Chapter 3

Raising the Bar on Productivity

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*O*ne of the big challenges to business today is to reduce the cost of standard business processes (those processes like running the payroll or processing invoices that are unglamorous but keep your doors open). Cutting these costs means reducing the total cost of ownership (or TCO, which is covered in more detail in Chapter 10) of your IT systems, including lowering costs associated with user productivity.

In an ESA-enabled environment, ERP can provide great tools to lower your TCO and increase productivity through improved usability with better access to applications and data, and the capability for self-service. These two tools can help your employees get their work done much more efficiently.

Out-of-the-box generic and industry-specific best practice scenarios can help streamline your processes and give you the ability to flexibly modify any process. You can also use shared services centers to centralize or outsource pieces of your processes, which can save you big dollars.

Upping Your Usability

You can give your employees all the software in the world, but if they can't use it easily, they won't be very productive. Usability is all about how people get at the tools and information they need to get their work done and how they interact with the computer interface they stare at over their coffee cups every morning.

Providing a control center for your work

You know that having an organized workbench in your garage makes that do-it-yourself project much easier to handle: The hammer, drill, and nails are all there in one place, easy to get your hands on. In a similar way, the interface you look at all day long on your computer screen shouldn't just look good; it should also give you the tools and data you need to become more productive.

Having access to data and functionality smoothly integrated in a single interface can improve efficiency and make for much happier workers. In an ESA environment with SAP NetWeaver, you can build something called a *control center*. A control center provides an intuitive central point of access to information and functionality for an individual. Using a control center, such as the one shown in Figure 3-1, employees can organize, monitor, and plan all their work and information. Along the left side of this center are activity-based items such as contacts and links to projects, budgets, collaboration features, and so forth; on the right are work triggers reflecting work activities, reminders, and analytics.

Figure 3-1:
An employee control center.

The work trigger list is a really useful thing: In the past, it was your task to find all the relevant pieces you needed to get to work. Now your ERP systems obtain all the stuff you need to get your job done for you and put them into this universal work list.

Two new and important paradigms are behind this work list:

- ✔ Pull versus push
- ✔ Role-based

A *pull-versus-push* paradigm means that the ERP system is proactively pushing information to you so that you don't have to go out there and find what you need, possibly missing an important tidbit in the process.

A *role-based* paradigm means that your IT administrator defines sets of policies that belong to you based on your role in your company. Roles in an IT sense are sets of policies that enable you to gain access to information or functionality that you use to get your job done. After you have a role defined for you, you get all the access to the data and functionality that you need to do your particular job.

TIP

Read more about roles in the later section of this chapter, "How Roles Make Life Easier."

Taking advantage of work centers

You can easily create work centers in mySAP ERP. Whereas control centers are a kind of instrument panel that gives each employee an overview of all her work and activities, work centers are portals that are more specific to getting work done in certain areas. For example, Figure 3-2 shows a work center with an HR/manager focus. With work centers, employees can get organized and be proactive rather than reactive because relevant information is pushed to their desktops. With all this information at their fingertips, workers become much more productive.

REMEMBER

All your work centers are accessible from your control center.

TIP

You can also build *guided procedures* into your control or work center user interface, like the one shown in Figure 3-3. These are wizard-like screens that step people through more nonroutine business processes. Some of these are built into ERP, but you can also build your own based on a best practice in your own organization. Guided procedures ensure that users take advantage of your system, instead of reverting to the old manual way of doing things. The ability to build guided activities is built into SAP NetWeaver.

Figure 3-2:
Specific
information
about
headcount,
sick time,
and
attendance
populate
this HR-
focused
work center.

Figure 3-3:
A step-by-
step
process in
your
interface
helps users
to avoid
mistakes.

Easy collaboration

Control and work centers also give you access to several tools for collaboration. Some of those tools come from SAP NetWeaver. Others are built into various applications such as mySAP ERP.

Collaborative tools allow you to

✔ Organize contacts and buddy lists for instant messaging.

✔ Check people's availability for meetings.

✔ Share applications.

✔ Create appointments.

✔ Use folders to share documents.

✔ Create collaboration rooms, which are essentially project-based work rooms that end users can create themselves. All collaboration rooms appear in your control center.

✔ Send a view of a report to others using the SAP Business Information Warehouse information broadcasting feature. Recipients can look at the snapshot of data and, with the right permissions, even drill down to find and view background documents.

Integrating with Applications You Use Every Day

Think how useful it would be if your enterprise data could be connected with the applications that folks use for their everyday work. What if you could place an application like Excel in the context of your accounting business processes, for example?

The whole idea here is that when you record data in one system, you shouldn't have to repeat that data entry in another. After it is entered into what is called a *primary* system, the data should flow through to other systems easily. This reduces the inefficiencies and inconsistencies that often happen with repeated data entry. It also delivers enterprise processes in the context of the standard *information worker environment* — a fancy term for those familiar screens, menus, and toolbars you use everyday.

Besides being more efficient, this method is easier because nobody has to be retrained: Just about everybody is comfortable with ubiquitous products such as Word, Adobe, PowerPoint, and Outlook.

Going into the office

Tapping into Microsoft Office (one of the most popular office productivity suites) as a front end to SAP data and processes is a logical move. So you'll be happy to hear that SAP and Microsoft announced a joint product to do just that at the SAPPHIRE conference in the spring of 2005. Named Mendocino, this product essentially leaps over the gap between the desktop and the enterprise in a single bound. It connects the best-practice processes that SAP has worked so hard on with the easy-to-use and familiar interface of Microsoft Office applications.

What is Mendocino?

Essentially, Mendocino Version 1.0 is a set of employee and manager self-service applications that connect Office and ERP. To help you understand how it works, here are some ways you might use Mendocino in your business:

- ✔ **Time management** enables you to use the Outlook calendar to streamline employee time reporting.

- ✔ **Budget monitoring** allows you to receive SAP budget reports in your Outlook inbox and work with them offline. You can be proactively alerted to time-critical budget information.

- ✔ **Leave management** lets you receive leave requests via your Outlook calendar.

- ✔ **Organization management** means getting up-to-date info about employees via mySAP ERP Human Capital Management (mySAP ERP HCM) using Microsoft Office InfoPath forms. (InfoPath is a set of tools you can use to create dynamic forms used to gather and share data across your business processes.)

- ✔ **Personnel change requests** send reports from mySAP ERP HCM through Excel or Outlook to keep you up to date about promotions, bonuses, new positions, and more.

What does Mendocino do?

So how does this all work? Say you use your Outlook calendar for doing your time scheduling, setting up meetings, and reminding yourself of appointments. So you enter information for a meeting next Tuesday on the new procurement project. If you also have to track the hours you spend on projects or accounts in a time-reporting program, why should you have to enter the information about the meeting when you already entered it in Outlook? Being able to integrate your Outlook schedule with an enterprise-wide time-reporting program makes much more sense. With Microsoft Office and Mendocino integrated with ERP, this is easy.

Here's another example. You open your calendar to look for a date when your are available to fly to San Francisco for a meeting. You can then create an event for that date, which takes you to your browser, where you can select a flight from a travel-planning window. When you book the flight, all the flight information is automatically recorded back in your Outlook calendar.

All the Office programs can be similarly integrated with your enterprise applications and data. You can customize the Microsoft Research pane so that it is specific to your ERP-related data, for example. All Office applications have easy connectivity with e-mail to exchange documents. You can deliver business analytics through Excel and smart documents in Word.

What will I see on my screen?

Mendocino delivers certain tangible elements to users. They get extended application menus that allow them to make the connection between Office apps and SAP data and functionality. They also get an SAP-specific smart panel as a tool to manage this connection. Business analytics are delivered via Microsoft Excel, whereas smart documents appear in Word.

But beyond these application-specific features are underlying technical benefits. For you IT types (everybody else can skip this section), here are some examples:

- ✔ Outlook can synchronize between Microsoft Exchange and mySAP ERP processes.

- ✔ There is unique interoperability between Office apps and mySAP ERP functionality.

- ✔ A metadata architecture delivers a way to connect Office apps with mySAP ERP data. (*Metadata* is simply data about data — for example, information about a file's size, author, last edit, and so on.)

- ✔ Security authentication and authorization capabilities put tiny technical guards at your corporate doors to control data access.

- ✔ Ease of configurability means that you can set Mendocino up the way you want.

The bottom line is that Mendocino makes collaborating, communicating, making decisions, and getting your work done easier. It also means that your business can leverage its existing investments in both SAP and Microsoft Office applications with little, if any, retraining required.

Taking paper forms online

Despite the dream of the paperless office, paper forms continue to play a big role in business. Just think about trying to do anything with your insurance company or, heaven forbid, the government: If you want something, you've got to fill in a form first.

SAP has integrated Adobe Interactive PDF forms into mySAP ERP using SAP NetWeaver. An application such as mySAP ERP HCM can use these electronic forms to create a new employee request and handle reporting. PDF forms can have exactly the same look as paper forms. And, of course, you can still print them, fulfilling your role in the paper-filled office lifecycle.

With Adobe Interactive PDF forms, you can stay in complete compliance with all the requirements established for paper forms. Electronic forms are easy to back up for recordkeeping, and you can e-mail them or use them from mobile devices. It is even possible to "sign" them digitally. So, for example, insurance adjusters could electronically file and sign claims while out of the office using Adobe forms.

Online interactive forms offer specific advantages over paper forms, specifically when they are combined with enterprise services.

Prepopulation

Paper forms are blank when you receive them, but you can prepopulate online forms with information. Think of this example: When you check into a hotel, the person at the reception desk typically asks you to fill in a form with your name, address, and so on. But if you're a member of the hotel's frequent guest program and have already entered all that information into its system, why should you have to stand around, all jet-lagged, and write it out again? With an online interactive form, that check-in form could be prepopulated with all the relevant information.

Input verification

With a paper form, the information you enter is checked when a person at the end of the paperwork food chain finally looks at the form. Some mistakes may be easy for them to spot, but if you mistyped something more subtle like a material number, you may just get rubber duckies instead of rubber mallets.

With an interactive online form, the system could call an enterprise service to verify the data you enter. If you make any mistakes (the item name doesn't match the item number, for example), the form itself flags them immediately.

Workflow

Forms don't just sit still: They make their way around your desk, through the hallways of your office, and even over to other offices in distant locales through snail mail or faxing. These busy little forms may even get stuck to other documents with paper clips or staples as part of your workflow process.

An online form can be attached to any document or workflow system and sent on its way in an instant, with no paper clip or stamp licking required.

TIP

There are some interesting applications for sharing electronic forms with others. For example, for your partners and customers who don't have direct access to your portal, forms are an easy way for them to interact with your systems. Forms are also an excellent way to satisfy the form-happy public sector's paperwork requirements.

Copying and archiving

Running to the copier is a thing of the past with online forms. (Although we won't kid you: If you need a hard copy, you still have to run to the printer.) You can print copies with a click or two. Similarly, you can store, archive, and retrieve paper forms without a trip to the filing cabinet. You don't have to wonder whether the temp filed Production Quotes under Q instead of P. Online forms are stored in centralized archiving systems and can be easily searched for by various criteria such as a keyword or date last saved.

How Roles Make Life Easier

To paraphrase Shakespeare, an office worker will play many roles in his or her work lifetime. For example:

- ✔ You are an employee, so you get a paycheck, take vacation time, and need updates on your benefits.
- ✔ You might be a manager who is responsible for your people's professional development and their performance reviews, bonuses, and raises.
- ✔ You probably have a specific functional role, such as being the senior purchasing agent.

The concept of role-based access uses the concept of your roles to make setting up and making changes to your place in the scheme of things much, much easier.

Defining roles for users

With roles, you define policies for users based on their organizational data, such as where they exist in the company hierarchy, what cost centers they are associated with, and so on. Policies might govern such things as what data gets pushed to the worker, what alerts get sent, and what data they have access to. Instead of defining access rights for each and every individual in your company one by one, for example, with roles, you can define sets of policies that apply to anybody in that role in the company.

When the next reorg comes along (and you know it will), an administrator only needs to update the organizational data and the roles everybody now plays, and you're done.

The combination of roles and workflows is extremely powerful. Compliance with company, government, and industry regulations and reporting becomes easier because all the appropriate forms, policies, and activities related to those regulations are built into the roles. If you're a purchasing agent, for example, policies are built into your role that keep all forms for overseas purchases in line with international customs regulations. If you are the plant manager charged with monitoring the yield of the production line, your role includes a policy to notify you of a jump in cost of materials instantly, rather than having you find out about those costs in a report you used to get in your inbox at the end of the month.

How roles show up in control centers

By associating you as an individual with the different roles you play, the ERP system can push all the appropriate tasks to your control center and provide you with information and analytics you need to do your specific job.

Here are some of the things that someone in a plant manager role would see in a control center, for example:

- ✔ Manufacturing intelligence dashboard with alerts
- ✔ Key performance indicators
- ✔ Manufacturing content
- ✔ Work lists
- ✔ Decision support to handle exceptions or changes in demand or supply

Self-Service for Productivity

Another big boon for productivity is the idea of self-service. When you rush to the airport to catch a flight, there's a handy kiosk there that lets you check yourself in with the push of a few buttons (and a swipe of your credit card). Usually this self-service capability gets you checked in faster and frees an airline employee behind the counter to deal with less routine issues.

If you add the capability for self-service to your business, allowing employees to get what they need themselves instead of going through somebody else, you also add to your organization's efficiency. For example, you might enable employees to check on how much vacation time they have coming. This spares some overworked soul in HR the hunt for the information.

Take a look at a business process in a typical organization that could benefit from self-service. Say this process involves an employee locating and signing up for a training course, and then having HR incorporate the resulting certification in her personnel file. Figure 3-4 is an HR business process that includes some of these steps, with certain steps enabled for self-service.
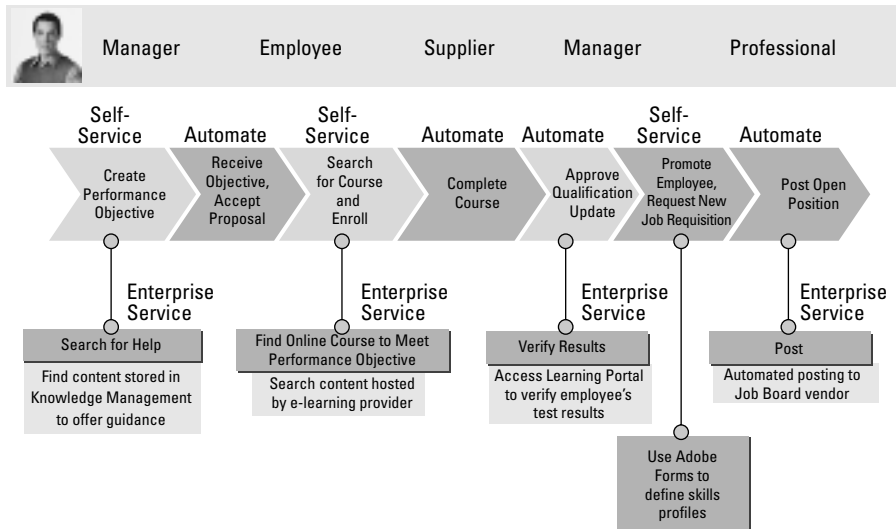
Figure 3-4: Identifying the self-service pieces of a business process.

In Figure 3-4, you can see some logical pieces of the process that could be designated as self-services:

✔ The employee could search an online course catalog to find the most appropriate training options (see Figure 3-5) without having to involve an HR person.

✔ The HR worker could access your company's learning portal to verify the employee's results in the course and update her records.
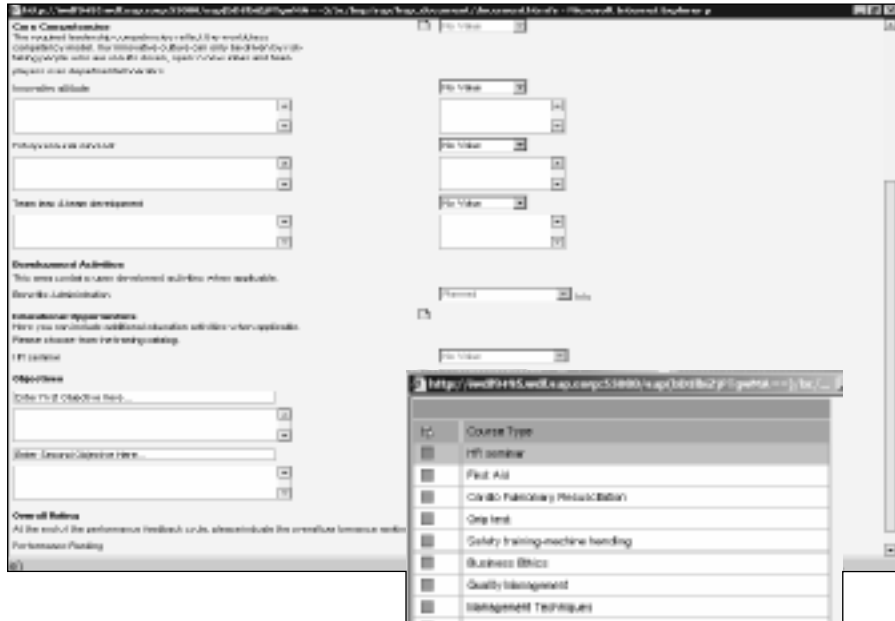
Figure 3-5:
Self-service selection of a training course.

All this self-service isn't hard to do: It merely requires that you use services to build your business processes, identify who needs access to view and update what data, and provide that access.

Preconfigured Business Scenarios

ERP has always offered a set of business applications that model and reflect your business processes. Today's mySAP ERP delivers generic and industry-specific scenarios. Here's how scenarios work:

A business process step is a basic business task or transaction. Business process steps are the building blocks for business processes; several individual process steps strung together create a business process. For example, one business process step might be to cancel an order.

So you add several related steps and you create a business process that gets you to a defined business outcome. Business processes are usually carried out within one organizational department and are typically supported by at least one application such as mySAP ERP or mySAP Customer Relationship Management (mySAP CRM). Examples of business processes include vehicle delivery and cash receipt.

So what's a scenario? A business scenario carries out end-to-end business processes and can even span processes across multiple organizational units and applications, both inside and outside your enterprise. Business scenarios solve customers' key business issues. An example of a business scenario in the automotive industry is order-to-delivery, which strings together all the steps along the way from a customer placing an order to the delivery of a shiny new car.

How can you tell the difference between a business process and a scenario? The criteria used to differentiate between these two, as well as between processes and process steps, depend on your industry. Figure 3-6 illustrates a portion of something called the *scenario hierarchy.* It outlines the relevant processes and process steps for the industry-specific scenario order-to-delivery in the automotive industry.

Figure 3-6: The anatomy of a business process scenario.
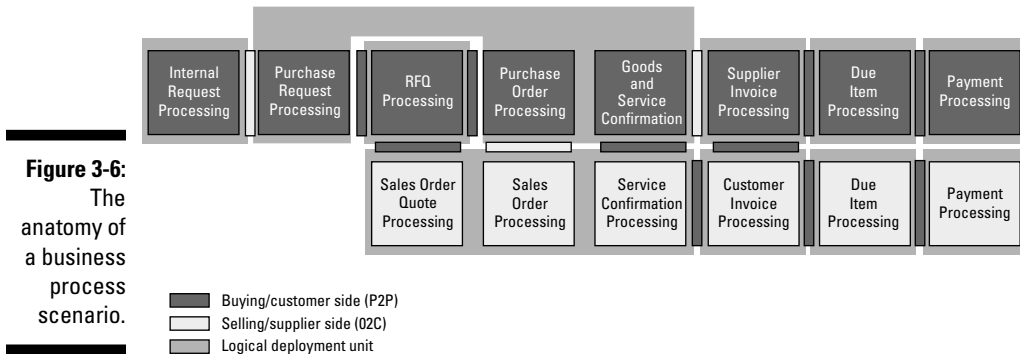
mySAP ERP delivers generic end-to-end scenarios such as

- ✔ **Procure2Pay** for the purchasing types in your company. This scenario involves steps such as purchase request processing, RFQ processing, supplier invoice processing, and payment processing.

- ✔ **Order2Cash,** which incorporates steps involved in processing customer orders, right through fulfilling the order, shipping it, and receiving and processing customer payments.

- ✔ **Hire2Retire** is the human resources scenario that features steps such as creating performance objectives, searching for training courses, promoting an employee, and posting a job opening.

One of the great things about scenarios is that they are flexible. Because scenarios call services from a central services repository in SAP NetWeaver (find out more about this in Chapter 7), you can easily rearrange the pieces of a scenario, or even outsource a piece. You save money because scenarios are already set up for you right out of the box. When you have to make changes, you save even more money because making any modification to those scenarios is fast and painless.

Gaining Productivity through Industry-Specific Scenarios

One cool benefit that SAP makes available to customers is industry scenarios and corresponding SAP industry solution maps. The scenario hierarchy is also reflected in these solution maps. These handy tools show the scenarios for a particular industry segment. You can drill down to see the detailed scenarios processes. The scenarios are grouped into business scenario groups that match an industry's high-level, mission-critical processes. You can find much more detail on industry solutions and solution maps in Chapters 7 and 11.

This provides a huge leap in productivity as ERP is already prepared for your specific industry and the way your people do business.

SAP has identified more than 25 industries and grouped them together into three industry segments: manufacturing, service, and financials and public Sector. Here's the complete list of industries:

Manufacturing Industries

- ✔ Aerospace and defense
- ✔ Automotive
- ✔ Chemicals
- ✔ Consumer products
- ✔ Engineering, construction, and operations
- ✔ High tech
- ✔ Industrial machinery and components
- ✔ Mill products
- ✔ Mining
- ✔ Oil and gas
- ✔ Pharmaceuticals

Service Industries

- ✔ Logistics service providers
- ✔ Media
- ✔ Postal services
- ✔ Professional services
- ✔ Railways
- ✔ Retail
- ✔ Telecommunications
- ✔ Utilities
- ✔ Wholesale distribution

Financials and Public Sector

- ✔ Defense and security
- ✔ Healthcare
- ✔ Higher education and research
- ✔ Insurance
- ✔ Public sector

Each industry has specific scenarios with solution maps and, in some cases, these maps are broken down even further. For example, the Media industry segment has the following four solution maps:

- ✔ Broadcasting
- ✔ Entertainment
- ✔ Newspapers and magazines
- ✔ Premium-content publishers

In Chapter 7, we explain how you can adapt and extend scenarios using *modeling,* a process that saves lots of time over writing and rewriting pages of code.

Sharing and Outsourcing

Your parents probably taught you to share and work well with others, right? Of course, they were right, and that's what this section is about: the ability to pool services that are used by several groups in a shared services center, and to utilize outside vendors to do work that would be more efficiently done outside of your company's walls.

Centralizing functions with shared services centers

The whole idea of shared services centers is that you take some piece of your business process scenario and make that piece available to many groups through one centralized function. For example, all the items and services that your company buys probably end up in an invoice-processing phase at some point. You might purchase consulting services through your HR department, paper clips through a centralized administrative group, and tons of steel through your manufacturing purchasing department. It doesn't make sense for each of those groups to have a piece of its process called invoice processing when all invoice processing could be handled in one group. That's the idea behind a shared services center, and it can make your people more productive.

Now you could create a shared service center by taking everybody dealing with a function right now in three locations and moving them to a single location (perhaps one with lower costs). But you could also create a virtual shared services center. Essentially, you are routing all the requests for that service from various business processes around the company to one virtual location, used by one group of people (whether they are all in the same office or not) who manage that piece of the process.

After a piece of a business process scenario shifts to a shared services center, when that piece of the work is completed, you can then loop back into each specific business scenario. For example, after an invoice is processed in a shared services center, payment information can be returned to be dealt with in a step that involves analyzing payment behavior at the end of the credit management process.

You could use a shared services center approach to consolidate a piece of a process in a lower-cost location, where, for example, salaries might be lower than in other regions of the country or world, or where facilities are less expensive to build, rent, or maintain.

Outsourcing the nondifferentiating parts

After you isolate certain business processes as shared services, you can easily outsource that piece of your business to a third party. Because you get best practices with mySAP ERP right out of the box in the form of business process scenarios, you can easily coordinate with an outside vendor to do those processes for you. These folks do this kind of work for a living, so they bring a better cost structure to the table.

In a Business Process Outsourcing (BPO) situation, you typically outsource the nonindustry-specific, nondifferentiating parts of your business to save money and free your people for other things. For example, many companies outsource payroll, transactional human resources, accounting, customer service functions, or travel planning. This task is the only thing that the third-party vendor does, bringing economy of scale and focus to the work at hand.

But BPO isn't a simple task. You have to figure out the best processes to outsource, find the right partner, and negotiate a contract that includes meaningful (and enforceable) service-level agreements (SLAs). When you get to the point of implementation, you need to carefully define the interfaces between your systems and the vendor's systems. Finally, you have to set up methods to monitor and measure performance to enforce the negotiated service-level agreements and ensure compliance with any government requirements, such as Sarbanes-Oxley (a U.S. act that became law in 2002, introducing changes to regulations of corporate governance and financial practices).
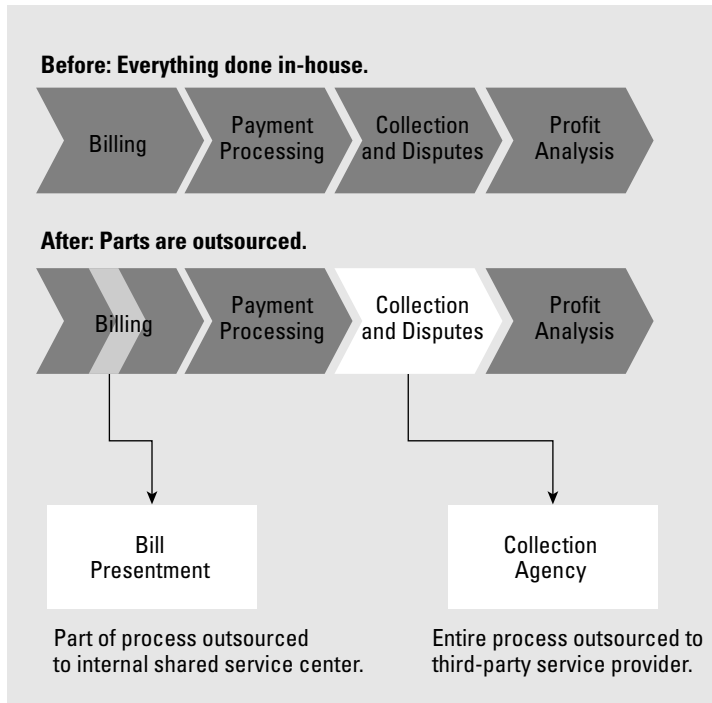
Besides using shared services centers, SAP helps your foray into BPO by providing integrated business solutions, such as mySAP Business Suite, on a BPO model. SAP also provides a network of certified BPO partners who can handle your outsourcing because they are totally integrated with SAP technologies and the ESA architecture (see Figure 3-7). The mySAP Business Suite, which includes mySAP ERP, is the choice of a great many BPO providers and their customers. SAP has worked hard to ensure that these BPO providers, such as Accenture, ADP Global Employer Services, IBM, and EDS, have the latest training on the latest SAP solutions.

To outsource or not to outsource?

How do you choose what to outsource? Here are some rules of thumb:

✔ Find areas that have repetitive activities, such as generating payroll checks.

✔ Look for processes that offer savings if done in bulk — for example, printing.

✔ Look for outsourcing opportunities that can remain invisible to your customers.

✔ Identify services that can provide a level of integration that helps you retain some kind of control.

✔ Look for relatively self-contained services that make for easier integration with your BPO partner.

Before: Everything done in-house.

| Billing | Payment Processing | Collection and Disputes | Profit Analysis |

After: Parts are outsourced.

| Billing | Payment Processing | Collection and Disputes | Profit Analysis |

Bill Presentment

Part of process outsourced to internal shared service center.

Collection Agency

Entire process outsourced to third-party service provider.

Figure 3-7:
Taking pieces out of the process to outsource.

Outsourcing: A case in point

As a pilot program for the SAP for Utilities solution portfolio, the Rottweil Municipal Utility Company decided to stick with its existing IT partner for processing invoices. In connection with implementing SAP Utilities (based on mySAP ERP), the company's own IT people realized that by working with an SAP-savvy third party, it could save money.

"Outsourcing is cost effective for companies of our size. We don't want to have to set up our own IT team for SAP," commented Heinz Wettstein, the SAP implementation project's manager at Rottweil. "Our IT partner has had the necessary experience for years. This solution presents us with calculable costs."

The ambitious goal of going live with several modules (Financial/Accounting, Assets Management, Controlling, Materials Management, Sales and Distribution, and Service Manage-ment) of mySAP ERP was a challenge. Prior to beginning the actual implementation work, SAP worked to optimize the utility's business processes and, on this basis, a set of specifications was drawn up in collaboration with all affected departments to define the internal and external requirements the system would have to meet. Understanding what both outsourcing partners and internal users would need made for a much smoother implementation that supported Rottweil's out-sourcing initiative.

Making Things Run Smoothly with Automation

Think about how manufacturing plants around the world use robots and automated processes to produce huge quantities of everything from lipstick to washing machines: The list is endless. Without automation, producing all this stuff would simply not be possible. Wouldn't it be a good idea to apply the principles of automation to ERP? mySAP ERP goes a long way to help automate business processes and make your work easier.

Automation in standard business processes

Many standard business processes have to be done to keep an organization afloat. (We talk more about those standard processes in Chapter 2.) Automation can go a long way to helping these processes run faster and making your organization more productive.

For example, at the end of a fiscal period, reconciling all your company's billing is normally a time-consuming manual process. With mySAP ERP, you can significantly streamline the reconciliation by automating the process. The person handling this gets an overview of the entire closing process through a cockpit and uses the tools there to automate the closing of individual financial statements.

Using new technologies for data entry

You can save time and get more productive when you automate data entry as well as processes.

In addition to using Adobe Forms for automating data entry, you can go a step further with radio frequency identification (RFID) tags. You can use these tags to remotely read data about objects and even people. For example, you can tag stock in a warehouse so that it is consistently tracked, minimizing hands-on processing and ensuring that accurate, up-to-date stock information is available throughout the enterprise.

For more information about RFID technology, see Chapters 6 and 13.