
Secure Extranets: A Business Perspective



White Paper

Table of Contents

<i>Executive Summary</i>	<i>1</i>
<i>Five Rules of the Extranet</i>	<i>1</i>
<i>The Diverse Extranet Community</i>	<i>2</i>
<i>Defining ROI</i>	<i>3</i>
<i>Aventail ExtraNet Center</i>	<i>4</i>
<i>Summary</i>	<i>6</i>

Executive Summary

E-business is the new enterprise imperative. The Internet not only allows companies to conduct business in new ways, but it requires them to do so to survive. To increase their competitive reach, companies must be able to deliver applications and services digitally to their partners, and derive real value from those online partnerships. In today's e-business economy, partnership at the pace of the Internet is the order of the day.

The extranet is where e-business begins. Tactical extranets increase customer and partner loyalty, commitment, and confidence, all of which drive revenue and competitive advantage. Extranets are being used to automate supply chains, co-develop new products, and transform business processes. As mergers and acquisitions intensify and organizations increasingly rely on outside consultants and outsourcers, the need for secure extranets becomes even more urgent. Companies are no longer asking "Should we build an extranet," but rather, "How do we build the extranet that gives us a competitive edge." Deploying the right extranet solution now, one that attacks the challenges of the extranet head-on, is critical to e-business success.

While large global enterprises have incredible opportunity when conducting e-business with their partners, they also face some challenges: chief among them, how to provide extranet services to a vast number of different constituencies. Enterprise IT departments must be able to quickly and effectively define partner policy for a wide variety of extranet types—from small intimate partnerships to large generic supply chains—in a dynamic environment in which business relationships change from day to day. What companies need is a central place to manage and secure applications and services that are being deployed to partners. One place where the "rules of engagement" between data owners and outsiders can be centrally defined and enforced, on a technical level, for any application and for every strategic relationship, no matter how diverse the user groups or computing environments. That "place" is Aventail ExtraNet Center. Aventail ExtraNet Center provides the management and security foundation

that e-business requires, allowing corporations to take advantage of vast opportunity.

Since 1996, Aventail has provided premier extranet solutions for business-to-business commerce and collaboration over the Internet. Aventail ExtraNet Center v3.3, available in early 2000, meets the core business and technical mandate of the market-driven extranet: extend a business profitably to partners, but do it manageably and securely. As discussed in this white paper, Aventail ExtraNet Center gives companies the power to take control of their partnerships in the new e-business world. This white paper defines the business-to-business extranet as enabled by Aventail ExtraNet Center, defines its business requirements, and gives specific examples of the extranet at work today.

Five Rules of the Extranet

With competitive advantage as the ultimate prize, two fundamental drivers are propelling large enterprises to the extranet: market consolidation and service externalization. Markets are consolidating as the pace of merger, investment, and acquisition intensifies. Yet within companies core services are also increasingly being externalized, delivered by a network of external parties that includes outsourcers, demand and supply chain partners, consultants, and contractors. This dynamic environment presents clear business needs—the Five Rules of the Extranet. An extranet must:

- 1. Be as flexible as the business.** An extranet must be driven by the demands of the market, not the limitations of technology. It must be extremely flexible and allow companies to immediately deploy extranet services that best fit the business need, be it intimate supply chain partners using a wide range of applications or mass e-commerce extranets driven by Web-based applications.

2. Deploy in “Internet time.” An extranet develops quickly—every moment of hesitation is opportunity lost. To deploy an extranet, companies shouldn’t have to roll out a new infrastructure or go through a major re-architecting of their applications. To remain market-driven, enterprises must be able to deploy their extranet quickly, and leverage their existing infrastructure to do so. The extranet technology must drop-in to a network and give partners immediate authorized access.

3. Protect the interests of the data owner. Extranet services need to be deployed in a fast and flexible way, but with the complete assurance that only the correct users can access the right services. An extranet must ensure that what’s supposed to be private, stays private.

4. Serve the partner as a customer. An extranet presents a very important and delicate balance: providing customer service to key partners (who might also be customers) in a competitive environment with mission-critical resources at risk. The final solution must be an extranet without compromise. Partners should never be required to change their security policies, networks, applications, and firewalls for the “good” of the extranet community.

5. Drive information to the decision-maker. An extranet must provide a central means to measure progress, performance, and popularity. Business units deploying applications need to understand which extranet content and applications are most successful.

Extranet Defined

Business-to-business commerce and collaboration between independent entities—typically via the Internet—to achieve competitive advantage.

The Diverse Extranet Community

While the general extranet mandates are the same, what an extranet “looks” like and the specific opportunities it capitalizes upon vary from company to company. Companies have diverse partners and a wide range of user groups. Those groups have very different application needs and requirements, from simply viewing static information on a Web site to dynamic interaction with more robust enterprise applications.

A company’s business goals will dictate the type of extranet it implements. Web-only extranets are more effective for one organization, multi-application extranets for another, and a combination of both for yet a third. A large retailer might need to extend mass business-to-consumer applications in order to communicate with hundreds or thousands of suppliers, while a manufacturing company might need a more interactive, intimate extranet relationship for product co-development, one that requires richer application access for CAD sharing and whiteboarding. An aerospace company might need to extend Web-based applications to supply chain partners, and client/server legacy applications to just a few key outsourcers. An extranet must accommodate this wide range of needs (see Figure 1).

Customer service and communication are also critical parts of the mix. Customer value is now driving technology decisions—or should. Companies must be customer-centric, focused on ways to get closer to and communicate with their customers, whoever or wherever those customers might be and however that customer interaction might happen: Web access via an ISP, direct legacy application access via a custom client, or even dial-up access. The extranet must reduce the friction of business-to-business commerce and collaboration.

Given the broad range of business opportunities and user groups unique to each enterprise, the extranet imperative

	Large Retailer	Manufacturer	Aerospace Company
Extranet Type	<ul style="list-style-type: none"> • Web-only • Large, generic supply chain • Communicate with hundreds or thousands of suppliers 	<ul style="list-style-type: none"> • Multi-application • Small, intimate partnerships • Communicate with a few key individuals at each partner organization 	<ul style="list-style-type: none"> • Web-only and multi-application • Large, generic supply chain and small, intimate partnerships • Communicate with hundreds of supply chain partners, and a select set of outsourcing partners
Needs	<ul style="list-style-type: none"> • Mass scale • Secure architecture • Measurable ROI 	<ul style="list-style-type: none"> • Personalized content • Flexible deployment • Single architecture for multiple extranets 	<ul style="list-style-type: none"> • Immediate deployment • Auditable security • Control policy management
Applications	<ul style="list-style-type: none"> • Mass business-to-consumer applications 	<ul style="list-style-type: none"> • Rich application access for project collaboration • Dynamic interaction with robust legacy, custom, and ERP applications 	<ul style="list-style-type: none"> • Web-only project tracking applications for supply chain partners • Key client/server applications for outsourcing partners

Figure 1. Diverse Extranet Constituencies. An extranet must accommodate a wide range of user constituencies and extranet needs.

is clear: companies must be able to deploy managed services to a diverse set of extranet partners in a sophisticated, scalable, and secure way, with any application that the business opportunity requires. Aventail ExtraNet Center is the only comprehensive solution that meets that imperative and helps companies achieve a strategic return on extranet investment.

Defining ROI

Extranets are about using collaboration and partnership to achieve competitive advantage and hold competitive ground. By making applications available to partners and other constituents in a meaningful way, companies achieve strategic gains. That's why extranet ROI (return on investment) is best discussed in terms of strategic business benefits rather than dollars-and-cents absolutes.

Extranet ROI is ultimately realized through such critical intangibles as customer loyalty and partner commitment. It's also realized through enhanced internal efficiencies. Extranets can automate business-to-business interaction

on virtually every level, instead of requiring human intermediaries to deal with every corporate communication via phone, e-mail, fax, or overnight express. Resources are optimized as employees are freed to use their talents and spend their time in more effective ways, providing strategic savings that go far beyond budget line items.

Savvy companies understand these distinctions and are deploying extranets to exploit them. As evidenced by the following examples, businesses in all industries are using extranets—with Aventail ExtraNet Center as the management and security foundation—to achieve business benefits that go far beyond network cost savings.

Manufacturing

Manufacturers are using extranets to automate supply chains, improve inventory management, optimize processes, and speed response time. One company is using an extranet to outsource all component manufacturing. Suppliers can securely connect to supply-chain management, ERP, Messaging, NetMeeting, and CAD applications over the Internet. They can check real-time component

stocking levels and take appropriate action to replenish them. Engineers can discuss design changes with component manufacturers during a secure Internet meeting. They can securely access and download new designs and immediately implement changes. As a result of extranet deployment, the host company is achieving return on investment in the form of reduced cash-to-cash cycle time, faster time-to-market, reduced inventory, and improved component quality.

Financial services

One large brokerage firm is using an extranet to extend a diverse set of PowerBuilder, Java, and Web-to-host gateway applications to thousands of independent traders. The traders can easily access the firm's trading and portfolio management applications and proprietary market research. Clients get faster, more accurate trades. Traders get more business from their clients, and the brokerage firm gets more business from the traders. By replacing its manual trading process with an extranet, the firm is able to retain high-value customers, expand its customer base, increase revenue from trading fees, improve the quality and accuracy of trades, and generate new revenue opportunities.

High-tech

One high-tech company is improving its sales process by using an extranet to extend more than a dozen client/server applications to OEM and distributor partners. The company can keep partners up-to-date on inventory, pricing, sales volume, and shipments, which is important because OEM sales account for about 80 percent of revenues and the company must be able to closely interact with and manage these partners. Easy-to-use interfaces and direct connectivity to critical information have replaced the days of phone tag. Immediate access to critical resources is increasing sales volume, improving the sales process, streamlining inventory management, strengthening OEM and partner relations, and helping the company respond to marketplace demands to hold the lead in its volatile market space.

Health care

One major hospital is using an extranet to improve patient care by giving doctors immediate, secure access to medical records while maintaining utmost patient privacy. Using just their browser to access specific Web resources, doctors can refer patients and review patient records, lab results, current research, and billing and insurance information. Patients reap the benefits of better care, faster turn-around time on lab results, and more informed doctors. The hospital is able to optimize processes, protect the confidentiality of health care records as required by law, and continue to provide the high standard of care and customer service that earned it the title of "Most Preferred Hospital" in a vote by local residents. High-quality patient care, compliance with patients' rights laws, and community goodwill are just some of the returns on extranet investment.

These are just a few examples of extranet ROI quantified in terms of direct business benefits. Again, the most successful extranets provide a strategic return on investment, allowing businesses to achieve greater bottom-line results in all areas of enterprise partnership. Aventail ExtraNet Center allows organizations to uniquely capitalize on extranet ROI, providing unparalleled flexibility in deploying any extranet service, quickly and simply.

Aventail ExtraNet Center

Aventail ExtraNet Center (AEC) is the management and security solution for enterprises determined to succeed at e-business. Its powerful, standards-based framework allows companies to define and conduct business-to-business relationships any way they want to, regardless of infrastructure, platform, application type, or the myriad of other variables found in today's heterogeneous enterprise environments.

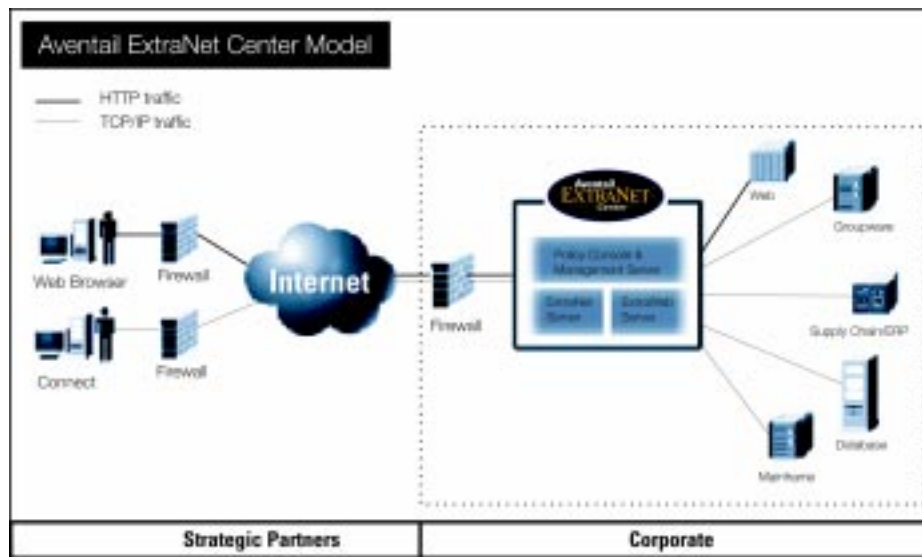


Figure 2. Aventail ExtraNet Center Components. Corporations can use Connect and ExtraNet Server to leverage the power of enterprise and emerging applications, and a standard Web browser and ExtraWeb Server to access Web content.

Business at the pace of the Internet often requires organizations to sacrifice management and security in order to meet immediate tactical objectives. AEC dramatically changes that dynamic, letting organizations easily deploy, secure, manage, and track the flow of applications and data and still be nimble enough to capitalize on immediate business opportunities. AEC gives companies the power to bring the right tools to the right business extranet problem. Its client/server components (Connect and ExtraNet Server) provide full-spectrum application support to leverage the power of legacy, custom, ERP, and emerging applications. The browser-only component (ExtraWeb Server) provides access to internal Web content. With the complete AEC solution, host companies have the flexibility to use the components that best fit their needs and the business opportunity at hand (see Figure 2).

Scalable: built for the e-business high wire

Aventail ExtraNet Center has been engineered to address a very defined market need: confident collaboration between

enterprises over the Internet. This focus gives Aventail a unique edge in building massively scalable solutions for business-to-business commerce and collaboration. More than just raw throughput, the user experience and management requirements of Aventail ExtraNet Center scale to meet the increasingly demanding and visible needs of the large enterprise extranet. Specific scalability features include:

- integrated fail-over and load balancing in the client architecture
- modification-free management of Web resources (no need to modify servers)
- a client experience that requires no end-user training or desktop reconfiguration
- integrated performance and security proxies that reflect the basic scalability dynamics of the Internet itself

Aventail ExtraNet Center is designed to exceed today's scalability requirements, and meet tomorrow's.

Securable: designed for confident commerce and collaboration

While an extranet must be scalable, it must also be secure. Concerns about security and resource control—the worry that mission-critical resources will end up in the wrong hands—are among the biggest barriers to extranet implementation. Aventail ExtraNet Center addresses these concerns by providing strong encryption, strong multi-factor user authorization, and granular access control, as well as centralized management. Companies have the assurance that their connection over public networks is secure, that the person coming into their network really is who he or she claims to be, and that authenticated users are accessing only those resources and parts of a network they're supposed to access. AEC also allows companies to evaluate which extranet resources are most valuable for designing systems and analyzing commercial efforts, or for billing and charge-back. All application access is centrally logged and can be output into reports for analysis.

Leverageable: intended to drop-in to the network

Aventail ExtraNet Center uses open standards, allowing companies to leverage existing IT investments, accommodate future technologies, and build a common “bridge” between disparate partner networks. The flexible framework also means that AEC can easily scale as a company's needs grow and technologies emerge.

Aventail ExtraNet Center works transparently with partner networks and requires no changes to a partner's security policies, which minimizes partner politics and speeds deployment. When partners aren't being asked to make sacrifices or compromises in order to use the extranet, there's a greater likelihood for extranet participation. AEC is easy to use and has minimal impact on end users, further facilitating extranet participation and success.

Summary

Strategic extranets present unlimited business opportunity, allowing large enterprises in virtually every industry to generate revenue, increase customer and partner loyalty, and drive competitive advantage. As with all worthwhile endeavors, extranets also present a challenge: how to deploy secure, scalable, well-managed extranet services to dynamic, diverse user groups in “Internet time,” leveraging existing IT investments to do so. That challenge is best met with Aventail ExtraNet Center. Aventail ExtraNet Center provides one central place from which to easily deploy, secure, and manage all extranet applications and services to partners. It is the management and security foundation that e-business requires, giving companies the technical agility they need to respond to and profit from any immediate business opportunity. Without that agility, opportunities are lost and competitive edge is relinquished.

More Information

For more detailed information about Aventail ExtraNet Center v3.3 and its architecture, the technologies mentioned throughout this white paper, and specific case studies, visit Aventail's Web site at www.aventail.com.

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