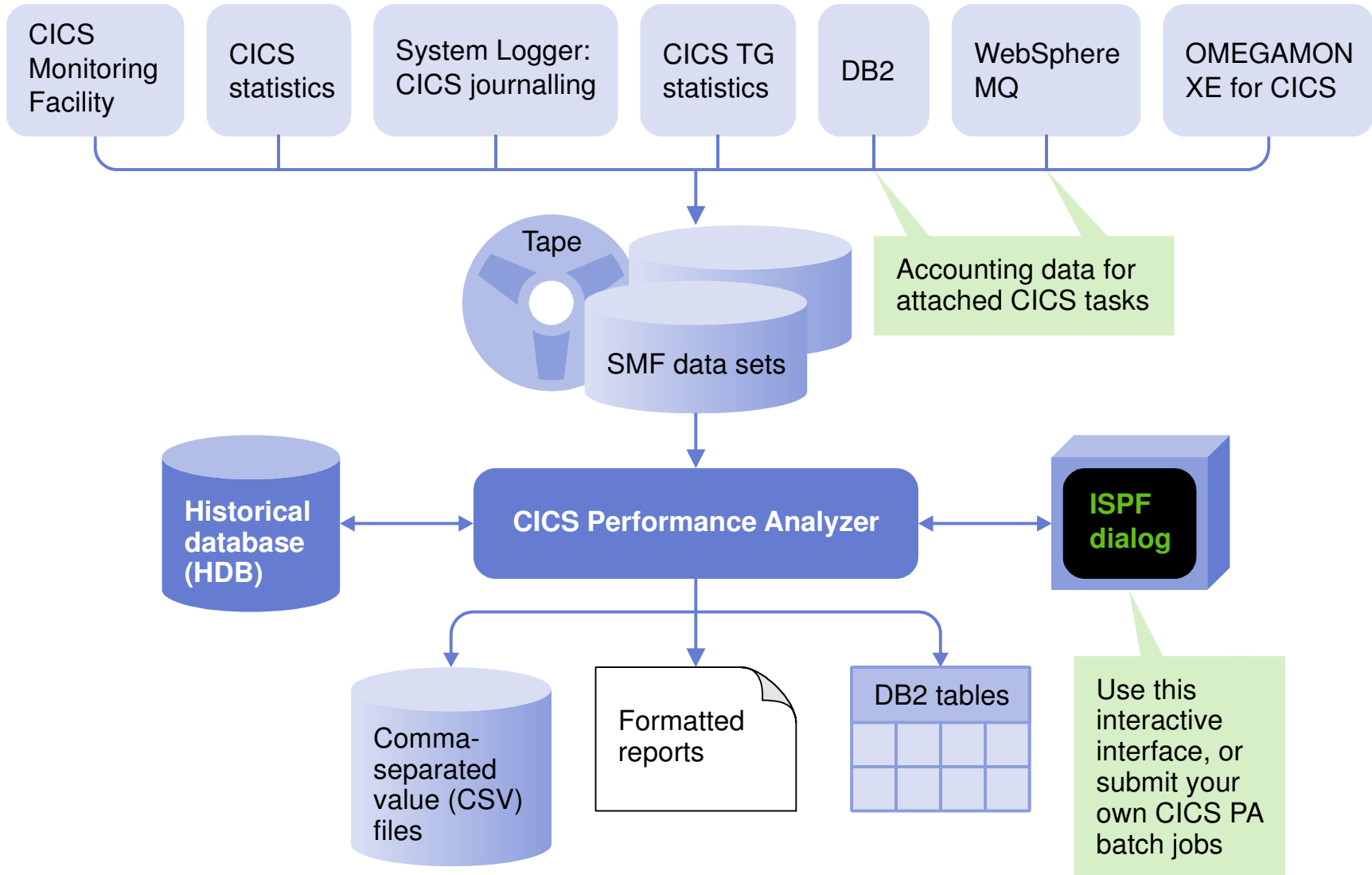
•Historical Reporting using SupportPac CP12

What SMF Data does CICS PA use?

- Comprehensive Performance Reporting and Analysis for CICS
- CICS Monitoring Facility (CMF) data (SMF 110)
- CICS Statistics data (SMF 110)
- CICS Server Statistics data (SMF 110)
- DB2 Accounting records (SMF 101)
- WebSphere MQ Accounting records (SMF 116)
- z/OS System Logger records (SMF 88)
- Tivoli OMEGAMON XE for CICS on z/OS (SMF 112)
- CICS Transaction Gateway for z/OS V7.1. (SMF 111)



CICS PA Overview



CICS PA - Business values

- **Plan capacity to reduce MIPS cost**
 - ▶ Trend analysis for capacity planning
- **Proactively analyze performance trends to reduce down time and increase customer satisfaction**
 - ▶ Ensure quick response to performance issues identified by an online monitor
- **Reduce cost of outages**
 - ▶ Enables performance reviews before applications go into production
 - ▶ Identification of usage trends leading to reduced CICS performance or even outages
- **Reduce risk of missing service level commitments**
- **Reduce time and cost of managing system performance and availability**
 - ▶ CICS PA also complements the enterprise-wide historical performance capabilities of IBM Tivoli ® Decision Support for z/OS



CICS Performance Analyzer V2.1 – Workshop

Session Objectives

This workshop serves as a hands-on introduction to CICS Performance Analyzer (PA). The intent is to introduce some of the basic features of CICS PA, and to show how CICS PA can help with CICS performance.

The lab is comprised of a several hands-on exercises designed to familiarize you with the product so that you can:

- Navigate the ISPF interface
- Set up initial system definitions
- Build reports sets
- Generate reports
- Use report forms to build customized reports
- Analyze specific reports to measure the performance impact of a transaction running non-threadsafe verses threadsafe.

There are optional exercises that cover additional features of CICS PA. Due to the limited class time, you may not have time to cover these topics during the CICS Tools Work Shop. However; if you complete the other exercises early you can work on the optional exercises independently. Additionally, the option exercises have been included in the recorded demonstration so you can review them add your own convenience.



CICS Interdependency Analyzer

Understand Relationships in your CICS Environment



CICS Interdependency Analyzer

- **What does it do?**
 - ▶ Real-time capture of CICS application calls (API)
 - ▶ Query facility from both Windows / CICS / Batch
 - ▶ Document application affinities to facilitate Dynamic Transaction Routing
 - ▶ Identify application programs that are ThreadSafe / Open TCB
 - ▶ Creates and updates CPSM affinities rules database
- **Benefits**
 - ▶ Eliminate manual documentation of application systems
 - ▶ Quickly identify application scope
 - ▶ Verify the application code via call path tracing
 - ▶ Automatically maintains CPSM rules
 - ▶ Helps you lower the total cost of ownership of your zSeries platform
- **Makes it easier to maintain, enhance, modify, and redistribute your applications.**



CICS Interdependency Analyzer for z/OS (CICS IA)

■ Key features

- ▶ Captures resource relationships
- ▶ Programs with potential affinities
- ▶ Run-time and batch reporting tool
- ▶ Relationship data loaded onto a DB2 database
- ▶ Query interface and sample queries provided for comprehensive analysis

■ CICS Support

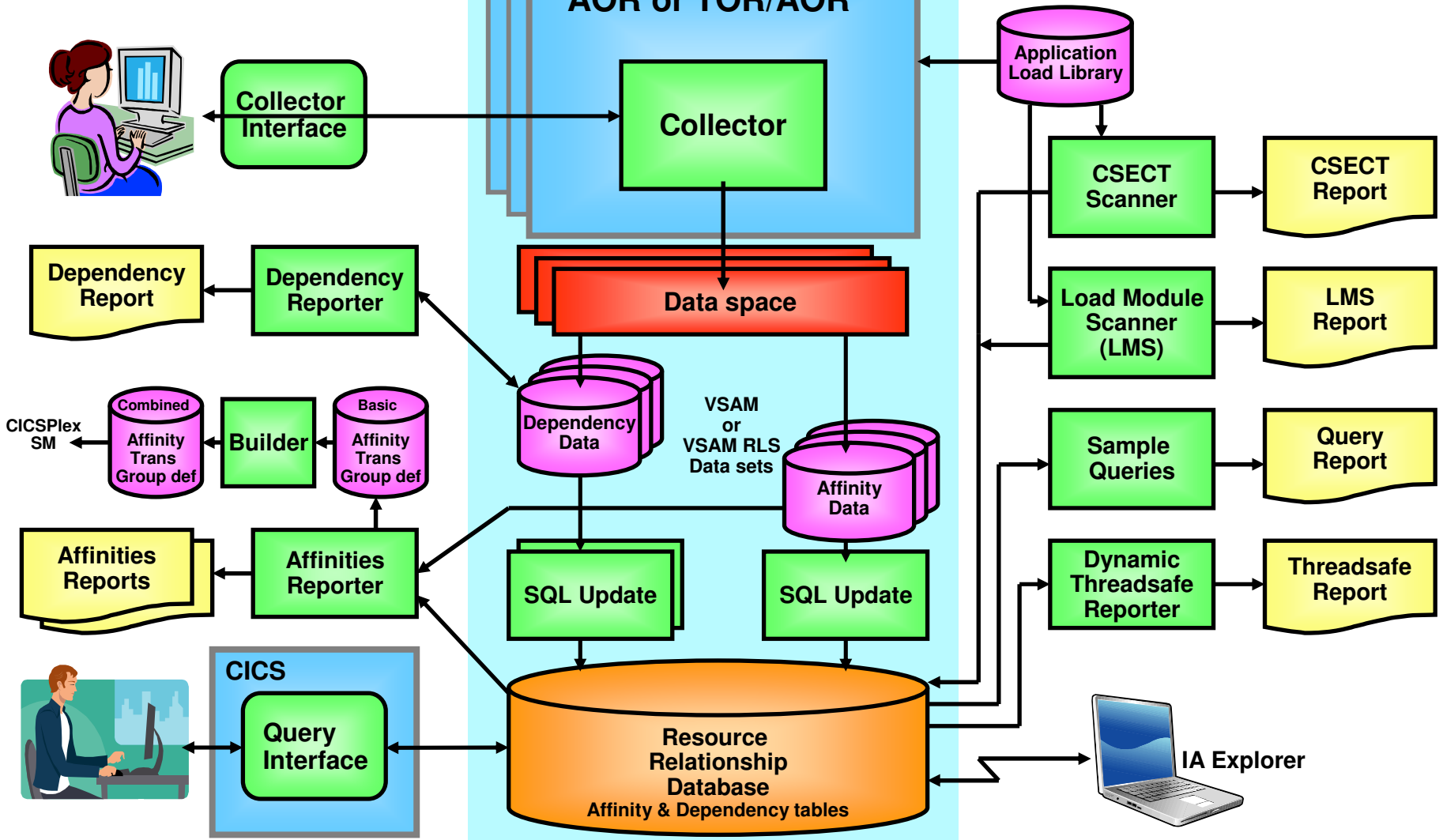
- ▶ CICS Transaction Server for V2.x and V3.x

New in CICS IA V2.2

- CICS TS V3.2 support
- CICS Version Migration Support
- Application performance support
- Thread safety, Affinities
- Web service support
 - Detect, Identify, Capture
- Intuitive new CICS IA Explorer
- Sample queries - rich query editor
- Software AG Natural 4GL support
- Optimized database schema



CICS IA Architecture



CICS IA – Business Value

- **Understand active application inventory quickly and efficiently**
 - ▶ Understand cross-system applications and dependencies
 - ▶ Know the resource topology within a particular CICS region
 - ▶ Understand the where and how resources are used
 - ▶ Know the last time a particular resource was used

- **Maintain or enhance applications more quickly and efficiently**
 - ▶ Identify the scope of a change
 - ▶ What resources that are affected directly and indirectly
 - *Transactions, programs, data elements: files, queues, screens, ...*
 - ▶ What to change, what to build, what to test, what needs to be communicated to roles involved
 - ▶ Look across boundaries, including shared data



CICS Interdependency Analyzer V2.2 – Workshop

Session Objectives

This workshop serves as a hands-on introduction to CICS Interdependency Analyzer (IA) Explorer. The intent is to introduce you to queries you can perform from a PC and to familiarize you with navigation techniques within the IA Explorer.

By the end of this lab, you will be able to navigate the explorer and demonstrate how CICS IA can help understand the relationships within your CICS applications. It is comprised of a several hands-on exercises designed to familiarize you with the product so that you can:

- Navigate the CICS IA Explorer interface
- Understand Threadsafe analysis
- Review a Threadsafe batch report

Ten exercises are included to accomplish these objectives:

- *Exercise 1 - Initial System Definition and Basic Navigation*
- *Exercise 2 - Finding Resources*
- *Exercise 4 - Inquire on resources by region*
- *Exercise 5 - Inquire on resources by program*
- *Exercise 5 - Inquire on resources by transaction (optional exercise)*
- *Exercise 6 - Using the sample queries*
- *Exercise 7 - Using the sample queries for Migration (optional exercise)*
- *Exercise 8 – Creating you own queries*
- *Exercise 9 – Comparing Query Results*
- *Exercise 10 – Review of Batch Threadsafe Report*



CICS Configuration Manager

A single point of control for CICS resource definitions across your enterprise



CICS Configuration Manager

- **What does it do?**

- ▶ Simplifies and automates the management of your CICS resources in both CSD and CPSM BAS environments
- ▶ Enables migration of CICS resources from different environments under a structured change control process
- ▶ Tracks resource history as well as provides back-out to previous change level
- ▶ Provides detailed reports of CICS resources

- **Benefits**

- ▶ Helps reduce errors and abends related to incorrect resource changes
- ▶ Minimizes manual work by operators and system programmers
- ▶ Provides complete audit history of all CICS resource modifications
- ▶ Helps you lower the total cost of ownership of your zSeries platform



CICS Configuration Manager for z/OS (CICS CM)

■ Key features

- ▶ Create, update, delete, copy, replicate CICS resource definitions
- ▶ Change management through the life-cycle stages, e.g. development, test, production
- ▶ Create customized reports to identify redundant definitions, show resource relationships and change management history
- ▶ Audit, back-out and change authorization capabilities

■ CICS Support

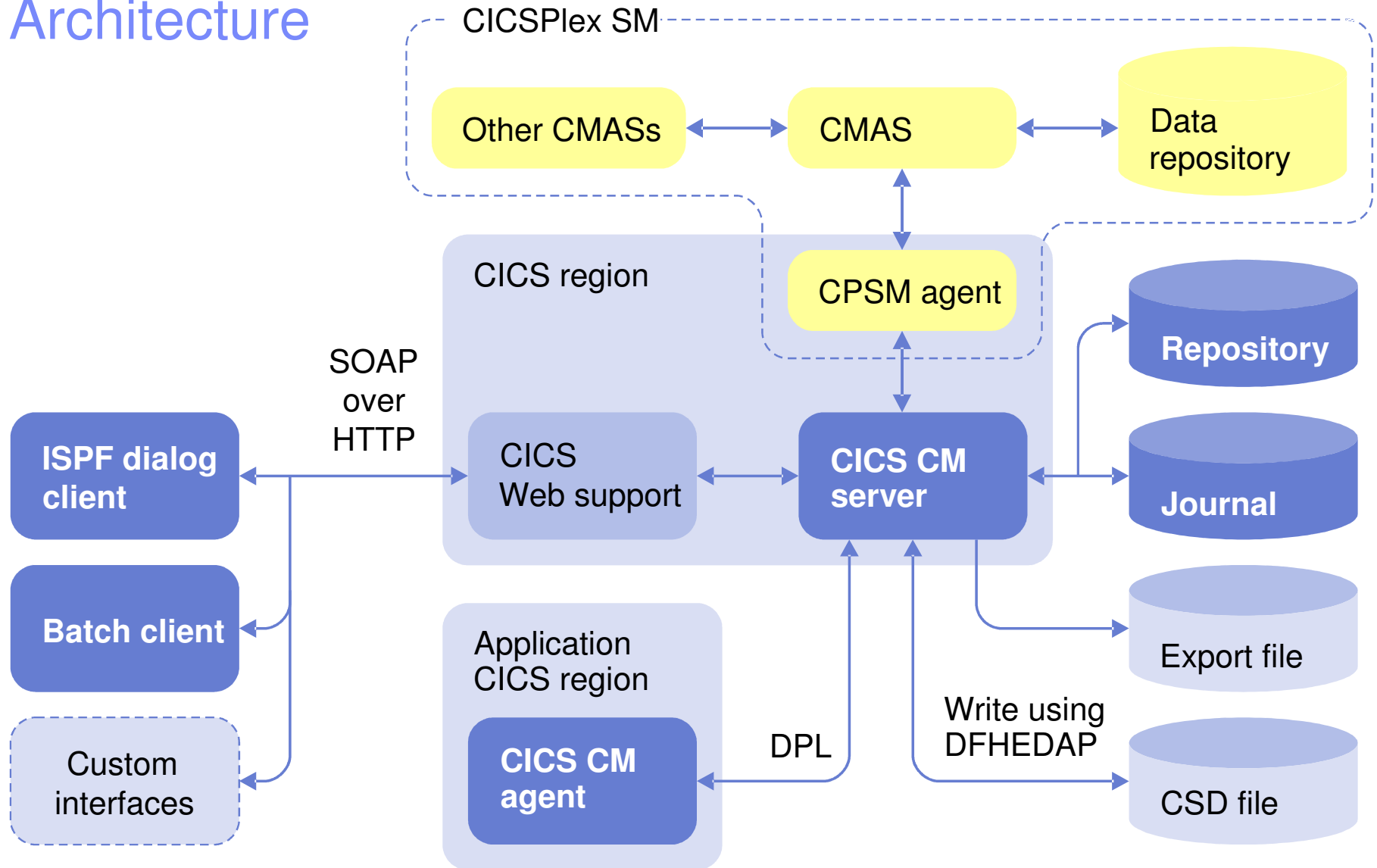
- ▶ CICS Transaction Server for V1.3, V2.x and V3.x

New in CICS CM V1.2

- **CICS TS V3.2 support PTF**
- **Migration of resource definitions between partitioned environments**
- **Integration with change management solutions**
- **Mixed RLS and non-RLS CSDs**
- **Improved identification of orphaned resources**
- **Improved CSD clean-up capabilities.**
- **Usability and reporting enhancements**
- **Identification of resources updated outside of CICS CM**



Architecture



Business Values

Reduce CICS system administration overhead

- ▶ Single point of control (access) to all CICS resources
- ▶ Share responsibility between technical & application groups
- ▶ Extensive resource analysis capability (compare, search, history)
- ▶ Audit Trail of all resource modifications

Improve Speed of Implementation

- ▶ Associate resource modifications to AD change package
- ▶ Build and reuse migration schemes
- ▶ Use transformation rules to modify attributes
- ▶ Automate repetitive change activities

Reduce the chance of outages

- ▶ Enforce naming standards
- ▶ Less manual intervention
- ▶ Signoff for migrations
- ▶ Backout facility



CICS Configuration Manager (CM) V1.2– Workshop

Session Objectives:

This workshop serves as a hands-on introduction to CICS Configuration Manager (CM) V1.2. It will introduce some of the basic features of CICS CM, and to show how CICS CM can help manage resource definitions and migrations for CICS.

The lab is comprised of a several hands-on exercises designed to familiarize you with the product so that you can:

- Navigate the ISPF interface and view resources across CSDs (or data repositories) from a single point
- Set up initial system definitions
- Edit resource definitions
- Generate reports
- Migrate resource definitions
- Identify Orphaned CICS resource definitions or groups of definitions

There are optional exercises that cover additional features of CICS CM. Due to the limited class time, you may not have time to cover these topics during the CICS Tools Work Shop. However; if you complete the other exercises early you can work on the optional exercises independently. Additionally, the option exercises have been included in the recorded demonstration so you can review them add your own convenience.



For more information

Tools WEB sites

- ▶ CICS tools, including library: www.ibm.com/cics/tools
- ▶ WebSphere zSeries tools:
www.ibm.com/software/websphere/zadportal
- ▶ Try CICS tools for free for 60 days
www.ibm.com/software/os/zseries/trials/cicstools

Support Pacs

- ▶ CP12: CICS PA Historical Database Reporting
www.ibm.com/support/docview.wss?uid=swg24011321

Business Article

- ▶ The Wall Street Journal, June 24, 2007. *The Dinosaurs That Won't Die:*
<http://blogs.wsj.com/biztech/2007/07/24/the-dinosaurs-that-wont-die/>

Program numbers (licence):

5697-J23: CICS Interdependency Analyzer
5697-N40: CICS Performance Analyzer
5697-I78: CICS Configuration Manager
5655-P30: CICS VSAM Recovery
5697-I76: CICS VSAM Transparency
5697-I94: CICS Batch Application Control
5655-K01: IBM Session Manager
5655-I05: CICS OTTO

