

APPLICATION PLATFORMS AND BUSINESS PROCESSES



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Whether it's a large enterprise, a small company, or a government agency, every organization is defined by its business processes. Each process implements some part of what the organization does. Today, most business processes are supported by applications that carry out some or all of the activities in the process. These applications, in turn, depend on an underlying application platform to provide a computing foundation, storage, and more.

Discussions of application platforms typically revolve around technology. Yet taking a business-first view—looking at these platforms from the perspective of the business processes they support—is at least as important. What does an organization require to support its business processes effectively? And what do these requirements imply about the application platform the organization needs?

One way to think about the business process requirements for an application platform is to group those requirements into two categories:

- The ability to support *structured* business processes, those that are performed the same way every time. Common examples include billing, many manufacturing processes, and Web-based commerce.
- The ability to support *unstructured* business processes, where the process is characterized by collaboration among people—it's different each time. Examples include the sales process, management consulting, and software development.

An application platform should provide good support for both kinds of processes. The requirements are quite different—each process style uses applications in its own way—but improving both with software has real value.

Supporting Structured Business Processes

A structured business process carries out a pre-defined sequence of steps. The process might have many options, with different steps carried out by different instances of the process at different times. Still, the creators of the process determined what the possible steps were in advance.

When a structured business process is supported by an application, it's common for the software to implement the complete process. Think of an automated manufacturing process, for example, where an application directs a group of machines to repeat the same steps over and over. In situations like this, people primarily provide inputs, accept outputs, and handle exceptions. The software carries out the process itself. Figure 1 illustrates this idea.

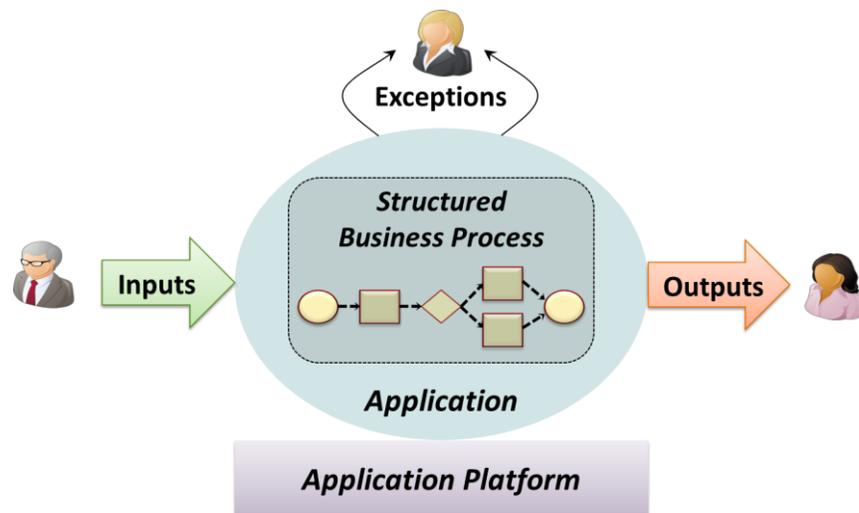


Figure 1: Application platforms must support structured business processes, where an application implements a repeatable sequence of well-defined steps.

Most often, an organization bakes a structured business process into software to make the process cheaper, faster, more consistent, and less error-prone. Whatever the motivation, the organization’s application platform must provide effective support for this kind of process.

But what’s required for an application platform to effectively support software that implements structured business processes? For a typical organization, the answers are clear:

- The platform must support a large set of *packaged applications* for structured processes. Many organizations use similar business processes—billing, employee onboarding, and lots more—and so packaged applications provide a relatively low-cost way to automate these processes. Thousands of vendors sell these today, including Microsoft, SAP, Oracle, and others.
- The platform must provide effective support for creating *custom applications*. Packaged applications are a good choice for automating common processes. But since every organization has the same set of packages to choose from, these applications don’t typically provide much competitive advantage—it’s hard to differentiate with off-the-shelf software. Accordingly, creating custom applications that carry out unique business processes is essential for most firms. Think of a financial services company that creates its own risk-management software, for instance, or an online retailer with a distinctly different Web site. To support these, application platforms must provide development foundations such as the .NET Framework or Java application servers, along with database systems and other supporting software. And because new technology is so often the foundation for business differentiation, it’s also important that the platform keep up, quickly adding support for modern options. Today, for example, an application platform should support running software in the public cloud.

Every organization strives to improve its operational efficiency; packaged applications allow this. Every organization also needs to have a strategy, a way to differentiate itself from its competitors; custom applications allow this. Whether an organization chooses to be a business leader with custom software or a follower with packages, its application platform must support both options for structured business processes.

Supporting Unstructured Business Processes

Automating structured business processes has been the main task of applications for decades. More recently, however, organizations have realized that software can also improve unstructured business processes. In these scenarios, people are in charge, not applications. Rather than passively providing input or waiting for output, they drive the process using software to help. Figure 2 shows how this looks.

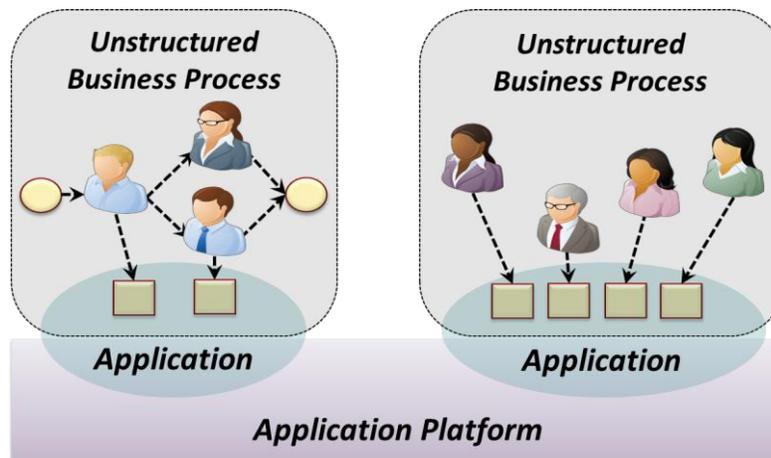


Figure 2: Application platforms must support unstructured business processes, where applications act as tools helping people carry out the process.

As the figure suggests, applications used to support unstructured business processes are likely to be perceived by their users as tools rather than applications. Sometimes, it's even hard to describe what's happening as a process—it's more like people working together informally with shared data, as the right-hand example in the figure indicates. And as the figure also shows, the line between applications and the application platform can become fairly arbitrary for software that supports unstructured processes.

It's important to understand how critical this kind of business process has become. Most organizations have spent years automating their structured business processes, which means they've already gotten most of the benefits available in this area. Providing better support for unstructured business processes is much less mature in most firms, which implies that plenty of value remains.

Improving unstructured business processes can generate the most competitive advantage today.

Just as important, the people involved in unstructured processes are likely to be the ones who create the most value for the organization. Because so many structured processes have been automated, there's much less rote work for a firm's employees to perform. Unstructured processes can't be entirely automated, however—they depend on the expertise of the people who carry them out along with the interactions among these people. Unlike structured processes, where applications can replace people, software can only enhance the capabilities of the people doing unstructured work. And because this work

commonly provides the most value in modern organizations, improving unstructured business processes can generate the most competitive advantage today¹.

The significant business value that comes from providing better support for unstructured processes makes collaboration software an essential part of the application platform. Tools such as Microsoft SharePoint are designed to help knowledge workers in a variety of fields collaborate in diverse ways. And because some business processes combine structured and unstructured work, a collaboration tool might let an organization define a structured workflow and also provide tools for more unstructured collaboration, such as effective ways to share data. Think of handling a complex insurance claim, for instance, which relies on unstructured interactions among experts who evaluate the claim in the field and a more structured series of steps for processing the claim inside the insurer. Software can help with both aspects of this process.

Another important example of an unstructured business process that benefits from software support is the software development process. Developers have long used software to create other software, but the tools available today provide much more complete support for application lifecycle management (ALM). Organizations often don't view software development as a business process, but it surely is. In fact, because it creates unique applications that support custom business processes—applications that provide differentiating competitive advantage—it is in fact among the most important business processes in many organizations. This is why effective ALM tools are such a critical part of a modern application platform.

The Business Value of a Consistent Application Platform

To support business processes well, an application platform needs to include many things. The list includes the following:

- The ability to run a wide range of packaged applications that implement common structured business processes.
- A foundation for creating and running custom applications that implement differentiating structured business processes.
- Software support for collaboration among people carrying out unstructured business processes.
- Good ALM tools for supporting the unstructured business process of software development.

All of these things matter, and an effective application platform provides all of them. Yet just having them available isn't enough. They should also be provided in a consistent way.

When an organization has a consistent application platform, it can move people easily from one application to another, whether they're developers or administrators. The organization is also likely to be able to change applications more quickly and to modify how those applications connect to each other. Changing a business means changing that business's processes, which commonly means changing the software that supports those processes. A consistent application platform can make doing this easier and faster.

¹ For an engaging and still relevant examination of this topic, see *The Next Revolution in Interactions*, McKinsey Quarterly 2005, Number 4.

Business agility, the Holy Grail for so many organizations, depends on the application platform.

The implication is clear: Business agility, the Holy Grail for so many organizations, depends on the application platform. A consistent platform supporting both structured and unstructured processes lets an organization more easily change its business strategies. Yet creating and maintaining a consistent application platform can be hard. Business units often push to support whatever applications catch their fancy, regardless of the diversity it might create in the underlying platform. Similarly, technical people frequently argue for best-of-breed solutions without

worrying about creating platform diversity. Whenever possible, it's good to resist these pressures. The business benefits of a consistent application platform are significant.

An organization should standardize only when the value of standardization outweighs the rigidity it implies. For most organizations, choosing a broad, common application platform is one of these situations.

Conclusion

An organization is defined by its business processes. How good those processes are—and thus how good the organization is—stems from the software that supports them. And that software relies on the organization's application platform.

In fact, it might be more accurate to think of an application platform as a business process platform—that's its true purpose. Whatever it's called, the platform needs to have strong support for both structured and unstructured processes, and it should be as consistent as possible. Putting in place an application platform that has all of these characteristics can provide substantial value. Doing this isn't just IT leadership—it's business leadership.

About the Author

David Chappell is Principal of Chappell & Associates (www.davidchappell.com) in San Francisco, California. Through his speaking, writing, and consulting, he helps people around the world understand, use, and make better decisions about new technologies.