

INTEGRATING THIRD PARTY SOFTWARE INTO SAP

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SAP NetWeaver: Uniform diversity

The [SAP NetWeaver technology platform](#) makes it possible to **standardize data** and integrate third-party systems and software – all without giving up custom developments. The key is the uniform user interface the platform presents to employees no matter what system they are currently in. Despite coming from varying technical origins, all users can seamlessly utilize the same system. SAP NetWeaver also maintains authorization concepts, granting employees access to only the data they need for their work. Meanwhile, Collaboration Rooms give them a place to obtain generally available information – such as documents and schedule planners.

Data integration components

With SAP NetWeaver, companies can standardize their data and consolidate master data objects from multiple source systems. In doing so, the platform creates a decentralized master data record.

The components that make this data standardization possible include SAP NetWeaver Master Data Management (SAP NetWeaver MDM), SAP NetWeaver Process Integration (SAP NetWeaver PI), and SAP NetWeaver Business Warehouse (SAP NetWeaver BW). These components ensure data consistency in all systems and provide technologies that facilitate open integration between SAP systems and non-SAP software. In addition, they offer tools for planning, simulation, querying, reporting, and analysis; consolidate master data from various data sources (systems from SAP and other providers); eliminate redundancies; perform ID mapping; and synchronize and merge data.

SAP NetWeaver also consists of the components below:

SAP NetWeaver Application Server

Platform-independent Web services, software, and applications run on SAP NetWeaver Application Server, as do technologies such as ABAP and the Java 2 and Enterprise Edition platforms. It also supports the current Internet security standards – including HTTPS, Secure Sockets Layer (SSL), and Lightweight Directory Access Protocol (LDAP) – to ensure secure communications among all client and server components. Authentication, user administration, and digital certificates and signatures all run on SAP NetWeaver Application Server, which also enables multiple employees to work on a project at the same time while maintaining the corresponding authorization concepts. In addition, the component can integrate external portals

and consolidate user interfaces, merging business data from various databases and applications in the process.

SAP NetWeaver Mobile

Based on open, flexible technology standards, SAP NetWeaver Mobile makes it possible to use SAP applications on smartphones such as iPhone and Blackberry. It also serves as a foundation for the development of smartphone solutions with native or browser-based user interfaces.

SAP Auto-ID Infrastructure

SAP Auto-ID Infrastructure facilitates the integration of receivers such as RFID readers, printers, Bluetooth devices, and barcode readers.

SAP NetWeaver Identity Management

SAP NetWeaver Identity Management provides functions that define role-based profiles, administer user identities, and grant employees their specific access rights and other authorizations.

SAP NetWeaver Enterprise Search

This component makes it possible to search through transactions and company objects.

Implement in-house ideas

To be successful, you need new ideas and the ability to respond quickly to changing external conditions. In the automotive electronics industry, innovation cycles can be as short as six months. The electric car manufacturer Tesla Motors, for example, always has to incorporate the latest technology into developing its vehicles and processing its products.

SAP NetWeaver provides IT departments with the technology and tools necessary to program new industry-specific applications. Combined with IT practices – preconfigured IT scenarios tailored to certain company activities, such as purchasing, sales, and service – these instruments are meant to support programmers in mapping their organizations' individual business processes in software. The IT practice Holistic Lifecycle Management, for example, aids in automating applications.

SAP NetWeaver also comes with SAP Solution Manager, which contains a library of predefined business processes.

Make programming easier

SAP NetWeaver is designed to support programmers and developers by giving them a main starting point for bundling their applications. Thanks to its coherent graphical interface, programmers can view the current status of their work, track how far their colleagues have progressed with their own tasks, and see which applications still need processing.

Taking SAP NetWeaver as a basis, users can program new components – user interfaces, rules, services – and establish new relationships between them.

SAP NetWeaver also runs on other platforms, including Microsoft .NET and IBM WebSphere. It supports technology standards such as XML, Simple Objects Access Protocol (SOAP), Web Services Description Language (WSDL), and Universal Description, Discovery, and Integration (UDDI). SAP promises full flexibility in shaping the platform's user interfaces, and programmers can access sample templates through SAP NetWeaver Visual Composer. In addition, Web Dynpro provides a development environment that separates presentation and business logic, thereby facilitating client design in both ABAP and Java environments. The Model View paradigm is the key element that frees what users see on-screen from the technology behind it. As a result, the layout can be adjusted to the target client in question without needing to delve into the business logic.