



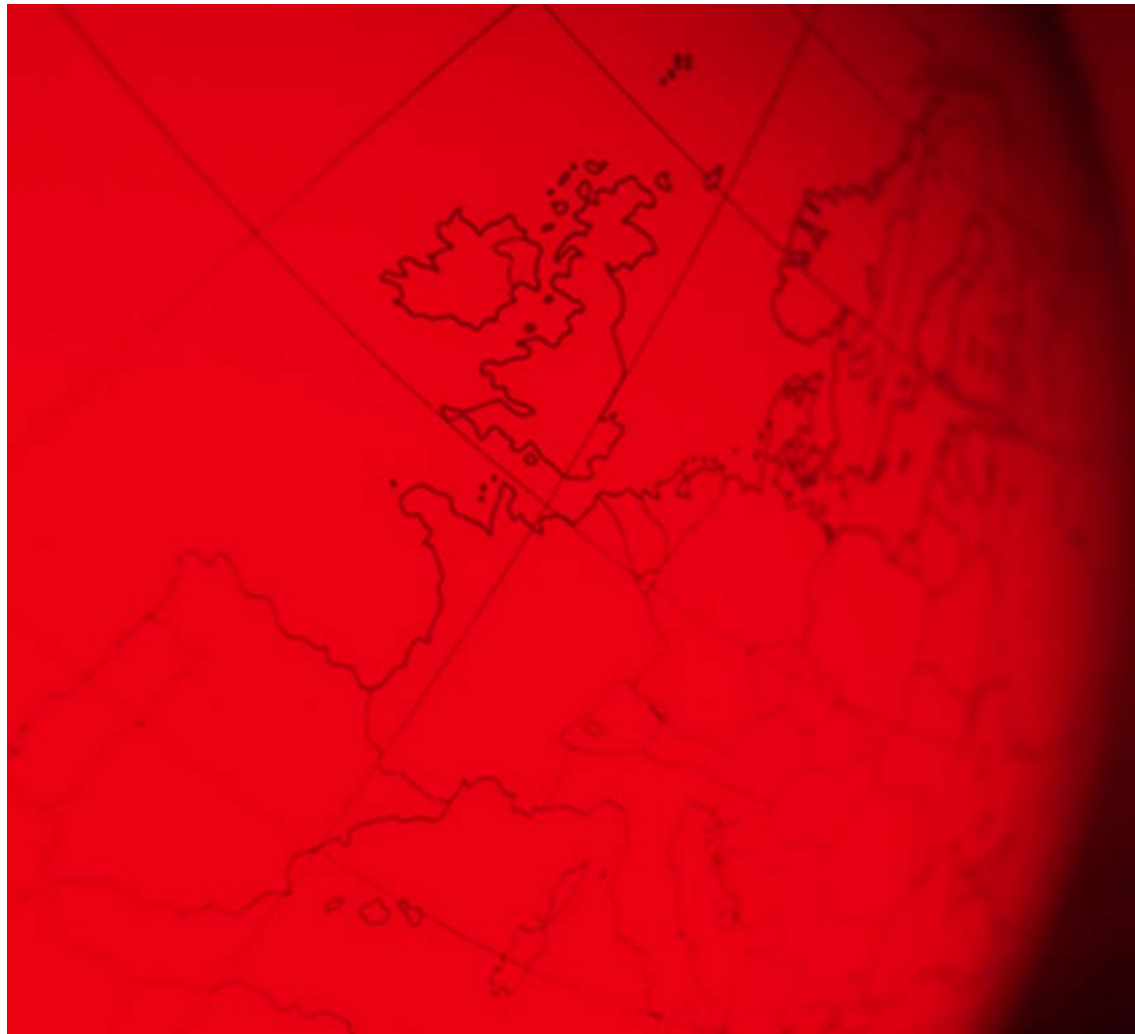
**NUCLEUS
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GUIDEBOOK

PROGRESS OPENEDGE



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THE BOTTOM LINE

Innovations such as Software-as-a-Service (SaaS) and mobile devices can cause IT departments to spend more time reacting to technological changes than competitive changes. Equipped with the OpenEdge development platform, Progress partners use a variety of technologies to rapidly deliver applications that reduce TCO, increase productivity, and improve customer service. Turning to these partners for vertical-specific application advice enables companies to shift their focus to higher-order IT issues.

SITUATION

Organizations are increasingly challenged to cost effectively create, maintain, update, and integrate productivity-enhancing applications that are broadly adopted by end users. Some of the challenges include:

- **Integration.** Organizations are seeking better integration, both internally and externally. Companies often pursue competitive advantage and higher levels of operational efficiency by integrating their value chains — and portions of their applications — with those of their partners, vendors, and customers.
- **Cost.** Data-intensive applications typically require support from at least one fully-dedicated database administrator.
- **Obsolescence.** Software development languages tend to have relatively short life cycles and can sometimes be short-lived fads, making development projects more complex and increasing training costs.
- **Evolution.** IT departments are regularly challenged to cost effectively update their applications for compatibility with new technologies such as mobile devices, SaaS, and service-oriented architecture (SOA). Because of the prevalence of browsers, the Google search engine, on-demand applications, and mobile devices, many enterprise applications have become incompatible with how knowledge workers use technology.
- **Performance.** End users and customers have become used to sub-second response times from many applications. This level of performance is becoming steadily more difficult as companies' databases grow in volume and their applications increase in complexity.

Progress OpenEdge is a standards-based, platform-independent, and integrated development architecture that Progress partners and end users use to build, run, and manage business applications. OpenEdge-based applications can be used for a broad variety of objectives, such as connecting with customers, interacting with partners, collaborating with suppliers, and providing knowledge workers access to data. Progress differentiates OpenEdge based on functionality in a number of areas, including:

- **Ease of development.** Because it incorporates open standards — and is continuously opened up to new standards — OpenEdge is compatible with a variety of development protocols, including .NET, Java, and SOA.
- **Ease of access.** OpenEdge applications can be accessed by Web browsers, Web services, .NET or Java interfaces, graphical or character user interfaces, or any wireless device.
- **Application compatibility.** OpenEdge enables deployment of user interfaces built in a number of languages, including .NET, Java, and C++. It also

TOPICSApplication Development
& IntegrationIT Management and
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supports Web services and SOA, enabling the decoupling of applications that need to be integrated with OpenEdge applications.

- Breadth of delivery. OpenEdge applications can be run on a variety of platforms, including Citrix MetaFrame, Windows XP, Windows 2003, Vista, HP-UX, IBM AIX, HP Itanium, Linux, and Sun Solaris. Application functionality can be delivered through a variety of platforms, including software-as-a-service, mobile devices, and portals.

Progress has a worldwide partner network that consists of 2,000 partners that develop, integrate, and deploy applications based not only in OpenEdge but also other Progress solutions. This partner network is positioned as a way for end users — especially companies with smaller IT departments — achieve the benefits of OpenEdge applications without directly developing in it.

This guidebook is designed to help companies identify and understand the benefits of using Progress partners for Open-edge based applications and how to maximize those benefits. The findings in this guidebook are based on Nucleus Research's analysis of the experiences of a number of Progress partners, including Keystone Systems, which creates solutions for libraries; Precision Computer Systems, which creates solutions for banks; Skyward, which creates solutions for public school systems; Fara, which creates solutions for insurers; and GMT Europe, which creates solutions for waste haulers.

FIVE BEST PRACTICES

Nucleus found that there are a number of best practices customers followed to maximize the financial benefits from both Progress partners and OpenEdge.

Because most Progress partners have been developing applications in OpenEdge for more than 10 years — typically with a vertical focus — they are often more able to leverage the benefits of OpenEdge for their clients than the end users themselves — and play a key role in the best practices that follow. In fact, relying on Progress partners enables end-user IT departments to spend less time on tactical tasks such as development, integration, and testing — and more time on strategic issues such as determining line-of-business needs, managing cultural issues, and championing projects.

Use OpenEdge to reduce support costs

Partners found OpenEdge enables the creation of applications that are rapidly and inexpensively developed — and that require minimal support and maintenance for end users once they are deployed. OpenEdge-based applications cost relatively less to build and maintain because OpenEdge is designed to require far fewer lines of code for a given task than other development platforms. Fewer lines of code means end users achieve performance advantages over applications developed in other platforms:

- Stability. OpenEdge applications are less complex, have less downtime, are easier to change, and easier to trouble shoot.
- Speed. Because there is less coding in OpenEdge applications — and that coding is simpler — they perform searches, sorts, and other tasks faster.

- Support. Better stability means that fewer database administrators — and in most case no administrators — are required to support OpenEdge applications.

Better application performance means lower costs for end users:

- *"With the reliability and stability of our database, we're able to maintain a customer base of 70 organizations and 40 databases, and we have only one database administrator."*
- *"One advantage of OpenEdge is that it doesn't need to be fine tuned. We need less than a quarter of a full-time equivalent for database administration."*

Most OpenEdge-based applications require less than one database administrator for support.

Use OpenEdge to reduce hardware and power costs

OpenEdge-based databases are designed to scale upward in size based only on the amount of data they contain. This is very different from other database systems from vendors such as Oracle and IBM, which start with a fixed minimum size into which data is placed. One end user said, *"Progress stores only what it needs — it doesn't set aside space for 32 characters if only 6 are going to be in the field. When you scale this benefit to a huge database, you pay for a lot less storage."* Smaller databases require less storage, which translates into spending less on servers — and electricity — for an application.

Nucleus has found that data storage costs can be up to 75 percent lower for OpenEdge applications.

Use OpenEdge to accelerate time to deployment

OpenEdge enables developers to use business logic to create applications with open parameters that can be changed according to the business rules in the operating environment. These open parameters can also be changed if the application — or a later version of it — needs to be changed to accommodate new business rules. This means that OpenEdge enables the creation of software that is reusable with minimal customization.

OpenEdge partners exploit this benefit by not only reducing the cost of their applications, but also by delivering them faster. For example, an insurer that needs a tool to support the underwriting of auto insurance can expect a Progress partner to have a pre-built tool for another type of insurance. That Progress partner can rapidly customize that application and deliver a new solution faster than partners that develop on other platforms.

One Progress partner delivers applications to its clients faster because *"Our OpenEdge programmers are seven times more productive because of OpenEdge code reusability."*

Code reuse, combined with the ability to develop applications with fewer lines of code, means partners can deliver applications to end users faster:

- *"We sell solutions that are purchased by school departments in all 50 states. So we are careful with the parameters we build in. Once we create a new*

application in OpenEdge, it only requires about 100 hours of developer time to customize it for a customer in another state."

- *"We can get into the code and change it faster, and do it on the fly. Rivals that use other applications might have to do the changes overnight, or by taking a customer's application down. So our customers have faster time-to-market."*
- *"We use the reusability and configurability functionality to have faster time to market. If we want to change or enhance an existing application that our customers are using, we can do it faster — before it would have taken six to nine months for design, build, and test, now it's three to four months."*
- *"A hospital asked us to build an application to track a large database of patient information. Since they are in an alliance with a group of other hospitals, we built the application to be lightweight, with lots of open parameters that can be set when other hospitals adopt the application. This resulted in a huge cost benefit for the hospitals that buy the application."*

Use OpenEdge for developing customer-facing applications

Because OpenEdge applications are more stable and perform faster than applications developed in other environments, companies use them to accelerate their response time when interacting with customers. The faster consumers receive data over the Web or from a call center operator, the more likely they are to be satisfied with the speed of problem resolution, stay at a company's Web site, or purchase more merchandise.

Application speed is readily converted into better customer responsiveness:

- *"We've used OpenEdge-based applications to help our call center staff. Since these applications have sub-second response times, staff can sell and problem solve faster, and customers are happier and buy more. They hang up less."*
- *"Our applications are bought by school systems and our database stores extensive amounts of data for 2.7 million students. End users access it instantly from our OpenEdge database over the Web."*

Use OpenEdge to make end users more IT independent

OpenEdge-based applications should be configured to reduce the load on the IT departments of end users. Because OpenEdge's business logic is so parameter-based, OpenEdge programs are often designed for use by non-technical users. This enables line-of-business staff to more rapidly respond to operational needs without relying on their IT environment:

- *"The OpenEdge applications we sell make our customers more responsive. We set the parameters so that they can change settings themselves without contacting us (Progress partner). This means that they can make changes to pricing or promotions more rapidly than their rivals."*
- *"We sell OpenEdge-based applications to banks, and we've built in open parameters so that the non-IT staff can change, or leave fixed, their settings based on factors such as the type of loan they are booking and interest rates. This makes the staff more productive and IT-independent."*
- *"We might have an OpenEdge application that generates some management reports and it transmits them to a distribution list over e-mail. If the e-mail server is down, a non-IT person could go to the app and hit a checkbox that changes a configuration so that it is published over a portal."*

Rapid reconfigurability means end users deploy applications faster and can rapidly modify them whenever business conditions change.

FIVE FINE TUNINGS

OpenEdge is an open and flexible development environment that is readily adapted to new improvements in development practices — such as SOA — as well as new delivery platforms such as portals and SaaS. This enables end users to increase adoption rate, ROI, and functionality of their OpenEdge-based applications.

Expect Progress partners to be more than just developers

Companies using OpenEdge applications developed by Progress partners tend to look to these partners for more than just help with development and deployment. Nucleus found that companies can save money and gain strategic focus by also looking to these partners for a variety of IT functions, including database optimization, migration assistance, and new application ideas. Partners state that they receive a significant amount of support from Progress about how to optimize the use of OpenEdge and other tools, as well as migrating OpenEdge and increasing its functionality. End users benefit in a number of areas, including:

- Continual improvement. One partner who is able to convert Progress support into performance improvements for end users said, *"We do a lot of benchmark testing with Progress. We talk to them about how our clients are using the database and supporting it with AppServer. We give them performance statistics to find out if they are running as well as they should."*
- Vertical-specific knowledge. Because most Progress partners have a vertical focus, they not only understand their clients' IT environments, but also their competitive environments. This enables partners to proactively come up with ideas to improve their clients' competitiveness and responsiveness. One partner said, *"We combine our knowledge of OpenEdge, our customers' industry, and other Progress tools so that we can feed them ideas."*
- Ease of migration. Progress places particular emphasis on making sure new OpenEdge version releases provide maximum benefits and minimum disruption for the applications that end users operate. This means that when an end user operates an OpenEdge based platform, they can expect less periodic disruptions than with applications developed on other platforms. One Progress partner said, *"It is extremely stable. It is very efficient to manage from release to release. We make changes to our clients' applications very efficiently, simply, and without disruptions."*

Let OpenEdge partners save you from reinventing the wheel

Open configurability and rapid code development enable Progress partners to more rapidly create OpenEdge-based applications than many end users can on their own. Many of Progress's partners have been developing with OpenEdge for more than ten years, often with a vertical-specific focus.

One OpenEdge partner was able to save a customer \$2 million in labor costs by combining a vertical-specific OpenEdge banking application with a Sonic ESB and eliminating labor-intensive workflows.

This means that when a company needs a new application, it should first look to a Progress partner before building it on their own — even with OpenEdge. The breadth of vertical-specific expertise among the OpenEdge application developer network, combined with their robust use of reusable programs, means that companies should carefully consider whether they can develop a new application themselves faster and cheaper than a Progress partner can in OpenEdge.

Many partners have vertical-specific reusable applications that need only to be customized to meet the needs of a particular customer's project objectives.

Turn to OpenEdge partners to retire costly point solutions

Several Progress partners noted that after initially developing an application for their customers, they created OpenEdge-based complements that not only expanded the functionality of the first application, but also enabled their client to replace costly point solutions with new OpenEdge-based solutions with lower TCO.

For example, a Progress partner that sells OpenEdge-based applications to school systems recently created an application that uses a biometric reader to record employee arrival times. This partner also used OpenEdge to develop a touch-screen based cash register for food service workers. Both applications displaced costlier best-of-breed solutions, eliminating annual license maintenance fees and other costs.

Turn to OpenEdge partners to increase application adoption

Progress supports its developer and partner networks by aggressively providing the tools necessary to make new or existing OpenEdge applications accessible to new platforms as they become widely adopted, such as portals, software-as-a-service, and mobile devices. One OpenEdge partner said, *"Whatever new delivery developments occur, my programming can accommodate them. Other platforms such as ERP systems and Navision are not as agile or adaptive."*

ROI tip: turn to partners to find ways to expand end user access to OpenEdge applications, broaden adoption, and increase ROI.

OpenEdge's openness to new technological developments, combined with Progress's support for its partner network, mean that companies don't necessarily need to have expertise in a new delivery platform in order to take advantage of it.

Using a new delivery platform to broaden access to an OpenEdge application can increase adoption and maximize the productivity benefits of end users:

- *"We've developed a solution for our customers that lets teachers use a PDA to record attendance without a PC, which is particularly important when they are offsite with students. OpenEdge gave us the ability to do this without any third party applications or developers."*
- *"It makes our less technologically sophisticated users more productive because it's so easy to use. All they need is a browser. They don't need a high-speed connection within their intranet. If OpenEdge wasn't portal friendly, we would have had to load a client on each PC."*

Combine OpenEdge with other Progress tools

Many OpenEdge users increased the scale of benefits from OpenEdge applications by expanding their functionality with other Progress tools. Once an OpenEdge application is deployed and adopted, OpenEdge partners, IT departments, and line-of-business users typically discover new business needs for using the data. Solutions such as WebSpeed, AppServer, and OpenEdge Management are preconfigured for both ready integration with OpenEdge applications and to optimize their performance and benefits.

ROI tip: turn to Progress partners to find ways to expand the functionality of OpenEdge applications with complementary solutions from Progress.

Complementary Progress products are used by OpenEdge partners and end users to improve application functionality, performance, and cost effectiveness:

- *"We can rapidly Web-enable our customers because the OpenEdge application we sell has been Web accessible from day one with Progress WebSpeed."*
- *"We use OpenEdge Management, which monitors the database and provides alerts, reports, and generally ensures that there aren't any bottlenecks or potential performance issues. Without this, we'd probably have one or two additional database administrators."*
- *"We have a large customer that was using an old COBOL-based system with lots of separate manual interfaces and point-to-point patches. We put in a Sonic enterprise service bus and programmed it with OpenEdge. The old way was so labor intensive that they were able to reassign 20 people."*

MISSTEPS TO AVOID

Because OpenEdge is uniquely agile and open, companies should not treat it like other development environments that can be less open, more rigid, and short lived. Nucleus found that partners and other organizations were most successful when they recognized and exploited these distinct differences, and avoided a few common missteps.

Don't be fooled by the quiet brand

Nucleus has validated a broad variety of ways in which companies use OpenEdge-based applications to improve things like productivity, TCO, agility, ROI, and customer service. This may be in contrast with the perception of companies who are considering turning to a Progress partner but are more familiar with platforms from vendors such as Microsoft, IBM, and Oracle.

Unlike other development platforms from vendors that rely on expensive and broad-based advertising campaigns, the vast majority of OpenEdge-based applications are the result of the market presence of vertically-focused Progress partners. Additionally, these partners often integrate their end user interfaces so seamlessly into applications that the end users don't know they are using an OpenEdge-based application.

Companies who are considering deployment of an OpenEdge application but are unfamiliar with OpenEdge should validate the potential benefits of a deployment by performing reference checks in their vertical.

All this adds up to a quiet OpenEdge brand that can lead companies to underestimate the potential value of OpenEdge-based applications. In order not to make this mistake, companies should validate the benefits of the platform by performing reference checks in their vertical.

Don't apply the old obsolescence model

Openness to new delivery platforms and developer support for new programming practices and version migrations all enable OpenEdge users to continue getting value from their OpenEdge-based applications over the long term rather than just the short term. In fact, many OpenEdge users have been using their applications for more than ten years, which is a far longer lifetime than typical software solutions or development applications.

The average Progress partner has been using OpenEdge for 15 years.
The average OpenEdge end-user company has been using it for 9 years.

Partners indicated that long term experience with OpenEdge, as well as an exclusive developmental focus on it, enabled them to deliver to their clients both efficiency and agility:

- *"We don't rely on any other development languages and we've been using OpenEdge since 1992. This leads to natural efficiency gains."*
- *"We've been working with Progress since the early nineties and the value in this long term relationship is that they do the heavy lifting of adapting OpenEdge for new things like mobile devices and software-as-a-service."*

OpenEdge also defies the traditional maturity model because new versions are designed with an emphasis on permitting existing OpenEdge-based applications to be both forwards- and backwards-compatible. In fact, code built in version 6 will still run on newer versions of OpenEdge and Nucleus encountered a number of end user applications that were based on versions as old as 6:

- *"End users love fact that they have a safety net. They can always go back and run the previous version. They never have their heart in their throat about new versions."*
- *"When we first looked at OpenEdge we were considering version 9, but we were hearing great things from reference customers who were using version 6. So there is a clear migration path that protects my investment, as well as backwards compatibility if you don't upgrade."*

Don't forget about the ultimate end user

With so much focus and attention rightfully placed on application speed, scale, performance, and stability, it would be easy to lose sight of the knowledge worker who ultimately uses OpenEdge based applications. However, the OpenEdge platform makes it easy for partners to separate the creation of front-end user interfaces from the development of the databases and related tasks such as moving data and performing queries. This means that OpenEdge applications are

readily and rapidly adapted to the changing preferences of knowledge workers, who have become accustomed to Mozilla-like interfaces and Google-like tools.

One end user said, *"The separation of the user interface from the business logic means that we have more control over what data gets transmitted and how. This means that changes are easy, whether the data is consumed over the Web, on premise, from a thin client, or wide area network."*

Because OpenEdge enables developers to be more agile in creating and updating end-user interfaces, the applications they develop are easier to use, and are more broadly adopted, which increases ROI.

Don't underestimate OpenEdge as a competitive tool

OpenEdge's agility, openness, and ability to improve productivity enable partners and other organizations to acquire competitive advantage. Ways to convert agility and productivity into competitive wins include:

- Time to delivery. Partners that use OpenEdge can complete projects faster.
- Time to decision. Companies using OpenEdge solutions with open parameters can change these applications according to new conditions in their competitive or operating environment without relying on their IT departments.
- Time to response. Sub-second response time in OpenEdge applications can be used to improve customer satisfaction and loyalty.

Don't apply the old capital budgeting model

End users typically expect that as an application or business process flow grows in complexity or scale, it will need to migrate to different applications that are larger, more expensive, and more difficult to deploy. But OpenEdge has more scalability and range than other development platforms, and can be appropriate for application needs at a range of companies. This is an important factor for capital budgeting decisions. A company considering an OpenEdge-based application that is expected to substantially grow in scale after its deployment will require less upgrade or migration support as it grows, which increases the cost-effectiveness and potential ROI of such a project.

CONCLUSION

With continual innovations such as SaaS applications and service-oriented architecture, IT departments often spend more time reacting to technological changes than competitive changes. Equipped with Progress's OpenEdge development platform, Progress partners — who often have a vertical-specific focus — are able to rapidly deliver to their clients applications that reduce TCO, improve productivity, and improve customer responsiveness. By turning to these partners for both application development and strategic advice, companies can shift their focus to higher-order, rather than tactical, IT issues.

Nucleus Research is a global provider of investigative technology research and advisory services. Building on its unique ROI case study approach, for nearly a decade Nucleus Research has delivered insight and analysis on the true value of technology and strategies for maximizing current investments and exploiting new technology opportunities. For more information or a list of services, visit NucleusResearch.com, call +1-781-416-2900, or e-mail info@nucleusresearch.com.