

*New Face of Employee Self Service: Integrate ESS & Portals Using Web Dynpro*

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## The New Face of Employee Self Service: How to Integrate ESS with Portals Using Web Dynpro

By Raj Peddisetty, Prosoft Technology Group

**Editor's Note:** First time contributor Raj Peddisetty serves up some valuable lessons in using the Employee Self Service (ESS) system on the SAP® Enterprise Portal. Raj presents an overview of Web Dynpro and explains why it is the most robust and efficient tool for integrating ESS with Portals. He makes a case for ESS/Portal integration with a discussion of its application as a user-friendly resource to empower staff to create, change, and display their employee data. To prove his point, Raj takes us step-by-step through the creation of a browser-based employee vacation request. As he points out, the return on investment potential is a no-brainer.

### Introduction

In the present business environment, cutting cost and time is the primary objective for every company. SAP ESS (Employee Self-Service) is a tailor-made application that suits the present lean and mobile workforce. It empowers the workforce to access their personal information and to do many of the administrative tasks and transactions themselves at any location, without interacting with HR Functional employees. This enables the HR staff to concentrate on tasks that are of strategic importance.

The primary goal associated with ESS is to streamline HR approval processes like leave requests and travel reimbursement. In this article, I present an introduction to the ESS business package using Web Dynpro. The article offers a description of different components, as well as a basic how-to guide. While it cannot completely address the nuances of your project, it will give you an overview and a great place to start. The technical system landscape this document addresses is SAP ECC 5.0, SAP Web AS ABAP 6.40, Enterprise Portals 6.0, SAP Web AS Java 6.40, and Business Package for ESS 60.1.

### Why Web Dynpro for ESS?

The Business Package for Employee Self-Service integrates the ESS solution (developed using Web Dynpro) into the SAP Enterprise Portal. SAP explained the thinking behind the integration of ESS and Enterprise Portals in this way: "Efficient employees build strong companies. But they need the right tools — intuitive, user-friendly, portal-enabled applications. SAP ESS in mySAP® ERP is featured in the portal environment: Enterprise Portal 5.0 and Enterprise Portal 6.0 – taking our services to the next level of fluidity and ease of use."

ESS lets employees create, display, and change their own data in the SAP Enterprise Portal. Some examples are: Personal Information, Travel Information, Leave Requests, Benefits, Payments, and Administration. The ESS package, which runs on ITS (Internet Transaction Server), is not all we hoped for due to its complexity and rigidity. But despite the challenges of the ITS environment, ESS has still been adopted by many SAP users. With 80 plus ready-to-use services available in 28 languages and in 32 countries, ESS offers the fast and proven ROI for customers.

You may see some raised eyebrows at the suggestion that Web Dynpro is a better approach than the existing ITS business package. Consider that with the original ITS business package, on every front-end we need a Win GUI installed, which is not pragmatic. In the case of Web Dynpro, it provides a lightweight framework that can be launched in any browser, over the Internet or Intranet. ITS is not intuitive, and so does not satisfy our expectations for ease of use. Development with ITS is also complex. For customization purposes, ITS is also not as robust as Web Dynpro. Since Web Dynpro follows MVC (Model-View-Controller) Architecture, it is very robust, and the reusability of components is also high.



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The strengths of Web Dynpro/ESS business package are that it empowers the blue-collar employees who are not technical, as well as the white-collar employees known for their tech savvy. In addition, there are the fast and high ROI, widespread acceptance and usability, and ability to replace the proven, but aging ITS with the Web AS product (to simplify the system landscape).

When modifying the standard business package, Java Development Infrastructure (JDI) plays a vital role in building, maintaining, and versioning of the software. JDI consists of three components:

- (1) Design Time Repository (DTR), supports source code management and team development at the company's site,
- (2) Component Build Service (CBS) is used for central build of the components, and
- (3) Change Management Software (CMS) is used for transport of the changes that we made to the business package.

### What Is Web Dynpro?

Web Dynpro is a client-independent programming model of the SAP NetWeaver™ technology platform for developing user interfaces for professional business applications. It is based on the Model View Controller paradigm, which ensures that the business logic is separated from the presentation logic. This architecture is visible in the Web Dynpro perspective of the SAP NetWeaver Developer Studio (NWDS). Key goals associated with Web Dynpro are: less time to develop, less code, fewer resources, and MVC architecture for reusability. Web Dynpro uses ARFC (Adaptive RFC) protocol specially developed for the Web Dynpro application to connect to the back-end SAP systems.

The salient features of ARFC are: it adapts to the back-end changes at run time, it consumes fewer resources, and development is faster.

Enterprise Portals is one component of the SAP NetWeaver Enterprise Services Architecture, which enables the "people integration". The Enterprise Portals piece is a browser-based front-end solution for all kinds of services, applications, and daily tasks in an enterprise. Web Dynpro applications developed for Employee Self Services, when integrated into the Portals environment, offer the access point for employees through Roles and iViews.

Now, let's discuss the skills that drive Web Dynpro implementations for ESS. As Web Dynpro is available in both Java and ABAP versions, proficiency in ABAP or Java is a must. The Web AS ABAP version of the ESS package is not available yet. Knowledge of HR, Web AS 6.40, and JDI is also required. If there is a need to integrate the Web Dynpro/ESS business package into the Portals environment, Portals knowledge of Role design, iView design, and Page design is also mandatory. Detailed knowledge of BAPI and JCo are also required, in order to connect to the R/3 HR systems. The configuration of Web Dynpro Content Administrator for JCo destinations is also required to manage the destinations with Web Dynpro applications.

In the following screen shots, we see a generalized Vacation request developed using Web Dynpro in the NetWeaver Developer Studio and launched in SAP Portal. Figure 1 presents the introduction page of the Employee Self Service application when accessed in the Portal, which is already configured (using Role Assignment) to the UserID.