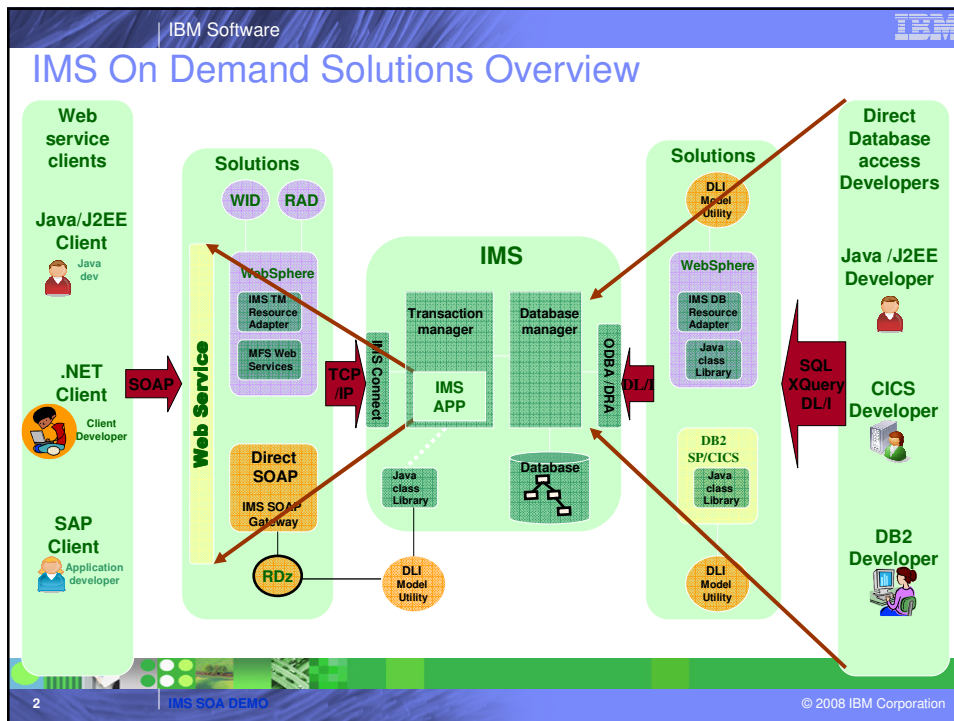


- IMS DLIModel Utility
- IMS SOAP Gateway
- Rational Developer for System z

Demos



Business / IT Objectives

- ➔ To expose IMS database for easy access from SOA-enabled Java and Web applications
 - **IMS DLIModel Utility**
- ➔ To bring traditional IMS applications into SOA arena (enable existing transactions as Web Services)
 - **IMS SOAP Gateway**
- ➔ To accelerate development of traditional mainframe and distributed SOA applications
 - **Rational Developer for System z**

Demo Deliverables

- ➔ Use **DLIModel Utility** to build UML model of the sample dealership database, generate Database View class and modify fields
- ➔ Use **RDz** to import COBOL copybook for the phonebook transaction and generate Web Service artifacts
- ➔ Deploy Web Service into the **SOAP Gateway**, generate sample Web Client application and use it to test Web Service
- ➔ Configure **RDz** with remote z/OS system and use IDE to perform remote development, compilation, debugging and execution of a COBOL application

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IMS Java Class Library and DLIDatabaseView

Business Logic

IMS DB Metadata

Customer Code

```

package samples.dealership;
import com.ibm.ims.dd.*;
import com.ibm.ims.base.*;

public class AUTPSB1DatabaseView extends DLIDatabaseView {
    // The following DLTypeInfo[] array describes Segment: DEALER in PCB: AUTOLPCB
    static DLTypeInfo[] AUTOLPCBDEALERArray = {
        new DLTypeInfo("DealerNo", DLTypeInfo.CHAR, 1, 4, "DLRNO"),
        new DLTypeInfo("DealerName", DLTypeInfo.CHAR, 5, 30, "DLRNAME"),
        new DLTypeInfo("DealerCity", DLTypeInfo.CHAR, 35, 10, "DLRCITY"),
        new DLTypeInfo("DealerZip", DLTypeInfo.CHAR, 45, 10, "DLRZIP"),
        new DLTypeInfo("DealerPhone", DLTypeInfo.CHAR, 55, 7, "DLRPHONE")
    };
    static DLISegment AUTOLPCBDEALERSegment= new DLISegment
        ("segment", "DEALER", AUTOLPCBDEALERArray, 61);

    // The following DLISegmentInfo objects follows to describe the view for PCB: AUTOLPCB
    static DLISegmentInfo[] AUTOLPCBArray = {
        new DLISegmentInfo(AUTOLPCBDEALERSegment, DLIDatabaseView.ROOT),
        new DLISegmentInfo(AUTOLPCBMODELSegment, 0),
        new DLISegmentInfo(AUTOLPCBORDERSegment, 1),
        new DLISegmentInfo(AUTOLPCBSALESegment, 1),
        new DLISegmentInfo(AUTOLPCBSTOCKSegment, 1),
        new DLISegmentInfo(AUTOLPCBSTOCKSALESegment, 4),
        new DLISegmentInfo(AUTOLPCBSALESINFSegment, 5)
    };
}

```

IMS Dep. Region Transaction and Message Processing

Mapping to DL/I APIs

JDBC, JCA interface

Java to C interface

IMS Java Class Library

Assembler Layer Interface to IMS

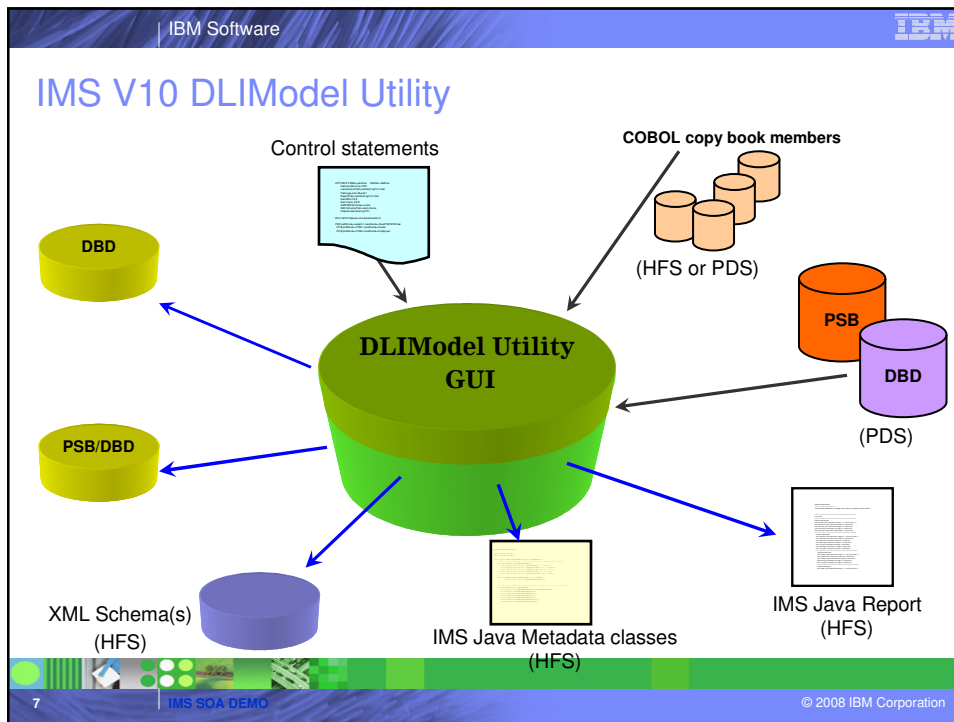
5 | IMS SOA DEMO | © 2008 IBM Corporation

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DLIModel Utility Overview

- ➔ Introduced in IMS V8
- ➔ A tooling that
 - eliminates manual creation of the DLIDatabaseView classes
 - provides a nicely formatted PSB and PCB layouts report
 - generates standardized XML descriptions of the PCBs and the referred DBDs
- ➔ It runs on the z/OS or as an Eclipse plugin from RDz

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SOA with IMS SOAP Gateway

- ➔ The developer's task is simple – to enable existing transaction as a Web Service
- ➔ Throwing away decades of work and rewriting from scratch is too **expensive**, next to **impossible**
- ➔ Instead we want to **reuse**
- ➔ A product like **IMS SOAP Gateway** bridges old and new
- ➔ Customers want this transformation to be as **cheap**, **simple** and **quick** as possible
- ➔ **Rational Developer for System z** makes it possible

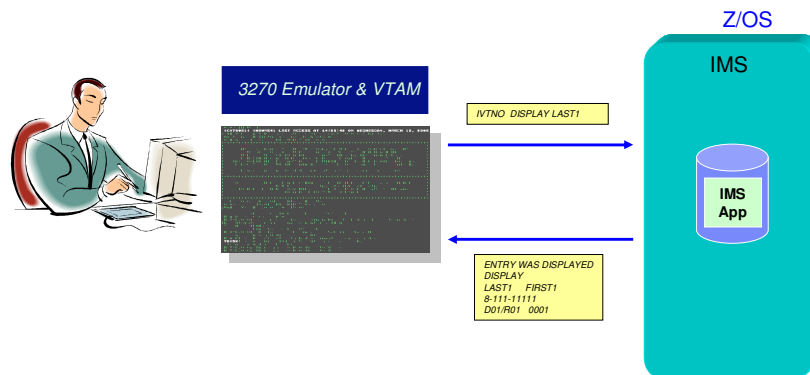
8 | IMS SOA DEMO | © 2008 IBM Corporation

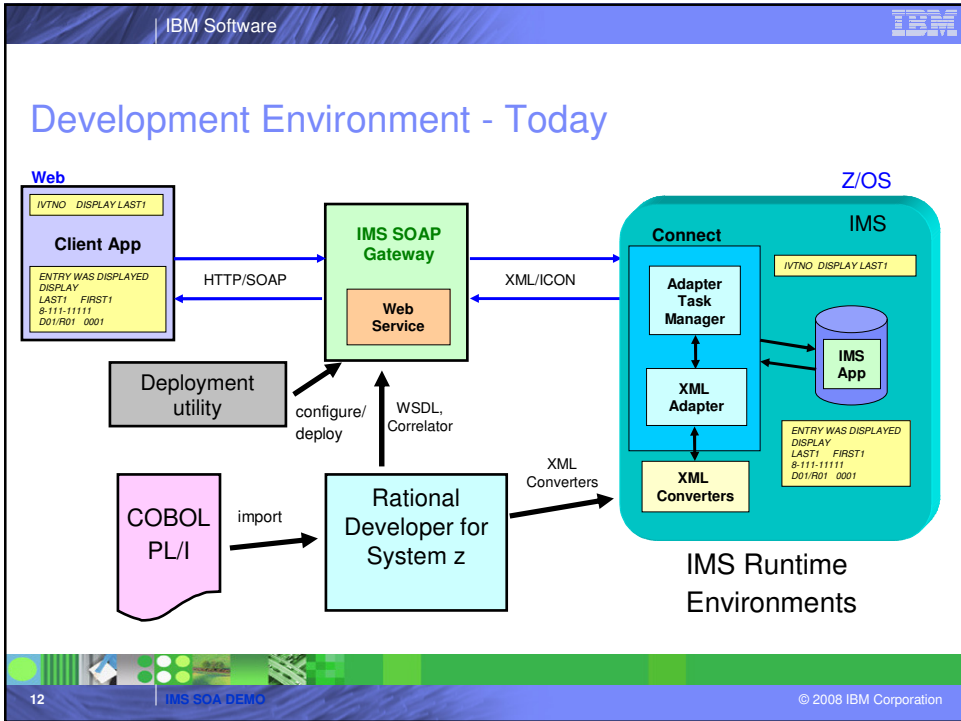
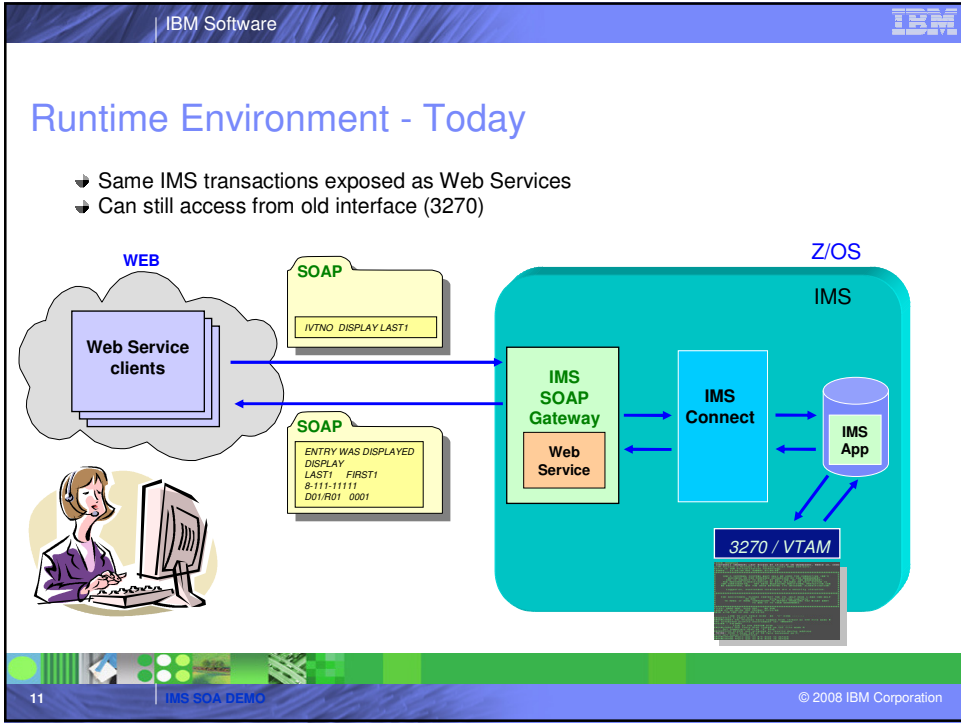
IMS SOAP Gateway Highlights

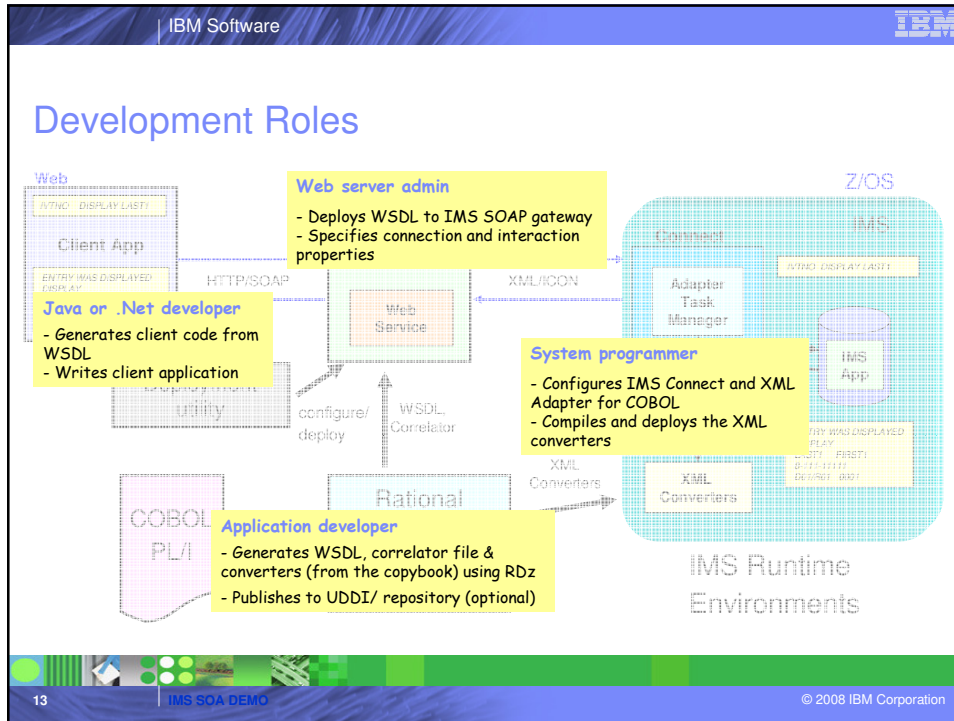
- ➔ **Integrates IMS assets into the Service-Oriented Architecture (SOA)**
 - A Web Service solution for IMS with Direct SOAP support
 - Leverages existing IMS applications as Web Services without the need of full-blown J2EE server
 - Interoperates with vendors/partners in a B2B environment
- ➔ **Uses SOAP messages to support end-to-end integration between IMS transactions and**
 - Java, Microsoft .Net
 - Any third party applications, e.g. SAP XI
 - RYO applications
- ➔ **Operating systems supported: Windows, zLinux, AIX, z/OS**
- ➔ **Current version: 10.1**

Runtime Environment - Yesterday

- ➔ IMS Transactions invoked via VTAM







- IBM Software
- ## Rational Developer for System z Highlights
- ➔ Accelerates the development of **traditional mainframe** COBOL and PL/I applications
 - ➔ Facilitates shorter development cycles through reuse of existing applications, making them accessible as **Web Services**
 - ➔ Enables **composite** processing that integrates transactional and Web-based environments
 - ➔ Operating systems supported: Windows, z/OS
 - ➔ Current version: 7.1.1
- 14 | IMS SOA DEMO | © 2008 IBM Corporation

IBM® Enterprise Modernization Sandbox

- ➔ The Enterprise Modernization sandboxes let you evaluate the IBM Enterprise Modernization solutions
- ➔ Sandboxes make it easy and fun to quickly try practical scenarios guided by self-paced exercises
 - You can integrate, test, and deploy applications in a live test environment
- ➔ IBM provides a mix of full version software trials and "try online" hosted environments
- ➔ Sandboxes are available to everyone
- ➔ RDz is already available on the sandbox
- ➔ IMS SOAP Gateway, IMS TM Resource Adapter and a lot more to come



To learn more

- ➔ IMS DLIModel Utility download page:
 - <http://www-306.ibm.com/software/data/ims/toolkit/dlimodelutility/install.html>
- ➔ IMS DLIModel Utility overview:
 - <http://publib.boulder.ibm.com/infocenter/dzichelp/v2r2/index.jsp?topic=/com.ibm.etools.dlimod.ims.doc/dli2overview.htm>
- ➔ IMS Java Guide and Reference
 - <http://publib.boulder.ibm.com/infocenter/dzichelp/v2r2/topic/com.ibm.im.s9.doc.pdf/dfsjgrg7.pdf>

To learn more (continued)

- ➔ IMS SOAP Gateway download page:
 - <http://www-306.ibm.com/software/data/ims/soap/>
- ➔ IMS SOAP Gateway documentation:
 - <http://publib.boulder.ibm.com/infocenter/dzichelp/v2r2/index.jsp?topic=/com.ibm.etools.soap10.doc/soapoverview.htm>

To learn more (continued)

- ➔ Rational Developer for System z homepage:
 - <http://www.ibm.com/developerworks/rational/products/rdz/>
- ➔ IBM Enterprise Modernization Sandbox:
 - http://www.ibm.com/developerworks/downloads/emsandbox/systemz.html?S_TACT=105AGX28&S_CMP=EMSAND