8 Major NetWeaver Components

- **SAP Mobile Infrastructure**
  - Tight coupling and alignment with SAP business solutions

- **SAP Enterprise Portal**
  - Business packages
  - Collaboration

- **SAP Business Information Warehouse**
  - Business content
  - Tight integration to SAP
  - Open architecture (third-party products)

- **SAP Master Data Management**
  - Enables information integrity across the business network

- **SAP Exchange Infrastructure**
  - Proxy generation and mapping tools
  - Integration directory

- **SAP Web Application Server**
  - Proven, scalable, comprehensive toolsets
  - Leverage existing infrastructure/skill sets
SAP Web Application Server (WAS)

Provides the application platform for standard functionality and development.

Provides DB and OS abstraction layer to applications.

All NetWeaver components are built on SAP WAS.

Consistent with ESA (SAP SOA) design strategy.

Functionality deployed as Web Services.

5 key SOA/ESA standards-based elements

Payload transmission mechanism. Contains both data and overall description/structure of data.

Protocol for exchange of Web Services.

Uses XML in requests and responses.

Mechanism for cataloging and finding Web services Internet-wide.
5 key SOA/ESA standards-based elements

XML-based language for describing the interface and access mechanics for a Web Service.

Description language which specifies how Web Services work together. Called **choreography**.

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**Services in Action**

- **Service Provider** with WSDL
- **Service Requestor**
- **Service Broker** with UDDI
- **Service Description**

Interaction:
- Publish SOAP: Service Provider to Service Broker
- Find SOAP: Service Requestor to Service Broker
- Bind SOAP: Service Provider to Service Requestor
- BPEL for Usage
**SAP Web Application Server (WAS)**

5 tiers to architecture:

--user interface (Portal)

--receives requests and formulates responses consistent with business logic.

--manages the integration among various systems. (What request/response goes where?)

--handles the actual transportation of inbound and outbound traffic (HTTP, HTTPS, SSL, SMTP, SOAP, etc.)

--connectivity to OS and Database infrastructure.

**SAP Exchange Infrastructure (XI)**

Platform for integration based on exchange of XML messages.

Provides infrastructure for XML-based messages exchanges to connect SAP components with each other as well as non-SAP components.

Delivers business-process and integration knowledge to the customer, in the form of SAP predefined business scenarios.
SAP Master Data Management

Designed to provide unified view of data from distributed and heterogeneous environment.

Able to:

Have central repository that is master store of all data.
Have a virtual master or copy of all data in a unified schema.
SAP Master Data Management

1. Content Consolidation
2. Master Data Harmonization
3. Central Master Data Management

SAP MDM supports an incremental approach to a cohesive master data management in a distributed and heterogeneous environment.

SAP Business Intelligence (Information Warehouse) (BI)

Support decision-making requirements of the entire enterprise regardless of data sources of access methods.

Data acquisition, data warehousing, OLAP, planning framework, BI tools, dashboards and analytical applications; with pre-configured content using best-practice models.

SAP NetWeaver Business Intelligence is an enterprise-class, complete, open and integrated solution that delivers actionable insights.

Open, well documented APIs and interfaces along with full functionality to integrate structured and unstructured, heterogeneous data.

Convert data into information, and ensure information is delivered at the right time to the right person in the right format to support business decision making.

Scalable and reliable BI solution that is tightly integrated with SAP NetWeaver, source transactional systems and partner’s complementary tools.
### Business Intelligence Key Capabilities

**Data Warehousing – BW Administrative Workbench**
- Extraction and transformation of business information
- Data warehouse management
- Business modeling

**BI Platform**
- Online analytical processing (OLAP)
- Data mining
- Alerting
- Meta data repository
- Planning framework

**Suite of Tools – BW Business Explorer**
- Query design
- Managed reporting and analysis
- Visualization – web application design

### SAP Enterprise Portal (EP)

**Key components (not already discussed):**
- Knowledge Management -- Organize text documents by structuring and classifying them so relevant information is available.
- Content management – functions for authoring and publishing information in portals.
- TREX – information retrieval solution – finds text quickly and builds taxonomy tree.
- Collaboration Room and Real-time collaboration (RTC) – supports teams.

**Use of Adobe Flex Framework** and Interactive Forms for providing Rich Internet Applications (RIA)
SAP Mobile Infrastructure

Model-driven development environment that allows applications to be created through modeling.
Code and interfaces of various sorts generated visually.
Visual Composer and related toolsets.
SAP Lifecycle Management

Functionality within SAP to manage patches, bug fixes, etc.

NetWeaver Foundation

R/3
- Developed in ABAP
- Platform that includes operating system, R/3, and underlying database. Foundational structured called "Basis"

SAP NetWeaver
- Languages: ABAP and Java
- "Basis" replaced with SAP Web Application Server (WAS).
- Current version: 7.1 (released in 2008) many still running 7.0. 7.2 due out this year.
The Future: SAP NetWeaver Business Client

UI Client within NetWeaver.
Can render multiple SAP and non-SAP technologies in uniform environment employing SAP’s improved user interface and interaction scheme.
Leverages SAP NetWeaver Portal infrastructure to maximize productivity of user.