

A decorative graphic on the left side of the page features three rounded squares. One square is at the top left, another is below it and to the right, and a third is at the bottom left, connected to the middle square by a thin line.

Avinon Scenarios

The Third Wave of e-Business Applications

White Paper

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The Third-Wave of e-Business Applications

Avinon transforms e-business by putting the power of the Web to work for business experts.

As the Internet becomes more important to every aspect of your organization, responsible business experts—not just IT staff—must take more control over the Web applications that sustain and grow your company. By harnessing the Web to serve essential business needs, Avinon gives everyone in your organization the power to create Web-based applications guided by real-world business requirements, not by technology limitations.

Avinon empowers business professionals through a revolutionary new class of e-business applications: Scenarios. Avinon Scenarios encapsulate and connect specific business processes, offering features and functionality that support a business-centric, rather than technology-centric, approach to developing e-business solutions. They are designed to work together within an integrated Web framework that mirrors the complex network of processes extending throughout your enterprise and beyond.

Scenarios are easy to create, because their structure corresponds to the way business people think. Just as every business process can be broken down into multiple discrete tasks, each Avinon Scenario encompasses any number of user-defined steps and Web services—building blocks that perform specific business functions. Instead of using complicated programming languages or relying on IT staff to automate core business processes, the business experts with the best understanding of those processes simply select the Web services they need and visually assemble them into modular e-business Scenarios.

With Avinon, business experts across your company can leverage the Web to generate greater value for the enterprise. Avinon Scenarios combine powerful and flexible Internet technology with the direct business expertise of professionals throughout your organization, harnessing the power of the Web to address key business problems, create new opportunities, foster innovation, and strengthen relationships with customers, partners, and employees.

The Third Wave of e-Business

Technology evolves in response to changing business requirements—not the other way around. The “dot-compost heap” of recent Internet history is littered with “cool” technology and clever ideas that were introduced with no clearly defined business imperative. That’s why, despite a steady stream of technological innovation, the Web’s transformation from academic curiosity to business platform has occurred in a series of three distinct waves, each driven by a push for greater business value.

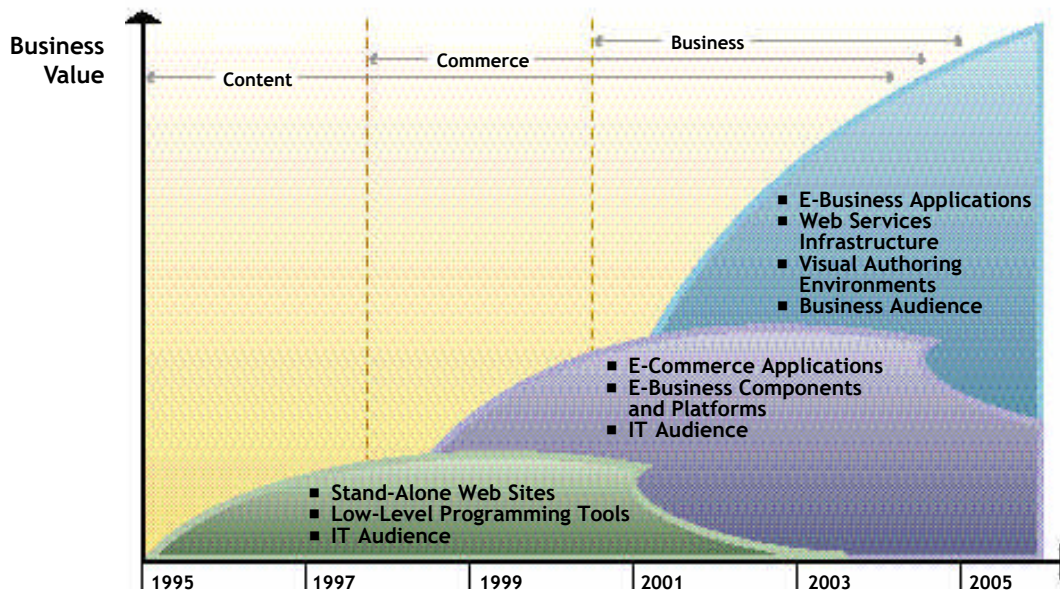
The first wave of e-business was symbolized by monolithic corporate web sites that were little more than electronic brochures—billboards on the information superhighway. While content may have been developed by marketing staff or other business professionals, the sites themselves were controlled by IT experts who understood the low-level development tools required to build and administer them. Just like brochures and other collateral, the goal of these sites was to build brand awareness, generate interest, and spur customer transactions by conventional means such as phone or retail outlets.

Companies quickly realized the business value of allowing customers to perform transactions directly from the Web site, leading to the next wave of e-business. To support these new e-commerce applications, hardware and software vendors introduced technology “platforms” that made it easier for IT staff to assemble and re-use e-business components. These components included Web storefront applications, order processing, inventory management, content personalization, and other pieces of a complete e-commerce solution. Because installing and managing these various elements—not to mention getting them to work together—was a complex task requiring IT expertise, most e-business strategies only addressed commercial transactions that actually generated top-line revenue.

Now the third wave of e-business is arriving, as companies seek to bring all of their key processes to the Web in order to foster greater innovation and collaboration across the value chain. Leading enterprises understand that the Web enables them to improve the functioning of every part of their extended enterprise—streamlining internal processes while strengthening ties to suppliers, partners, and customers.

As the number and scope of Web applications

Avinon Scenarios encapsulate specific business processes, offering features and functionality that support a business-centric approach to developing e-business solutions.



Avinon is leading the third wave of e-business evolution, enabling business experts to visually create cooperative applications that bring key business processes to the Web and that integrate multiple Web services.

explodes, a new model for developing and managing these applications is needed. Already constrained IT resources must be deployed more strategically. Technology experts need to shift their focus from “owning” entire applications to a broader approach of managing the standards-based infrastructure that supports any number of e-business applications. This infrastructure must allow business professionals—the people with the clearest understanding of the company’s strategic goals and tactical requirements—to rapidly create their own solutions in response to specific business needs.

The challenges of putting business experts in charge of creating Web applications may seem overwhelming. These users are not well served by traditional, programmatic approaches to application development; they must be able to graphically assemble applications without extensive technical skills or specialized knowledge about the underlying technology. This, in turn, requires a more atomic approach to development that leverages re-usable “building blocks” that snap together into complete applications. Integration must also be seamless, enabling independently developed applications to work together within the larger business environment.

Avinon eliminates these technical obstacles with a comprehensive e-business application platform. A visual authoring environment makes it easy to build sophisticated Web applications

with little or no programming required. These modular e-business applications, called Scenarios, integrate any number of internal or external Web services to perform specific business tasks. Scenarios work together to create cooperative applications that span multiple business functions, departments, and companies. Avinon enables every organization to join the third wave of e-business, delivering a new class of Web applications that reflect real-world business requirements.

Transform Your e-Business with Avinon Scenarios

Businesses have always sought to harness the transformational power of technology to improve performance and profitability. Just as industrial-era companies relied on new technologies like the assembly line to revolutionize the management and movement of physical materials, businesses today have turned to the Internet to improve the way they manage and move information. With its global reach, standards-based infrastructure, and pervasive connectivity, the Web offers the tantalizing promise of streamlining and connecting core internal business processes, as well as linking to the processes of suppliers, partners, and customers.

For many companies, however, the Web has become an obstacle to progress instead of an enabler. This is because figuring out how to lever-

Scenarios work together to create cooperative applications that span multiple business functions, departments and companies.

Leading companies realize that e-business solutions must be driven by sound business principles. Scenarios empower business experts to create Web solutions that encapsulate, perform and connect business processes.

age the Internet has been perceived as a technology issue rather than a business imperative. As responsibility for bringing business processes to the Web has fallen to IT organizations, business professionals have fallen out of the loop. By emphasizing technology expertise rather than process knowledge, many companies have wound up with Web solutions that fail to meet even the most basic business requirements.

In addition to limited or inadequate execution, it is becoming clear that innovation has suffered as business experts have lost control of core business processes. They may have a vision for delivering new online services, but they are powerless to achieve that vision. On the other hand, already overwhelmed IT professionals simply don't have the time or expertise to master the intricacies of business processes. For many organizations, the result of this disconnect between business and technical knowledge has been lost market opportunities and crippling competitive disadvantage.

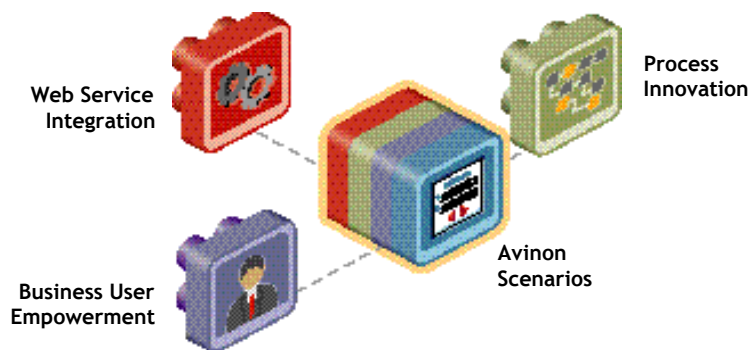
Scenarios Empower Business Experts to Drive Process Innovation

Leading companies have begun to realize that e-business solutions, while enabled by technology, must be driven by sound business principles. The people with the clearest understanding of the business requirements, market needs, competitive dynamics, and the goods or services sold must be the ones who lead the creation of Web applications that fulfill strategic objectives. Avinon Scenarios make this possible, empowering business experts to directly create Web solutions that encapsulate, perform, and connect key business processes.

Scenarios are modular online applications that function independently to address specific business processes, but that also can be linked together to create comprehensive e-business solutions. Scenarios can automate any form of business interaction (business-to-business, business-to-consumer, business-to-employee, etc.) so they support any production business environ-

ment. They are also designed for wide deployment via the Web, wireless devices, and any other touch point, thereby reaching any business audience. This flexible approach replaces earlier, monolithic and inflexible e-business applications that only served certain user communities with narrowly-defined business needs.

Avinon Scenarios manage complex business processes by guiding users through dynamic interactions that deliver a specific business service of the enterprise. The scope, flow, and parameters of these interactions are completely deter-



Avinon Scenarios foster process innovation by empowering business experts to rapidly create modular e-business applications leveraging multiple Web services.

mined by the individuals most familiar with the business processes. These business experts—including analysts, product managers, interactive marketing managers, and others who truly understand the business requirements—are able to build Scenarios quickly and easily using Avinon's next-generation application platform.

The essence of the third wave of e-business is putting all your core business processes on the Web, where they can benefit from continuous innovation, universal availability, and seamless integration with other processes. Avinon Scenarios empower business experts with limited technical expertise to directly create Web applications that capture all the key elements of these essential business processes.

Scenarios Integrate Web Services to Support Business Processes

Scenarios are made up of a series of business "steps" and the logic behind them. Steps include gathering information from users, executing

business rules, triggering system updates and other transactions, and presenting content for users to evaluate. A step can also invoke one or more Web services to perform certain tasks essential to the business process.

Web services are discrete software components that perform a specific, narrowly defined business service or task. Business-specific examples of Web services include everything from processing credit card orders and tracking packages to monitoring currency exchange rates. Each of these is a very narrow activity, but each supports any number of broad business processes spanning multiple individuals, organizations, and geographies. They are fully Internet-aware, able to take advantage of the universal availability, connectivity, and information infrastructure of the Web.

Web services can be created locally by IT staff familiar with the underlying systems, or can be accessed via the Internet—either directly from a service provider (such as a package tracking Web service from a shipping company's Web site) or from a growing community of online registries like UDDI.org¹ that offer a wide range of business-relevant Web services. They can connect to each other, and to larger applications, with or without any human intervention. Because they are self-describing and self-contained—with easily understood inputs, attributes, and outputs—Web services act as “mix-and-match” components that can plug in to any application where their functionality is required. This offers a huge productivity advantage over traditional application development, which relies on highly skilled programmers writing lots of complex and proprietary code.

Web services don't necessarily have to be triggered by a user on a Web site. Any access point that can connect to the Internet—including PDAs, cell phones, and other wireless devices—can take advantage of Web services to perform specific tasks. You might say that Web services do for business processes what the Web has already done for information—offering an incredible wealth of service-oriented resources spread across countless computer systems.

As with information on the Web, the challenge with Web services is making them available

in a way that companies and individual users can easily understand and harness. Finding, connecting, and integrating Web services into a larger business framework remains a significant challenge. That is why, despite their inherent simplicity and direct applicability to real business problems, use of Web services has so far been limited to technology rather than business experts. Avinon has a better solution—one that enables every business professional to leverage the power and flexibility of Web services.

Working with Avinon Scenarios

Avinon Scenarios enable a more strategic approach to discovering, accessing, and integrating Web services to support key online business processes. Each Scenario embodies a specific process, and is created by business professionals with the best understanding of that process. To drive that process, Scenarios provide an easy-to-use framework for connecting Web services that perform various functions. Just as business processes can include any number of related tasks, Scenarios can include any number of Web services. And Scenarios automatically work together, so any company can rapidly deploy an organic Web environment that directly reflects its complex network of interrelated processes.

Scenarios facilitate collaboration, allowing multiple business professionals, Web designers, IT developers, and others to add steps that leverage their individual expertise. For example, a business expert can define a Scenario with no understanding of the back-end systems required to support it, leaving “placeholder” steps that IT experts later define to handle the technical integration. The end result is an interactive Web experience that is expressly designed to accommodate a well-defined business process, and that seamlessly manages all aspects of that process.

A single Avinon Scenario may combine several related Web services, such as a customer service scenario that not only tracks orders (one Web service), but also displays recent account activity (another Web service). Companies can also link multiple Scenarios to create more complete e-business solutions. For example, the customer service Scenario might automatically connect to another Scenario in the customer contact center

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¹ *The Universal Description, Discovery and Integration (UDDI) Project is a 120 member plus coalition of business and technology leaders committed to the acceleration and broadening of business-to-business integration and commerce on the Internet.*

Web services do for business process what the Web has already done for information—offering an incredible wealth of resources spread across countless computer systems.

that provides live agent assistance.

Scenarios support virtually any business process that engages customers, partners, employees, or any combination of these audiences. These processes include:

- **Internal or operational processes** that can be executed more efficiently as e-business models. An HR manager, for example, can create a Scenario that gathers the latest benefits information from various providers, presents these options to employees, and integrates a Web services to process the actual enrollment. This self-directed approach results in a new e-business model that eliminates extensive clerical work for the HR department and increases employee awareness of their benefits options.
- **Market-facing or relationship servicing processes.** These may be either inbound processes such as customer self-service applications, or outbound processes such as marketing campaigns. For example, a product manager can quickly deploy a Scenario that allows customers to directly order items via the Internet. The Scenario gathers shipping and billing information, connects to a third-party Web service that processes customer credit cards, and automatically generates an e-mail confirmation. It can even pass the customer information on to another Scenario that generates marketing content alerting the customer about related products and services. As a result, every business professional can leverage the Web to win, retain, and grow customer relationships.
- **Extended enterprise processes** that enable partner collaboration, value chain integration and transaction optimization within digital marketplaces. For example, procurement managers at partner companies can jointly create Scenarios that aggregate purchase order line items, helping secure volume discounts. Other Scenarios can connect to Web services at various B2B exchanges to monitor pricing trends, identify the best deals, and alert buyers about special opportunities.

These and other scenarios maximize the value of business partnerships by optimizing inter-company processes at reduced cost and with greater flexibility.

With Avinon, business experts can take full control over designing and creating Scenarios that automate key business processes, instead of relying on overburdened IT staff. The Avinon Scenario Application Platform replaces complex programmatic approaches to e-business application development with an intuitive interface that makes it easy to visually assemble complete applications—just as Web site development tools enabled users in the first wave of e-business to create sophisticated Web pages without knowing HTML, JavaScript, or other technologies. Avinon Scenarios enable every business professional to rapidly create Web applications that manage specific business processes, with no technical expertise required.

Putting Business Back into e-Business

It's time to stop regarding the Web as a technology platform, and start exploiting it as a valuable business asset. As the Internet becomes the center of gravity for every part of today's extended enterprise, critical business processes are being artificially constrained by technology limitations. The business experts who understand these processes have been forced to cede control to IT experts familiar with complex Web tools and technologies, such that the so-called "new economy" has become largely synonymous with an IT-centric economy.

Avinon's revolutionary approach directly aligns e-business applications with overall business strategy, empowering both individuals and companies to be more effective and delivering greater value for customers, partners, and employees. Driven by business requirements rather than technology limitations, Avinon Scenarios empower business experts to lead the third wave of e-business applications.

Avinon users can transparently access a vast array of Web services to automate critical business tasks, and can rapidly assemble these services into complete e-business applications. By putting business experts in charge, Avinon ensures that your Web applications can address all the essential business processes that sustain and grow your extended enterprise.

To learn more about Avinon products and services, visit us online at www.avinon.com.

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