SAP NetWeaver Product Management
User Interaction
1. SAP NetWeaver User Interaction Overview
2. SAP NetWeaver User Interaction Clients: State of the Union
3. SAP NetWeaver User Interaction Clients: Roadmap & Strategy
The 3 Dimensions of SAP’s User Productivity Infrastructure
Empowering and Connecting People – SAP NetWeaver User Interaction

UI Services

Business User

UI Clients & Access Channels

Web Browser

NW Business Client

SAP GUI

Duet & Atlantic

Mobile & Voice

UI Services

Roles

Navigation

Personalization

Document

Page Building

Collaboration

Search

UI Infrastructure

Portal Runtime

Web Dynpro

Visual Composer

SAP Business Suite

ERP

CRM

PLM

SCM

SRM

SAP NetWeaver Foundation

SAP NetWeaver User Interaction

SAP Business Suite

ERP

CRM

PLM

SCM

SRM

SAP NetWeaver Foundation

Access

Enrich

Enable

Enable

Enrich

Access
1. SAP NetWeaver User Interaction Clients Overview
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What are the SAP NetWeaver UI Clients?

The SAP NetWeaver UI Clients, offers different users a broad choice of complementary access channels to connect to the same or different SAP back ends and applications. These different access channels ensure that users choose a client that will be compatible with their preferred environment (e.g. portal, smart client, mobile and more) and requirements (fast, offline, zero foot print, etc).

The SAP NetWeaver UI Clients today include:

- **Web Clients**
  - SAP NetWeaver Enterprise Portal Client
  - Unified Rendering

- **Desktop Clients**
  - SAP NetWeaver Business Client
  - SAP GUI

- **Horizontal Clients**
  - Widgets
  - Interactive Forms
  - Adobe Flash Islands for Web Dynpro
  - Mobile and Voice
Within the complementary SAP UI Clients offering, the different clients:

- Deliver state-of-the-art Web 2.0 experience by including rich client technologies.
- Provide forms-based access: simple, offline, business-scenario oriented.
- Accelerate UI standardization and harmonization through unified rendering
**What is a Client?**

A **Client** is a software program that is used to contact and obtain data from a Server software program on another computer… Each Client program is designed to work with one or more specific kinds of Server programs, and each Server requires a specific kind of Client (Netfronts, [http://netfronts.com/guides/glossary.htm#c](http://netfronts.com/guides/glossary.htm#c)).

A client and server can employ **a one to many or many to many relationship**. Through these relationships:
- A *single* server may have *several* clients serving as its interface
- AND
- A *single* client may serve as the interface for *several* servers

**Client Types** include in part Web Clients, Desktop Clients, Mobile Clients, and Email Clients

**Client Examples** include in part SAP Portal Web Client, Gmail, Instant Messenger, Yahoo, Widgets, and Adobe Forms
What is a Client?

Client Capabilities are usually classified through Thin/Lean/Slim Clients, Smart Clients, Fat/Rich/Thick Clients. Furthermore, they are usually categorized as Web Clients or Desktop Clients.

**Thin Client** - (a.k.a. lean or slim client) is a client which depends primarily on the central server for processing activities, and mainly focuses on conveying input and output between the user and the remote server. — *Typically Web Clients*

**Smart Client** – is a client which simultaneously captures the benefits of a "thin client" (zero-install, auto-update) and a "fat client" (high performance, high productivity). — *Typically Web Clients*

**Fat Client** - (a.k.a. thick or rich client) is a client which typically provides rich functionality independently of the central server. A fat client typically refers to the large size of applications residing on the client machine. — *Typically Desktop Clients*

* Taken from Wikipedia
Signature Branding – ensuring a standardized and harmonized look and feel across the SAP applications
SAP NetWeaver UI Clients in Detail

- **Web Clients**
  - SAP Enterprise Portal Client
  - Unified Rendering
- **Desktop Clients**
  - SAP NetWeaver Business Client
  - SAP GUI
- **Horizontal Clients**
  - Widgets
  - Interactive Forms
  - Adobe Flash Islands for Web Dynpro
  - Mobile and Voice
SAP NetWeaver Enterprise Portal Client

The SAP NetWeaver Enterprise Portal Client is SAP’s enhanced zero footprint, browser based client, it:

- Serves as a single entry point to SAP and non-SAP information sources
- Utilizes the Portal services infrastructure for role based access to the SAP systems
- Provides tools to manage and integrate business content
- Offers administrative capabilities and role based end user personalization features
- Allows the creating of corporate-branded solutions
The SAP NetWeaver Enterprise Portal Client offers different framework pages which provide the navigational and structural "components" required to navigate and operate the portal.

<table>
<thead>
<tr>
<th>Framework Page</th>
<th>Characteristics</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Today:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Default Framework Page</td>
<td>2 frame, nested framework with isolated inner page (iFrame)</td>
<td>For business applications with advanced functionality support</td>
</tr>
<tr>
<td>Light Framework Page – External Facing Portal</td>
<td>1 frame, flat framework with embedded inner page</td>
<td>For lightweight, static content, web-like navigation and improved network traffic (client performance)</td>
</tr>
<tr>
<td>Custom – Built Framework Page</td>
<td>Custom specific framework (flat or nested)</td>
<td>Best fit for functionality, Look &amp; Feel and performance (leverages JSP tag libraries)</td>
</tr>
</tbody>
</table>
Unified Rendering is SAP’s advanced XML syntax for writing Rendering Code for Web Controls and their Browser based presentation, it:

- Provides fast Web User Interfaces with a consistent visual design and behavior across all SAP products.
- Ensures efficiency and speed in the development of UIs.
- Is server platform and programming language independent.
- Is used to describe interfaces, properties, methods, and events in a structured fashion.
The SAP NetWeaver Business Client is SAP’s next generation desktop client, it:

- Serves as a single entry point to SAP information sources aimed to suit and maximize the productivity of the frequent SAP user.
- Offers a uniform environment for hosting multiple SAP and non-SAP technologies in a uniform environment (including SAP GUI and Web Dynpro) as well as any other Web-based content.
- Utilizes the Portal services infrastructure for role-based access to the SAP systems and consistent navigation capabilities when accessing Business Suite applications.
- Offers direct access to backend (PFCG) role repository for All in One.
- Presents an improved ‘look and feel’ and interaction model.
SAP GUI is SAP’s legendary, single system desktop based client, it:

- Serves as an entry point to the SAP application server and thus provides access to SAP functionality in SAP applications.
- Offers a user interface for power users needing single system access to SAP transactions, reports, and generic Office Integration (View).
- Offers multiple GUIs for the same application to accommodate different client operating systems, user experiences, tasks, and environments.
- Supports more than 20 languages.
- Offers a fixed set of GUI elements including ActiveX controls and equivalent Java beans as well as Windows-style and Java-style interaction.
There are different SAP GUls available for different purposes. Not every GUI is the right for every use case. The table below offers a recommendation of how to select the right one.

<table>
<thead>
<tr>
<th>Usage Type</th>
<th>SAP GUI Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rare usage of SAP systems</td>
<td>SAP GUI for HTML</td>
</tr>
<tr>
<td>Frequent usage of SAP systems</td>
<td>SAP GUI for Windows / SAP GUI for Java</td>
</tr>
<tr>
<td>ABAP Developers</td>
<td>SAP GUI for Windows</td>
</tr>
<tr>
<td>Non Microsoft OS</td>
<td>SAP GUI for Java / SAP GUI for HTML</td>
</tr>
<tr>
<td></td>
<td>SAP GUI for Windows (Terminal Server)</td>
</tr>
</tbody>
</table>
Widgets

Widgets are SAP’s *instantaneous, need based, desktop clients* they:

- Serve as single entry points or displayers of SAP information sources.
- Are aimed at providing specific information continuously.
- May exist as eye candy, information only, transaction launchers or action prompting clients based on the organizational needs.
- Are based on the extended SAP XML protocol –XBCML.
- They are categorized into three main areas:

<table>
<thead>
<tr>
<th>Description</th>
<th>Information Access</th>
<th>Visualization</th>
<th>Process &amp; Task</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Examples</strong></td>
<td>Company Updates: Company News, Stock Quotes, RSS Feeds, Corporate Incentives –sales status of a new product, proximity to reaching company sales quota.</td>
<td>Company Revenue, Total Sales, Employee Count Growth, Finance Trends, Branch Revenue, CPM*</td>
<td>Individual Task List (POWL / UWL) – Transaction Launcher, Purchase Order Entry Forms, Supply Level Indicator and Order Form, Eventus</td>
</tr>
</tbody>
</table>

*CPM* - Corporate Performance Measurement.
SAP Interactive Forms by Adobe are SAP’s integrative PDF document clients, they:

- Automate and streamline forms-based business processes
- Integrate interactive PDF documents into business processes driven by SAP applications
- Are fully integrated into SAP NetWeaver and available to any application based on SAP NetWeaver
- Allow forms-based input combined with workflow to start automated follow-up steps
- Generate forms that contain data extracted from SAP systems
- Use dynamic or static forms
- Can be deployed in online and offline scenarios
- Submit data from the form back to SAP systems
- Allow users to print forms
Adobe Flash Islands for Web Dynpro are SAP’s Web Dynpro User Interface enriched application specific clients, that:

- Allow the creation of rich Internet components that support integration, data exchange, and interaction with applications built with Web Dynpro for ABAP
- Provide a generic Flash UI Element to integrate additional Flash Controls like Yahoo Maps in Web Dynpro view layouts
- Provide subset of WD4VC Analytics UI Elements like the Analytics Chart UI Element in Web Dynpro Java UI Element Library
- Support rich user interaction with Flash Controls by utilizing transition effects e.g. drag & drop, sliders tooltips
The SAP Mobile and Voice is SAP’s integral on the road client solution, it

- Allows to develop, deploy and operate mobile scenarios for occasionally connected and always connected mobile devices
- Enables leveraging SAP expertise (BAPI, ESOA, Web Dynpro) to develop mobile applications
- Ensures the „Develop once run on“ Windows Mobile, Blackberry, Nokia (Device Recognition) methodology
- Enables integration of barcode scanners, RFID and function keys for better usability
- Allows for connectivity via LAN, WIFI, Bluetooth, GSM or GPRS
- Provides no application footprint on the device
- Ensures easy development and deployment of mobile apps
- Offers simple operation of mobile solutions
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The SAP NetWeaver Enterprise Portal Client and the SAP NetWeaver Business Client can both suit the everyday needs of the typical end user but choosing the best client should be based on the **usage scenario**.

In the end, the client strategy depends on the customer needs and could include just the Portal Client, just the NetWeaver Business Client, or a mixture of both.

Rule of Thumb = Select the **RIGHT Client** for the **RIGHT User**.

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**UI Client for SAP NetWeaver Enterprise Portal**
- Zero Footprint
- Access from Anywhere
- External Facing Portal Usage
- Business Content Administration
- Collaborations Capabilities
- Branding Options

**SAP NetWeaver Business Client**
- Single Point of Entry Clients
- Powered by a single integration platform and UI infrastructure
- Enables a robust environment for running SAP business applications
- Worklist Proficient
- Enables Role and Object Based Navigation (OBN)
- Desktop Footprint
- Enhanced User Interface with a high Fidelity UI
- Encapsulation of SAP GUI
- Desktop Performance
- Backend Access
The relationship between SAP GUI and the SAP NetWeaver Business Client is that the SAP NetWeaver Business Client can host the SAP GUI applications. To do so, SAP GUI 7.10 must be installed on the local machine (as part of the SAP NetWeaver Business Client installation or prior to the installation).

**SAP Recommendation:**

<table>
<thead>
<tr>
<th>Usage Type</th>
<th>SAP GUI Recommendation</th>
<th>SAP NetWeaver Business Client Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rare usage of SAP systems</td>
<td>SAP GUI for HTML</td>
<td>No (temporary)</td>
</tr>
<tr>
<td>Frequent usage of SAP systems</td>
<td>SAP GUI for Windows / SAP GUI for Java</td>
<td>Yes</td>
</tr>
<tr>
<td>ABAP Developers</td>
<td>SAP GUI for Windows</td>
<td>No</td>
</tr>
<tr>
<td>Non Microsoft OS</td>
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<td>No</td>
</tr>
</tbody>
</table>
**SAP NetWeaver UI Clients Roadmap**

**SAP NetWeaver Enterprise Portal Client: 3 available Framework Pages**
- Single entry point to SAP and non-SAP information sources
- Utilizes the Portal services infrastructure for role based access to the SAP systems
- Provides tools to manage and integrate business content
- Allows the creating of corporate-branded solutions

**SAP NetWeaver Business Client for SAP All in One and Business Suite:**
- Based on Portal services infrastructure for role based access to SAP systems and consistent navigation capabilities.
- Direct access to backend (PFCG) roles.
- Can host existing SAP UIs in the “canvas” area (including SAP GUI and Web Dynpro) as well as any other web based content.

**SAP NetWeaver Enterprise Portal Client: New Ajax Framework Page**
- AJAX based client allowing for improvement in performance and usability including in part:
  - Attractive and intuitive UI following the new SAP Signature Design
  - Data stored in browser cache
  - Flexible technological UI layer

**SAP NetWeaver Business Client for Business By Design:**
**Additional Capabilities to Today’s:**
- Improved User Experience: offers the new SAP 'Look and Feel' and Interaction Model – “Signature” Design
- Faster Rendering – using smart rendering on local desktop
- Increased Leveraging of the Desktop and Client Capabilities

**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

### Roadmap Timeline
- **2007**
  - SAP NetWeaver 7.0
  - SAP NetWeaver CE 7.1
- **2008-2010**
  - EHP1 for SAP NetWeaver 7.0
  - EHP1 for SAP NetWeaver CE 7.1
  - AccAD 2.1 for SAP NetWeaver
  - SAP NetWeaver 7.2
  - Future Releases