UXP200 – Overview about SAP UI Technologies and when to choose what

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Agenda

Introduction

User Interface Frameworks & Tools
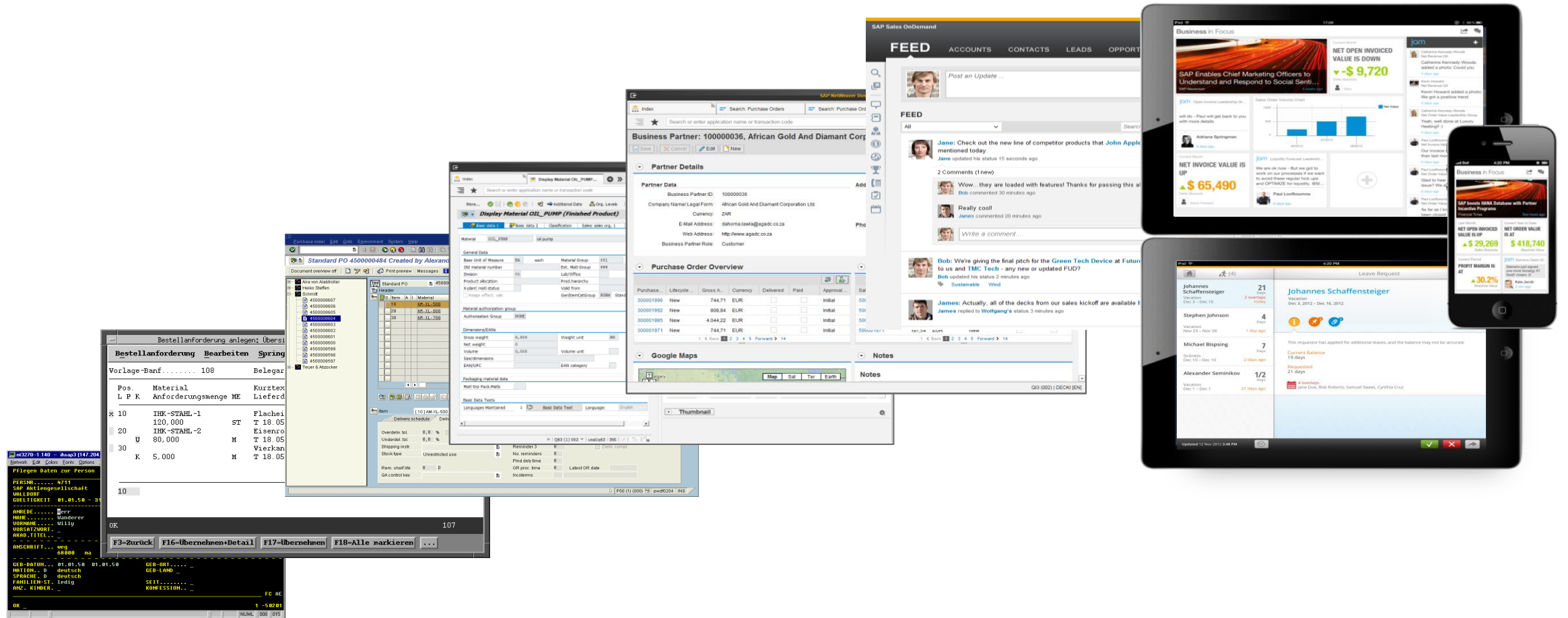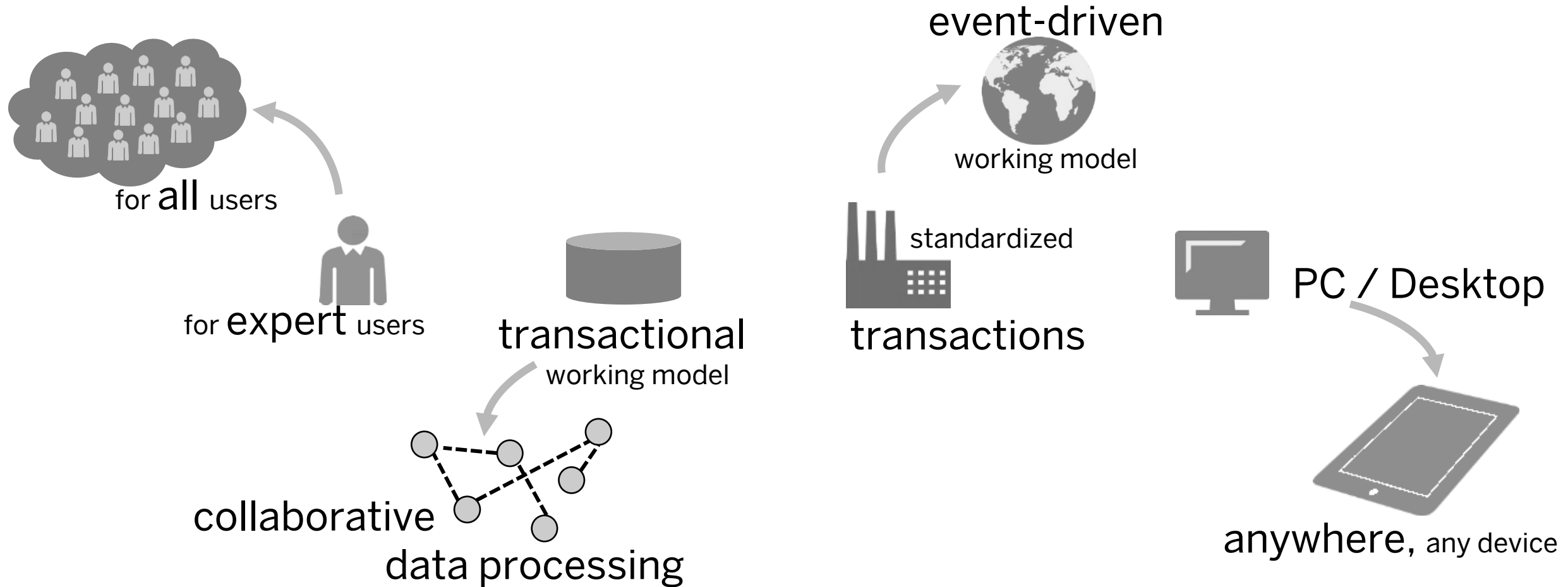
User Interface Clients

Best Practices

Summary

Introduction

SAP User Interfaces
UI evolution

SAP is Changing

for **all** users

for **expert** users

transactional
working model

collaborative
data processing

event-driven

working model

standardized
transactions

PC / Desktop

anywhere, any device

Expanding the enterprise experience

(Key) User Interface Frameworks & Tools

- SAP UI development toolkit for HTML5 (SAPUI5)
- SAP Web IDE (former SAP River Rapid Development Environment)
- Floorplan Manager / Web Dynpro ABAP
- SAP Dynpro
- SAP Screen Personas
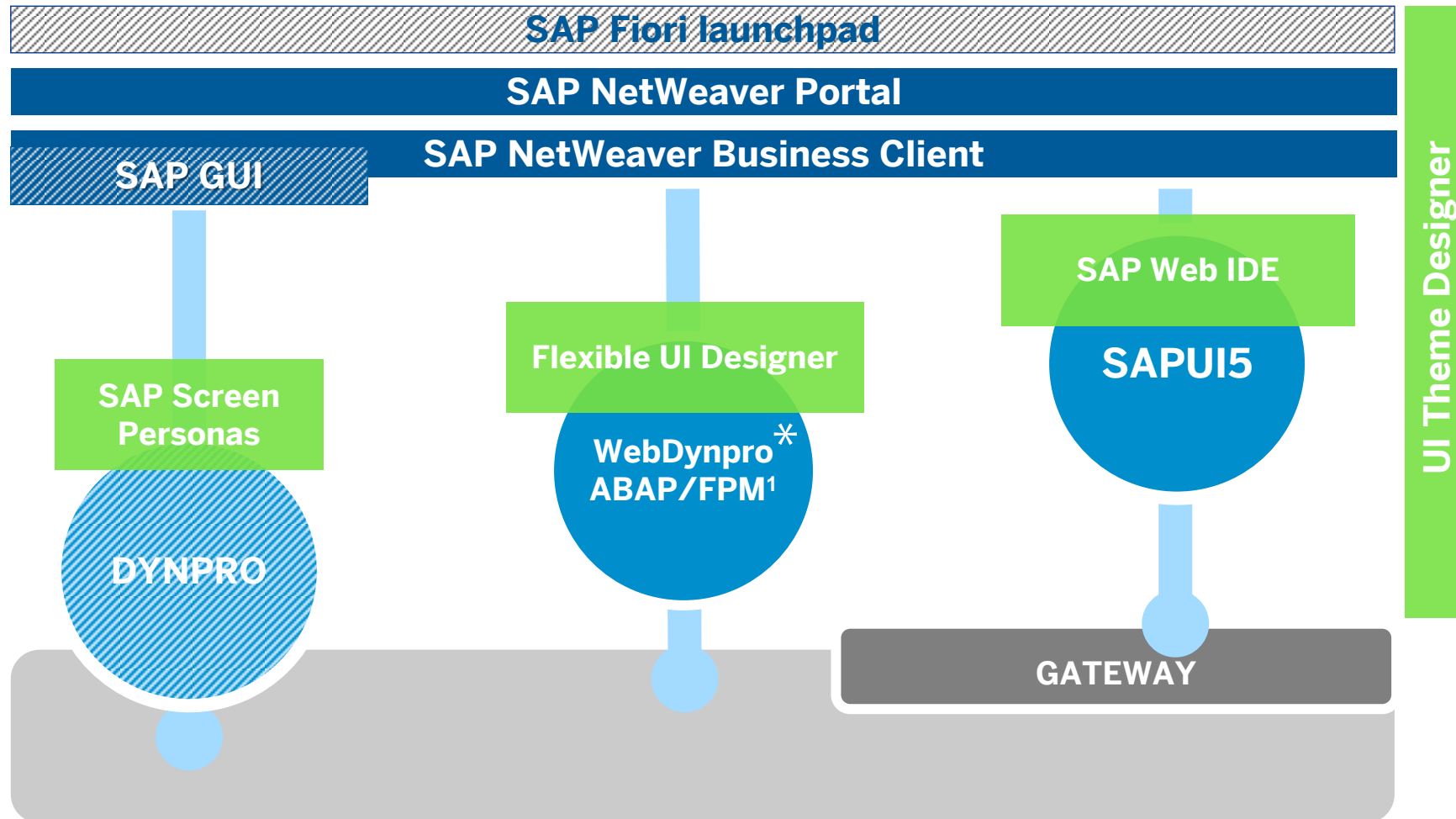- UI theme designer
- Other technologies

SAP d-code

SAP's Key UI Frameworks & Tools

The key UI technologies & tools are those which directly support SAP's 'NEW – RENEW – ENABLE' user experience approach.

**UI Clients**
UI Tools
UI Technologies

SAP Fiori launchpad

SAP NetWeaver Portal

SAP NetWeaver Business Client

SAP GUI

UI Theme Designer

SAP Web IDE

SAP Screen Personas

Flexible UI Designer

SAPUI5

DYNPRO

WebDynpro* ABAP/FPM[1]

GATEWAY

* Harmonized in Run & Design Time with WebUIF, [1] Floorplan Manager

SAP UI Development Toolkit for HTML5 (aka SAPUI5)

SAPUI5 is HTML5 and Java Script based. It combines openness and flexibility with enterprise readiness and product standard support.

› Running on any device (Responsive Design)
› Running on any platform
› Extensible component model
› SAP product standard compliant
› Theming & Branding

› **Open**
    › Based on "Open Source" Framework(s)
    › Following Web Standards
    › SAPUI5 is Open Source* : OpenUI5
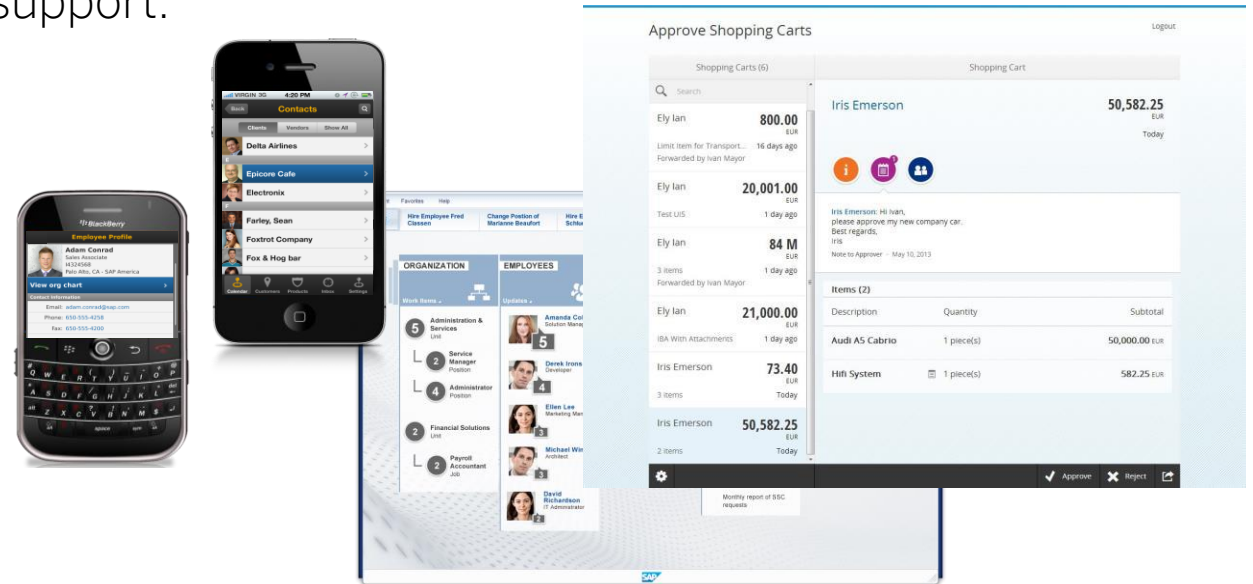
*:
SAP contributes key elements of SAPUI5 to Open Source community:
http://sap.github.io/openui5/

SAP Web IDE

An extensible Web-IDE with a growing set of embedded tools for rapid design, build and deployment of web applications based on SAPUI5.

Benefits

› Browser-based IDE with zero installation
› Supporting the E2E application lifecycle
› Improved developer productivity by offering efficient development tools
› Targeting developers but also LoB experts and designers

Planned Features

› Source code, wizards and WYSIWYG editors
› Application / code templates
› OData service development and data binding
› Declarative navigation flow
› Extensibility support
› Collaboration support
› Available on HANA XS and HANA Cloud
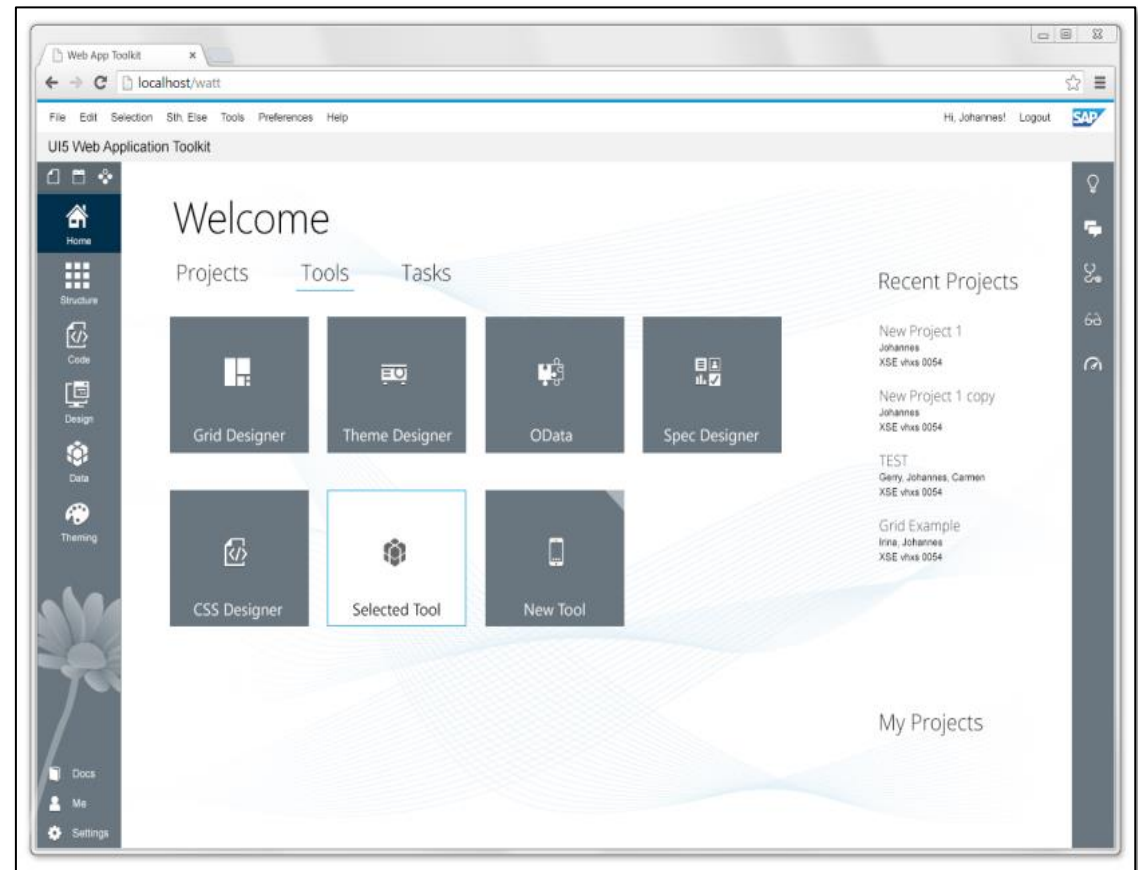
SAP Web IDE
SAP Fiori Extensibility - Example

SAP Delivered Standard Application

Extended Application

New Field

Hide Area

Add Function

Floorplan Manager / Web Dynpro ABAP
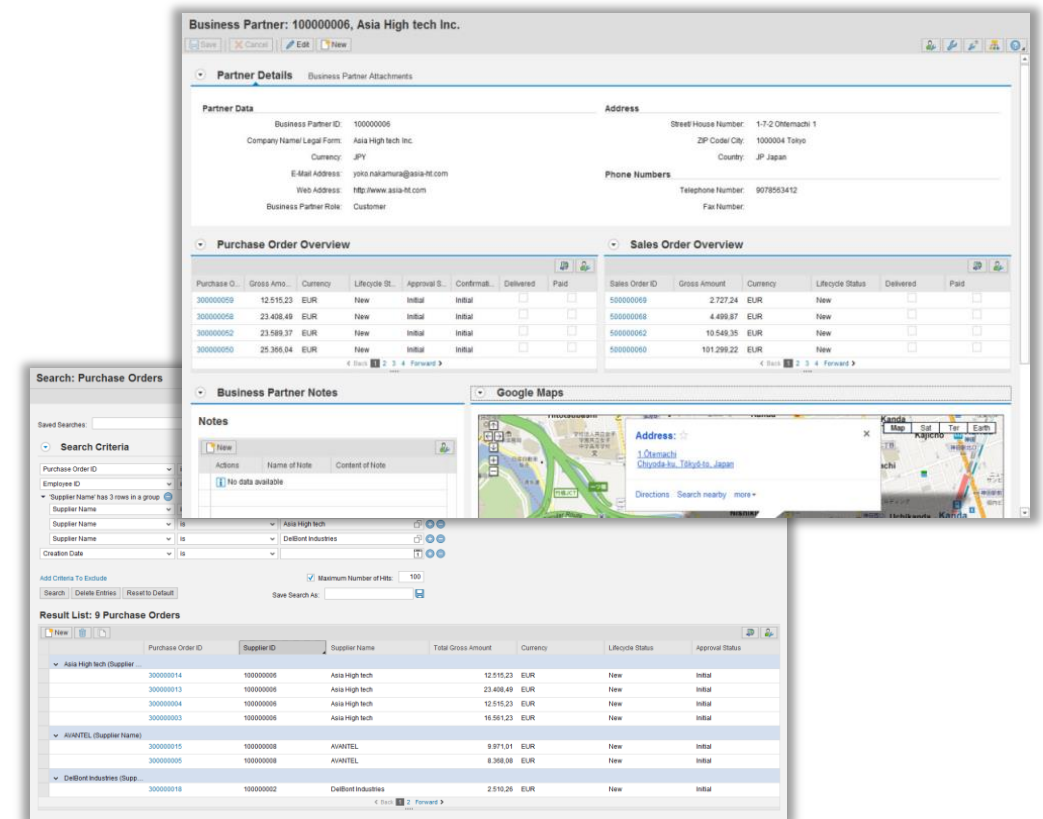## Description

Floorplan Manager (FPM) is a framework for model-based and declarative creation and adaptation of user interfaces. It is based entirely on Web Dynpro ABAP.

Key capabilities

- Application composition using predefined floorplans & building blocks
- Code-free UI configuration, e.g. via flexible UI designer tool (FLUID)
- Modification-free adaptation and extension of UIs as well as end-user personalization
- Coherent and guideline-conforming screen definition, providing product standards support
- Flexibility through island concept

Benefits

- Increased developer efficiency
- Increased flexibility and agility through separation of business logic and UI (timeless software)
- Key technology for SAP Business Suite

FPM in a Nutshell – Basic FPM concepts

Basic concepts:

→ Construct Web Dynpro UIs

→ Transactional Applications

→ Floorplans & Patterns

→ Configuration & Reuse

→ Adaptation & Enhancements

→ Modern & Rich UIs

→ Big Data & Analytics

FPM in a Nutshell – Floorplans

→ General layout & interaction
→ Application composition & UI assembly

Overview Page Floorplan (OVP)

- Object maintenance & overview
- Highly personalizable
- Rich functionality (Page master & page types)

Guided Activity Floorplan (GAF)

- Step by step processes
- Roadmap with standard buttons
- Step specific buttons

FPM in a Nutshell – Generic UI Building Blocks (GUIBBs)

→ Generic UI patterns, fully integrated into FPM
→ Feeder classes & generic access (BOL, BOPF, …)

Form & Form Repeater

- Pixel-perfect alignment
- Flexible layouts
- Dynamic control

List & Tree

- Smooth scrolling
- ABAP Table Services

Search & Filter

- Select Options & Saved Searches
- Attribute Filter

Modern Controls

- Charts based on CVOM
- Maps based on VisBiz
- Carousel based on SAPUI5

Dynpro-based front end technologies – SAP GUI family
Description

SAP GUI is SAP´s universal client for accessing SAP functionality. All three members of the SAP GUI family have unique attributes that make them especially suited for different user environments

Key capabilities

- Graphical user interfaces for all SAP applications based on Dynpro technology
- Separation of user interface and application logic
- Support for various environments (WTS, browser,…) and operating systems

Benefits

- High performance and user interactivity
- Fully compatible with all supported SAP NetWeaver releases
- Seamless integration into nearly all environments

SAP GUI for HTML

SAP GUI for Java

SAP GUI for Windows
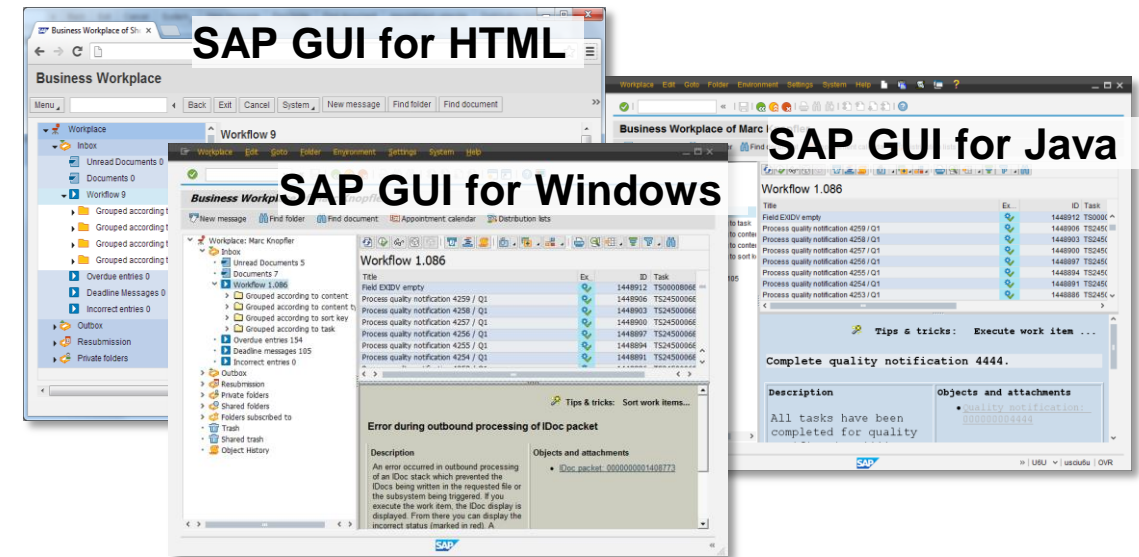
Note
- The SAP GUI family is and will be maintained according to SAP's support level agreements. It will continuously receive focused new investments
- Continue using applications based on SAP GUI as well as developing own applications or adding enhancements to existing applications is absolutely safe
- Following SAP's UX strategy SAP GUI is not a key UI technology for SAPs developers to build completely new applications; here SAP recommends to use Web Dynpro ABAP/ Floorplan Manager (WebClient UI framework for CRM applications) or SAPUI5. However SAP continues to extend existing Dynpro-based applications with this technology

SAP Screen Personas
Description

SAP Screen Personas allows companies to improve user productivity through personalization of their SAP ERP screens.

Key capabilities

- Streamline business processes by providing only the essential screen elements and data to complete transactions faster and more accurately through fewer data entry fields and reduced scrolling
- Automate repetitive tasks and simplify complex screens through pre-filled fields and pull-down menus, which help the user save time on data entry

Benefits

- Improve business user productivity
- Increase SAP adoption by making screens easier to use
- Enhance user satisfaction
- Reduce the cost of personalization
- Decrease training time for SAP users with intuitive screens.
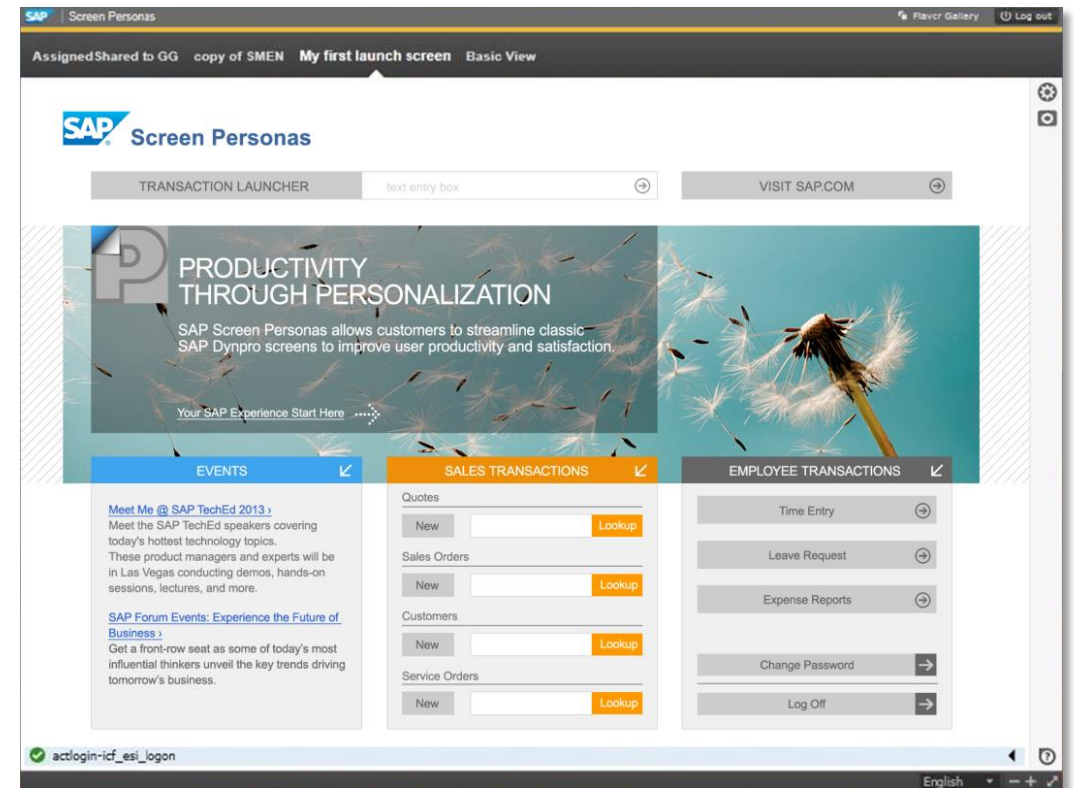
UI Theme Designer

SAP's new UI theme designer becoming one single tool for theming and branding of SAPs key user interfaces.

Key capabilities

› graphical web-based WYSIWYG editor for controls as well as applications (preview)
› CSS3 and LESS support
› quick & expert theming
› external editing and custom CSS possible
› enabled for SAPUI5 and UR (additional will follow)
› runs on SAP NetWeaver AS ABAP, SAP NetWeaver Portal and plain web servers

Benefits

› increased user happiness
› increased theming efficiency
› low TCO through availability also via SAP HANA Cloud
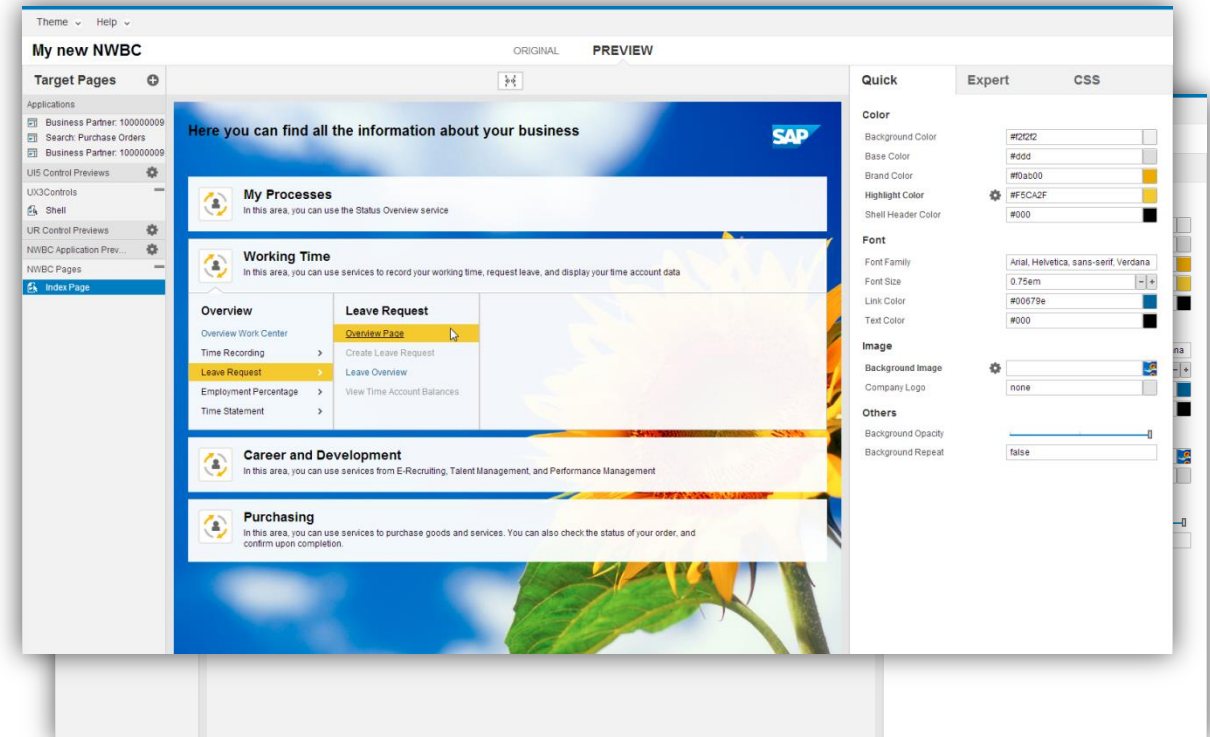
Visual Business / Visual Enterprise

Visual Business

Benefits

- Provide greater transparency across the enterprise by aggregating and integrating information on one screen
- Visualize internal & external systems in real-time

Visual Enterprise

Benefits

- Enables better and faster decision making
- Improves productivity and process efficiency by providing visual navigation and query of product information and graphical animation of procedures
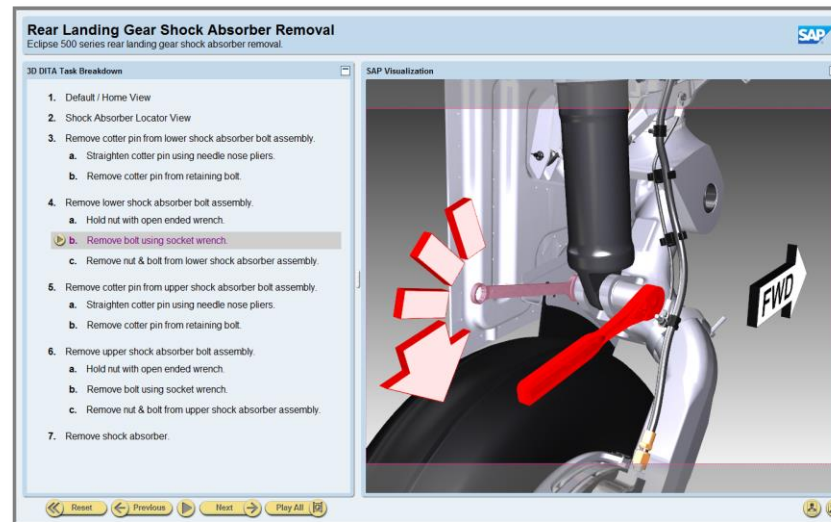
SAP Interactive Forms by Adobe / CRM WebClient UI Framework

SAP Interactive Forms by Adobe (IFbA)

Key capabilities

- Online and offline scenarios supported
- Can be distributed by email / portal
- Can be printed and saved locally
- Full standard Adobe Reader functionality
- Integration in SAP workflows
- Self-explanatory (paper-like)
- High number of predefined forms

CRM WebClient UI Framework

Key capabilities

- Open and flexible UI framework
- Simple but flexible UI configuration
- Custom fields, tables and views
- UI and data mash-ups
- Consistency across all CRM applications
- Tailoring to user group needs via business roles

SAP Gateway for Microsoft
Description

SAP Gateway for Microsoft is an interoperability framework that enables IT to securely integrate SAP and Microsoft technologies in a non-disruptive, scalable, and sustainable manner

Key capabilities

- Enterprise ready integration supports Single Sign On and SAP Solution Manager integration (e.g. end-to-end tracing, …)

- Provides developer templates for commonly used scenarios (e.g. Outlook Workflow integration) and enables the generation of SAP specific services in any .NET application.

- Delivers out-of-the-box Excel integration to allow mass update / create processes of SAP data directly from Microsoft Excel

- Ability to consume and extend SAP Fiori services in Microsoft environments

Benefits

- Optimize the investments in Microsoft and SAP by providing a bridge that brings the two worlds together

- Use of the already-familiar Microsoft Visual Studio environment with SAP data extensions and a build-in developer toolkit

- Lower TCO by employing a secure, integrated environment to replace costly point-to-point solutions
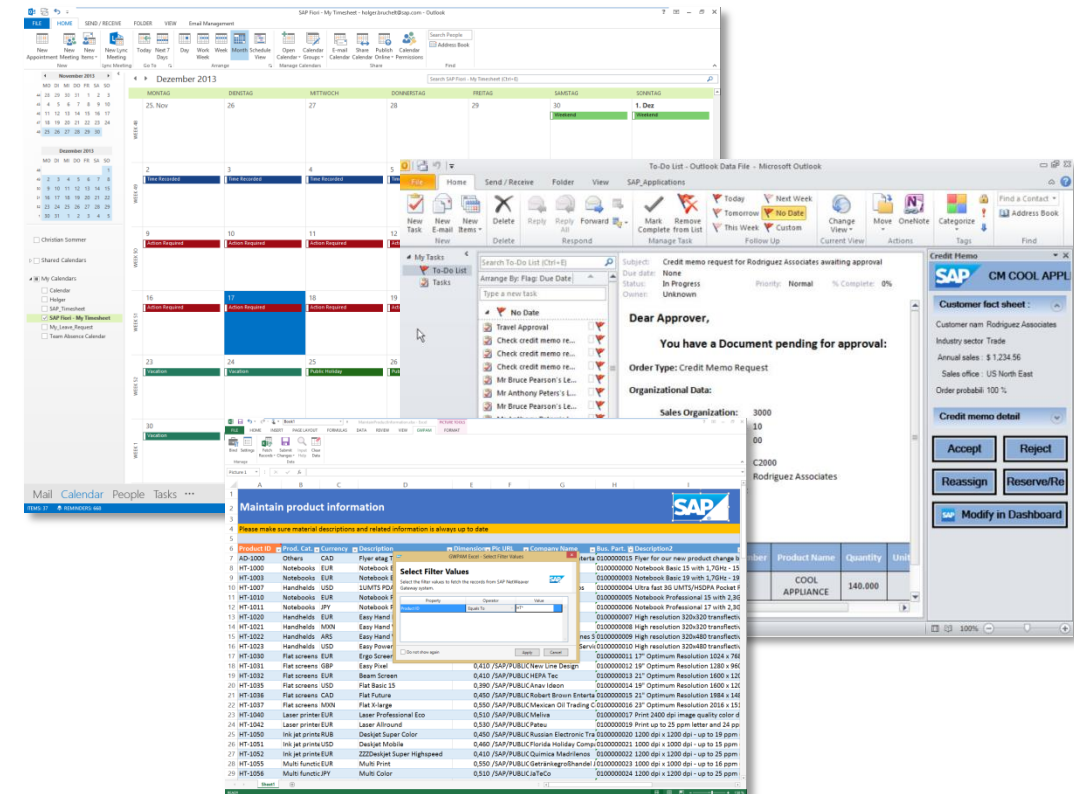
User Interface Clients

- SAP GUI
- SAP NetWeaver Business Client
- Portal
- FLP

UI Client & Integration Topics
Topic overview

Coherent user experience across multiple technologies and frameworks UI integration is key. It starts with offering the user one consolidated entry point via a shell and raises the need for consistent UI services.

SAP GUI
- Offers access to SAP Dynpro basec applications

SAP NetWeaver Business Client
- Offers harmonized access to SAP applications

SAP Enterprise Portal
- Offers on premise and cloud solutions

SAP Fiori Launchpad
- Offers SAP Fiori specific solutions

SAP Fiori launchpad

SAP NetWeaver Portal

SAP NetWeaver Business Client

SAP GUI

UI Theme Designer

SAP Web IDE

Flexible UI Designer

SAPUI5

SAP Screen Personas

WebDynpro
ABAP/FPM[1] *

DYNPRO

GATEWAY
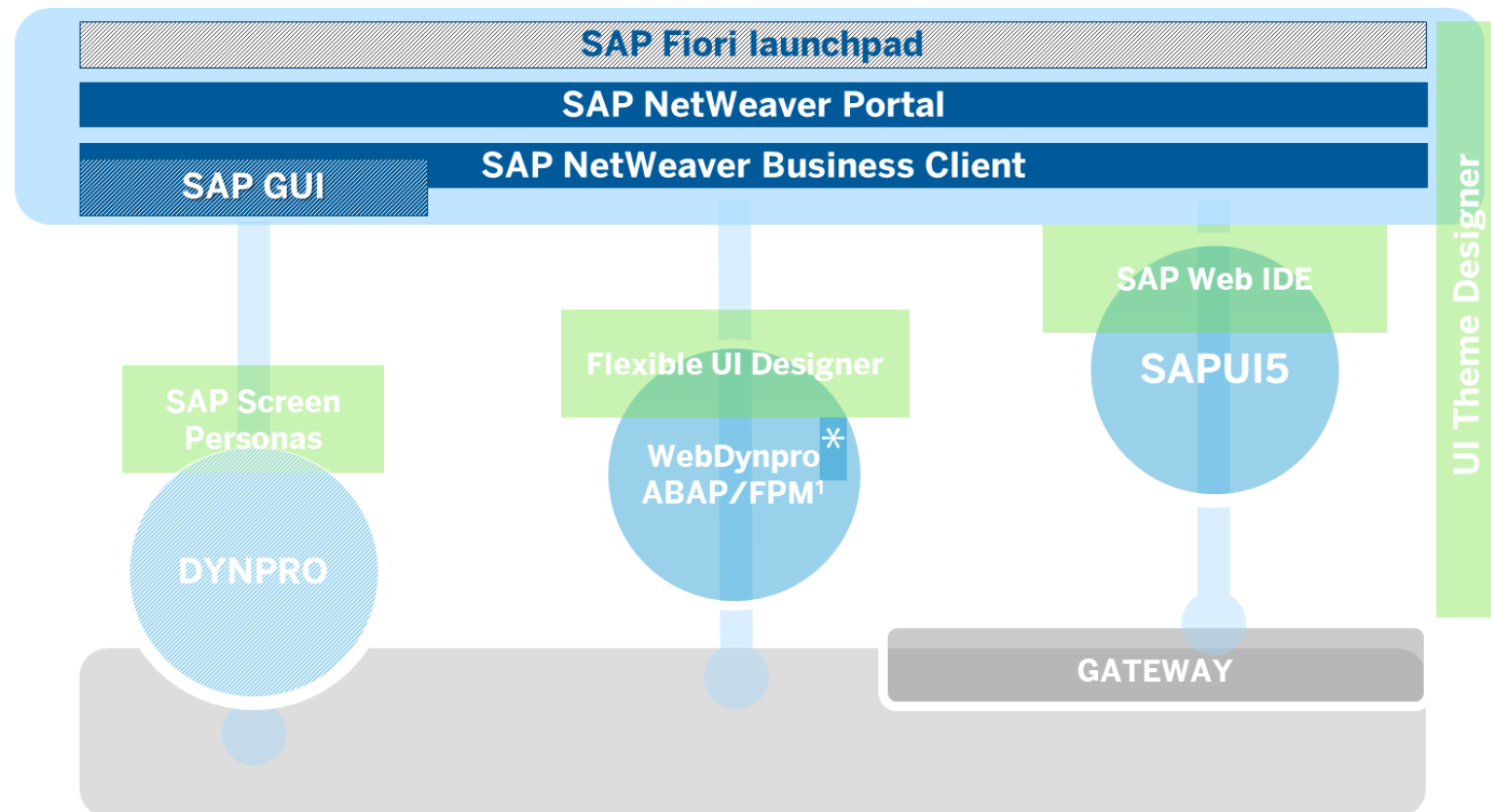
Members of the SAP GUI Family

The SAP GUI Family consists of 3 clients. The SAP GUI for Windows, the SAP GUI for HTML (which runs on the Internet Transaction Server) and the SAP GUI for Java.

Today we will only cover the SAP GUI for Windows

SAP GUI for Windows

SAP GUI for HTML
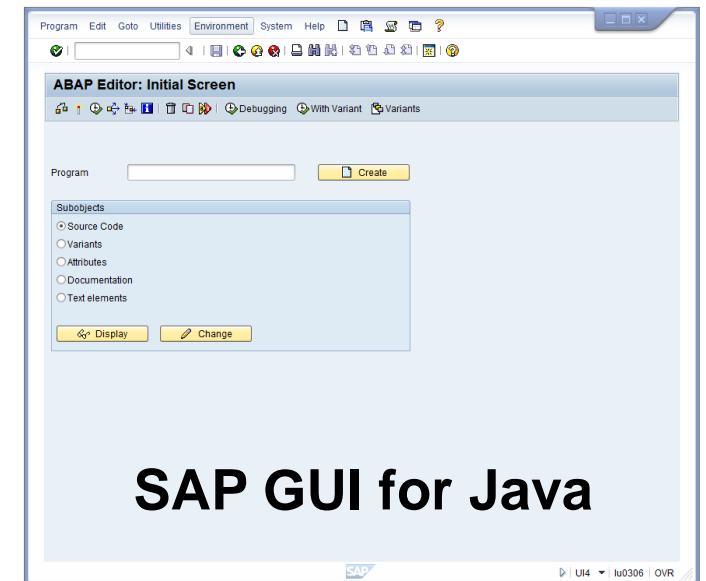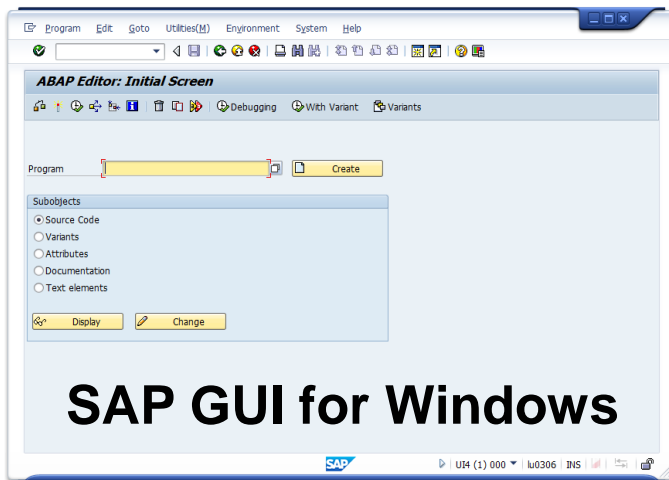
SAP GUI for Java

SAP GUI for Windows 7.40

New Visual Design "Blue Crystal"

- SAP Blue Crystal is a new visual design theme which succeeds Corbu. It provides a consistent, responsive design that allows users to seamlessly experience the SAP GUI and NWBC elements. The background texture has a stroke pattern in white and light blue with a gradient layer.

Simpler Service Landscape

- SAP Service Landscape unifies the persisted connection and connection configuration Data from SAP GUI for Windows, SAP GUI for Java and NWBC in a modern and easier way through one single XML file. There are no more split configuration files for the different SAP GUIs like sapmsg.ini, entries in the windows services file or saplogon.ini.

SAP GUI for Windows / NetWeaver Business Client Integration

- SAP GUI for Windows can be embedded into NWBC, so the user has one shell that unifies both frontends.
  One desktop/taskbar icon consolidates NWBC and SAP GUI sessions, tasks, frequently used links etc. in a tabbed view NWBC frame.

SAP Screen Personas support

- Personas is a rendering engine for classic SAP Dynpro screens. It provides consumer-grade personalization features that enable IT professionals, key-users and end-users to simplify existing business application screens quickly and easily in order to improve the visual appeal, productivity, and performance of SAP.

SAP NetWeaver Business Client
Description

SAP NWBC offers a harmonized access to SAP business applications including SAPUI5, FPM/WDA and SAP GUI applications as well as any web-based content.

Key capabilities

- Single point of entry for the user via role-based access (PFCG / PCD) to business applications
- Harmonized experience through integration and interoperability of different UI technologies
- Availability as desktop version and HTML version (HTML version with reduced functionality)
- Allows modification-free mash-ups via side panel*
- Web browser-like interaction paradigm

Benefits

- Increase user productivity
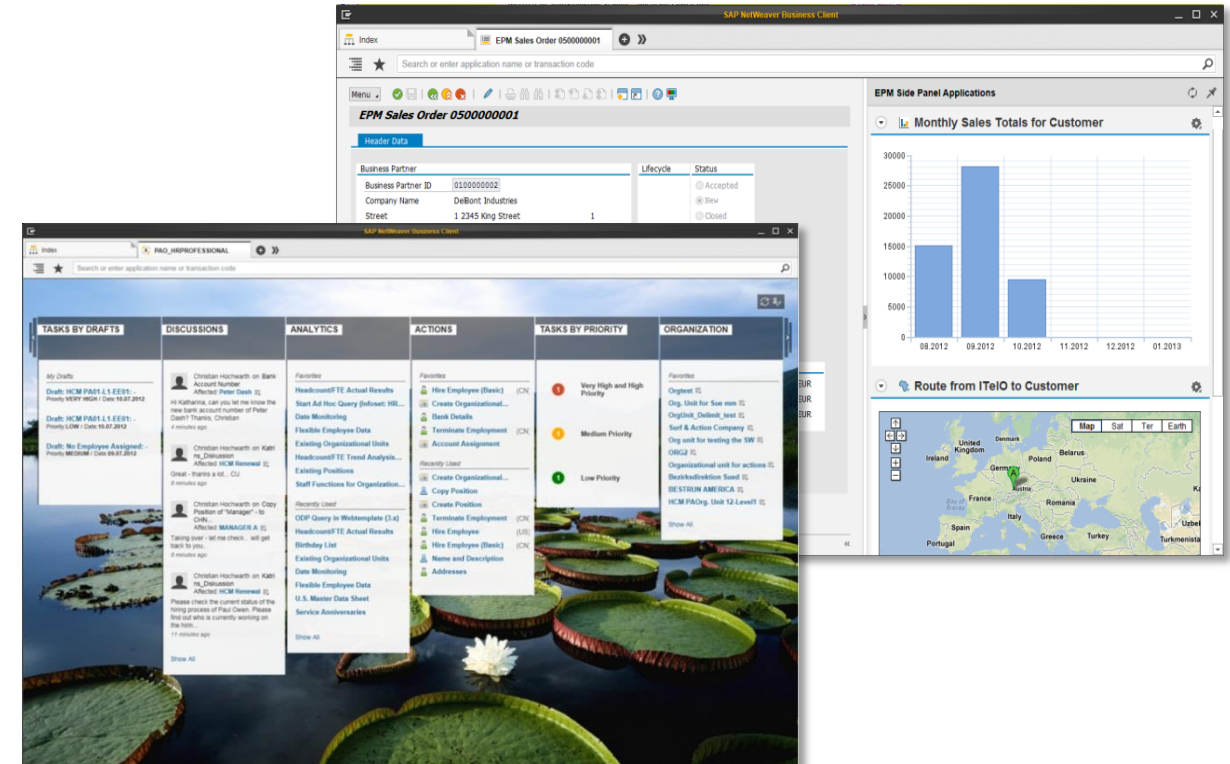
* Desktop version only

SAP NetWeaver Business Client for desktop – side panels
Description

Side panels provide context information to ERP transactions via reusable chips. Available chips include context related reports, master data details, 3D visualizations, social media integration, etc.

Key capabilities

- Increased efficiency for expert users, faster decision making and data entry
- Modification free enhancements by customer and partners
- Low TCO: consumption without system upgrade possible

Benefits

- ~ 1600 ERP transactions enabled with SAP EhP6 for SAP ERP 6.0
- ~ 200 reusable chips available

Application details

Social media

Reports

Visual Enterprise integration
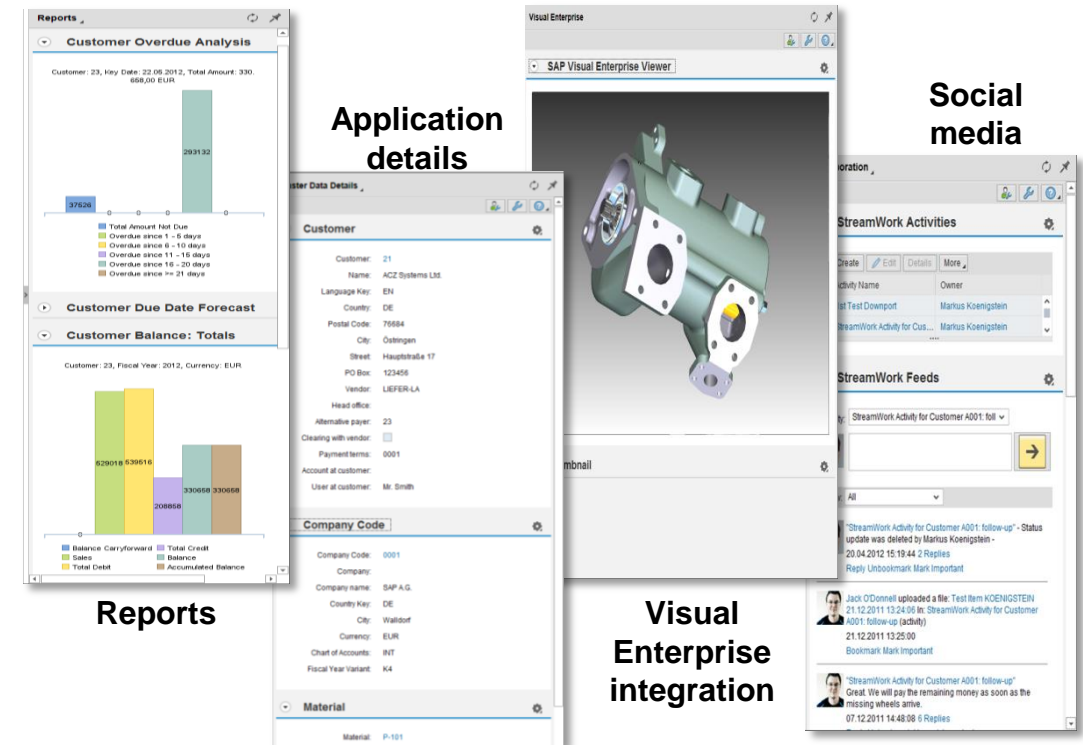
* Desktop version only

Product portfolio for SAP Portal
Innovations for on premise, cloud, mobile and in-memory

SAP Portal portfolio delivers a flexible SAP HANA-based, enterprise-wide UI aggregation hub for on-premises and cloud scenarios with innovative user experience.

- **SAP HANA Cloud Portal**: Flexible portal platform as a service (pPaaS) for building attractive business sites, extending on-premises and cloud scenarios (e.g. SAP Cloud for Service, SAP SuccessFactors Employee Central extensions) across devices

- **SAP Enterprise Portal**: Proven user experience platform leveraging SAP HANA platform, unifying access to business information, services and apps (SAP or 3rd party)

  - **Mobile Portal**: End-to-end, personalized mobile entry point and user experience to quickly access content and applications (incl. SAP Fiori)

  - **Enterprise Workspaces**: User productivity for individuals and teams

  - **SAP Portal Site Management by OpenText**: Professional WCM for SAP Portal

Benefits
- Increase user productivity across consumption channels (desktop / mobile)
- Customize the user experience (theming / branding)
- Implement secure, professional intranet and extranet scenarios
- Reduce TCO through flexibility with on premises or cloud deployment

Product portfolio for SAP Portal
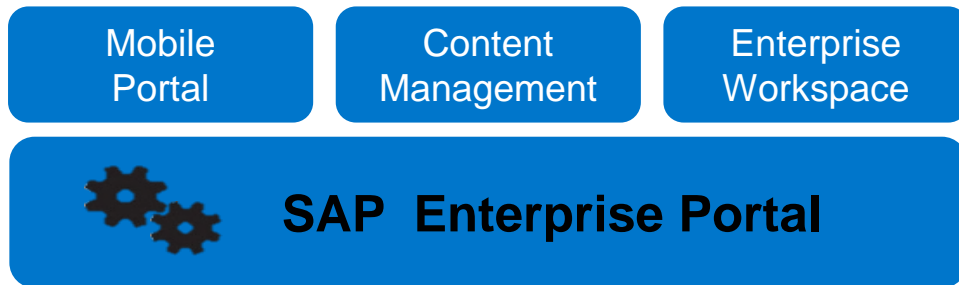## Providing innovative solutions for on premise and cloud-based portal scenarios

On Premise

Mobile Portal	Content Management	Enterprise Workspace

SAP Enterprise Portal

SAP Enterprise Portal
Proven, secure, mobile-ready user experience platform enabling users to centrally access enterprise assets including portal content, business applications and analytics on SAP HANA

Mobile Portal
Multi-channel, role-based entry point to consume portal services from any device, anytime

SAP Portal Content / Site Management by OpenText
Professional solution for content, document and web site management optimized for SAP Enterprise Portal

Cloud

Service Portal	Extensions & Marketplace	add. B2C scenarios

SAP HANA Cloud portal

SAP HANA Cloud portal
Accelerate time-to-value and increase business agility through cloud-based portal platform as a service solution (pPaaS)

Easily create attractive cloud-based business sites in corporate design and consume on desktop / mobile devices

Supporting pure cloud and extension scenarios for on premise

Open platform for securely integrating content and services (SAP and non-SAP sources) via custom widgets

Related product road map available on Service Marketplace (Road Maps → Product & Solutions Roadmaps → Database & Technology)
- SAP Enterprise Portal and SAP HANA Cloud Portal

Portal deployment and consumption options
The right solution for your business scenarios

On Premise	Managed Cloud	Public Cloud

SAP Enterprise Portal

- Full control over deployment (hardware / OS platform)
- Full flexibility for customization and extensions
- Individual sizing
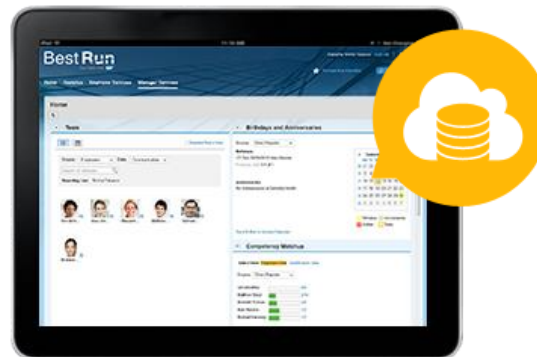
SAP HANA Enterprise Cloud

- SAP Enterprise Portal on enterprise-class managed cloud environment
- Combine mission critical operations with simplicity and cloud elasticity
- Managed services and infrastructure

SAP HANA Cloud Portal

- Flexible and scalable portal platform as a service offering
- Fast time to value with regular updates
- Easy integration with on-premise landscape and cloud applications

SAP Fiori launchpad
Description

SAP Fiori launchpad is a role based, personalized, real-time and contextual aggregation point for business applications and analytics. It is designed according to the simple and intuitive SAP Fiori user experience, while supporting established UI technologies.

Key capabilities

- Supports multiple platforms and devices (using responsive design paradigm)
- Role based with preconfigured home page content
- People aware via personalizable content, easy bookmarking and collaboration capabilities
- Context aware through contextual navigation and suggestion of relevant follow up actions
- Fast and easy navigation
- Search across documents and apps
- Support of established UI technologies
- Theming and branding via UI theme designer
- Open and extensible

Benefits

- Simplified, personalizable single point of access drives user productivity and agility on multiple devices
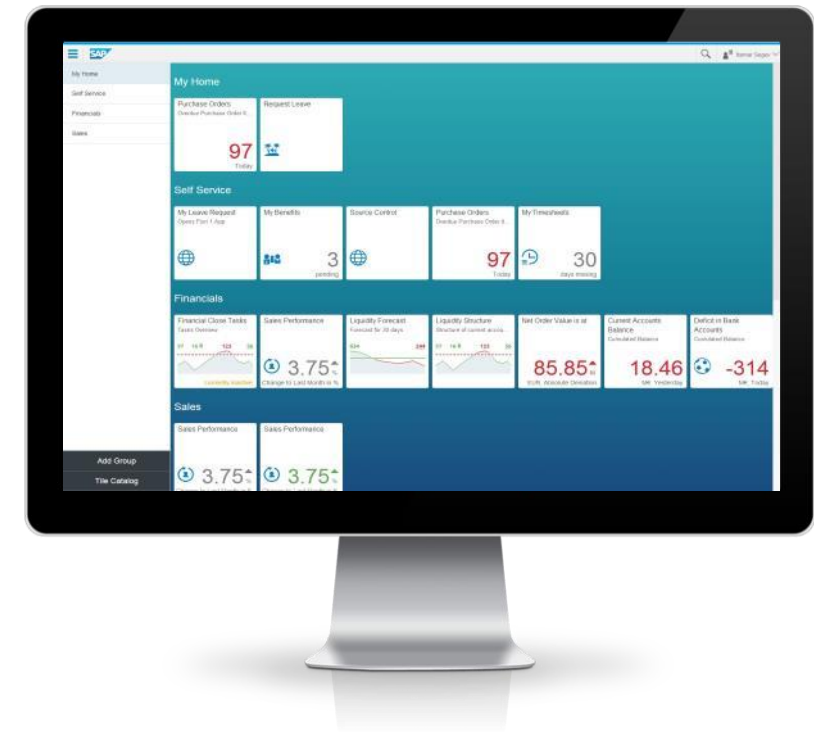
Fiori Launchpad
One entry point for the user
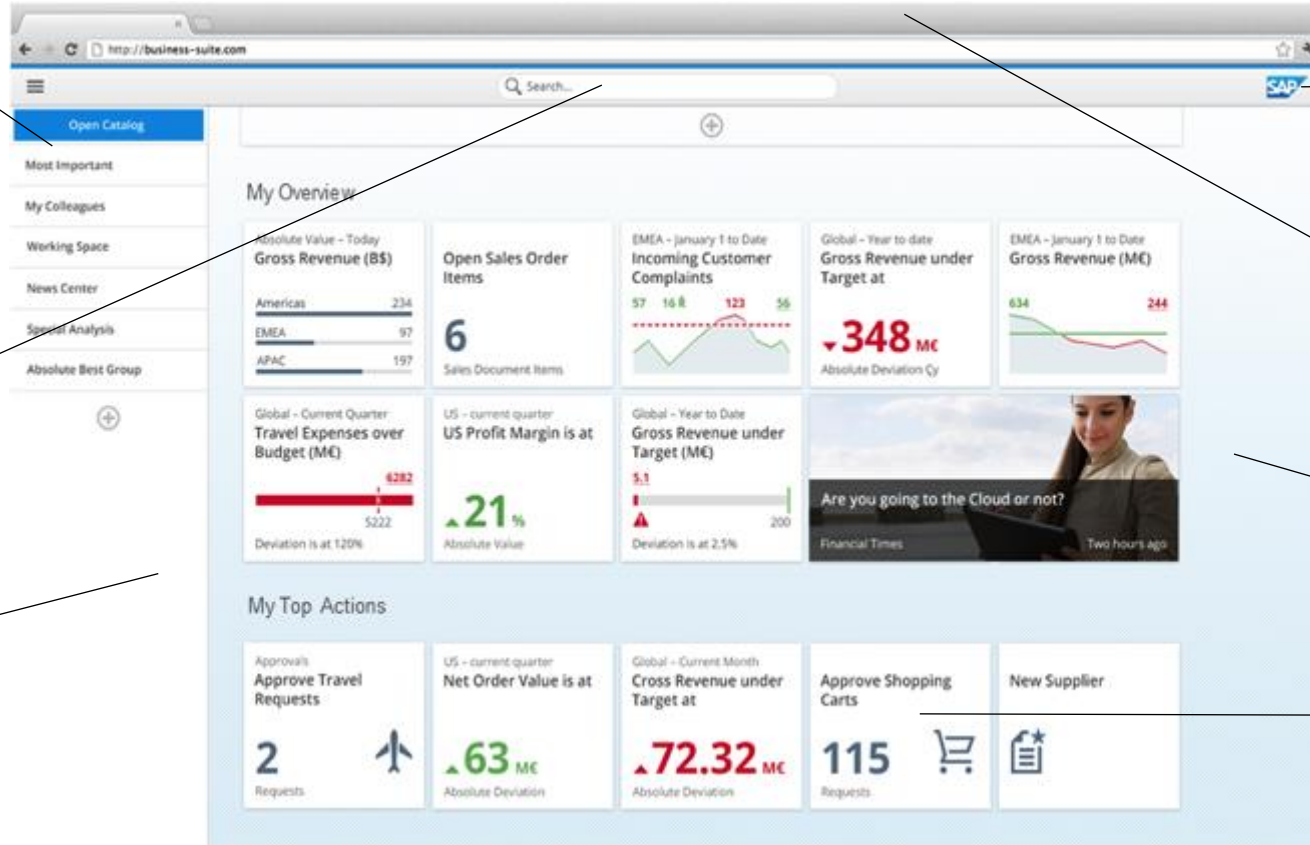
Role based & persona centric

Search, collaboration and feeds in first wave

Multiple Devices

Theming and branding Personalization

Stable URLs for bookmarking and sharing

Multiple Platforms

SAP Fiori Active Tiles, Provides the most impactful real-time information and KPIs at a glance

Future Direction:

Web-based entry point for SAP Business Applications across platforms and devices

Outlook

Mobile Clients	SAP Enterprise Portal Clients	Netweaver Business Client	SAP LogOn
Kapsel / Cordova			

SAP FIORI launchpad
responsive design

Mobile SAP Fiori Client	Browser	Desktop "Business Client"
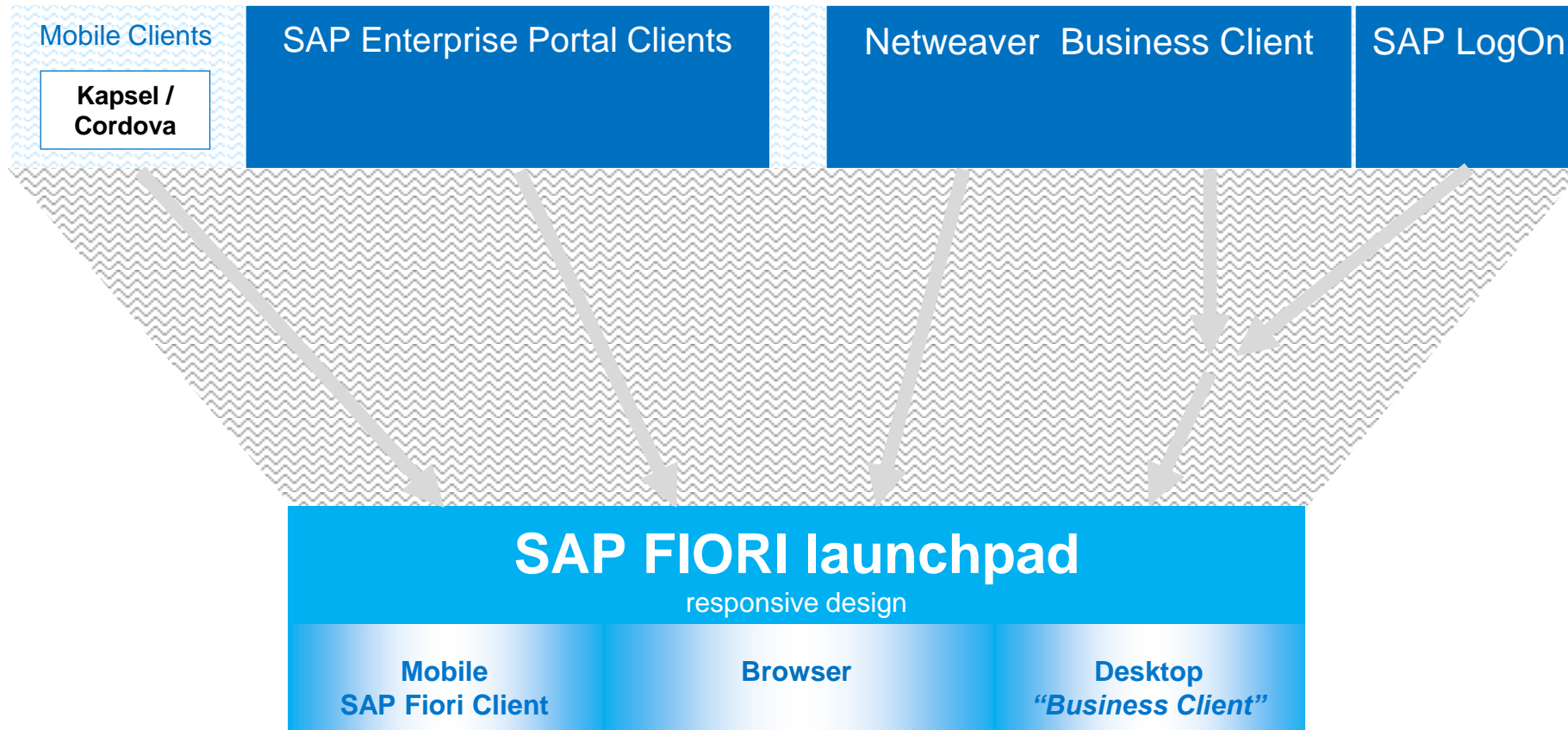
This is the current state of planning and may be changed by SAP at any time.

Best Practices
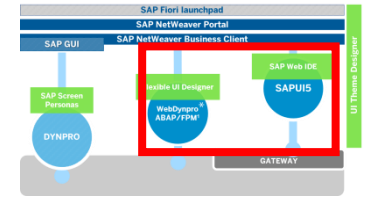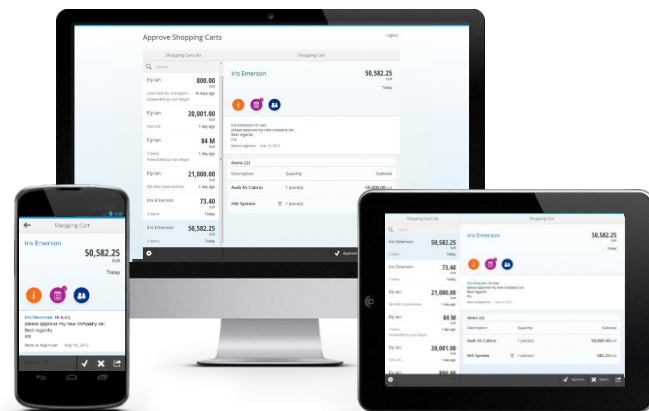
Comparison of Key UI Technologies
SAPUI5 and Floorplan Manager (FPM)

SAPUI5 and FPM for WDA are SAPs recommended UI technologies for developing new UIs.

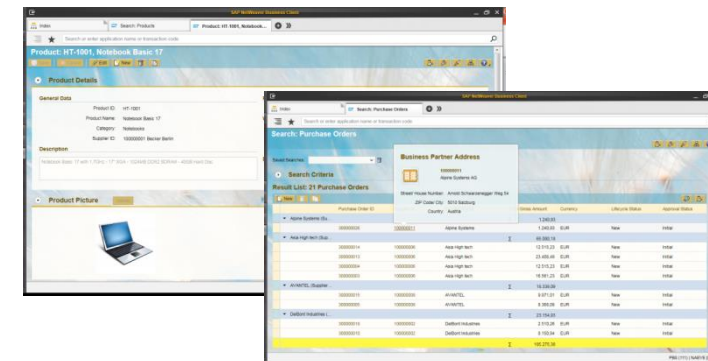### SAPUI5 - Pixel Perfect UI's

› Fiori & Light weight apps

› Mobile & Desktop

› Pixel perfect

› Open Web Standards

› Stateless

› Fully decoupled UIs

FPM* for Web Dynpro ABAP

› Functional rich applications

› Desktop usage

› Consistent UIs based on floorplans

› Stateful

› Data creation & maintenance

* Harmonized in Run & Design Time with WebUIF

SAPUI5 and WDA/FPM
Development Skill Set

	SAPUI5	WDA / FPM
Programming Language	› HTML5, JavaScript, CSS3, (jQuery)	› Web Dynpro ABAP › ABAP / ABAP OO
Data Provisioning	› ODATA/Gateway, JSON, XML, RFC, customer specific models	› BOL, BOPF, SPI
Developer Profile	› <u>Web Developer</u> Focus on standard web development and strictly decoupled UIs for multiple channels (desktop, tablet, mobile)	› <u>ABAP Developer</u> Focus on development efficiency for ABAP backends

› Development Skills discussion on SCN:
http://scn.sap.com/community/developer-center/front-end/blog/2013/05/22/what-sapui5-and-fiori-tells-us-about-the-future-of-ui-development-for-abapers

When to Use What?

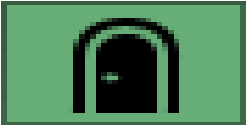NWBC vs. SAP GUI standalone vs. SAP Portal

- Do your end users work mainly on SAP GUI?

- **AND** do your end users work on Mac / Linux?

- OR Do you (plan to) use SAP Screen Personas extensively?

SAP GUI alone

- Do your end users work with SAP GUI?

- **AND** do your end users work on Windows?

- **AND** do you have <50 SAP Screen Personas transaction flavors?

NWBC + SAP GUI

- Do your end users require a classic "Portal" – e.g. intranet, extranet, collaboration, content management?

- Do you have a heterogeneous system landscape?

SAP NW Portal

- Do your end users work mainly on Business Suite systems?

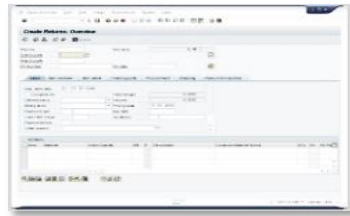- Do you have a homogeneous landscape - mainly ABAP and on Premise?

NWBC+SAP GUI

SCN blog and discussion – simply search for:
When to use NWBC

UI Integration Topics
SAP user interface clients for desktop & browser
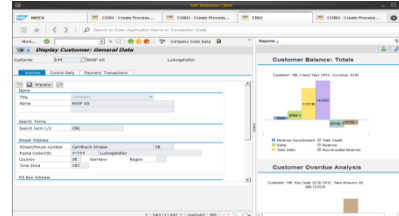
SAPLogon / SAP GUI [1]	SAP NetWeaver Business Client	SAP Enterprise Portal Client

✓ Windows ✓ Browser	✓ Windows ✓ Browser [2]	○ Windows ✓ Browser

Key attributes

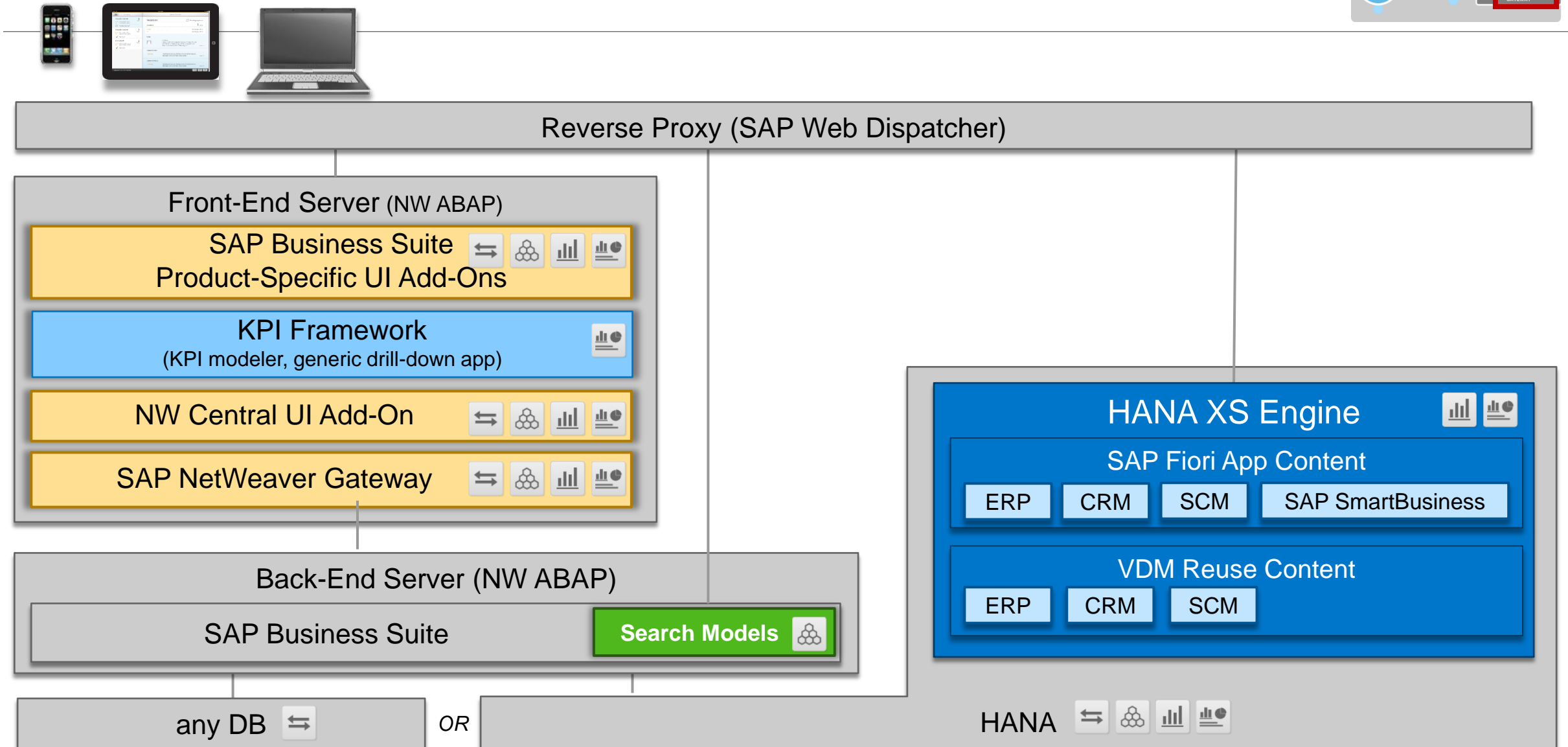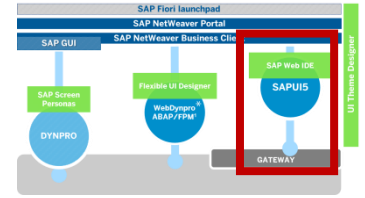|		

• Classic transaction launcher
 • Menu-based access
 • Desktop integration
	• Successor to SAPLogon/SAP GUI stand-alone
	 • Role-based access
	 • Integration of web UI technologies
	   – Web Dynpro
	   – Side panel
	   – SAPUI5
	 • Configurable entry pages
		• Portal platform for intranet/extranet (on premise and cloud)
		 • Support for "Mobile Portal" scenarios
		 • (Web) content management
		 • Calls SAP GUI for HTML
		 • Role-based access
		 • Collaboration
		 • Branding/theming

Typical use cases

• ABAP environment • Focus on Dynpro transactions	• Mainly ABAP environment • Focus on multiple UI technologies • Access to one main system • Casual access to other systems	• Heterogeneous environment • Focus on multiple UI technologies • Focus on portal-like scenarios • Access to a large set of systems

[1] Stand-alone [2] With limited functional range

SAP Fiori with SAPUI5: High-Level Architecture

Reverse Proxy (SAP Web Dispatcher)

Front-End Server (NW ABAP)

SAP Business Suite
Product-Specific UI Add-Ons

KPI Framework
(KPI modeler, generic drill-down app)

NW Central UI Add-On

SAP NetWeaver Gateway

Back-End Server (NW ABAP)

SAP Business Suite

Search Models

any DB

OR

HANA XS Engine

SAP Fiori App Content

| ERP | CRM | SCM | SAP SmartBusiness |

VDM Reuse Content

| ERP | CRM | SCM |

HANA

SAP browser support*
Relevance for SAP user interface technologies

Future developments in the web browser space directly relate to SAP's user interface technology strategy as most SAP user interfaces are web-based.

Examples are user interfaces realized with SAPUI5, Floorplan Manager / WebDynpro ABAP, WebClient UI framework and more.

Google Chrome

Internet Explorer

Safari

Firefox

* More details on browser Product Availability Matrix http://service.sap.com/pam

SAP browser support*

Product road map overview – key themes and capabilities

Desktop Browser Support

Internet Explorer

- IE6 – IE9
- IE10/IE11 Desktop

Firefox

- Extended Support Release Cycle (recommended)
- Rapid Release Cycle

Safari

- Safari 6 for Mac OS 10.8
- Safari 7 for Mac OS 10.9

Google Chrome

- Support of NW 7.02, 7.30, 7.31, 7.40

Mobile Browser Support

iOS, Android

- SAPUI5 mobile libraries (with Blackberry Z support)
- SAP Fiori
- Mobile Portal

Conditional iOS Tablet Support

- WDA/FPM
- CRM WEBUIF
- SAPUI5 desktop libraries

Internet Explorer, Firefox, Safari, Chrome

- Support of new versions
- Safari 7 for Mac OS 10.9 (under investigation)

Today

Planned Innovations / Future Direction

* More details on browser Product Availability Matrix

This is the current state of planning and may be changed by SAP at any time.

SAP desktop browser support policy

SAP Vendor-Synchronized Policy

- Valid for Internet Explorer, Firefox, Chrome and Safari desktop versions

- SAP supports new browser versions at the same time as the browser vendor* (exception: Safari**).

- SAP supports a released desktop browser version as long as it is supported by the vendor.

- SAP proactively tests new browser versions and delivers fixes in the current available SPS***.

- SAP provides updates for new browser versions as soon as possible.

- SAP publishes support exceptions, restrictions and required support packs in the Product Availability Matrix.

* Note: Information about the browser support for individual SAP products like ERP, CRM, SRM, SCM might differ from NetWeaver and is available in the corresponding Product Availability Matrix.
** SAP intends to support a new Safari version within 3 months from general availability.
*** or next SPS if not feasible.

SAP mobile browser support policy

Supported SAP Components

- SAPUI5 for Mobile Applications Runtime (with NW 7.40 or NW UI Add-On)
- SAP Fiori
- Mobile Portal (with Mobile Framework Page)

Support via Reference Devices

- Apple iPhone/iPad, Samsung Galaxy S3/S4/Tab and Blackberry Z10 with vendor browsers
- Support cases must be reproducible on these *reference devices*.
- Support time span: mobile device versions (e.g. iPhone 4) are supported for 2-3 years from vendor release date (can be extended).
- SAP publishes exceptions, restrictions and required support packs in the Product Availability Matrix.
- For details see note 1716423 and 1853087.

Summary

Future Direction:
Web-based entry point for SAP Business Applications across platforms and devices

Outlook

Mobile Clients	SAP Enterprise Portal Clients	Netweaver Business Client	SAP LogOn
Kapsel / Cordova			

SAP FIORI launchpad
responsive design

Mobile SAP Fiori Client	**Browser**	**Desktop** *"Business Client"*
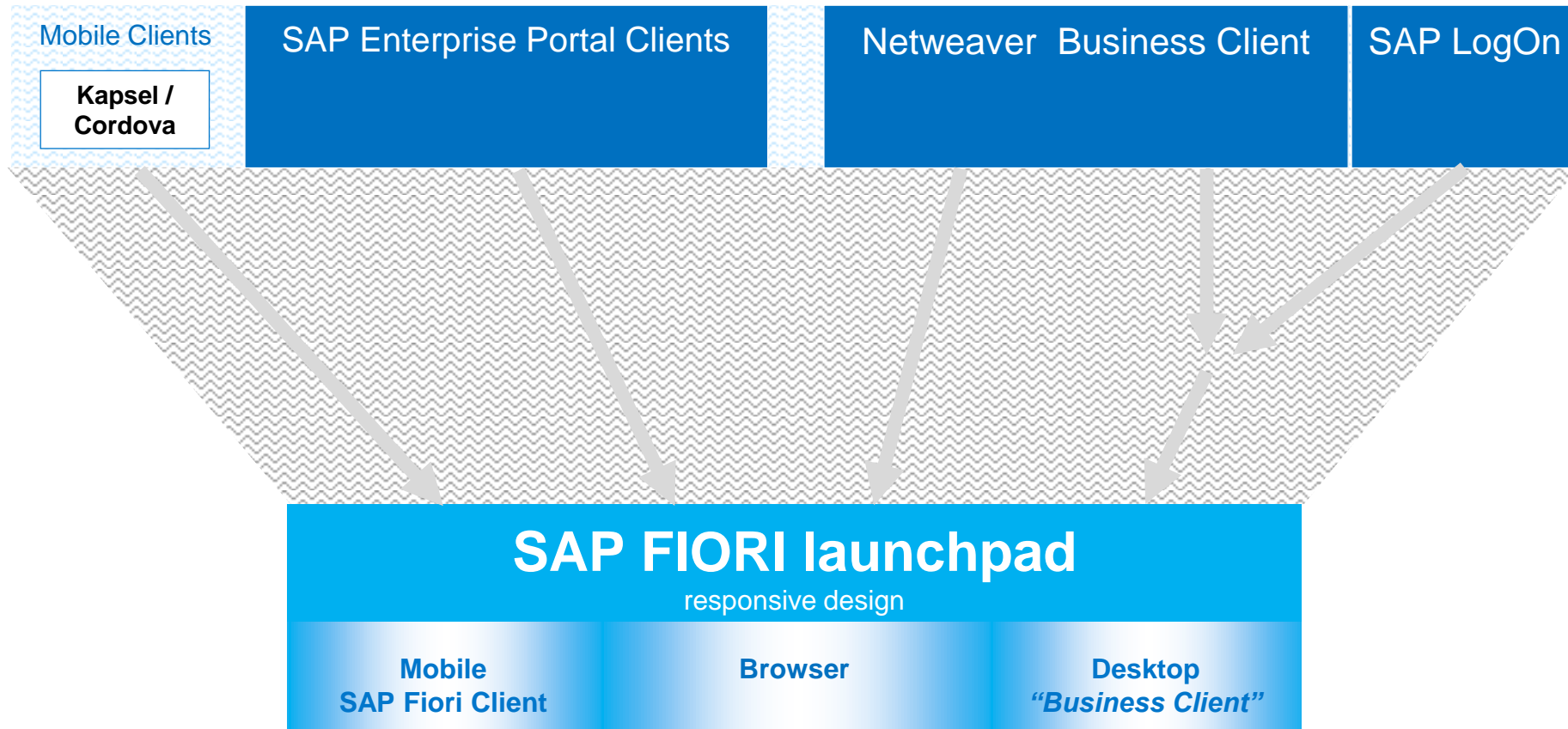
This is the current state of planning and may be changed by SAP at any time.

Overview of UX features per Business Suite EhP

	Business Suite 7.0								Note
	EhP 0	EhP 1	EhP 2	EhP 3	EhP 4	EhP 5	EhP 6	EhP 7	
SAP Fiori	Transactional Apps								Suite on HANA
Side Panels	Side Panel Server / Limited Chip Set					PLM			Side Panel Server for EhP < 6
NW Portal									
NWBC Desktop 4.0									
Corbu Design									
Entry Pages									Created via Page Builder
Visual Enterprise									Former Right Hemisphere
Lanes									HCM Add-on for EhP6, Gateway
SAP Jam Integration									
Floor Plan Manager									
SAP Screen Personas									Kernel 7.21 or higher required
Mobile Solutions									SMP, Gateway, …

Recommendations for customers

1 **UNDERSTAND SAP UX Strategy & Roadmap**

2 **DEFINE and EXECUTE Customer specific UX strategy**

- Understand Users & Scenarios
- Investigate NEW and RENEW solutions
- Evaluate ENABLE solutions
- Build knowledge from SAP resources
- Follow SAP UI technology strategy

Refer to:

- ➢ SAP Business Suite Road Map for User Experience
- ➢ sapsolutionbrowser.com
- ➢ sapimprovementfinder.com
- ➢ uxexplorer.hana.ondemand.com
- ➢ experience.sap.com

3 **LEVERAGE SAP's UX Design Services**

https://experience.sap.com/designservices
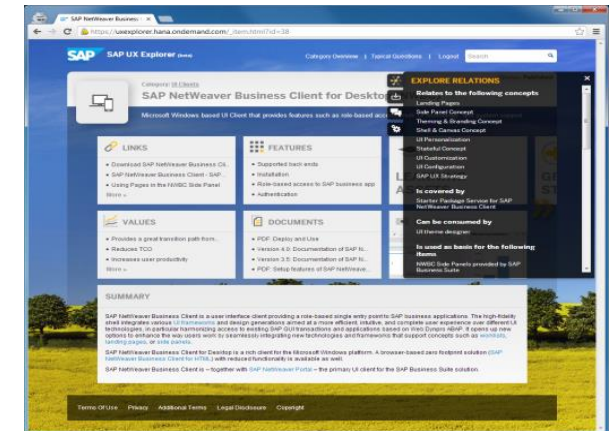
Thank you

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Vice President
Usability@Suite Program
On-Premise Suite

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Fiori Overview

Where to find additional information?

SAP TechEd && d-code

SAP Product Road Maps

SAP Service Marktetplace Roadmaps
(http://service.sap.com/roadmap)

➔ Product and solution road maps
    ➔ Line of Business
       ➔ **Procurement**
       ➔ **Supply Chain**

➔ Product and solution road maps
    ➔ Cross Topics
       ➔ Cross Product
          ➔ **SAP User Interface Technologies**
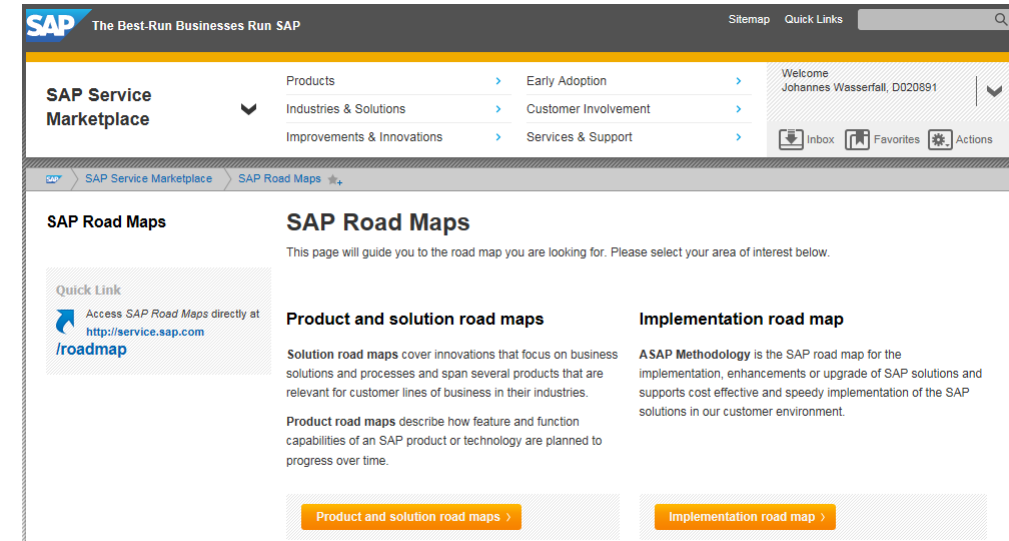
SAP Fiori Design Guidelines

Fiori Design

SAP Fiori focuses on a simple and consistent user experience on many devices. This section introduces the design philosophy which all SAP Fiori apps are based on.

Additionally, a prototyping kit provides you with templates for various controls and patterns. Using those stencils allows you to easily create UI mock-ups in Microsoft PowerPoint.

https://experience.sap.com/fiori-guidelines

Further UX related Information Sources
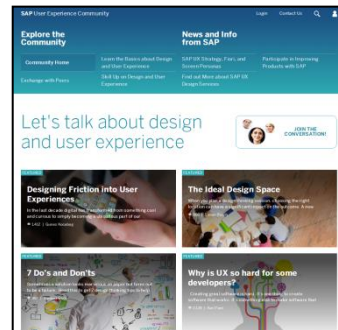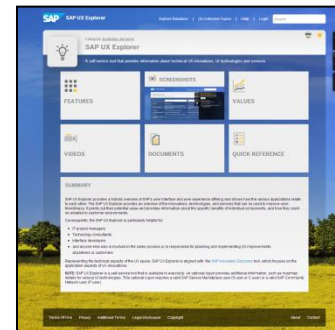
	SAP UX Community http://experience.sap.com	**SAP UX Explorer** http://sap.com/uxexplorer	**SAP Innovation Discovery** https://service.sap.com/innovation-discovery
Type of Service	Community	Self-service	Self-service
Availability	Everyone	Everyone	SAP Customers and Partners
Main focus	• User experience & design • Usability & design methods • SAP UX strategy	• SAP UI technologies • Customer UX strategies	• Innovations in SAP applications • UX innovations in SAP applications
Main target audience	• IT & business experts interested in design • Designers and UX professionals	• IT decision makers • IT architects • UX developers & consultants	• Business decision makers • Business experts & architects • Application experts, key users & consultants
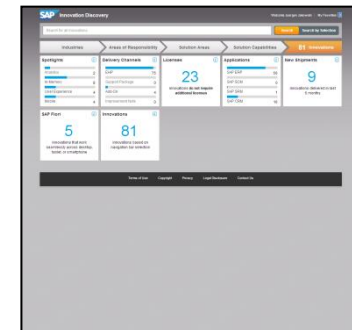
SAP d-code Virtual Hands-on Workshops and SAP d-code Online
Continue your SAP d-code education after the event!

SAP d-code Virtual Hands-on Workshops

- Access hands-on workshops post-event
- Starting January 2015
- Complementary with your SAP d-code registration

http://sapdcodehandson.sap.com

SAP d-code Online

- Access replays of keynotes, Demo Jam, SAP d-code live interviews, select lecture sessions, and more!
- Hands-on replays

http://sapdcode.com/online
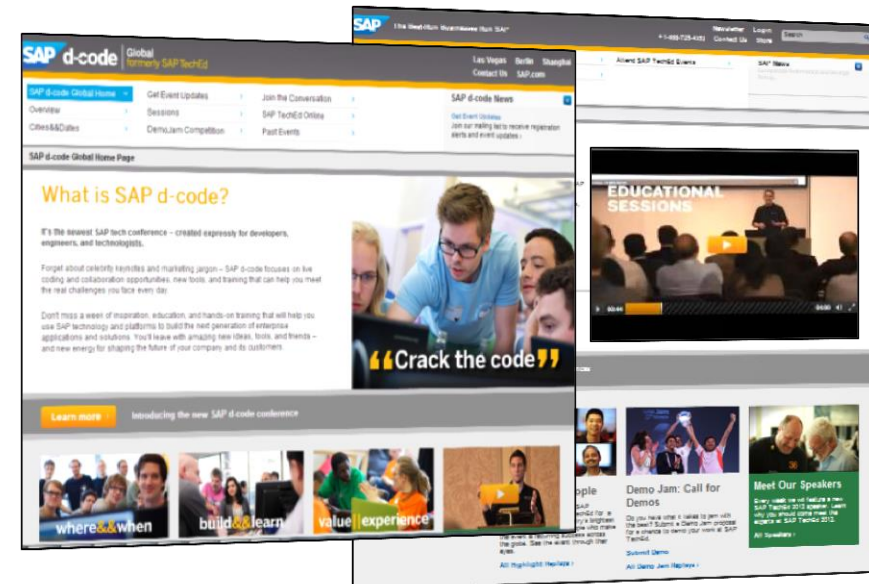
Further Information

SAP Public Web

scn.sap.com

www.sap.com

SAP Education and Certification Opportunities

www.sap.com/education

Watch SAP d-code Online

www.sapcode.com/online

Feedback

Please complete your session evaluation for
UXP200.

Thanks for attending this d-code session.

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Fiori Extensibility Example

SAP Delivered Standard Application

Custom Application (extending standard)

New Field

Hide Control

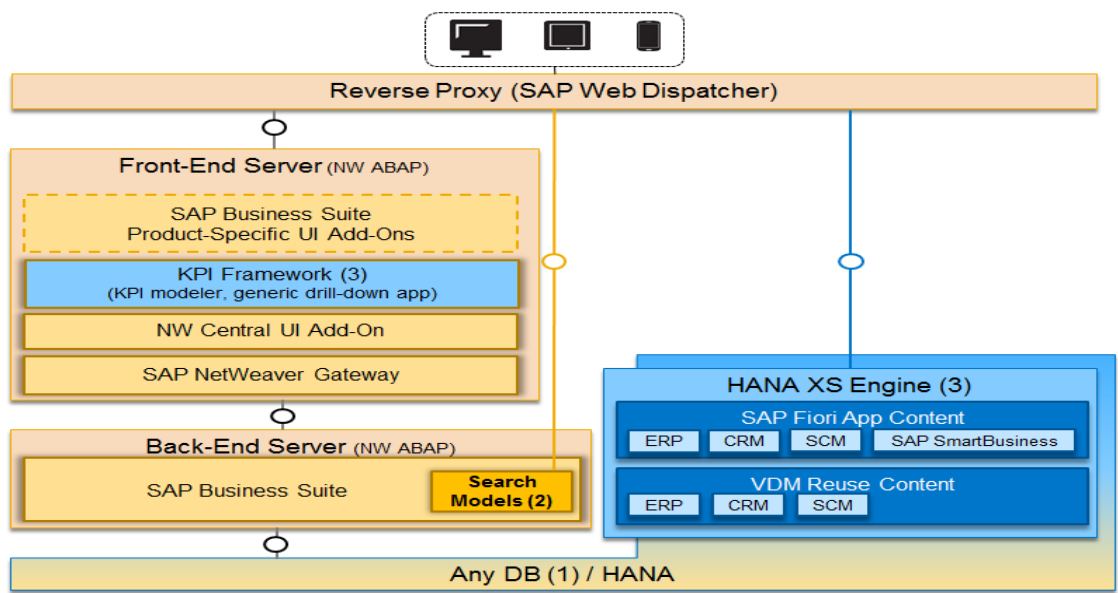**New Function**

SAP Fiori Extensibility by Content Layer

SAP Fiori applications can be extended by enhancing one or multiple content layers, depending on the extension requirements and the application type.

Content Layer	When an Extension is Required	Relevance	
UI	The back-end logic and content required for the app extension exists in the Gateway layer, but is not exposed in the app's UI.	Transactional	Analytical
Gateway (OData)	The back-end logic and content required for the app extension exists in the Business Suite layer, but is not exposed in the app's Gateway service.	Transactional	Analytical
HANA	The back-end content required for the app extension exists in the HANA models, but is not exposed in the app's OData service.		Analytical
Business Suite	The back-end logic and content required for the application enhancement does not exist in the Business Suite.	Transactional	
Search Model	The back-end logic is not exposed in the application's Gateway service.		Factsheets

UI Client & Integration Topics
Topic overview

Coherent user experience across multiple technologies and frameworks UI integration is key. It starts with offering the user one consolidated entry point via a shell and raises the need for consistent UI services.

SAP GUI
- Offers access to SAP Dynpro basec applications
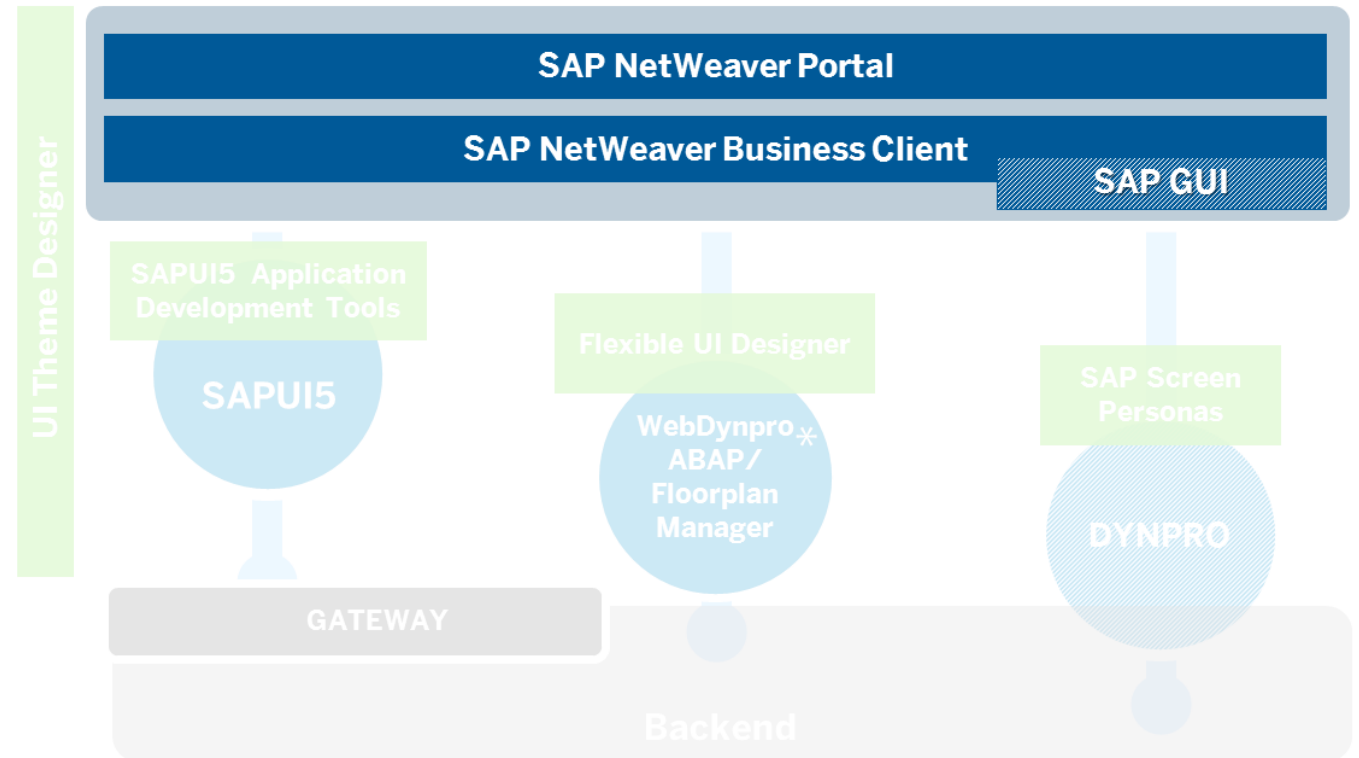
SAP NetWeaver Business Client
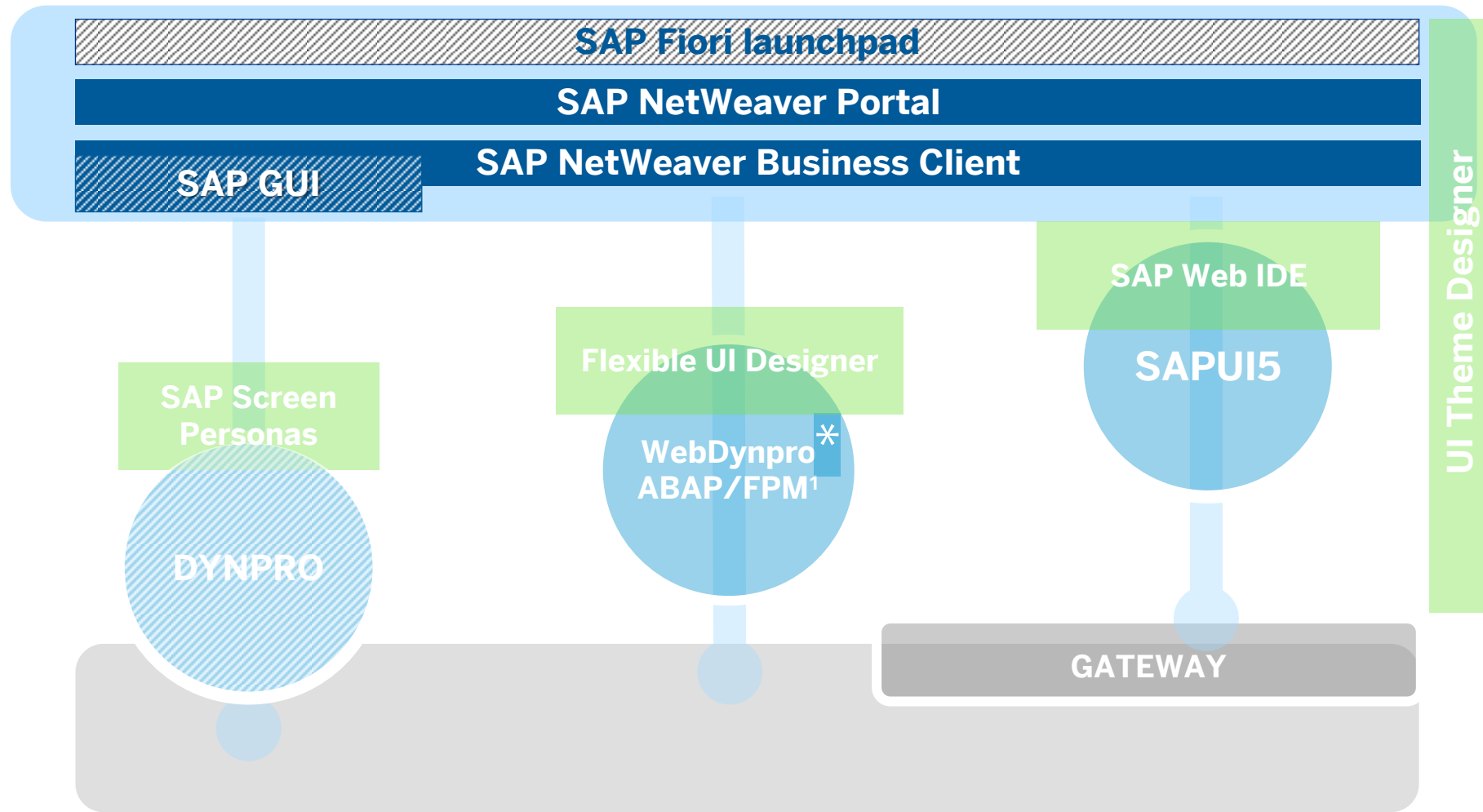- Offers harmonized access to SAP applications

SAP Enterprise Portal
- Offers on premise and cloud solutions

SAP Fiori Launchpad
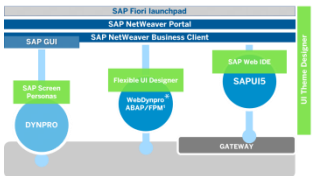- Offers SAP Fiori specific solutions

SAP NetWeaver Portal

SAP NetWeaver Business Client

SAP GUI

UI Theme Designer

SAPUI5 Application Development Tools

SAPUI5

Flexible UI Designer

WebDynpro* ABAP/ Floorplan Manager

SAP Screen Personas

DYNPRO

GATEWAY

Backend

* Harmonized in Run & Design Time with WebUIF

SAP Fiori launchpad

SAP NetWeaver Portal

SAP NetWeaver Business Client

SAP GUI

UI Theme Designer

SAP Web IDE

SAPUI5

Flexible UI Designer

SAP Screen Personas

WebDynpro* ABAP/FPM[1]

DYNPRO
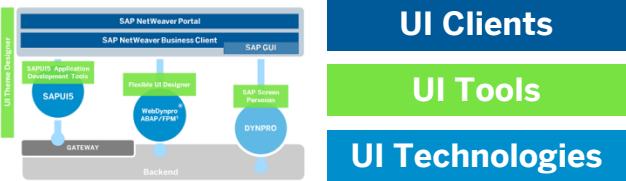
GATEWAY

SAP's Key UI Frameworks & Tools

The key UI technologies & tools are those which directly support SAP's 'NEW – RENEW – ENA̶ user experience approach.

UI Clients

UI Tools

UI Technologies

SAP Fiori launchpad

SAP NetWeaver Portal

SAP NetWeaver Business Client

SAP GUI

UI Theme Designer

SAP Screen Personas

DYNPRO

Flexible UI Designer

WebDynpro* ABAP/FPM[1]

SAP Web IDE

SAPUI5

GATEWAY

* Harmonized in Run & Design Time with WebUIF, [1] Floorplan Manager

SAP Fiori with SAPUI5: High-Level Architecture

Internet

DMZ

Reverse Proxy

Intranet

Fiori ABAP Add-on

SAP NetWeaver Gateway

SAP Business Suite
(ERP, SRM, …)

…

SAP Business Suite
(ERP, SRM, …)