

# PROGRESS<sup>®</sup> OPENEDGE<sup>®</sup> REFERENCE ARCHITECTURE

## INTRODUCTION

A good business application is a well-planned balance of functionality, usability, and information storage. But a great business application builds those features on top of a great architecture. Solid software architectures are the basis that helps to ensure scalability, reliability, security and flexibility. Poorly architected software is good for a few years; well-architected software is good for a lifetime.

The Progress<sup>®</sup> OpenEdge<sup>®</sup> Reference Architecture (OERA) is a great starting point for anyone wishing to construct the best business applications using the Progress<sup>®</sup> OpenEdge<sup>®</sup> platform. Based on the principles of service-oriented architectures (SOA) and service-oriented business applications (SOBA), the OERA provides a blueprint of best practices designed specifically to ensure maximum flexibility and productivity including a greater ability to accommodate the enhancements in technology and changing business requirements that will be surely coming in the future.

While the standards-based OpenEdge platform is flexible enough to accommodate any design methodology, the OpenEdge Reference Architecture provides a sound roadmap for the most effective and efficient use of these

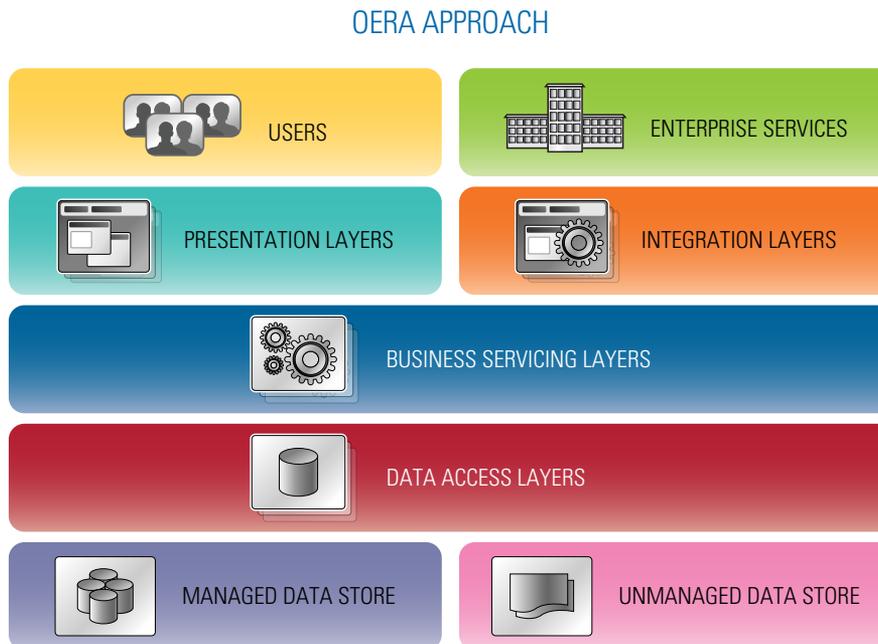
## HIGHLIGHTS

*The OERA is a roadmap for the most effective and efficient use of current and emerging technologies.*

## FEATURES AT A GLANCE

- > Building block approach
- > Focus on business needs
- > Make interoperability easier
- > Develop collaborative applications

technologies. The aim of the OERA is to describe a generalized design that is independent of any implementation details. It maps out a building block approach for describing various high-level software architecture elements that vary in scope and by subject matter. The diagram below graphically depicts the OERA building block approach:



Process-oriented architectures are all about focusing on your business first. These approaches break the application up into small segments defined by the business processes that the application provides. This process-based approach is designed to make interoperability easier. Each process exists separate from all others, but each can also call on any other process to help perform a task or present a set of information. This is where the concept of “business services” comes from in the application world—a process that exists as a service for any other process.

Think of it in this way. For years now, people have been talking about separating business logic from the user interface. But the components were separated in only a single dimension—between process and screen. With service-oriented architecture (SOA), we need also to split the application into pieces by functionality. There should be a single, standalone component, for example, that checks for customer credit. It may be used in dozens of

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places, but it is only designed and developed once. And, yes, this is like object orientation—but at the business component level. It has nothing to do with technology or programming widgets.

***Service-oriented architecture (SOA) is built on two basic premises:***

1. The concept that applications should consist of components built to and supporting standards that allow sharing between components and applications.
2. The business processes are at the heart of the application and provide the basis for the application. Processes are organized into services that can be used both within and between applications.

***There are four parts to a SOA:***

1. Business process components that contain the intelligence of the application
2. User interface methods that provide human input and output sources for the business processes
3. Integration methods and platforms that provide non-human input and output sources for the business processes
4. An agreed-upon set of standards and contracts that describe all of the interface methods between the components

To move to collaborative applications, you have to start at the architecture level. Monoliths don't collaborate. Even when they exchange, they don't collaborate. While previous architectural transformations were primarily system-driven, this change will be business-driven. By positioning the business processes as the primary architectural force, you can start thinking about applications differently, and you can implement an architecture that supports your central role.

Your business gets a return on its investment value when the solution gives both:

1. **Reuse**—the ability to harvest a component for multiple purposes
2. **Efficiency**—the performance, economy and flexibility of the system

The OpenEdge Reference Architecture is a core component of the information and educational resources that Progress provides to empower its partners. As part of a whole approach to delivering products, as partners you have access to the knowledge and support you need to maximize the technology investment you have made. Education services, consulting offerings, customer support services, conferences, seminars, and the Progress Software Developers Network™ (PSDN) are resources that are available to you when applying the concepts of the OpenEdge Reference Architecture to existing or new applications.

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## PROGRESS SOFTWARE

Progress Software Corporation (NASDAQ: PRGS) is a global software company that enables enterprises to be operationally responsive to changing conditions and customer interactions as they occur. Our goal is to enable our customers to capitalize on new opportunities, drive greater efficiencies, and reduce risk. Progress offers a comprehensive portfolio of best-in-class infrastructure software spanning event-driven visibility and real-time response, open integration, data access and integration, and application development and management—all supporting on-premises and SaaS/cloud deployments. Progress maximizes the benefits of operational responsiveness while minimizing IT complexity and total cost of ownership.

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