SAPinsider

This article appeared in the Jan ▪ Feb ▪ Mar 2013 issue of *SAPinsider* (http://sapinsider.wispubs.com) and appears here with permission from the publisher, WIS Publishing.

WIS pubs

Pave the Way to an Agile Enterprise

Increase Your Business Agility with SAP NetWeaver Decision Service Management

by Matthias Weber and Wolfgang Schaper, SAP

Matthias Weber (m.weber@sap.com) has been with SAP since 2001 and currently works in technology marketing, focusing on process management technologies. He holds a diploma in business administration from the University of Applied Sciences of Mainz, Germany.

Wolfgang Schaper (wolfgang.schaper@sap.com) joined SAP in 1998 and currently works as Product Manager for SAP NetWeaver Decision Service Management. He holds a PhD in mathematics from Humboldt-University Berlin.

We depend on our enterprise applications to help us answer countless questions: Is the invoice complete? What's the tax amount for this order? Which customers should receive a promotion offering? Which carrier should be used for this shipment?

Yet, the variables that guide these decisions can change in a moment, and with agile operational decisions becoming a source of competitive advantage, the ability to react and adapt to changing requirements in your business processes is critical. That's one reason SAP developed SAP NetWeaver Decision Service Management. The solution helps you respond to changing business and regulatory requirements by making it faster and easier to create and modify the automated decision-making logic used in SAP Business Suite and ABAP-based custom applications, thereby improving the efficiency of your business experts and IT staff, as well as the quality of the implemented logic.

Drawbacks of Today's Approach

To automate a business process, an application's decision-making logic takes into account a wide range of criteria. When choosing a carrier, for example, the application logic considers the size and weight of the order, its destination, the required delivery time, whether the order can be combined with another order, and so on, and then correlates this information to the prices of the different carriers to determine the optimal choice. However, criteria can change at any time, requiring adjustments to the decision-making logic. Or an entirely new business requirement can emerge, requiring the creation of entirely new logic.

Traditionally, implementing any changes to decision-making logic or creating new logic involves both business domain experts and IT staff. Business domain experts document requirements — via email, spreadsheets, or text documents, for example — and then hand over this documentation to IT staff with the request to implement the requirements. The IT staff then implements the changes to the decision-making logic, typically through extensive application customizing or custom coding, and finally sets the change in production as part of the next software update cycle.

There are drawbacks to this approach. It is time consuming and costly; changes can take weeks, if not months; and the effort is labor- and resource-intensive. It is also an error-prone approach since the IT specialists who program the decision-making logic lack relevant business knowledge, meaning the implemented decision-making logic is often not what the business domain experts had in mind.

Business domain experts also usually have limited visibility into the hard-coded decision-making logic that is used in applications, which makes it difficult to perform analysis and ensure corporate and regulatory compliance. Additionally, rules implemented during an application customization process often end up causing headaches during system upgrades, as it is very difficult to move such customizations from one application to another. The good news is that SAP NetWeaver Decision Service Management is set to change this inefficient procedure with a new, simplified way to manage decision-making logic across your SAP applications (see **Figure 1** on page 84).

Enable a New Approach

SAP NetWeaver Decision Service Management provides a cost-effective, simplified alternative to

Subscribe today. Visit sapinsider.wispubs.com.

	Traditional	SAP NetWeaver Decision Service Management
Time from request to implementation	Weeks to months	Instantly
Quality of implemented decision-making logic	Low; details can be lost in translation	High; with no translation, no details are lost
Cost to implement (due to involved staff and system downtimes)	High	Low; no IT involvement means no downtime
Transparency of decision-making logic applied across SAP applications	Limited	Full
Ability to leverage latest **innovations** through release upgrades	Difficult	Easy

FIGURE 1 ▲ Traditional approach to managing decision-making logic across SAP applications versus an approach using SAP NetWeaver Decision Service Management

extensive application customization, custom coding, and application-embedded business rules. An add-on to SAP NetWeaver, it is based on SAP's ABAP-based rules engine, Business Rule Framework plus (BRFplus). Many customers already use BRFplus in their applications to model the rules that define the behavior of their business processes. SAP NetWeaver Decision Service Management expands the BRFplus functionality by centralizing the management of business rules, providing more powerful deployment options, improving user interfaces, empowering business domain experts to make rule changes without IT assistance, and enabling IT experts to control access to the applications in the managed systems.

To do all of this, SAP NetWeaver Decision Service Management externalizes decision-making logic from core SAP Business Suite and custom ABAP-based application code by moving it into a single, central location. From there, business domain experts and IT experts can jointly maintain the decision-making logic, wrapped as decision services, in a dedicated design-time system for rule modeling and administration. The decision services are then deployed to the managed systems in which the applications that comprise the business process reside (for deployment to non-SAP managed systems, the decision services are wrapped as web services). Let's take a closer look at the key areas that enable this approach.

Note:
SAP NetWeaver Decision Service Management requires SAP NetWeaver 7.3 enhancement package 1, support package 4 or higher. For managed systems, any SAP NetWeaver release from 6.40 is acceptable.

A Closer Look at SAP NetWeaver Decision Service Management

SAP NetWeaver Decision Service Management has five key functionality areas.

1. Decision Service Modeling

SAP NetWeaver Decision Service Management puts the tasks for maintaining the decision-making logic of automated business processes into the hands of the business domain expert. It provides role-specific entry points in the design-time system for rule modeling and administration. These enable the experts to maintain the decision-making logic with a modeling environment, while enabling IT experts to use an administration tool to maintain the necessary connections with managed systems and applications. With support for natural human language syntax and familiar representation formats, such as spreadsheet-like decision tables, the solution empowers business users to define decision-making logic without having to write a single line of code.

By enabling business users to define and maintain decision-making logic without the need for IT support, SAP NetWeaver Decision Service Management simplifies and speeds up the way decision-making logic is deployed through SAP system landscapes and across applications. This approach helps eliminate communication gaps between business users and IT, and enables IT to focus on making sure connections are working rather than on understanding the details of the logic.

2. Decision Service Repository

With SAP NetWeaver Decision Service Management, decision services are maintained in a central repository that enables full access to the semantics and back-end data of all the SAP Business Suite and custom ABAP-based applications in your landscape. The decision services and their subordinated objects can be organized and grouped in intuitive, folder-like structures called business-rules catalogs. Separating the decision-making logic from the applications and wrapping it in centrally stored services that are available across your landscape means that the same decision services can be used by multiple connected SAP systems. Instead of creating and maintaining duplicate services for different applications that require the same logic, which is time consuming and error prone, a service will only need to be created once.

3. Decision Service Lifecycle Management

While SAP NetWeaver Decision Service Management puts business experts in the driver's seat for defining decision-making logic, there are still technical aspects that must be managed by IT experts. For that purpose, SAP NetWeaver

Decision Service Management provides a central administration tool that helps maintain all system activities related to decision service lifecycle management. IT experts use the Decision Service Manager to connect enterprise applications to SAP NetWeaver Decision Service Management (see **Figure 2**). IT experts can manage access control following the general SAP authorization concept. This central administration tool enables IT experts to control all technical aspects of decision services.

4. Decision Service Versioning and Reporting

SAP NetWeaver Decision Service Management allows business domain experts and IT staff to manage the versioning, auditing, and reporting of decision services by providing version repositories and log files like execution traces (about which decision service was executed, by what user, with what results, and including the intermediate steps leading to these results). As a result, business and IT staff gain full transparency into the versions of decision services that have been created, when they were created, and in which target systems they are deployed.

This transparency enables organizations to analyze business rules and processes to identify discrepancies and inefficiencies, and to ensure compliance with regulatory requirements and enforce corporate-wide rules and policies.

5. Decision Service Deployment

SAP NetWeaver Decision Service Management segregates decision-making logic from applications, allowing business domain experts to adapt or extend the decision-making logic independently from software update cycles. Using the solution's central administration tool, business domain experts can deploy new or changed decision services into SAP systems at any time, without being bound to traditional software transport and release management processes. One decision service can be deployed to multiple target systems, saving time and avoiding duplication. And, once deployed to the target SAP systems, the decision services are executed locally — no service calls that could adversely affect system performance are required from the target system.

Additionally, the productive managed systems connected to SAP NetWeaver Decision Service Management don't need to be on the latest software release level; decision services can be deployed into systems on virtually any release level, and even into non-SAP systems by wrapping the decision service as a web service (see **Figure 3**).

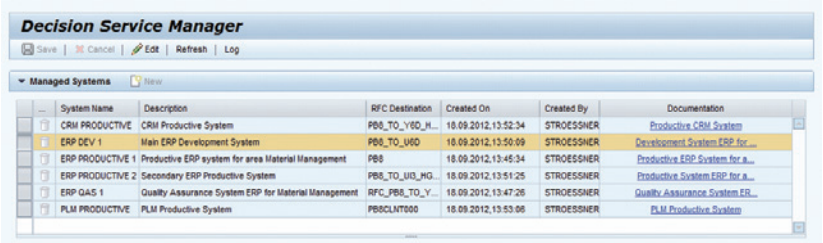

FIGURE 2 ▲ SAP NetWeaver Decision Service Management allows IT administrators to manage the connections to multiple enterprise applications

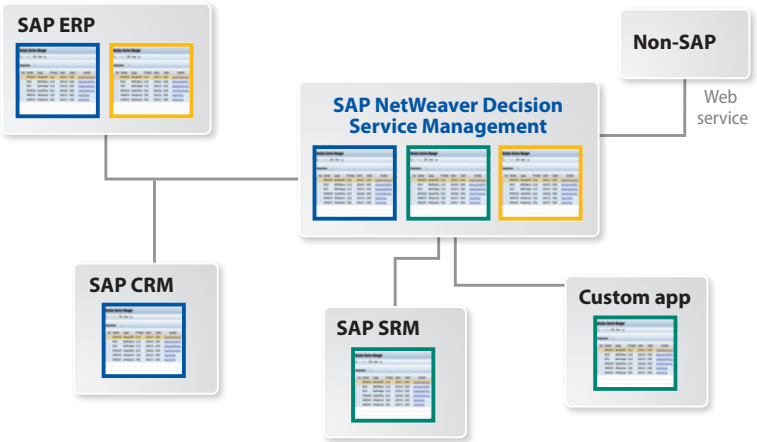

FIGURE 3 ▲ SAP NetWeaver Decision Service Management in a sample system landscape

The enhanced deployment functionality of SAP NetWeaver Decision Service Management makes business users self sufficient, minimizes downtime, and eliminates release dependencies between the decision-making logic and the connected applications, freeing resources for your organization to devote to critical business initiatives.

Increase Your Business Agility

SAP NetWeaver Decision Service Management increases business agility by accelerating changes to decision-making logic in your SAP applications and also significantly improves the efficiency of your IT and business staff. Version 1.0 of the solution is available in ramp-up, with general availability planned for early 2013. Planning is also under way for future enhancements for UI, modeling, testing, debugging, and mapping, as well as deployment into SAP HANA. With SAP NetWeaver Decision Service Management in your arsenal, you will be well positioned to build the agile business processes you need to succeed. To learn more, visit **http://scn.sap.com/docs/DOC-29158.** ■

Subscribe today. Visit sapinsider.wispubs.com.