Agenda

1. SAP NetWeaver User Interaction Overview
2. SAP NetWeaver UI Infrastructure: State of the Union
3. SAP NetWeaver UI Infrastructure: Roadmap & Strategy
The 3 Dimensions of SAP’s User Productivity Infrastructure

UI Services

Clients

Widgets

Business Client

Mobile

UI Infrastructure

Access

Enable

Enrich

UI Services

Web Page Composer

Web 2.0 Services

Content Mgt Services

Wektra / Help Center

Collaboration Services

Mashup Services

Portal Infrastructure (FPN, AccAD)

WD Pattern

WD ABAP

WD Java

VC / WD4VC

Initializer Forms

WD Islands

Ajax FWK

Page

Widgets
Empowering and Connecting People – SAP NetWeaver User Interaction

UI Services
- Roles
- Navigation
- Personalization
- Document
- Page Building
- Collaboration
- Search

UI Clients & Access Channels
- NW Business Client
- Web Browser
- SAP GUI
- Duet & Atlantic
- Mobile & Voice
- Adobe Forms

UI Infrastructure
- Portal Runtime
- Web Dynpro
- Visual Composer

SAP Business Suite
- ERP
- CRM
- PLM
- SCM
- SRM

SAP NetWeaver Foundation

Enrich
- Access
- Enable
1. SAP NetWeaver User Interaction Overview
2. SAP NetWeaver UI Infrastructure: State of the Union
3. SAP NetWeaver UI Infrastructure : Roadmap & Strategy
Enabling the Rapid Creation of Applications

- Reduce Total Cost of Development by providing a comprehensive UI infrastructure for robust, model-driven development.
- Provide tight integration and connection to the SAP backend and business logic
- Maximize on the portal infrastructure
- Ensure holistic lifecycle management
- Accelerate performance
- Enterprise readiness (ACC, supportability, …)
## UI Infrastructure in Detail

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UI Infrastructure – for the Business Suite and E-SOA World

UI development for SAP Business Applications

UI development in open environments and enabling UI composition

Web Dynpro ABAP / Floorplan Manager

- Web Dynpro ABAP is the standard technology for new User Interfaces in the SAP Business Suite
- Floorplan Manager: Efficient, consistent and standard-based creation of Business Suite UI

Web Dynpro Java

Visual Composer / Web Dynpro for VC

- Model-based, visual development for Enterprise SOA
- Shared repository of enterprise services
- Open and integrated toolset (e.g. Web Dynpro for VC)
- Same tools build Web, desktop, mobile, and embedded interfaces
What is Web Dynpro?

**Model-based UI development**
- Enforce clear separation between UI logic and business logic
- Little coding, lots of design
- Declarative UI development

**Future Proof UI Declaration**
- Browser, NWBC, Web Dynpro Client, Mobile Device,…
- Client technology independent UI definition

**Central implementation of user interface standards**
- Accessibility support
- Adobe Forms integration
- Centrally provided UI elements
- Internationalization support
Web Dynpro ABAP (WDA) is the main SAP standard UI technology for developing Web application UIs in the SAP Business Suite. It consists of a runtime environment and a graphical development environment with special tools that are completely integrated into the ABAP development environment - the ABAP Workbench (transaction SE80):

Exceptions:
- Employee and Manager Self-Services and Manager delivered in SAP ERP are based on Web Dynpro Java
- SAP CRM based on Business Server Pages
**POWER List Framework**

Creation/adaptation of work lists and list reports in Web Dynpro ABAP with personalization options and direct access to relevant business objects.

**Floorplan Manager (FPM)**

Composition/adaptation of new application UIs in Web Dynpro ABAP with personalization and configuration options.

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**UI Infrastructure – Building Blocks to Standardize and Jumpstart Bus. Suite UIs**

**SAP ERP 6.0**

- Enhancement Package 2
  - Sales Order Mgmt
  - Travel Mgmt
  - Enterprise Asset Mgmt
  - Learning Solution

- Enhancement Package 3
  - Procurement Quality Mgmt
  - Warehouse Operation Mgmt

- Enhancement Package 4
  - PLM: Product Development
  - Talent Mgmt
  - Sales Order Mgmt
  - Procurement

**SAP SCM 7.0**

- Supplier Network Collaboration
- Transportation Mgmt

**SAP SRM 7.0**

- User Interface changed to Web Dynpro ABAP
Web Dynpro Java

SAP standard UI technology for developing transactional and web-based application UIs in the Java environment. It consists of a Java / JEE runtime environment and an Eclipse-based (3.x) development environment – the SAP NetWeaver Developer Studio:
Comparison Between WDA and WDJ

Design Time

**Web Dynpro ABAP**
- ABAP workbench (SE80)
- Access to data in the local ABAP system via native ABAP coding
- Access to data in remote SAP systems via RFC
- Integrated with both the Enhancement Framework and the Correction and Transport System
- Mime repository

**Web Dynpro Java**
- IDE – SAP NetWeaver Development Studio based on Eclipse
- Openness to various data sources (Web Services, EJBs, BAPIs etc)
- Access to data in remote SAP systems via Adaptive RFC
- Integrated with the SAP NetWeaver Development Infrastructure

- Creation of web-based, UIs for business applications
- Declarative programming model based on an SAP specific implementation of MVC design pattern
- Strict separation of business logic and presentation logic
- Integration with UI technologies such as Flash Islands and Ajax
Comparison Between WDA and WDJ

Design Time

Web Dynpro ABAP
- NetWeaver Web AS ABAP as runtime environment
- Standard UI technology for SAP’s Business Suite

Web Dynpro Java
- NetWeaver Web AS Java as runtime environment
- Support for mobile devices
- Standard UI technology for development of innovative - composite applications using the Composition Environment

Common Features
- Unified rendering (One UI definition – Multiple rendering technologies)
- Support for different client devices
  - Internationalization
- Accessibility
  - Portal integration
  - Personalization (via the Portal)
  - Adobe Forms integration
- Translation
What is Visual Composer?

Visual Composer is a modeling environment that enables code-free modeling and composition, of UI elements and services, to rapidly create and adapt web-based user interface applications. It consists of a Java / JEE runtime environment and a browser based modeling environment:
Comparison Between WDJ and VC

Design Time

Web Dynpro
- Model & code-based development environment (Eclipse-based)
- Powerful combination of Java and MVC paradigm
- Openness to various data sources using the CMI model

Visual Composer
- Creation of web-based, user interfaces for business applications
- Separation of presentation logic and data logic
- Componentization/reuse
- Access to different backend systems
- Model – based development environment
- Fast learning curve & low entry barrier (non programmer can read and develop)
- Rapid application development
Comparison Between WDJ and VC Runtime

Web Dynpro
- Large set of UI controls

WD for VC
- Personalization
- Client agnostic
- Accessibility
- Translation
- UI Rendering (common look & feel, supported browsers, etc.)
- Mobile support
- Adobe interactive forms support
How is Web Dynpro used inside SAP?

SAP Business Suite
- FPM
- WD ABAP

SAP NetWeaver CE
- WD4VC
- WD Java

SAP Business ByDesign
- WD Patterns
- WD Java

ABAP Stack
- ABAP Workbench

JAVA Engine and Services
- VC 7.1
- WD DT

UIBB development
Custom development
Design Time
Portal Infrastructure - UI Integration

- Role-based & menu-based access to users world-wide
- Single and Multi-System Landscape Support
- Single Sign On Authentication
- Cross-Application Navigation
- Cross System Role Repository
- Branding Capabilities
- Enhanced Supportability
The SAP NetWeaver Portal integrates ...

<table>
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<tr>
<th>... Users worldwide</th>
<th>... Applications, information and services</th>
<th>... Content from different administration groups</th>
</tr>
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<tr>
<td>End users access personalized central portal; optimized performance for remote locations</td>
<td>Connect to various backends and information sources → provide seamless access for end users</td>
<td>Support distributed content administration on separate portals &amp; provide central end user access</td>
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</table>

→ Role-based access

→ Accelerated Application Delivery for SAP NetWeaver (separate appliance)

→ Application Integrator / iView templates

→ Federated Portal Network: Remote Role Assignment, Remote Delta Links, WSRP content sharing

Available with SAP NW 7.01
Federated Portal Network

Seemless access for end users to content located on different portals (SAP and non-SAP)

Benefits of FPN

- Content persisted once - accessed from other locations
- Different content sharing modes suitable for different administrative setups
- For connected portals FPN handles centrally
  - Session Management
  - Eventing
  - Themes
  - Languages ...
Accelerated Application Delivery (AccAD)

- Performance gain for portal users in wide area networks
- Benefits:
  - Improved response times for remote portal users
  - Potential reduction of portal server load (CPU & memory)
- Local file caches to avoid unnecessary network file swapping
- Network traffic compression between portal server and client browser
- Centrally and securely managed
- Performance gain also for non-portal web applications

Side effect: Less portal server load

Faster system response
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UI development for SAP Business Applications

UI development in open environments and enabling UI composition

Web Dynpro ABAP / Floorplan Manager

- Advanced Ajax/Web 2.0 capabilities
- Adobe Flash Islands for Web Dynpro Java
- BOBJ – Crystal report integration

Web Dynpro Java

- Advanced Ajax/Web 2.0 capabilities
- Adobe Flash Islands for Web Dynpro Java
- JSF integration

Visual Composer / Web Dynpro for VC

- Extensibility of Visual Composer models with WD components
- Xcelsius and WD/VC integration

Available with SAP NW 7.01

Available with SAP NW CE 7.11
### Reducing Total Cost of Ownership: Typical TCO Drivers

<table>
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<th>Main investment areas for a lower total cost of ownership of the portal</th>
<th>Details</th>
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</table>
| **Easier portal administration** | • Simplicity for portal administrators and ‘Best Practices’ documents  
• Harmonization and alignment of administration tools |
| **Reduced downtime for system maintenance** | • Read-only mode during system downtime for content consistency |
| **Better performance and system response time** | • Accelerated Application Delivery (‘AccAD’) for better WAN performance  
• Improvements in portal end-user navigation and PCD access times |
| **De-centralized self service page creation** | • Next generation Web Page Composer enables page creation for business users (thus, reducing load for IT personnel) |
| **Federated Portal Network (FPN) improvements** | • Easier setup/administration/trouble-shooting and improved performance |
| **Supportability** | • Tools for root cause analysis and log cleanup  
• Portal enhancements for CTS+ (Change and Transport System) |
Examples of Easier Portal Administration (Draft designs, final look may change)

Task-oriented entry page for portal administrators

Wizard for system configuration
Modularization of SAP NetWeaver Portal: Principal Concept

Modularized portal infrastructure

- Delivery of a core portal infrastructure that enables UI integration
- Tight integration with SAP standard UI infrastructure (Web Dynpro)
- Activation of further services as required, e.g. collaboration, UWL, …
  (detailed deployment method in discussion)
Future Direction
SAP NW UI Infrastructure

**Web Dynpro**
- Composition/adaptation of new application UIs using FPM for Web Dynpro ABAP
- Power list framework for WD ABAP
- Improved WD Java for SAP NWCE7.1

**Visual Composer**
- Improved Visual Composer for SAP NW CE7.1
- Creation of WD applications (incl. ALV list viewer)
- Portal content creation

**Portal Infrastructure:**
- Role-based & menu-based access to users world-wide
- FPN for accessing multiple portals

**Web Dynpro**
- Advanced Ajax / Web 2.0 capabilities
- Adobe Flash Islands for Web Dynpro ABAP & Java

**Visual Composer**
- Visual Composer in Eclipse
- Extensibility support (WD components integration)
- Advanced Lifecycle Management capabilities

**Portal Infrastructure**
- Optimized Portal TCO & flexible deployment
- Accelerated response times with accelerated Application Delivery (AccAD)

**Lean & Harmonized UI Stack:**
- Componentized infrastructure, e.g enabling lean application portal scenarios
- UI clients with maximum extensibility and flexibility through additional Web Dynpro Islands.
- Further openness and standards enablement

**Next Generation UI Flexibility, Business Mash-ups, And Contextualized Collaboration:**
- Enabling situational, user-centric processes via ad-hoc composites