



The small business web site opportunity: integrated site creation, management, and promotion

**Trellix technologies and services help small
businesses succeed online**

“It's been demonstrated by decades of yellow page and newspaper ad sales – small businesses will spend money to increase revenue. A professional-grade web site is both more effective and less expensive than many traditional channels. Small businesses are waiting for someone to supply all the tools they need to succeed on the web.”

-- Dan Bricklin, Trellix CTO and industry visionary

A Trellix Corporation white paper
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Table of contents

1. Executive summary	3
2. Needs of small businesses	3
Make it easy to use	4
Deliver professional results	5
Provide promotional tools	5
Include e-commerce – but know it’s not for all builders.....	5
3. Benefits and questions for service providers	6
Bring in new revenue.....	6
Additional services	6
New customers	6
Customer retention	6
To build or to buy.....	6
E-commerce offerings	7
4. The necessity: a cohesive suite of best-of-breed integrated services ..	7
Customized, private-label solutions	7
Integration with multiple applications and services	8
Control costs with advanced hosting technology.....	8
5. Trellix software and services fit both partner and end user needs	8
Integration and customization tools for customers	9
Powerful customization engine	9
Integration brings multiple services and tools together	11
Flexible hosting technology	12
Trellix Web Express features and ease of use fit end user needs.....	14
Usability	14
Results	14
Performance	15
Room to grow.....	15
6. Conclusion	16
Appendix A: “Small Business and Web Sites,” By Dan Bricklin	17
Appendix B: Customer matrix	22



Purpose

This white paper addresses three main points:

- Small businesses today know they need web sites. They understand the value of sites, from the most basic informational site to a full e-commerce solution, and are willing to spend money on creating and promoting them.
- ISPs, hosting companies, telcos, and other online service providers can benefit from offering high-value services such as web site publishing, management, and promotion.
- Trellix provides a complete suite of the most technologically advanced software and services available, designed by Trellix and leading third-party vendors to meet the needs of both small businesses and service providers.

1. Executive Summary

In a recent article, industry visionary and Trellix CTO Dan Bricklin wrote, "Basic web sites are becoming a core part of the marketing mix for many small businesses. And the cost of basic Internet uses, such as simple web sites, fits well within their marketing budgets."¹ As he later points out, for many small businesses, a web site is no longer a luxury – it's a necessity. One estimate states that the overall market for web site services – management, hosting, marketing, and other associated services – will be a \$6B opportunity by 2003.²

Whether due to unsatisfactory results with smaller niche players or a lack of familiarity with the wide spectrum of providers, small businesses are increasingly choosing recognized brands with proven track records in technology for web site services. They often turn to one primary provider for hosting, site building tools, and other online services – and hold that provider to a high standard.

These demanding customers expect a **suite of intuitive services that work smoothly together** to help their businesses grow and succeed. This includes a unique, professional-looking web site, add-on services to bring life to the site, and promotional tools to attract and engage visitors – all within a cohesive, easy-to-use interface.

Builders want a professional-looking web site and promotional tools to attract and engage visitors while driving the bottom line.

Because of these expectations, hosting companies, ISPs and service providers who sell to small businesses are facing increased pressure to offer a comprehensive range of services. Providers who don't fully address these needs will find their customers turning to competitors that offer more complete or better-integrated solutions.

To win customers' ongoing loyalty, providers need a comprehensive platform, one that:

- Combines leading technologies from multiple sources
- Provides a seamless brand experience
- Helps site builders effectively create, manage, and promote their sites.

A provider's ability to maintain and update such a system can sustain an ongoing revenue stream through subscription charges, service level upgrades, and add-on services.

Trellix provides the answer for both end users and service providers. For small business site builders, the private-label Trellix publishing platform incorporates a complete suite of applications and services into one easy-to-use service: **outstanding web site building tools** and a variety of web services including **e-commerce, site promotion, and marketing tools**. For service providers, Trellix provides **the most flexible platform available**, including multiple integration options, in an **extensively customizable environment**.

¹ Dan Bricklin, *Small Business and Web Sites*, October 2001

² IDC May/June 2001

2. Needs of Small Businesses

The small business employees and owners who build web sites are much more sophisticated than they were even a year ago. While online site building services have been around for several years, the current generation is far beyond the simple form-based tools that introduced the concept. The important requirements for these services are **usability, results that are professional and unique, and tools to help sites succeed.**

The pressing need to have at least an informational web site is felt today by most businesses. IDC estimates the number of businesses with sites will be 15 million by 2003, around double the number there were in 2000.³ (Figure 1.) Of businesses that have sites or plan to have one, 77% say it's a "must have" for doing business in 2002;⁴ two-thirds of those planning to launch a site say they'll do it themselves.⁵ But the process must be easy: these builders aren't webmasters or graphic designers. They need to be able to understand the tools, create great-looking, functional sites, and then attract potential customers.

Of the one-third who won't build their own site, many will turn to a friend, family member, or coworker for assistance. For most of the remainder – around 10% – a "do it for you" (DIFY) offering, in which the end-user pays to have someone else create a site for them, is the most valuable service. However, traditional DIFY services have seen remarkably low renewal rates. One reason is that small businesses know that that ongoing web site maintenance is crucial to the viability of a site, and many services either don't allow direct customer updates, or require edits to be made using complex tools or raw HTML. A DIFY service combined with a proven, easy-to-use site editing application gives small businesses a running start, then allows them to take over updates on their own schedule.

Whether they do it themselves or not, the reason for the boom in site building is unmistakable: web sites have proven themselves worthwhile, even for smaller businesses. About half of businesses with web sites say that their sites brought additional customers⁶ -- and **55% of small businesses with a site report the site has paid for itself in increased business.**⁷ According to Jupiter Media Metrix, that's the key to winning customers: for small businesses, increased sales are a more convincing benefit of web technologies than reducing expenses.⁸ The need for quality results extends beyond the finished web site itself. The success of the site in attracting visitors – and, ultimately, new sales – is the distinguishing aspect.

Ease-of-use

Most of the millions of small business builders who plan to create sites themselves are computer savvy, but not HTML programmers – they're technical-minded entrepreneurs. They expect to be able to build sites themselves; after all, who knows their business best? However, they don't have the time or inclination to learn complicated new software or programming languages. A site building application must be designed with usability in mind to avoid overwhelming or frustrating new users.

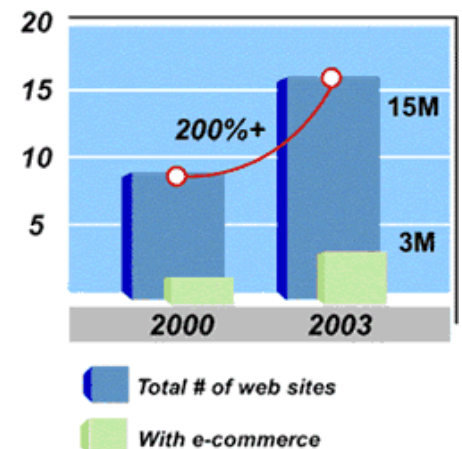


Figure 1: Predicted small business web site growth, in millions

³ ibid

⁴ Lewis, Mobilio & Associates study, 12/01

⁵ IDC and Verio study, June 2001

⁶ Bricklin, quoting a study conducted for the National Federation of Independent Businesses

⁷ Internet.com ISP-Planet Survey, 2001

⁸ Jupiter Media Metrix, *Profiting from Small Businesses: Seizing Opportunities in Business-Management Services, Sales Channel Development*, June 14, 2001

The “blank slate syndrome” paralyzes would-be site builders before they even get started: builders faced with nothing but a blinking cursor and a blank screen often don’t know where to begin. Usability expert Jakob Nielsen writes, “A blank piece of paper creates writer’s block. An empty, pageless website is worse still.”⁹ Today’s leading site-building applications **help builders by offering suggested content** (pages, images and copy) and site designs as starting points for builders to create sites that are truly their own.

Professional look and feel

Even the easiest site-building tool won’t be successful if a small company can’t create a site that gives a positive impression of their business. Cookie-cutter sites and sites with limited content and features can’t effectively represent their businesses, and demanding business owners will quickly abandon them.

Sites need to **look great while being appropriate** for the business they represent: colorful and flashy for some, simple and conservative for others. They must be able to expand easily and include automatically updated navigation systems to reduce or eliminate broken links. And, they must be open enough to allow the addition of content and features from anywhere, including paste-in HTML or JavaScript from external sources.

Access to promotional tools

One substantial piece of the site-building puzzle that many applications overlook or omit entirely is **integrated site promotion services**. Experienced webmasters know the tricks around tailoring meta tags, submitting a site to search engines, running email campaigns, and using pay-for-placement or pay-per-click advertising services to boost traffic. These relevant services increase business, and represent one of the key areas that differentiate one site building technology from another.

New site builders need help discovering and executing such promotions. A well-integrated promotions engine is a seamless part of the site-building process, providing contextual suggestions on when and how to successfully implement a range of marketing and promotion tools. Site building tools aimed at novice and intermediate builders also need a clear, concise presentation of web site statistics so they can judge the effectiveness of the promotion services they’ve implemented.

Optional e-commerce services

Most of the upside of web sites for small businesses is **not** in direct e-commerce revenue: many small businesses don’t have products that can be sold online. Most small businesses need very straightforward web sites – a place to provide detailed information and images, do basic CRM, and elevate brand awareness. Many view a web site mainly as a marketing medium – and a productive one: half of small business users consider it more cost-effective and impactful than traditional marketing methods.¹⁰

As Bricklin points out, “the total number and variety of businesses is huge. The number of potential ‘buy it on the web with a credit card’ companies is a pretty small percentage.”¹¹ E-commerce is only important to a small subset of small businesses – but to that subset, it is essential. To be effective, an e-commerce solution must be tightly integrated with web site building and promotion applications, as well as easy to use.

Those small businesses that benefit most from basic web sites – from carpenters to dentists to bakeries – may have little or no need for e-commerce at all. Given the entrepreneurial nature of the individuals involved, another set of businesses may have no immediate need for e-commerce, but could discover new opportunities over time, and will take advantage of e-commerce tools if they’re available and easy to use. To reach the full spectrum of builders, a provider must address all these audiences.

⁹ Jakob Nielsen, *Content Creation for Average People*, October 1, 2000

¹⁰ Lewis, Mobilio & Associates

¹¹ Bricklin

3. Service Provider Benefits

There is a renewed focus among online service providers on finding new ways to enhance revenue streams. Adding web site publishing services is a proven option for generating revenue, however, providers face several key decisions in choosing a technology.

Generate new revenue

Three fundamental ways to bring in additional revenue are **adding new paid services**, **increasing customer retention**, and **attracting new customers**. Web site building services that meet the needs of small businesses address all three.

New paid services

From hosting companies and ISPs, to destination and community web sites, to telcos and small business service providers, almost any company that provides products or services over the web can augment their offerings with high-quality web publishing tools. For ISPs and other service providers, marketing additional products and services to existing users is much more cost-effective than attracting new customers.¹² If providers integrate web site publishing into existing product and service packages, builders can purchase everything they need from one source, rather than assembling a piecemeal collection of different services from multiple vendors.

New customers

Because web sites are central to many small companies' marketing strategies, and publishing is often one of the first tasks they'll undertake, easy-to-use site-building tools are a key determinant for many consumers and small businesses in choosing a service provider. Novices are drawn to tools they can understand intuitively, without learning HTML or reading thick manuals. Pre-configured trial programs offer a risk-free way for these users to evaluate a site publishing service. Providers will also find it easier to attract advanced users who compare providers based on the quality of their services and benefits if they have the leading technology.

Customer retention

Well-integrated, easy-to-use web site building services can benefit a wide range of online service providers. In addition to attracting new customers, a successful site-building service increases the perceived switching cost for customers to move to another provider. More importantly, publishing and promotion services that help users succeed decrease the likelihood that customers will want to move at all.

To build or to buy

Many providers go through a **build versus buy** decision-making process when evaluating new product offerings. At first glance, creating a web site publishing system can seem like an attractive candidate for in-house development – since most online businesses already have HTML developers and graphic designers on staff, it can seem like a cost-effective method to go to market.

However, getting beyond simple forms-based site publishing is complicated. Creating a system to meet the needs of thousands of web site builders is a challenge, the maintenance is an ongoing burden that grows as a service succeeds, and integrating third-party applications adds another layer of complexity.

When all of these factors are considered, it becomes apparent that an elegant, complete solution is beyond the expertise of almost all service providers. Microsoft's bCentral provides a recent example. For all their expertise in software development, the online tool they developed was a limited, forms-based application. Users had few options to change the look of their sites, couldn't rearrange content, and the builder was not well integrated with the real high-value services bCentral provides. As a result, few users adopted it, and Microsoft quietly pulled the tool in the fall of 2001.

¹² Internet.com ISP-Planet Survey, *The ISP Market: Challenges and Strategies for the Future*, 2001

Even web communities focused on site building, such as Tripod, Angelfire, and FortuneCity, look to external vendors for their site development tools. Building a site publishing application in-house was a viable option when end user expectations were lower – but no longer.

Evaluate e-commerce offerings

E-commerce is a key piece of any web site offering, even though it's not for all users – estimates range from five to ten percent.¹³ For builders who choose to sell directly through the web, however, the strength of an e-commerce application is essential. Those customers are also among the most engaged and the most likely to spend additional money on site upgrades and add-ons, so providing the best solution for them is important.

Of course, the idea of the “best” e-commerce solution will vary from one user to the next. Leading vendors, such as Miva, cc:Now, iBill, Kurant, Mercantec, and others, all have strengths that appeal to different types of users. One missed opportunity for many providers is making a best-of-breed e-commerce tool available with an interface that's appropriate for both beginning and intermediate site builders. What providers should look for is a site building solution that offers tight integration with a leading e-commerce vendor and an easy-to-use interface – but also allows providers to choose and customize a solution from another vendor if they prefer.

Finally, e-commerce solutions present an additional challenge of internationalization. Signing up international small businesses and allowing all builders to open their web stores to international customers are both good tactics for providers – but not all e-commerce platforms can support them. Delivering e-commerce is difficult – but the value a well-integrated system can provide is immense.

4. The Necessity: A Cohesive Suite Of Integrated Services

Giving users the features they demand is challenging enough, but to maximize the benefits of site building tools and services, providers must deploy a publishing platform that includes three critical aspects: the ability to **private-label and customize** the tool sets; **flexible integration** with external applications; and **hosting technologies that control costs**.

Customized, private-label solutions

Service providers face a new challenge in addition to market woes: perceived commoditization. That's one reason customers turn to trusted providers -- they see little difference in quality of site building and hosting, online storage space, bandwidth, and domain names. However, this perception is based on builders' experiences with the first generation of online site-building tools: extremely limited, forms-based applications that did little to let businesses distinguish themselves or promote their sites.

One way service providers can fight this trend is to offer a powerful site-building application that's fully integrated with a suite of category-leading services from multiple sources – all as part of a unified brand experience. Private-labeled technologies make that possible: even though several different vendors may contribute pieces of functionality, the only brand the user is exposed to is the service provider's. All builders know is that they've found a provider who brings them the best tools they've ever used.

True private labeling goes far beyond just incorporating a logo. To avoid a disconnected user experience, private-labeled applications need to have a customizable user interface to match the look and feel of the provider's site. To get maximum value, that customization must extend to the application itself – including both the ability to customize the content of the site building application, as well as to integrate third-party services. This allows providers to tailor a service to customers in diverse geographies by including familiar services and relevant content.

¹³ Bricklin, in *Small Businesses and Web Sites*: “Small businesses are an extensive and varied market and have shown they will spend money on the things web sites and other Internet technologies can provide. To work with the vast majority of these businesses, we all need to stop thinking about serving little Amazons.” Estimates from Trellix, industry partners, and e-commerce vendors for sites offering direct online sales.

Integration with multiple applications

Web site publishing is not at its best as a stand-alone application. Publishing a web site isn't a goal unto itself – it's a step towards increasing business in other ways, by providing better information for potential customers or attracting new types of customers. And simply putting a site on the web with an "open for business" sign doesn't usually produce results.

A simple web presence meets the initial needs of many businesses, as Bricklin describes¹⁴ – but never for long. Once a presence is established, associated technologies and services are called for: marketing, site promotion, security, and in some cases e-commerce. This type of increasing sophistication is partially driving the rapid growth of the small business web hosting industry.¹⁵

This sophistication demands a site-building platform that is flexible and extensible. ISPs and small business providers require a level of integration that enables them to incorporate their own or third party services,¹⁶ including marketing and promotion tools and programs, site validation services, and e-commerce. True flexibility provides the ability to add services that leverage existing relationships, as well as to remove services that come as part of a site-building solution, but are either inappropriate for the target audience or compete or conflict with services and relationships the provider has already adopted.

Control costs with advanced hosting technology

Today's leading hosting technologies attempt to control infrastructure demands while keeping administration and maintenance simple. The demands placed on the hosting architecture by thousands of simultaneous visitors and hundreds of builders can seriously strain traditionally designed platforms. In this situation, a small number of users can consume significant amounts of expensive hardware, bandwidth, and other infrastructure. To keep resource demands reasonable, performance high, and costs low, providers need to look beyond whether or not they *can* host – but whether they have expertise in the relevant, highly specialized technologies.

A hosting platform for a complete web publishing solution must be designed specifically to keep the service from becoming too much of a strain on the provider's resources. Features such as abuse and bandwidth management, simple account and version provisioning, comprehensive reporting, low infrastructure requirements, and proven, long-term scalability and stability keep a site-building service from siphoning staff and budgetary resources from other projects. Service level agreements, while useful for holding technology suppliers accountable, should be a fallback, not a crutch.

5. Trellix Software and Services: For Providers and End Users Alike

Trellix offers a comprehensive suite of technologies and services for small business web site creation, promotion, and hosting. Trellix's offerings address the needs of **service providers** – customization, integration, and cost savings through advanced hosting technology – as well as **end users'** demands for usability, quality results, and tools to drive success.

Trellix, the industry leader in private-labeled web site publishing software, offers a complete set of tools aimed at end users:

- Trellix Web Express, a groundbreaking online tool that allows even novice builders to create professional sites;
- Building tools for advanced users, including an HTML editor and file manager;
- A suite of promotional tools and site add-ons to help builders attract traffic and boost sales;
- Integrated e-commerce from Miva, iBill, and cc:Now, with the ability to use other vendors;

¹⁴ Bricklin, in *Small Businesses and Web Sites*: "There are millions of small businesses in the United States, with many reasons to have a web site, if only to showcase previous work or provide other contact information."

¹⁵ The Yankee Group, *The Yankee Group 2001 Predictions*, January 5, 2001

¹⁶ Rob Lancaster, Yankee Group, July 2001



- A “do it for you” option through an assisted building program.

Trellix also directly addresses the needs of providers:

- The Trellix Hosting Platform, an innovative platform that dramatically simplifies maintenance and lowers infrastructure requirements, and Managed Hosting Services;
- Sophisticated integration and customization capabilities, which allow providers to incorporate their own features and content and tailor the entire solution to their exact needs.

The Trellix solution helps ISPs, hosting companies, vertical communities, and small business service providers offer a comprehensive, easy-to-use site publishing, promotion, and management environment that integrates applications, services, and content from multiple vendors and sources. The ease and depth of that potential integration is one of the most distinctive features and one that many current Trellix partners focus on.

Integration and customization tools for providers

Trellix focuses on integration and customization precisely because they are so important for service providers, hosting companies, and ISPs. An in-depth set of SDKs and APIs, in addition to the powerful Dynamic Content Connector, provide an extensible architecture that is open to seamless integration with external applications, whether from third-party vendors or in-house development. And the Integrated Configuration Environment enables the pervasive customization that makes the Trellix platform a true private-label service.

Powerful customization engine

The Trellix platform is a true private-label solution, meaning end-users experience only the brand of the service provider. Trellix customers who deploy the platform can customize hundreds of different aspects of appearance, behavior and content to match their brand exactly. This is done using the **Integrated Configuration Environment (ICE)**, a **web-based customization, administration, and version management tool**.



Figure 2: ICE streamlines content and UI customization

ICE provides a central location where providers can edit the default content and settings in the Trellix platform, from the simplest to the most complex:

- Incorporate logos;
- Change application look and feel: product skins, button images, fonts;
- Add, delete or reorganize designs, templates, web site services, and images;
- Manage sponsorship and cross-selling areas;
- Set URLs and email destinations for links within the application.

The depth of Trellix's customization capabilities allows providers to create site-building environments finely tailored to their end users. Examples include an academic publishing firm that uses the Trellix platform to offer their audience of teachers educational-themed templates, and an online printing company that has incorporated online quote and portfolio applications, along with custom designs, into their standard web site offering. (See Appendix B for more examples of companies using customized Trellix solutions.)

Trellix's ICE gives control over a wide range of product features, content, and behavior:

Web services management

Trellix's **web services** (called Web Gems in the application) are one way to create a custom site-building experience. These web services allow end users to add advanced features to their sites without any coding or complex setup. Trellix Web Express ships with over 30 Web Gems included and ready to go – Trellix customers can omit or modify any or all of them using ICE, or even create their own and include them in the Web Gems user interface.

Among the pre-packaged Web Gems and services included with the Trellix platform are user favorites such as sound and video add-ons, driving directions, counters, date and time stamps, and e-business options such as product catalogs, custom forms, newsletter management, search engine submittal, keyword purchasing and management, and the Miva e-commerce engine.

Targeted content and service levels

ICE customization extends far beyond UI and branding elements. It's also used to provide regionally targeted content, multiple service levels, and multi-faceted version management. ICE is also easy enough to use that no engineering resources are required to make these types of changes.

Trellix customers can also use ICE to create and manage multiple versions of the application from one central point. Each version can include different web services, designs, templates, and other content. The resulting builds can then be used to offer regionally appropriate features and content, increasing providers' ability to succeed in both international and domestic markets.

Providers can also limit more typical settings, such as bandwidth, disk space, and file types. These settings can be combined with existing services to create packages that fit the most compelling price points for their users.

Contextual cross-selling

ICE also gives control of an innovative sponsorship layer throughout Trellix Web Express, a frame-based method for partners to include their own content as part of the builder experience. Providers choose the location and size of sponsorship frames and a URL to draw content from, and the platform creates dedicated screen estate in key areas of the building process for upselling advanced membership packages, selling ad space, or cross-promoting other services.

Because the content is pulled from the provider's servers, they can use any ad-serving or targeting system they have in place – or none at all. These sponsorship frames are especially effective when they are a cross between providing additional services and straight advertising – one partner reported sales of domain names jumped to 13 times their previous level when they began using this powerful inventory.

Version management

In addition to providing simple browser-based access to these powerful customization options, ICE also provides sophisticated version management. First, it provides **on-the-fly customization**. As providers analyze feedback or survey data, add third-party services or applications of their own, or create new content,



they can easily implement the changes on a staging server, test them, and roll them out to the live application – all without interrupting existing users or requiring help from Trellix.

Second, all changes made through ICE are **persistent**. Customization work can be done and rolled out a piece at a time, or all at once; the changes are stored in ICE. When Trellix releases an updated version of the platform, providers can simply re-apply their existing customization work. Unlike competitive offerings, there is never a need to redo customization efforts and there is no complicated change management process.

This level of flexibility and pain-free management mean that providers can rapidly adapt to changing market forces and new information about users' needs.

Integration brings multiple services and tools together

Because of users' demands for a central destination for all of their online needs, providers need to go beyond simply customizing an application. Almost all providers need to **integrate multiple services** into a cohesive offering. The Trellix platform is designed to be a central component in a larger e-services offering. It provides numerous APIs and SDKs that allow providers to incorporate their own services and third-party applications – from custom database connections to CRM services and e-commerce systems. By matching the specific needs of builders with value-added services, providers can charge additional fees, ensuring they get the most revenue per subscriber.

Dynamic Content Connector

A central component of Trellix integration technology is the **Dynamic Content Connector (DCC)**. The DCC is an XML pipeline into Trellix Web Express, allowing deep integration of almost any structured data from external sources or applications. Because it is XML-based, it can connect to almost any data source with a minimum amount of effort, from customer databases to product information to third-party auctions. The DCC does not use simple framing of external content, nor does it require a separate database: it pulls live data from an external source into individual web sites and formats it on the fly to match the site's look and feel.

For example, a nationwide real estate chain could offer its local branches the ability to create custom web sites. A DCC connection would let an individual office add a list of available properties in the local area with a few clicks. The list would be automatically formatted to match the look and feel of the branch web site, but thanks to the DCC, the content would flow real-time from the master listings database. The central office and the local branches benefit from up-to-date, accurate content; the burden of managing and distributing the content is greatly lessened; and those managing the data at headquarters continue working with their familiar application.

Trellix used the DCC to incorporate the industry-leading Miva Merchant as the default e-commerce engine for the platform. The DCC allows a secure connection between Trellix Web Express and a Miva server, combining Trellix flexibility and ease-of-use with Miva's power and security. The Miva store builder can be removed from a build with a simple setting in ICE, and providers can easily integrate e-commerce solutions from other vendors as they see fit.

SDKs and APIs extend application integration

While DCC provides the hooks to integrate various third party services, Trellix's SDKs and APIs give providers access to the full range of capabilities in the platform. Trellix uses the same APIs to create the designs and templates that are included in the site builder. And the same Web Gem API and SDK that allows providers to develop their own Web Gems is used by Trellix to create the Web Gems included with Trellix Web Express.

Partner-chosen services and content can also be exposed to users through the **template and design SDKs and APIs**. When a builder creates a new site, it is prepopulated with content suggestions, including text, images, and, potentially, Web Gems, DCC objects, or other add-on services. These services can even be made a mandatory part of users' sites. For example, a retail chain might offer a template for their franchises that includes dynamically updated corporate news. Or a hosting company might build a "Recommend this site" referral service into the templates it offers.



User certification

Trellix integration capabilities extend to the very beginning of a user's interaction with the system: logging in. User certification is done outside the Trellix platform through an easy-to-implement authentication API. (See figure 3.) Customers continue to use their current authentication systems and pass certified users to the Trellix application server. This eliminates two potential hassles: problems with synchronization between multiple user databases and conflicts over ownership of user data. Furthermore, by allowing providers to continue to use their existing authentication systems, this removes one barrier to quick implementation.

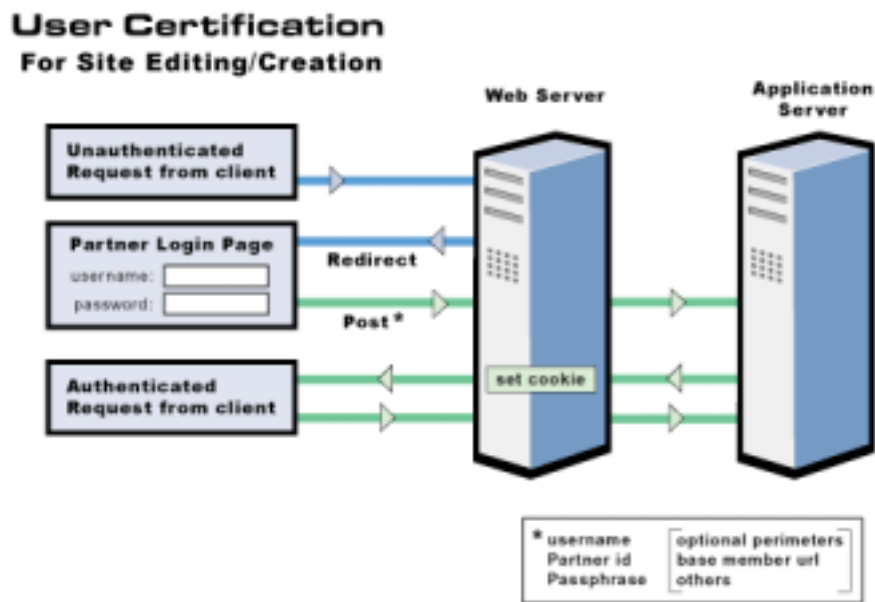


Figure 3: User certification takes advantage of existing registration systems

Trellix provides considerable documentation about these extensive integration options in the form of SDKs, installation guides, and available training sessions. For customization or integration work that goes beyond the considerable options already available, or for providers lacking resources to do it themselves, Trellix's **Professional Services** department can be engaged to assist in development and implementation. However, these services are not needed as part of a typical solution.

Flexible hosting technology

The **Trellix Hosting Platform** is a set of software and services built on common web technologies and extended using proprietary software and practices to provide low-cost, high-density hosting for both the Trellix applications and resulting sites. The platform reduces costs by lowering demands on both infrastructure and personnel, thanks to minimal overhead requirements and straightforward administration. In addition, it offers high-end tools that benefit both the administrators and builders, including abuse and bandwidth management, ultra-high site density per server, and optimized use of servers and storage, and end-user statistics reporting.

With a lightweight architecture designed to provide low cost, reliable hosting, the Trellix platform simplifies deployment and management in several ways:

- The ability to run multiple instances of Trellix Web Express on the same infrastructure;
- Comprehensive configuration and installation utility for multiple server deployment;
- No complex setup or provisioning code;
- No complex database or data synchronization;
- Only two simple integration points for authentication and provisioning.

Providers that take advantage of the Trellix Hosting Platform cut hardware expenses and administration time without sacrificing quality of service, due to the unique design of the Trellix hosting platform. (See figure 4.) Unlike

conventional hosting systems, where each server is configured to host a block of 500 to 1000 sites, every server in a Trellix environment can serve any end user's site. This makes massive site/server density possible: where conventional designs can achieve at most 1500 sites per server, the Trellix platform commonly runs 25,000 to 100,000 sites per server.

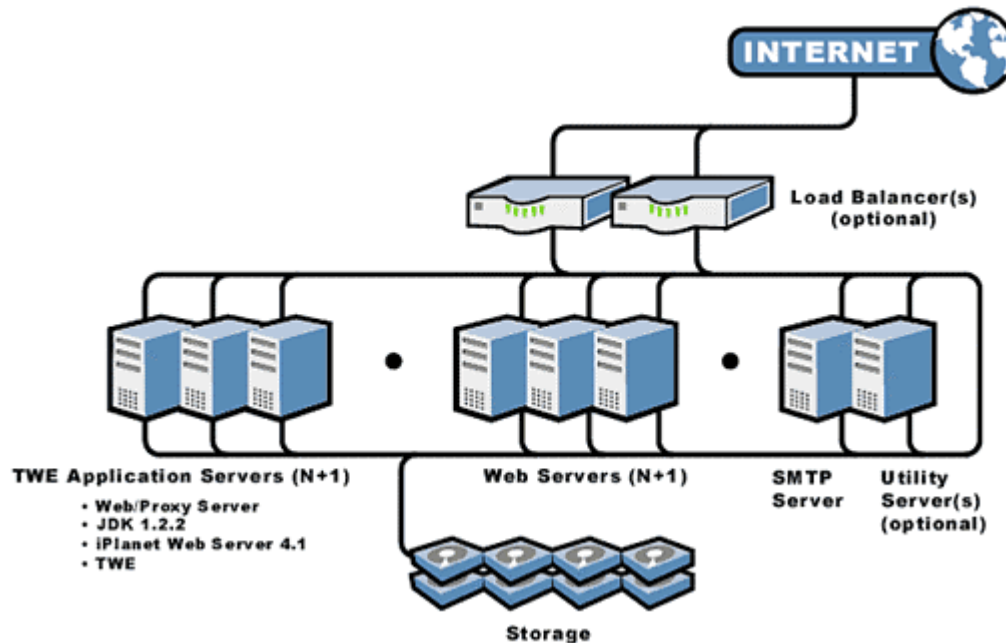


Figure 4: Trellix Hosting Platform architecture gives maximum site/server density

The Trellix hosting software architecture and suggested hardware topology offers very high reliability, as there is no single point of failure for a site. In addition, server capacity is limited only by aggregate traffic to all sites: heavy traffic levels to one site don't impact the performance of other sites. When more capacity is required, it can be added to the particular function most in need – site building, page serving, or storage. Other benefits of this unique design include the elimination of complex server reprovisioning as user sites come and go, and significantly lower ongoing maintenance costs due to server homogeneity.

Multiple hosting options

A defining decision that providers face when implementing a site-building solution is whether to outsource the hosting of the application and published site pages, or do so in-house. Trellix offers three different hosting options: providers who want to take advantage of the Trellix Hosting Platform can do so in one of two ways, and some providers may want only the site-building application.

1. ISPs and hosting companies with some infrastructure in place may choose to **license the Trellix hosting platform and run it on their own infrastructure**. Trellix assists in the initial provisioning, but the provider runs and manages the entire platform in-house.
2. Providers can choose **Trellix managed hosting**, a completely outsourced solution in which the site-building environment and resulting user sites are served and managed by Trellix, using the Trellix Hosting Platform at our secure data center. This provides all the benefits of the hosting platform in addition to guaranteed uptime (through SLAs) and no need to invest in infrastructure upgrades. Leading firms like Namezero and Terra Lycos already depend on Trellix hosting technologies.

3. Hosting companies with significant web site and application serving infrastructure in place can opt to **license the Trellix Web Express site building application alone**, without the hosting platform. This limits some of the ancillary services that are available, but does not diminish the customization and integration capabilities of the application itself.

Option	Definition
Trellix managed hosting	Trellix runs the applications and serves published pages using the Trellix hosting platform and data center
License both the platform and Trellix Web Express	Provider runs the applications and serves published pages using the Trellix hosting platform and their own infrastructure
License Trellix Web Express	Provider runs the applications and serves published pages using their own hardware, infrastructure, and hosting tools.

Trellix Web Express features and ease of use meet builder needs

Trellix has been helping non-technical users build web sites for over six years. An ongoing focus on usability and professional results is evident in the flagship site-building application, Trellix Web Express. Because of that focus, small business site builders find that Trellix applications meet their exact needs: across a network of over 20 industry-leading providers and three million web sites, user satisfaction tops 92%.

Usability

Usability is central to the Trellix philosophy of design – a philosophy that starts with founder Dan Bricklin’s passion for making computers understandable. Since co-inventing the spreadsheet over 20 years ago, Bricklin has continued to help ordinary people take advantage of computers in new and innovative ways. With his guidance, an in-house usability lab and award-winning UI designers, Trellix develops tools and technologies that enable anyone to create a web site without any technical background.

The process starts with choosing a template, which outlines the initial structure of the site and provides starter content, including text and images. In discussing Trellix templates, noted usability Jakob Nielsen wrote, “Users create content from templates that always produce a complete Web page, no matter how little content is entered. The more you edit, the better it gets, of course, but you are never obliged to suffer through a wizard of indeterminate length.”¹⁷

Trellix Web Express provides numerous innovations that improve usability. Site navigation, for example, is entirely automatic: users can create, delete, and reorder pages at will, and the navigation links are dynamically updated. Users never need to know HTML or FTP to create and publish their site. And a context-sensitive help system is always available if needed.

Results

The quality of results starts with the 200+ designs available in Trellix Web Express. Created by professional graphic artists, the designs ensure that every site starts with a clean, attractive look. From simple to intricate, colorful to basic black and white, and traditional to flashy, the designs provide an appropriate look for almost any user.

¹⁷ ibid

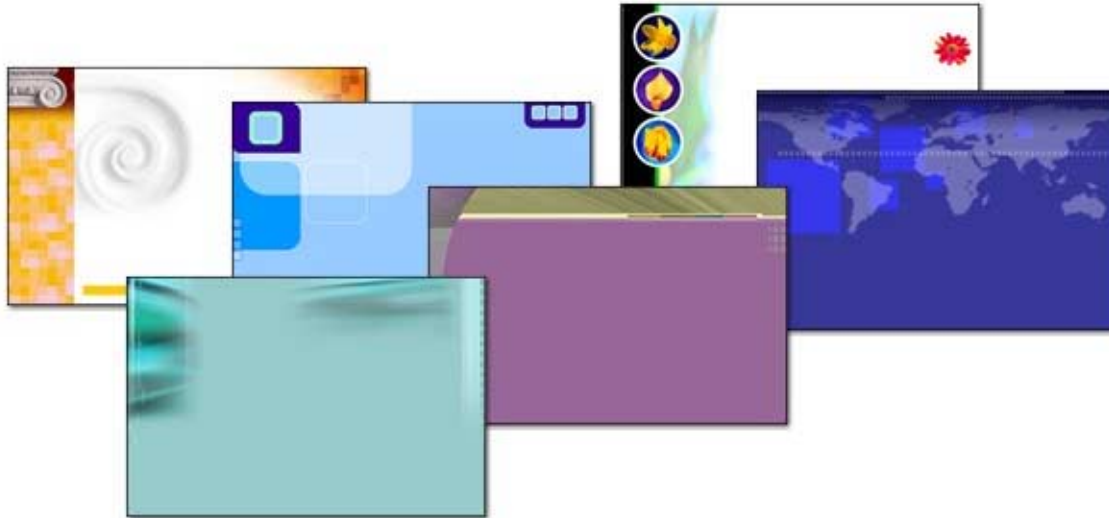


Figure 5: Over 200 designs appeal to any taste

Since small businesses demand sites that reflect their unique natures, Trellix Web Express includes over 75 customizable designs. These allow users to change background colors, navigation styles, and design images throughout the entire site. Builders can create a site with exactly the look and feel they desire, so each small business's site can be striking and individualized.

The 30+ Web Services included with Trellix Web Express also contribute to the professional results builders achieve. By easily being able to add driving directions, guest books, auto-updated news and weather, music, and many other add-ons to their sites, builders can create sites with all the "extras" that bring visitors back again and again.

Performance

One aspect of web site creation overlooked by many site-building services is promotion. Even if a tool is easy enough to help web novices create a site, most of them won't have the expertise needed to get their new site noticed, visited, and used. Trellix provides a suite of services to assist small businesses in attracting traffic and customers—an important part of how they'll judge the success of their sites.

Built into Trellix Web Express are a number of free and paid promotional services, such as email newsletter management, Google AdWord placement, Overture listings, yellow pages placement, search engine submittal services, forms creation, and site statistics. Together, these services help a small business get the most out of the time and money they invest in a web site. The paid services also provide yet another revenue source for the service provider.

Room to grow

While Trellix Web Express offers enough flexibility to keep up with most users, advanced builders and those who have sites already may want to use other methods of building and maintaining their sites. The Trellix hosting platform includes tools for these users: a straightforward HTML editor, a file manager, support for FrontPage extensions, and FTP access, which allows customers to upload sites built with any tool.

Users looking for true e-commerce functionality will also find it in Trellix Web Express. Miva Corporation is the default e-commerce provider, offering the security and robust toolset today's small businesses demand. In keeping with Trellix's dedication to usability, a simplified interface designed by Trellix helps users through the potentially complicated process of setting up and managing an online store. The two applications are deeply integrated using the DCC, opening e-commerce possibilities to any site builder. Combined with international capabilities that few other solutions can match, the Miva system meets many of the demands of small businesses and service providers alike.

Trellix's goal is to make it easy for users to build their own sites. For some builders, though, the optimal solution is to have someone else build their site for them. Trellix has created partnerships with a well-known "do it for you" firm to

provide this service. One advantage of a Trellix DIFY site is that even customers who are hesitant to create sites from scratch can be more easily introduced to editing an existing site, giving them control of ongoing edits and other maintenance.

6. Conclusion

“Small businesses are an extensive and varied market and have shown they will spend money on the things web sites and other Internet technologies can provide.”

– Dan Bricklin¹⁸

The demand for small business web sites continues to grow in spite of the stalled Internet economy, and the entrepreneurs driving this demand are the types of people who want to take charge and do it themselves, regardless of their technical experience. Providers that can offer a customized site-building service that integrates a range of specialized features, services, and content will be poised to capitalize on this expanding market.

Trellix distinguishes its offerings by focusing on two primary goals:

- **Make difficult things simple for end users.** Trellix delivers a superior process, an excellent user interface, and relevant tools and services for novices and intermediate builders. This also requires a complete set of tools and services for advanced users.
- **Deliver the best integration and customization technologies for customers.** Trellix customers can create highly customized, private-labeled solutions that are easy to maintain and upgrade.

With a proven, innovative site publishing and promotion application, the most flexible customization and integration technologies available today, and a robust, low-cost hosting platform, Trellix accomplishes these goals. Trellix offers the most complete set of services and applications that are ready to run out of the box:

- Trellix Web Express
- Advanced site-building tools
- Integrated e-commerce
- 30+ Web Gems and services
- Promotional services
- End user statistics

When these are combined with a technologically groundbreaking hosting platform, an optional “do it for you” solution, and a far-reaching customization and integration layer, the total package is an unparalleled suite of software, technology, and services for private-label web site publishing and management.

IDC Vice President Ray Boggs wrote, “Trellix continues to demonstrate its understanding of the small business web publishing market. Customization and integration will be key requirements for service provider success, and Trellix has been addressing both of these areas in a way that truly meets provider needs.”¹⁹ His comments summarize the reasons Trellix has been and will continue to be the leader in the site-publishing market.

Trellix is committed to providing the leading private-label web site building and hosting platform available today. To find out more, visit www.trellix.com or call (978) 318-7256.

¹⁸ Bricklin

¹⁹ Raymond Boggs, Vice President of Small Business and Home Office Research, IDC,

Appendix A: Small Businesses and Web Sites

By Dan Bricklin, October 2001

Lately, the small business web site market has shown continued good growth in contrast to many other business uses of the Internet. As preparation for press and customer meetings, and to help in product development, Trellix's Dan Bricklin has done some research and thinking about the small business area. Over the last few months, when he shared his research with members of the press and analysts, they found it eye opening and helpful. This essay was originally published on bricklin.com.

Introduction

Many people have been asserting that all small businesses should and will become eBusinesses, doing most of their selling, communicating, and computing using the Internet. They see an enormous, almost untapped market bursting forth right now. Others don't see broad adoption of the Internet by small businesses, or view the "notoriously fragmented" nature of this market and reluctance to spend, as reasons why there's no money to be made here. I believe that both of these views are mistaken. A large percentage of small businesses are clearly willing and able to spend large sums of money to use the Internet as part of their relationships with customers (and will benefit from such use), but only for appropriate purposes, such as a basic informational web site. For most, "being like Amazon", with online catalogs and credit card transactions, reengineering their backroom processes, and keeping vast interactive databases about customer visits and preferences, is not that purpose.

Those Internet-bubble-like assertions are mistaken. I've surveyed a vast variety of businesses and found that few fit the Amazon model -- yet the general market remains huge. Basic web sites are becoming a core part of the marketing mix for many small businesses. The business owners know they need one -- even if they are not sure exactly why. And the cost of basic Internet uses, such as simple web sites, fits well within the marketing budget of most small businesses.

Won't all businesses become eBusinesses?

It is clear to me that much of what has been written about the role of the Internet with respect to small businesses is based on a flawed idea. There seems to be this religious belief that the natural evolution for a business is to start with a simple Internet account, a little email and some web surfing, then add a web site, and finally reach the necessary ultimate goal: eCommerce (selling on the web), eCRM (keeping databases about customers and interacting with them), eBackoffice (doing accounting and other applications using a browser, perhaps sharing information with customers), and other "Amazon'ing" of the business. Email and basic web sites are seen as mere stops along the way to the inevitable destination. This way of thinking misunderstands small businesses and can lead to misdirection of efforts. Small businesses are ready to take advantage of the Internet and spend large sums to do it, but only for things truly helpful to their businesses and that fit their current business models and methods of operation. Uses of Internet-related technology that we in the industry see as trivial can be enormously helpful to small firms. Uses we see as "the next must-have" are often too disruptive and of too little real benefit to already successful businesses that have weekly payrolls to meet. We too often ignore the pragmatic, boring uses for more interesting envelope pushing ideas. Doing that here can be a waste of effort and money.

When you look at big businesses, you see that almost all of them are embracing the Internet in many ways. They procure a major component using a browser-based bidding system, or they notify customers of a particular service of shipments by email. This makes it sound like they are becoming complete "eBusinesses," but in reality, much of what they do is still done the way it was before they started embracing the Internet. A big business has many parts, and when we publicize their technical efforts, we may be making a little part seem more important than it is. There is also the effect of scale. If you do thousands of transactions a day, the savings gained from improved efficiency can pay for a lot of development costs and overhead. A small business that handles a few transactions a week may find it hard to justify using a system. Most small businesses cannot afford to dedicate the people and time necessary to craft, test, implement, and maintain major changes to how they work.

What types of small businesses are there, and how many are there of each?

When you think of eBusinesses, you probably think of Amazon.com and other nationwide (or worldwide) retailers or wholesalers. You think of catalogs and shopping carts. When you look at the actual numbers and types of small businesses, you can see how narrow this kind of thinking can be. By looking at lists of real businesses, you are



reminded how small a percentage of businesses fit in the complete “eBusiness” mold. Only a small fraction are catalog retailers like Amazon. (Only about a quarter of all businesses that pay taxes are retailers, wholesalers, or manufacturers.) Many businesses have too few customers with too many special individual needs, or too little direct contact with customers, to rely on affordable web-based customer relations packages. You see many types of businesses for which the touted coming web-based backoffice services aren't worth risking the time to deploy and maintain. On the other hand, you also see how many would benefit from a basic Internet presence if it's in their budget range. (Of course, there are still a reasonable number of businesses that could benefit by going the full “eRoute” -- just not the dominant percentage many imply.)

Deployment numbers from research groups like IDC support this view. When those numbers initially came out (showing continuing growth in the deployment of basic web sites and email but low growth in eCommerce, eCRM, and eBackoffice) the low penetration of eCommerce was “surprising” in light of the Internet hype -- but not when you look at the needs of real businesses. Also, eCommerce, eCRM, and other “cool” services aren't the only services that can be sold to small businesses. Expenditures for Internet-related marketing purposes, such as domain name registration, and search engine submission, are quite high.

There are lots of ways to find information about what types of businesses exist and how prevalent different types are. The US Government provides many statistics that make a good starting point. I've found that reading the census numbers that list businesses by category to be very enlightening.

When you are examining data, the particular choice of what to include and exclude is important. You'll read all sorts of “small business” data, but be careful to understand what it covers. Sometimes the report is more interested in businesses that aren't huge (i.e., not Fortune 1000), but still purchase hundreds of thousands or even millions of dollars of products and services, and have dozens or hundreds of employees. These reports probably exclude many small businesses. Other reports use a more inclusive definition of a business. When mixing information from different reports, be careful to look at the data to see how it was gathered, how it is segmented, and what it covers. When you are doing analysis, think about which data is appropriate for the question you are trying to answer.

Examining small business numbers

I'll break the small business segment into three parts: Businesses with more than one employee, individuals running a business by themselves full-time, and individuals doing part-time business of some sort. We can call these groups “Companies,” “Lone Professionals,” and “Entrepreneurial Avocations.” All three of these groups need web sites, but their cost structures are probably somewhat different.

To examine “Companies” (businesses with more than one employee), I looked to the US Census data that lists businesses with a payroll. It's basically businesses that file business tax returns. This report, the *1997 Economic Census: Summary Statistics for United States 1997 NAICS Basis*²⁰, has detail pages that list business types down to a very fine-grained level.

Examining the data, you realize how narrow the view of business is in the old eCommerce advertisements. Of the 6.4 million companies with a payroll (averaging 16 people each), only about 30% sell “things:” 1.1 million retail firms, 453,000 wholesalers, and 364,000 manufacturers. If you are looking for businesses that can sell through a simple catalog and ship their products, you'll find many bad candidates for eCommerce: those 1.1 million retailers include 149,000 food and beverage stores, 127,000 gasoline stations, 123,000 motor vehicle and parts dealers, 93,000 building material/garden equipment/supplies dealers, 65,000 furniture and home furnishings, and 31,000 shoe stores. And there are many other products that are made to order or need to be seen in person to buy. There were also 44,000 “Nonstore retailers.” 13,000 of those were fuel dealers, and 7,000 were vending machine operators. Of the “Nonstore retailers” in 1997, 10,000 were “Electronic shopping & mail-order houses.” Even if you look at businesses where discussing eCommerce was popular in the press, you find that it is a small percentage of retail sales. There were 8,300 pet and pet supply stores with total sales of \$5 billion including the live puppies (0.2% of all retail sales) and 11,000 hobby/toy/game stores (0.6%).

You can compare the 30% of companies that sell things to the others that mainly “do things.” Those “services” include 656,000 construction firms (10% of companies), 646,000 health care & social assistance businesses (10%), 620,000

²⁰ Available at <http://www.census.gov/epcd/ec97/us/US000.HTM>

professional, scientific & technical service firms (10%), 545,000 accommodation & foodservices firms (8%), and 520,000 "other services" firms like repair shops, beauty salons, and dry cleaners (8%).

To put the variety in perspective, here are examples of other more specific types of companies (most are small) -- again, these are big enough to have a payroll: Retail bakeries: 7,000; Dry pasta manufacturers: 266; Yarn spinning mills: 412; Printers: 38,000; Machine shops: 24,000; Computer & peripheral equipment manufacturers: 2,000; Electronic tube manufacturers: 159; Motels: 21,000; Full-service restaurants: 191,000; Limited-service restaurants: 174,000; Museums: 4,000; Roller skating rinks: 2,000; Bowling centers: 6,000; Automobile driving schools: 2,000; Excavation contractors: 18,000; Electrical contractors: 61,000.

The total number and variety of businesses is huge. The number of potential "buy it on the web with a credit card" companies is a pretty small percentage. The variety of different needs from customer relationship management or back office integration systems is huge, yet the number of companies you can actually imagine deploying something that takes time to set up and maintain is small.

The percentage of these businesses that are appropriate for an informational web site is quite high. For yarn spinning mills to beauty salons to motor vehicle dealers, posting on the web what they do, what their hours are, where they are located, and answers to frequently asked questions is valuable and something they can (and do) do.

The Census data above is based on businesses with a business tax return and a payroll. These are what I am calling "Companies," and exclude the larger number of businesses that consist of what I call "Lone Professionals." To find out about those, I looked to the statistics of even smaller businesses based mainly on the personal income tax return 1040 Schedule C's that have no payroll (just the money that is left over for the owner after all expenses are paid), such as the *1997 Economic Census - Nonemployer Statistics - United States*²¹. (This report doesn't go into as many levels of detail as the previous one, but is still very helpful.)

In 1997, that "non-employer" segment represented 15.4 million additional businesses. If you look at these very small businesses and compare them to the other statistics, you find even more businesses in the "services" sector. For example: Carpentry & floor contractors: 414,000 (no payroll, Lone Professionals), 57,000 (with payroll, Companies); Masonry, drywall, insulation, & tile contractors: 139,000 (no payroll), 50,000 (with payroll); Non-physician mental health practitioners: 75,000 (no payroll), 12,000 (payroll); Home health care: 62,000 (no payroll), 16,000 (payroll); Lawyers and other legal services: 210,000 (no payroll), 174,000 (payroll); Management, scientific, & technical consulting services: 564,000 (no payroll), 80,000 (payroll); Taxi & Limousine services: 101,000 (no payroll), 6,000 (payroll); General freight trucking: 288,000 (no payroll), 45,000 (payroll); Couriers and messengers: 121,000 (no payroll), 11,000 (payroll); "Independent artists, writers & performers:" 431,000 (no payroll), 11,000 (payroll);

Looking at the retail segment, you find a smaller jump when adding these smaller businesses. For example: motor vehicle and parts dealers: 118,000 (no payroll), 123,000 (payroll); furniture and home furnishings: 40,000 (no payroll), 65,000 (payroll). Explaining the large number of "dealerships" with one person: 86,000 of the Lone Professionals sell used cars, or trailers and other specialized vehicles, sometimes in conjunction with other businesses like repair services. In a likely place for eCommerce, "Nonstore retailers," you see a jump, with 889,000 with no official payroll compared to the 44,000 with payroll. Looking closer, though, you see where the growth is: "Other direct selling establishments" (door-to-door sales and home parties, portable stalls/street vendors, coffee-break wagons/trucks, etc.): 747,000 (no payroll), 15,000 (payroll); Electronic shopping & mail-order: 56,000 (no payroll), 10,000 (payroll).

Yet again, we see many businesses that can make good use of basic web sites and few that could justify eCRM or eBackoffice today. It's easy to see the reason for web sites if you are a consultant, healthcare practitioner, taxi/limo service, or artist/performer. Even carpenters and masons can (and do) list their skills, references, and contact information on basic web sites.

If you want to get even more inclusive, you may want to add all the "businesses" that don't report revenues for tax purposes, which I call "Entrepreneurial Avocations." These can include teachers doing tutoring, part-time pet breeders, people doing photography or handiwork on weekends for others, and grandma selling her needlepoint patterns, as well as underground tax-avoiding cash businesses. Some of these could well make use of a web site, and almost all could use email, but very few could justify eBackoffice or eCRM systems. eBay has proven very

²¹ Available at <http://www.census.gov/epcd/nonemployer/1997/us/US000.HTM>

popular as a marketing channel for some. In fact, eCommerce and the Internet in general have been catalysts for large numbers of such part-time businesses.

While many businesses already have web sites, there are always new businesses which have to start from scratch. Old businesses stop operating or are transferred to new owners -- the transferred businesses often need changes to the web sites. On the whole, the number of businesses goes up. The number of corporate tax returns (Form 1120, not individual's Schedule C) went from 4.3 million in 1990, to 4.8 million in 1995, to 5.5 million in 2000. Schedule C's went from 14.1 million to 17.6 million in the same period. Every year, there are over 20,000 new construction related businesses, over 20,000 each of new restaurants and retail stores, and over 10,000 each new consultants and beauty salons.

In any case, there are millions of small businesses in the United States, with many reasons to have a web site, if only to showcase previous work or provide other contact information. Most cannot dedicate a full-time person to the task, yet they know that having a web site is helpful. In one survey conducted for the National Federation of Independent Business, about half of businesses with web sites said that it brought additional and new types of customers. With well over half of the US population using the Internet, and many of them depending upon the Internet for researching information, not having a web site or email address can be a liability.²²

Can small businesses afford a web site?

The next question is whether the cost of a web site puts it out of the range of those businesses. To answer that question, I looked to expenditures on similar needs for advertising, marketing, or customer support.

Here are some examples of costs just for printing and distribution -- not including creating more than a basic advertisement or logo:

- Advertising in the Yellow Pages of a somewhat large city (Pittsburgh): \$16/month for a regular one line listing, \$110/month for a 1" space ad, \$1,346/month for a half page ad; a bold, one-line White Pages listing runs \$24.50/month.
- Ad in a small, local suburban newspaper: \$10-\$30 per column inch per insertion. (A column inch is about 2.062" wide and 1" high -- a regular business card is about 2" by 3.5": \$35-\$105 each time it appears.) Spot color can add \$100 per color. Big city newspapers are much more expensive: \$300 or more for a column inch.
- Printing business cards: \$20-\$100, stationery (letterhead and envelopes): \$200-\$300. Brochures can be much more expensive. Mailing is postage plus labor to address and stuff in an envelope. Including all the costs, a simple brochure can cost a few dollars each time someone requests one to be sent out.
- Total newspaper advertising revenue in 2000 was \$49 billion (national and local advertising) -- \$4.2 billion more than broadcast TV. Local Yellow Pages advertising was \$11.1 billion (national Yellow Pages advertising was \$2.1 billion).
- Marketing costs for a full-service restaurant are 3% of sales -- \$167 per seat. "Advertising services purchased from outside companies" among all restaurants were 2.4% of sales. In a supermarket, advertising is 4% of sales, the same as rent.
- According to the National Restaurant Association, about half of all full-service restaurants have a web site. "Such sites primarily offer consumers information about the restaurant and provide location details," they say.

Compared to these expenditures, a \$10-35/year domain name, \$10-100/month web site, or even a \$1000/year fee for special placement in a targeted directory web site, is not very much. That tiny home care, funeral home, or dance studio ad in the town newspaper next to the list of police activities or local high school sports could cost \$300 per month or more. If they included a "See our web site for more information" instead of some of the text they could pay for the web site just in saved space. Also, like other forms of marketing and customer relations, web sites can be effective ways to spend money. They are good for reaching new customers, supporting current customers, and reducing costs associated with responding to other types of inquiries (e.g., telephone questions, including mailing brochures).

²² See Bricklin's "The Internet is now a dominant tool for regular people" essay at <http://www.bricklin.com/internetregulartool.htm>

How do they see the Internet?

From my discussions with many small business owners I've found some other, anecdotal information:

The small business owner mindset is often to lump all "Internet-related" marketing into one bucket. If you ask about their web site, they will often respond about their emails with customers. Their email address and domain name (which often come bundled with a web site) are very important. When they need to make new stationery, the email address and web site address are both needed. The desire to print new stationery can be a driving force to get the domain name (though not necessarily to author the web site -- it can stay "under construction"). Many companies buy a domain name/web site/email package and never bother to complete the web site. From a marketing viewpoint, to a very small business, all marketing that is done "when dialed into AOL" (or wherever, meaning the Internet) is one bucket, that done with a newspaper another, and through person-to-person networking another. Businesspeople are very concerned with being found in search engines and directories -- and will readily spend money to do so, often more than for the web site itself.

Many small business people are willing to try once anything that sounds reasonable, that isn't a permanent commitment, and that isn't too expensive. Putting up a web site is in that category. Switching to eCommerce, eCRM, or eBackoffice, is not. The commitment in time and change in operation is too severe, with the benefits harder to recognize. Becoming a real eBusiness is much more complicated than just getting a web site. Most small businesses do not take credit cards, nor do they need to -- most only deal with customers they meet face to face and many do mainly custom work. Most businesses are not set up for 24x7 order taking or support.




For example, I heard of one specialty food firm that needed to change all sorts of ways they worked when they tried to sell their wares from a web site. They needed to develop an entirely new relationship with a new vendor (an overnight shipping company) and figure out how to package their wares for safe transit (creating new custom boxes). Previously the products had been picked up by the buyer themselves. The company needed to change their entire way of working, and were forced to bring in consultants to help. Many small businesses are not ready or able to make such changes.





Small businesses often get their value from their uniqueness and how they are tuned to the individuals who run them. Their Internet strategies will similarly need to be tuned by those individuals. Outsiders may not be sensitive to those differences and nuances, but the small business owners are. This makes the design of inexpensive "cookie-cutter" web services difficult.

Conclusion





Small businesses are an extensive and varied market and have shown they will spend money on the things web sites and other Internet technologies can provide. To work with the vast majority of these businesses, we all need to stop thinking about serving little Amazons. Those that will dive fully into eBusiness will hire professional web masters who will buy and implement best-of-breed professional systems. But for the near future, there will be few of those. Think of what businesses need to run as they already do. Businesses are not just catalogs. Finally, as the use of the Internet becomes more and more ingrained in general society, different capabilities will become required for a minimal Internet presence. We need to track that carefully.

Appendix B: Customer matrix

Partner/Value	Opportunity	Implementation	Quote/Reference
 best of breed site building	<p>Terra Lycos' Tripod is a leading web site building community. With their wide range of users – from beginners to advanced webmasters – they must have a complete suite of building options.</p>	<p>An ideal solution for rookie web site builders, Tripod SiteBuilder was the first implementation of Trellix Web Express in early 2000. And a suite of advanced tools gives every user a range of options. Growth has been tremendous: in the first few months, page views soared. Users create over 40,000 new sites per month on Tripod.</p>	<p>In August 2001, editors at CNET recognized Tripod as "the best of the bunch" over several competitors, including Yahoo's GeoCities. The review noted that Tripod offers "easy-to-use tools for all skill levels and a user-friendly URL – a reason to turn to Tripod first."</p> <p>Read the CNET review: http://www.cnet.com/internet/0-3799-8-6740229-5.html</p>
 extensive OEM customization	<p>Interliant, a pioneer in the Application Service Provider (ASP) market, provides managed web hosting, messaging, and other services. To offer the best in web site building applications as part of a custom-branded solution, they needed an easily customizable tool.</p>	<p>Fully integrating Trellix Web Express into the INIT Web Hosting solution allowed Interliant to provide branded solutions to their large OEM customers. The OEMs already sell to small businesses, one of the fastest-growing markets for web services, and thanks to Trellix they can now meet the needs of this market with a service that allows builders of all technical levels to produce high-quality sites.</p>	<p>"As small- to medium-sized businesses look to increase their Internet presence, their demand for tools to facilitate the creation of sophisticated Web sites is also growing. By integrating Trellix Web Express into our Web Hosting solution, we provide our branded solutions partners with a much-in-demand tool to sell to their existing customer bases."</p> <p>— Mike Hoffman, vice president of Interliant's INIT Web Hosting Solutions</p>
 integrating targeted vertical content	<p>McGraw-Hill combines superior content with the best technology to enhance learning at all ages. Site building is an integral part of MHLN.com's comprehensive suite of resources for teachers, administrators, students and families.</p>	<p>Trellix Web Express enables teachers and administrators to build multi-page, interactive web sites for their classes and schools. Custom content templates and web services -help educators stay connected with their students and their families.</p>	<p>"I've had wonderful experiences with Trellix for about three years now. The ability to incorporate my knowledge on Trellix into my own educational web site has been a dream come true for me." -- Lincoln D. Howard http://ldhoward.mhlearningnetwork.com/</p>

 <p><i>best tools for novice small businesses</i></p>	<p>BizLand realized their small business customers wanted something more robust than their homegrown tool -- they needed a tool that would help site builders succeed.</p>	<p>Catering to the specific needs and types of small businesses, BizLand offers three different packages with varying web space, domain names, email accounts, e-commerce and promotion tools. The Trellix-powered Site Delux is featured in all three packages - and is helping thousands of businesses succeed online.</p>	<p>BizLand is truly helping small businesses succeed. When Debbie Goodrich began a home-based "Create-A-Book" business, she had no idea how easy creating her own e-commerce web site would be.</p> <p>Read Debbie's story: http://www.bizland.com/product/bizAdvantage/success3.html</p>
 <p><i>driving revenue per customer</i></p>	<p>Namezero provides domain registration, hosting and management services. In order increase average revenue per customer, Namezero promotes its web site building services to customers who purchase domain names.</p>	<p>Recognizing the superior technology, Namezero chose Trellix to power its web publishing service. Namezero offers Site Builder to its growing community of nearly two million users as part of a \$4.95/month package. To capture even more users, Namezero is developing a "Try before you buy" program using Trellix's trial programs services.</p>	<p>"My experience with building my web site was great! I like the numerous choices in pages, the ability to add photos, Web Gems, etc. I would highly recommend Namezero to anyone ... especially people who feel they are "computer illiterate" - with Namezero, there isn't anyone who CAN'T build a web site. Thank you." http://membersites.namezero.com/jpa ulnana.msn.com/</p>
 <p><i>targeted content and integrated applications</i></p>	<p>The leader in online services for the printing industry, Printable delivers workflow, CRM, and commerce-enabled web site solutions to printing companies. They looked for an external site building tool to replace their internally developed system, but needed one that could integrate their own content and services.</p>	<p>Printable has created a unique site building system using Trellix's customization technologies. In addition to providing custom web site designs specifically created for the printing industry, they've integrated online applications that make it easy for printers to receive uploaded files from clients, take requests for quotes, and display portfolios. Printable is helping printers to conduct day-to-day business online.</p>	<p>"We were extremely impressed with the power and ease of use of the Trellix platform, but the customization and integration tools it offers really sold us. With this new web site publishing technology, we're able to significantly enhance and differentiate our service offering." -- Chuck Gehman, executive vice president and CTO of Printable.</p>
 <p><i>introducing revenue-based services</i></p>	<p>In an effort to differentiate itself in the competitive technology news market, CNET Networks was seeking avenues to help bolster a sense of community, reduce churn, and introduce recurring revenue streams. Web site building would serve as CNET's first revenue generating membership service.</p>	<p>Averaging almost 6,000 new sites per month at launch, the tool was a clear success . CNET's implementation is tailored to tech-savvy consumers, with custom versions in place for both their ZDNet and CNET properties.</p>	<p>With the slowdown of the online ad market, CNET identified their popular site-building tools as a potential new revenue stream. The first conversion from "free" to "fee" was on ZDNet and was highly successful – nearly 10% of active members made the switch. Based on this success, they have made the same switch on CNET.</p>



 <p>Topline Ventures <i>site publishing for smaller hosting companies and ISPs</i></p>	<p>Topline Ventures saw an opportunity to help small ISPs and hosting companies. By reselling Trellix solutions, Topline enables smaller technology providers to offer top-of-the line site-building tools and services without incurring daunting setup costs.</p>	<p>A Trellix distributor, Topline provides its customers with the publishing platform and a subset of the available customization and integration features, then hosts and manages each individually branded implementation. The package gives small ISPs and hosting companies access to industry-leading site building capabilities without daunting overhead.</p>	<p>This creative pricing and distribution partnership nearly eliminates traditional set up fees and monthly minimums.</p> <p>Read more in the Internet.com article, "Big Time Web Publishing Tools For Small Town ISPs" at http://www.isp-planet.com/business/2001/topline_ventures.html</p>
 <p>iVillage <i>advertising revenue and customer loyalty</i></p>	<p>iVillage strives to provide its community of women with the best solutions and resources available online. One of iVillage's primary sources of revenue is selling advertising on its site.</p>	<p>iVillage members create web sites, free of charge, and enjoy searching and browsing other members' sites. The service is extremely well integrated with iVillage's other services and helps drive the desired sense of community. Additionally, the unique advertising and sponsorship layer in the builder commands top dollar from advertisers.</p>	<p>iVillage members value the opportunity to express themselves and share their thoughts and feelings. A great example of this is a recent "Site of the Week," which is a tribute to the events of September 11. http://pages.ivillage.com/merej99/WTC/index.html</p>
 <p>INQUENT TECHNOLOGIES <i>deep integration with hosting platform</i></p>	<p>InQuent, a private-label wholesaler of hosting services, needed a cost-effective way to offer web site building to millions of small businesses through its customers, which include major telcos, ISPs, and cable services providers.</p>	<p>Trellix's platform is the only one of its kind to offer the snap-in integration and flexible customization and version management features that InQuent needed to effectively deploy comprehensive hosting platforms through multiple partners.</p>	<p>InQuent is positioned to capitalize on the growing small business services market, which IDC expects to reach \$9 billion by 2003 as small businesses increasingly turn to trusted, proven technology and services providers to meet their web site building objectives.</p>
 <p>peoplepc <i>customer satisfaction for novices</i></p>	<p>PeoplePC aims to make technology approachable and affordable for its novice members by integrating the best web products and services in a complete, easy-to-use solution – everything from hardware to Internet access to web site building.</p>	<p>Trellix Web Express is ideal for PeoplePC's audience of beginners, those who are likely purchasing their first computers. Trellix technology has helped PeoplePC differentiate itself in the crowded ISP market and create loyal members – 94% express satisfaction with their site building experience and 87% say they've recommended PeoplePC to a friend.</p>	<p>"I'm a grandma who just learned how to turn a computer ON about 3 years ago. Now I've become a computer geek... my daughter even calls me 'Cyberma'. What an awesome experience! This was so much fun. I can't wait to make another website now! THANK YOU FOR A WONDERFUL EXPERIENCE MAKING MY FIRST BIG WEBSITE!" -- TyLa Knapp</p> <p>http://mypeoplepc.com/members/kdtglory</p>