



“So funktioniert SAP“

13. Juni 2008 um 18:30



GESELLSCHAFT FÜR INFORMATIK E.V.
Zukunft gestalten.



So funktioniert SAP

- Ein Überblick über SAP
- Module
- Architektur

Raymond Michalek, ge-bis mbH



ge-bis mbH

Nur

- BI - Beratung
- Basis – Beratung

Gegründet 04.2005 durch vier SAP Beratern

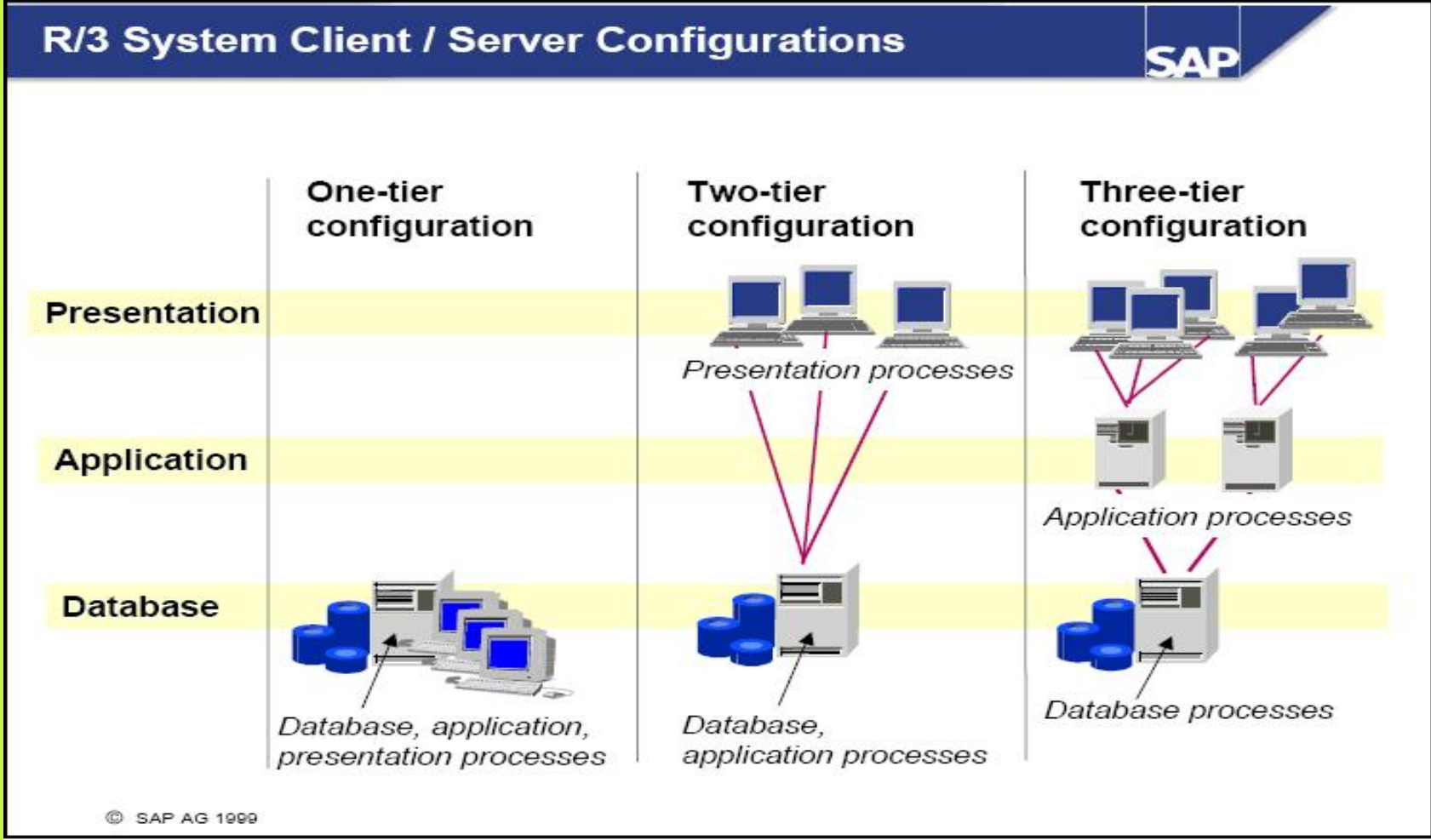
~ 30 festangestellte Mitarbeiter

11 SAP-Basis

18 BI/BW



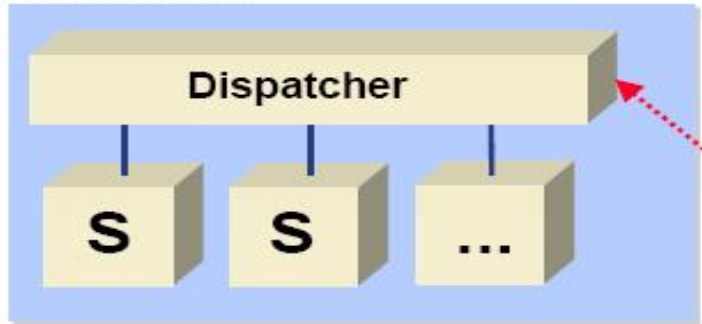
SAP R/3 Architektur



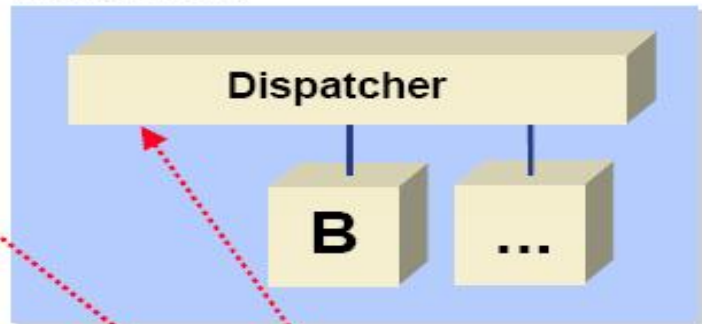


SAP R/3 Architektur

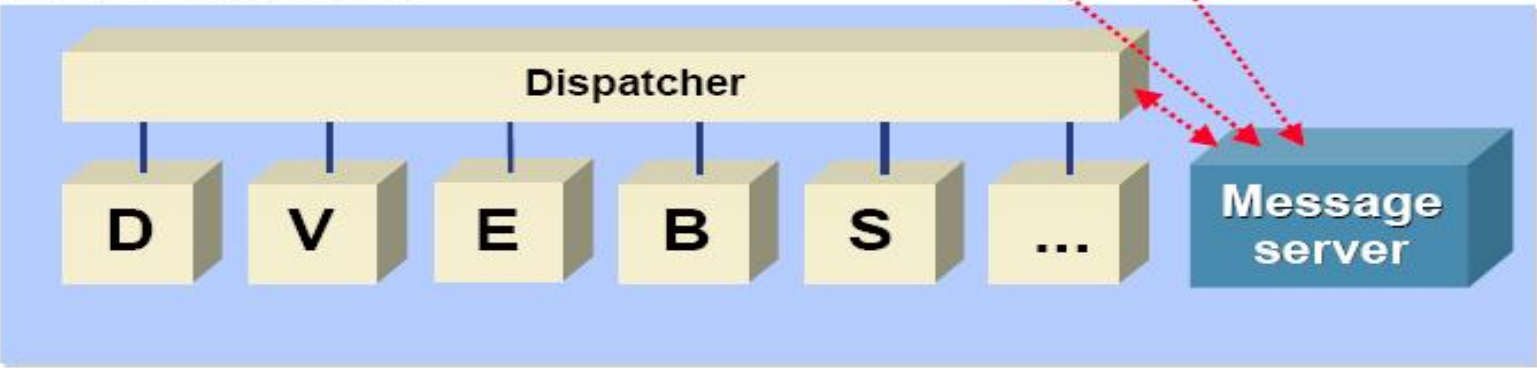
Instance A



Instance B



Central Instance C





SAP R/3 Architektur

Dialog (D):

Spool (S):

Update (V):

Background (B):

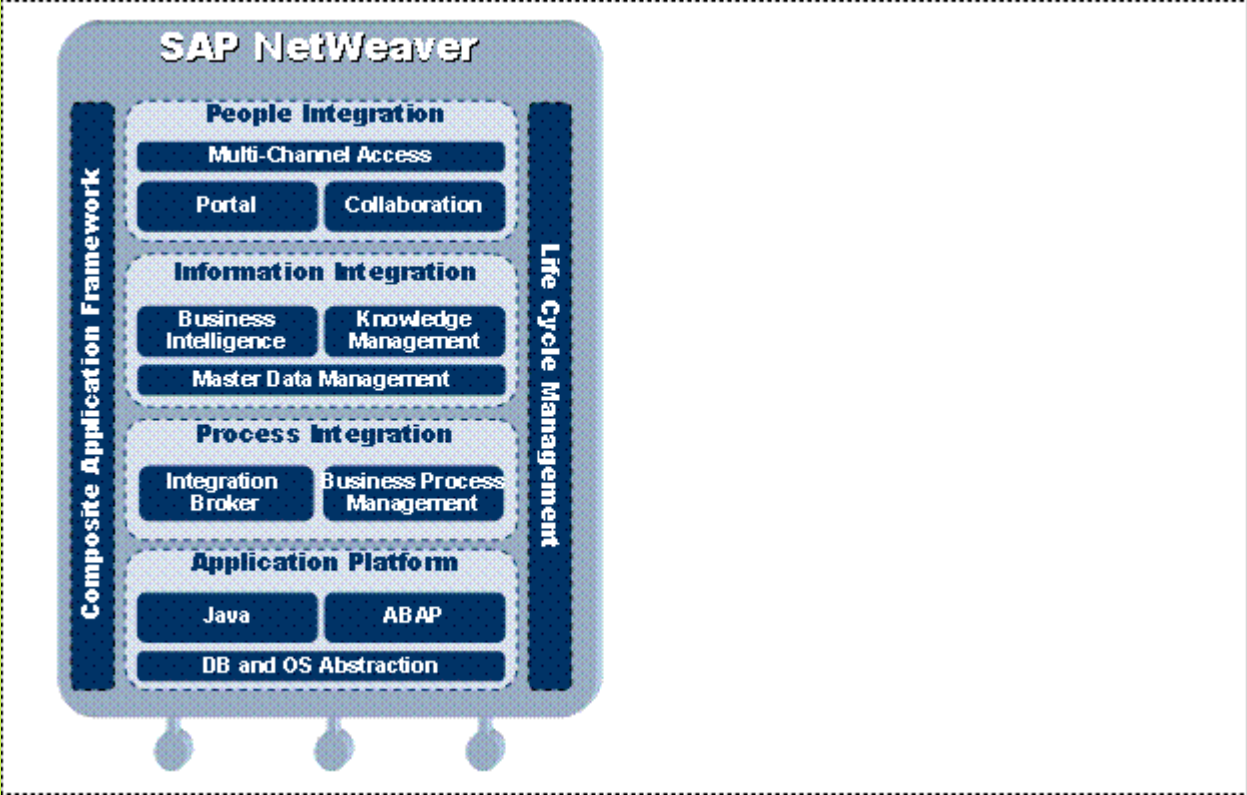
Enqueue (E):

Work Process Multiplexing.



SAP NetWeaver: Architektur

SAP NetWeaver fasst verschiedene technologische Konzepte und bisherigen Plattformen in einer Lösung zusammen





SAP NetWeaver: Architektur

SAP Web Application Server

Web Application Server

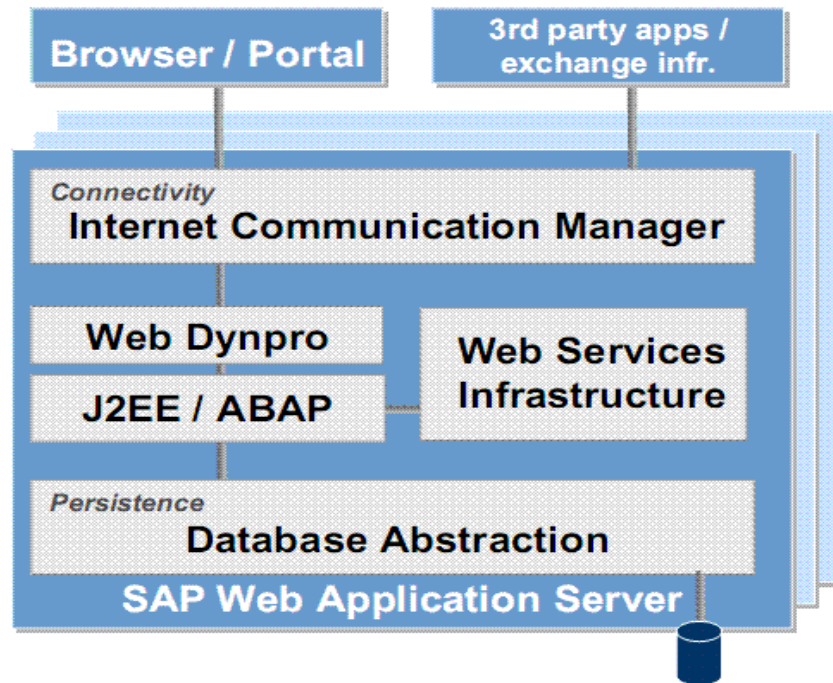
- Both, a J2EE and an ABAP personality
- Single, comprehensive and unified environment

Benefits

- Preserve customer's investments in the existing software and skills
- Offer customers business-strength access to J2EE
- Reducing deployment costs

ABAP & Java

- ABAP object-oriented & procedural
- Java object-oriented
- ABAP & Java platform-independent - Write once, run anywhere ...
- ABAP & Java - Source code is compiled into pseudo-code that is interpreted by a Virtual Machine (VM)
- ABAP & Java VM is available for all relevant Operating Systems





SAP NetWeaver: Architektur

Application Server (AS)

•AS Java Programming Models

Java

Java is a widely accepted open standard

- Java based software market grows rapidly
- Java developer community grows rapidly

Java technology is platform independent

- Runs on all major hardware platforms
- Runs on all major operating systems

The language is

- Object-Oriented
- Non proprietary
- And has many features to make programmer's life easier (on system level!)

VMContainer

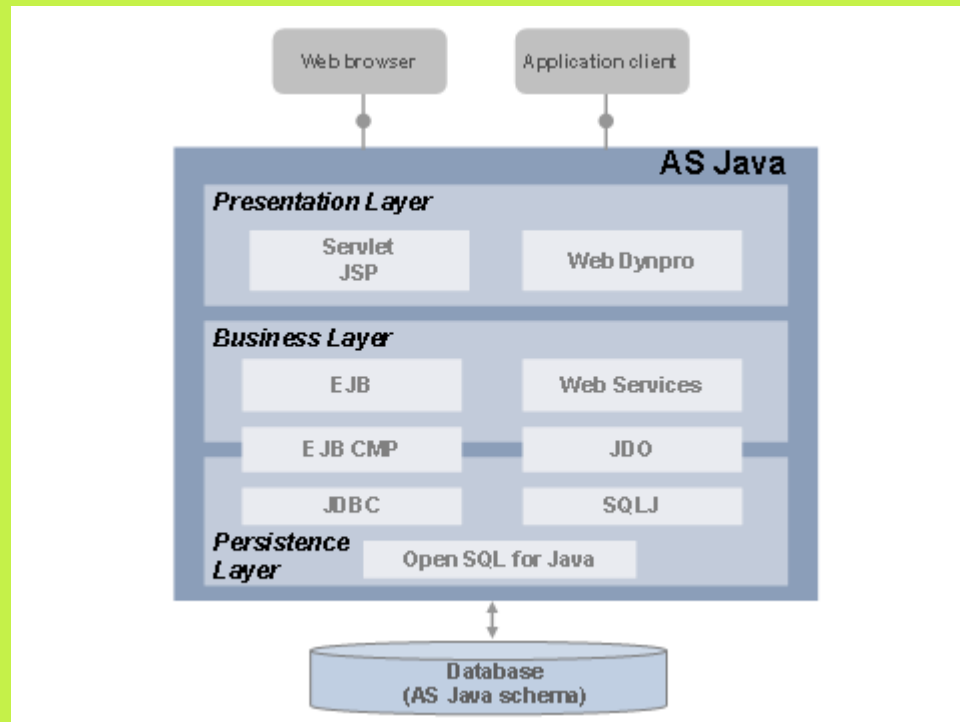
- Kernel paradigm with separately controllable tasks
 - ◆ Monitor and cancel VM of single user, e.g. for defective or looping application
 - ◆ Selectively debug one user (debug one user's problem)
 - ◆ Remote debugging in productive system without interruption





SAP NetWeaver: Architektur

Java





“So funktioniert SAP”, 13. Juni 2008 um 18:30

- **Servlets and JSPs**
- **Web Dynpro**
- **Enterprise JavaBeans (EJB)**
- **Web Services**
- **Java Data Objects (JDO)**
- **Java Persistence Layer**
 - Open SQL for Java**
 - Java Database Connectivity (JDBC)**
 - SQLJ**



“So funktioniert SAP”, 13. Juni 2008 um 18:30

AS ABAP Programming Models

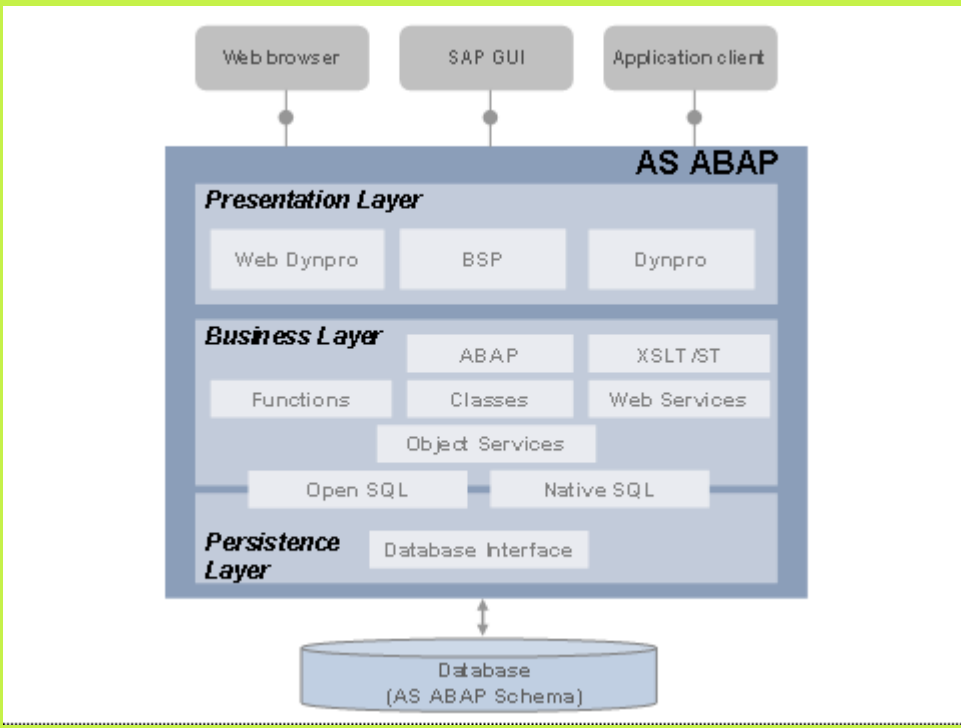
ABAP

ABAP has several advantages which are critical for SAP's success:

- **Software runs on a Virtual Machine:** Operating system and processor independent.
 - **Hot-deployable:** Code can be replaced without stopping the system.
 - **Remote-debugging:** We can execute, debug and change software easily using the SAP GUI. Several developers can debug at the same time.
 - **Kernel-Paradigma:** One failing task does not kill others.
 - **Database-independent:** SQL code can be written independent of the underlying database.
 - **Transport-Mechanism:** Activated code and database content can be transported from development to production systems.
 - **Data Dictionary (DDIC):** Database independent metadata dictionary integrates code and database types (e.g. relationship and change information). Ensures integrity of the system.
- ➔ Great tool to create enterprise-scale software with many developers.



SAP NetWeaver: Architektur





SAP NetWeaver: Architektur

Presentation Layer

- Web Dynpro
- Business Server Pages (BSP)
- Dynamic Program (Dynpro)



SAP NetWeaver: Architektur

Business Logic Layer

- **Advanced Business Application Programming (ABAP) Language**
- **XSLT/ST**
- **Functions**
- **Classes**
- **Web Services**
- **Object Services**



SAP NetWeaver: Architektur

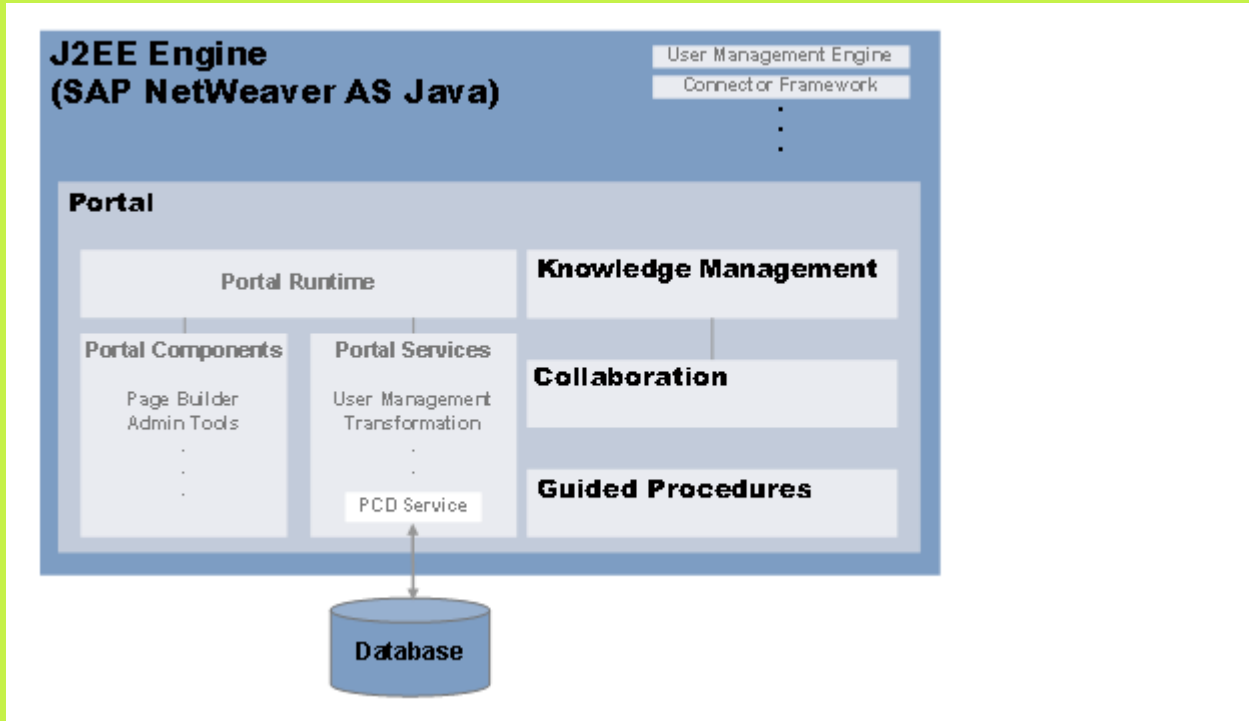
Persistence Layer

- Open SQL
- Native SQL
- Database Interface



SAP NetWeaver: Architektur

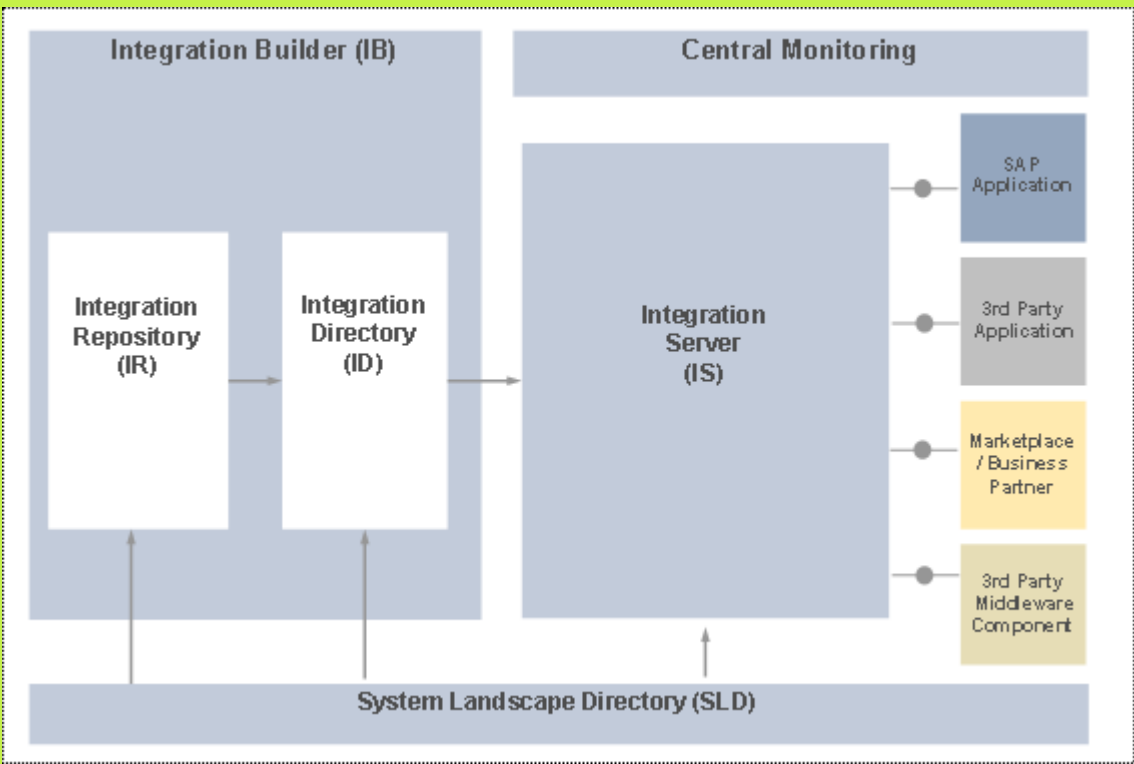
Enterprise Portal (EP)





SAP NetWeaver: Architektur

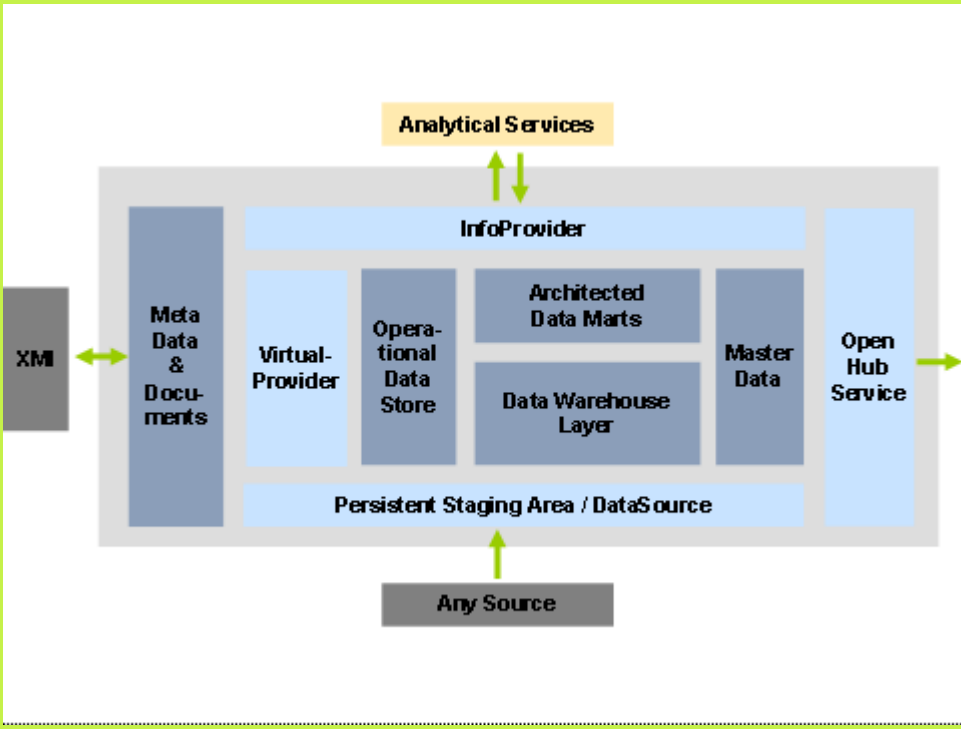
Process Integration (PI) früher (XI)





SAP NetWeaver: Architektur

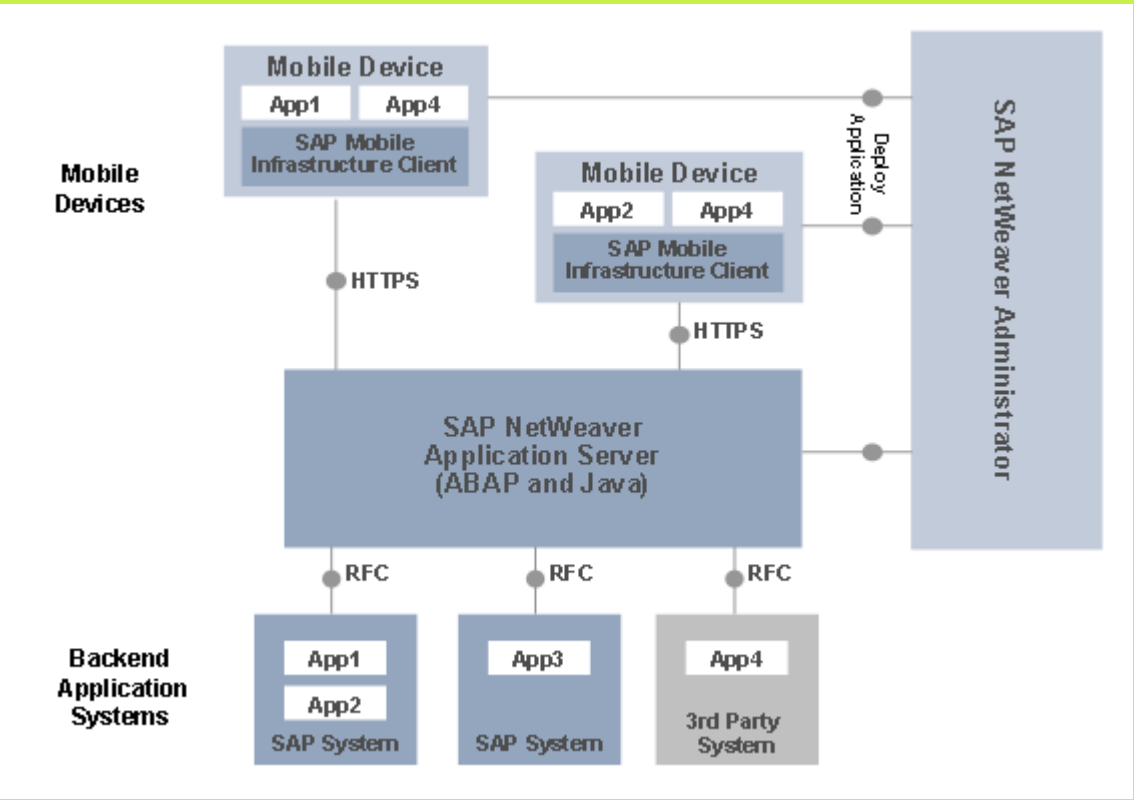
Business Intelligence (BI)





SAP NetWeaver: Architektur

Mobile Infrastructure (MI)





SAP NetWeaver: Architektur

SAP Product Portfolio

SAP for <Industry>	<ul style="list-style-type: none"> SAP for Automotive SAP for Utilities ...
Business Scenarios	<ul style="list-style-type: none"> Service management Category management ...
Industry-Specific Applications	<ul style="list-style-type: none"> SAP Energy Data Repository SAP Invoice and Contract Accounting ...
SAP xApps	<ul style="list-style-type: none"> SAP xApp Resource and Program Mgmt SAP xApp Product Definition SAP xApp Mergers and Acquisitions ...
mySAP Business Suite	<ul style="list-style-type: none"> mySAP CRM mySAP ERP mySAP Marketplace mySAP PLM mySAP SCM mySAP SRM SAP R/3 Enterprise*
SAP Solutions for Small and Midsize Businesses	<ul style="list-style-type: none"> mySAP All-in-One SAP Business One
SAP NetWeaver	<ul style="list-style-type: none"> SAP Composite Application Framework SAP Business Intelligence SAP Exchange Infrastructure SAP Web Application Server SAP Enterprise Portal SAP Master Data Mgmt SAP Mobile Infrastructure

* for installed base customers



SAP NetWeaver: Architektur

SAP Live!



SAP NetWeaver: Architektur

Fragen???