Develop Real-Time Applications Using SAP NetWeaver® AS for ABAP® on SAP HANA®

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Innovate and accelerate your business

Now you can **build real-time business applications** – leveraging the SAP HANA® platform to the max – with the SAP NetWeaver® Application Server component for the ABAP® programming language. It offers an excellent, standards-based development and runtime environment with highly responsive user interfaces for enabling business processes across on-premise and on-demand solutions.

Requirements for business applications are increasingly shaped by the need to deal with huge amounts of data, respond to changes even before they happen, and cater to the demands of the mobile user. Big Data, cloud, and mobile solutions are some of the technology trends that help address these requirements by making it possible to develop agile and easy-to-consume real-time business applications.

Powered by the SAP HANA platform, SAP NetWeaver Application Server (SAP NetWeaver AS) for ABAP is the technology platform to do just this. It is already the basis for SAP® Business Suite software powered by SAP HANA. Now it is also available to support a variety of scenarios that optimize the development and performance of your ABAP applications. What’s more, SAP NetWeaver Application Server for ABAP leverages your existing assets and skills – true to our precept of innovation without disruption.
## Ramp up ABAP development with in-memory computing

The proven SAP NetWeaver Application Server for ABAP used by thousands of SAP customers and partners worldwide is now powered by SAP HANA. This enables your business to evolve toward real-time processing and analysis of large data sets. As a result, you can make faster and smarter decisions, quickly react to market changes, and explore new business models that yield unprecedented value.

Leveraging the strengths of in-memory computing technology in ABAP development offers the opportunity to:

- **Innovate and implement new ABAP applications that enable data-driven business processes** by fully exploiting the power of SAP HANA
- **Accelerate key business processes** by completing calculations in seconds rather than hours and speeding up the response time for business users
- **Extend and enhance existing applications** by significantly improving the user experience with highly interactive user interfaces (UIs)

With SAP NetWeaver Application Server for ABAP powered by SAP HANA, you can take the opportunity to innovate and accelerate your business. You can also benefit from your existing ABAP investments and development skills, along with your proven administration, lifecycle management, software logistics, and security processes for the SAP NetWeaver technology platform.

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SAP NetWeaver Application Server for ABAP provides the tools and infrastructure to find ABAP code with massive acceleration potential. You can optimize the performance of your applications by pushing costly calculations from the application server down to the SAP HANA database. This is called the “code pushdown” paradigm.

ABAP development on SAP HANA is efficient and productive. You can use SAP HANA artifacts natively in the ABAP development and runtime environment. Then, you can transport these artifacts, together with ABAP code, using the proven SAP NetWeaver Information Lifecycle Management component. You can also bring the power of SAP HANA to user interfaces by leveraging its fast search functionality. This dramatically improves the user experience for value help and other application-specific search interfaces. Beyond this, you can now provide real-time analysis in ABAP applications on transactional data residing in the SAP HANA database.

Take ABAP development to a whole new level.
SAP NetWeaver Application Server for ABAP is a secure business application platform for SAP HANA that supports transactional as well as analytical scenarios. It integrates the latest security standards and measures, so you can run your business applications in an environment with high security concerns.

For an easier and quicker start with SAP NetWeaver Application Server for ABAP powered by SAP HANA, SAP provides a well-documented sample application that demonstrates a best-practice approach to developing an ABAP application on SAP HANA. This sample application showcases different options for SAP HANA consumption in ABAP, including integration with existing UI technologies such as the Web Dynpro development and runtime environment for ABAP, the floor plan manager, and the UI development toolkit for HTML5 (SAPUI5).

Designed to meet today’s high security standards, SAP NetWeaver Application Server for ABAP provides a rock-solid application platform.
### Develop like never before

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<td>SAP NetWeaver Application Server for ABAP makes use of the Eclipse platform, enabling ABAP developers to work much more efficiently and comfortably. SAP provides Eclipse-based development and design-time tools for ABAP, SAP HANA, SAPUI5, SAP NetWeaver Gateway technology, and SAP HANA Cloud Platform. One central update site hosted by SAP provides access to these tools, all of which can run in a single Eclipse installation and support application development spanning different ABAP and non-ABAP technologies.</td>
<td>The comprehensive toolset in Eclipse offers superior support for ABAP development powered by SAP HANA, along with modern tools for source code editing, search and navigation, quality assurance, and troubleshooting.</td>
<td>The result? Highly efficient and quality-driven application development across different technologies. To satisfy specific business needs, you can even build or integrate your own tools with the software development kit for ABAP development tools and the well-known Eclipse plug-in technology.</td>
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Ramp up ABAP development with in-memory computing

Tune up your user experience

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Bring your applications to the cloud and collaborate
Tune up your user experience

Today’s business applications can offer a new level of user experience by leveraging the power of Web technologies like HTML5, Cascading Style Sheet (CSS3), and JavaScript. These Web technologies require lightweight, stateless communication with the enterprise application server hosting the business solution. Moreover, mobile business apps also require highly optimized, lean communication with an enterprise resource planning (ERP) system or other application server–based solutions to efficiently access and process business data on a mobile device.

SAP NetWeaver Application Server for ABAP is designed to support these use cases. It provides lightweight access to business data and services by supporting RESTful Web services (that is, following the principles of Representational State Transfer) and the Open Data (OData) protocol, an international open standard by the Organization for the Advancement of Structured Information Standards (OASIS). Together with the embedded UI development toolkit for HTML5 and SAP Mobile Platform, SAP NetWeaver Application Server for ABAP offers the full functionality to provide modern and highly responsive Web UIs and to build, run, and operate mobile business apps in an enterprise environment.
Bridge the on-premise and on-demand worlds

Besides self-contained business applications, SAP NetWeaver Application Server for ABAP supports the development of business solutions across multiple systems and lets you automatically set up the required services on every involved system. This significantly reduces the costs and risks associated with complex business processes running across different systems. It also strengthens the robustness of your applications by decoupling business process configuration from technical configuration. A single toolkit providing central management, visibility, and control of these services and the corresponding system landscape helps ensure operational continuity.

SAP NetWeaver Application Server for ABAP also supports connectivity between on-demand and on-premise solutions with cloud computing services like software as a service (SaaS) or platform as a service (PaaS). SAP HANA Cloud Integration technology enables the integration of on-premise applications with cloud-based applications on SAP HANA Cloud Platform while meeting key authorization and security requirements. Moreover, you can use SAP NetWeaver Gateway or SAP NetWeaver Process Integration technologies with pre-packaged SAP content to connect with cloud-computing services and enhance the user experience with the SAP NetWeaver Single Sign-On application.
Bring your applications to the cloud and collaborate

The SAP Cloud Appliance Library tool is an on-demand solution hosted on SAP HANA Cloud Platform. It lets you select and deploy preconfigured SAP NetWeaver Application Server for ABAP images or other SAP software appliances into your cloud account with an SAP-certified provider of cloud services like Amazon Web Services. You can instantly run those virtual appliances within a virtual private cloud or public cloud with minimal costs. It’s never been easier or more cost-effective to provision and operate an SAP NetWeaver Application Server for ABAP system in the cloud.

The Social Media ABAP Integration Library (SAIL) enables SAP applications to go social and integrate state-of-the-art collaboration features from the SAP Jam social software platform to support business processes. This gives you the opportunity to offer social business collaboration and exchange business data with internal or external users in a secure environment.

Benefits

- Connect your business processes and run everywhere.
Become a real-time business

New technology paradigms such as Big Data, cloud computing, and enterprise mobility pose new challenges for established infrastructures. With SAP NetWeaver Application Server for ABAP powered by SAP HANA, you can rely on the development and runtime environment, lifecycle management, and security of a mature and proven application server. At the same time, your company can truly become a real-time business and realize the following benefits:

- Accelerate key business processes and innovate on new data-driven business models
- Exploit the full potential of your business data by using real-time analysis to make smarter decisions
- Boost developer productivity with the Eclipse-based development environment
- Increase your business value with the integration of on-demand solutions
- Go mobile and bring your ABAP applications to a cloud environment

All of these benefits are brought to you in a completely nondisruptive fashion to support our principle of innovation without disruption.
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<td>The SAP HANA® platform powers the SAP NetWeaver® Application Server, a development platform for SAP partners and customers to build critical applications. SAP NetWeaver Application Server for ABAP provides nondisruptive innovations and enhancements leveraging Big Data, cloud, and modern Web technologies.</td>
<td>Real-time business applications powered by SAP HANA, End-to-end application development on the open Eclipse platform, Compelling user experience with innovative Web technologies, Business process integration with on-premise and on-demand solutions.</td>
<td>Business process innovation and acceleration without disruption, Smarter decisions through real-time analysis of business data, Excellent user experience and mobile access, Highly productive development environment, On-premise or cost-effective cloud deployment.</td>
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<td>Master and exploit huge amounts of business data in real time. Open up your applications to mobile users anytime, anywhere. Run applications on premise, in the cloud, and in hybrid environments. Boost the productivity of your application developers.</td>
<td>Real-time business applications powered by SAP HANA, End-to-end application development on the open Eclipse platform, Compelling user experience with innovative Web technologies, Business process integration with on-premise and on-demand solutions.</td>
<td>Business process innovation and acceleration without disruption, Smarter decisions through real-time analysis of business data, Excellent user experience and mobile access, Highly productive development environment, On-premise or cost-effective cloud deployment.</td>
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Learn more
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