

JUNE 2001

T H E F O R R E S T E R R E P O R T

How To Buy Web Infrastructure

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By Jeanne M. Schaaf, Ph.D.

With Christopher Mines

Zaid van Giffen

Gregory J. Scaffidi

Susan Lee

Headquarters

Forrester Research, Inc.

400 Technology Square

Cambridge, MA 02139 USA

+1 617/613-6000

Fax: +1 617/613-5000

www.forrester.com

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How To Buy Web Infrastructure

Firms can save 25% to 80% of their Web infrastructure costs by hosting. But fully managed Web hosting isn't for everyone. Buying Web infrastructure depends on a firm's IT assets and its eBusiness strategy execution.

2 INTERVIEWS

- Typical Web hosting budgets will increase 57% in 2002.

7 ANALYSIS

- Do-it-yourselfers overspend on staff, networks, and storage.
- Every firm should turn to Web infrastructure providers for some part of their eBusiness infrastructure requirements.

15 ACTION

- Toss aside that "my way or the highway" attitude.
- Bake "smart" into every component of Web infrastructure.

16 WHAT IT MEANS

- Prospects insist on service provider credit checks.
- There's a shakeout ahead for Web hosters.

17 RELATED MATERIAL

- Online spreadsheet detailing four reference architectures.

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INTERVIEWS

Web Site Infrastructure Budgets Still Climb

Web infrastructure spending by Global 3,500 companies is all over the map; our interviewees will spend between \$50K and \$20M this year. About two-thirds expect their budget to increase in 2002, with the median budget set to jump by 57%. But costs are just one of the factors in firms' decisions to run a Web site in-house or turn it over to a hoster.

WEB HOSTING DECISIONS ARE DRIVEN BY COST AND CAPABILITIES

Forrester spoke with 36 Global 3,500 firms to find out how they make Web hosting decisions and what role costs play. Our interviewees operate both B2C and B2B sites, which range from basic product marketing to complex sales and sales support sites. Among the firms that we spoke with, 44% operate their sites in-house and 56% host their Web sites externally.

Median Budget Will Increase 57% In 2002 To \$1.1 Million

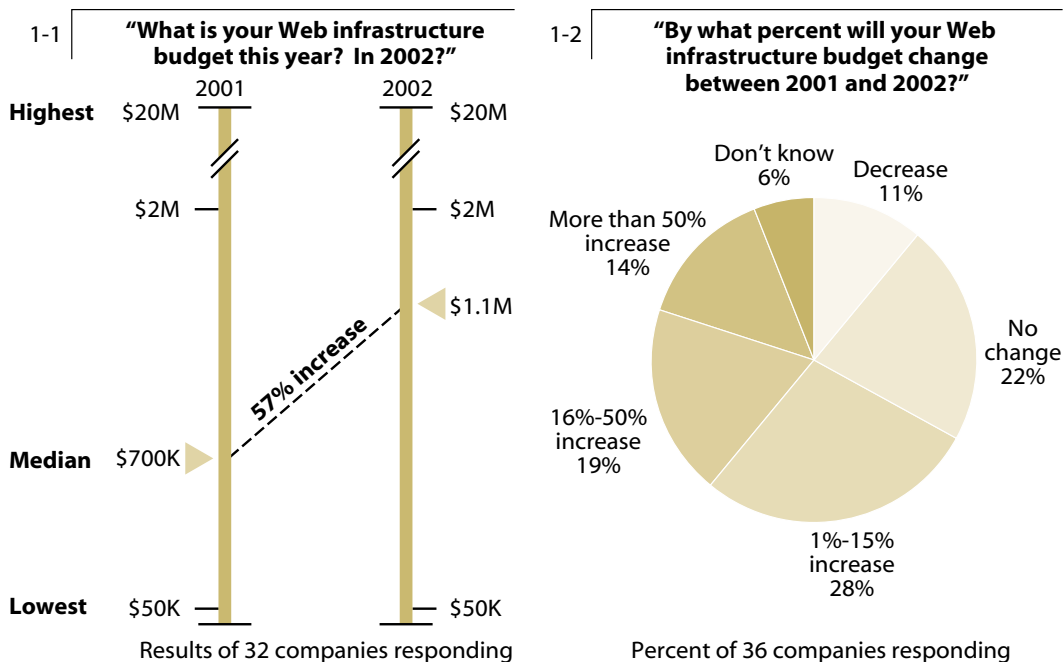
Our interviewees spent \$165,000 to \$10 million to launch their sites, and they pay \$50,000 to \$20 million a year to keep them running. The median spend across our respondents is \$700,000 this year, growing 57% to \$1.1 million in 2002 (see Figure 1-1). While 14% of our interviewees anticipate triple-digit growth to accommodate fast-scaling sites, one-third of respondents expect their spending to be flat or down in the next budget round (see Figure 1-2).

“We were paying \$150,000 a month to do it ourselves, and we’re cutting that significantly by hosting. We had a higher level of service inside than we needed for what we do on the Web.” (Industrial supply company)

“The annual budget for our main site is \$4 million. But that will come down 40% over the next three years, since we’re going with a hoster. We will be changing platforms and using bigger servers to better leverage technology.” (Financial services company)

“Our site is completely customized, and we handle it all in-house. The overall budget will be the same next year at \$9 million. But we’ll spend \$3 million on apps development, and we’ll boost our storage requirement and maintenance and monitoring by 15%.” (Agricultural products company)

Figure 1 Web Infrastructure Budgets Are Still Climbing



Source: Forrester Research, Inc.

“Our hosting budget is \$2.5 million this year. It will be \$10 million next year because we’re going to use the Internet to differentiate our stores and serve more upscale consumers. Our killer app will be the party business. Folks can order a party tray online and pick it up from the closest store.”
(Retail food company)

Many Firms Cherish The Control -- And Lower Costs -- Of In-House Sites

Maintaining control of the site is the most important decision criterion for firms that run sites internally (see Figure 2-1). In addition, most do-it-yourselfers estimate that their internal costs are far lower than what hosters charge.

“We need to maintain control of the critical apps. We can’t rely on a third party for that. And we believe that we can provide better security and faster speed-to-market than a hoster.” (Transportation company)

“We might think about outsourcing hardware maintenance. But we have to control the content, the site performance, and the network because balancing the bandwidth requirements affects the user experience.” (Industrial supply company)

“A hoster’s proposition is pipes, power, and ping, and we already have that. Hosters solve problems we don’t have, and they charge more to do it.”

(Financial services company)

“With our buying power and sunk costs in floor space and generators, we can do it cheaper. Every study I’ve done shows it.” (Insurance company)

Others Prefer Third-Party Hosting For Reliability And Security

While control and costs savings still matter to firms that host -- these factors rate a 6.4 or better on a 1 to 10 scale -- reliability and security are most often the factors that tipped their decision to hosting.

“High performance matters the most -- reliability, security, and availability. Digex has matured a lot in the last 18 months. It can manage change for us and correct problems quickly.” (Financial services company)

“We did a cost comparison and found that if we ran the site in-house, we would come in 10% cheaper -- but cost wasn’t the deciding factor. Reliability, scalability, speed, 24x7 support, and strong SLAs made the difference to us.”

(Financial services company)

“Security isn’t that expensive, but security expertise is one of the reasons we chose DataReturn.” (Retail products company)

Almost Every Firm Would Host, If . . .

Insiders would give hosting a try -- if they thought they could find a good hoster. And outsiders would hand over more site support requirements if they felt hosters were up to the task (see Figure 2-2).

“Frankly, hosters can probably get something up faster than we can. What takes them an hour takes us two days. But we’ve tried hosting, and the service is terrible.”

(Food products company)

“Costs don’t make or break a deal. Flexibility and meeting the needs of our internal organizations would be the driver.” (Agricultural products company)

“We would love to outsource more than just our servers, but we don’t see the staff dedication we want. Hosters do more finger-pointing than problem-solving.”

(Consulting company)

Figure 2 Factors That Drive Firms' Decisions About Whether Or Not To Host

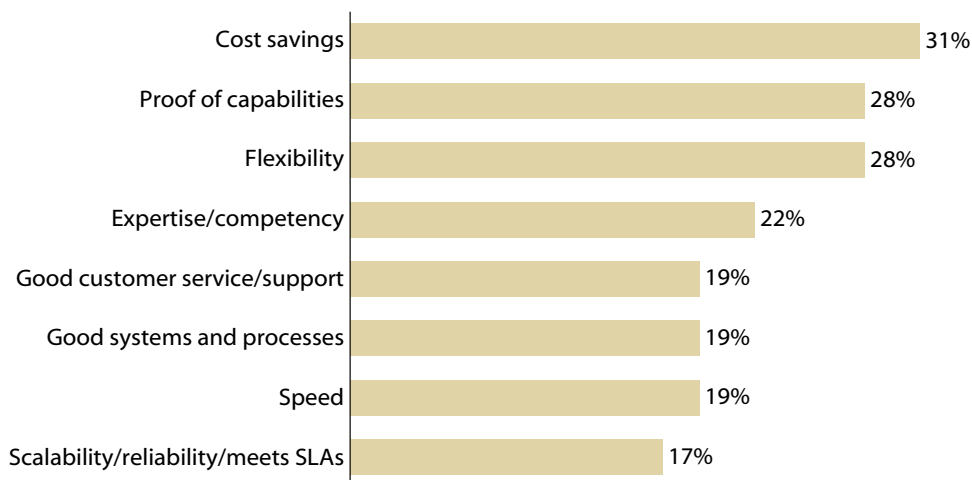
2-1 "Rate the following factors in your decision to operate your Web site in-house or host."
[1 (not important at all) to 10 (very important)]

Average rating	Insiders	Rank	Outsiders	Average rating
7.9	Maintain control	1	Site reliability	8.6
7.4	24x7 support	2	Security	8.2
7.3	Security	3	Network connectivity	8.2
7.0	Cost savings	4	24x7 support	8.1
6.7	Time-to-market	5	SLAs	7.9
6.7	Site reliability	6	Site scalability	7.7
6.3	SLAs	7	Hoster's Web expertise	7.3
6.2	Hoster's Web expertise	8	Time-to-market	7.2
6.1	Site scalability	9	Maintain control	7.0
4.8	Network connectivity	10	Cost savings	6.4

Average of 16 companies
operating their site in-house

Average of 20 companies
hosting their site outside

2-2 "What would it take for a Web hoster to impress you?"



Percent of 36 companies responding
(multiple responses accepted)

Source: Forrester Research, Inc.

6

“We only outsource up to the operating system, even though we would like hosters to take on more. I don’t know of any hoster that will provide an SLA for apps.”
(Retail company)

“I’m outsourcing now, but I’m still looking for a hoster with a world-class IT organization. I’d love to see the staff’s resumes, policies and processes, escalation procedures, automatic problem resolution, and feedback mechanisms.”
(Internet eMarketplace)

INTERVIEW CONCLUSIONS

From discussions with large companies about the costs and challenges of running Web sites, we conclude that:

- **Budgets will grow for two-thirds of firms as their sites scale.** The other one-third of our respondents anticipate 2002 budgets flat or down from this year’s.
- **Cost is only one factor in a firm’s decision about whether or not to host.** Site control, reliability, security, and 24x7 support are other big influencers.
- **Both insiders and outsiders want more from hosters.** Most firms would outsource more if they could count on hosters for topnotch performance.

ANALYSIS

7

Web Infrastructure Buyers Are In For A Treat

Enterprises can save 25% to 80% of their Web site infrastructure costs by turning over their sites completely to a Web hoster. But enterprise customers have other options, too, like buying managed services for pieces of site operations they cannot -- or choose not to -- do themselves.

ENTERPRISE BUYERS STILL DON'T TRUST HOSTING

Although our current data shows interviewees almost split between those that run sites in-house and those that turn to Web hosters for service, buyers are skittish about their choices. Consistently, about 30% of our interviewees that host tell us that they intend to bring sites back in-house. And another 28% plan to switch providers. Why? Because from a buyer's perspective, the Web infrastructure market appears:

- **Immature.** Web hosting is still in its early days: 2000 revenue of \$2.5 billion will hit \$19.8 billion in 2004 -- a 70% compound annual growth rate. Shared and collocation hosting accounted for 40% of 2000 revenue but will constitute only 10% in 2004, giving way to customers' requirements for more complex managed hosting -- like what Exodus Communications intends to offer (see the May 2000 Forrester Report "Hosting's Moving On Up").¹
- **Fast-changing.** Markets that grow fast change fast -- as evidenced by the steady stream of new entrants and the continual evolution of incumbents' business plans. The past 12 months witnessed an influx of new management service providers (MSPs) like SevenSpace and Nuclio, while WorldCom, a collocation hoster, acquired Digex to catapult it into managed hosting (see the March 26, 2001 Forrester Brief "MSPs Bridge The Gap To Managed Web Hosting").²
- **Confusing.** Not surprisingly, hosting leaves enterprise buyers confused, unable to distinguish one provider's offer from another. Firms typically have a shortlist of vendors that includes a grab bag of collocation and managed Web hosters, ISPs, ASPs, and MSPs.

Even As eBusiness Imperatives Up The Ante For Do-It-Yourselfers

While early birds to the Web like Charles Schwab & Co. operate their sites almost completely in-house, other large enterprises like Ford Motor Company, BP, or Fannie

Mae prefer to hire Web infrastructure providers to do the job for them. For these companies and many others, eBusiness requires Web functionality that is (see the April 2000 Forrester Report “eBusiness Networks”):³

- **Nonstop.** Nonstop functionality requires 24x7 support with fault-tolerant and fully redundant systems so sites are never, ever down. Why? To keep revenue flowing round the clock. United Air Lines, for example, captures \$1.5 billion a year online. Travelocity.com hauls in \$2.5 billion. Intel generates 10 times that amount -- \$24 billion -- and 25% of that hits the books when its offices are closed.
- **Integrated.** Integrated functionality requires internal systems to be tied together seamlessly -- with offline and online systems linked to the same database. Staples, hosted by Digex, installed online kiosks in its stores so customers can order any office supply Staples carries -- whether it's on the shelf or not (see the January 2001 Forrester Report “The Forrester Case Study: Staples' Path To Nonstop eBusiness”).⁴
- **Extended.** Extended functionality requires firms to reach beyond corporate boundaries to establish online ties with suppliers and distributors (see the May 2001 Forrester Report “The Collaboration Imperative”).⁵ Fannie Mae expects to process \$750 billion in home loans in 2001 via a hosted underwriting engine it shares with 300 lenders -- cutting the home loan application process down to 20 minutes from 20 days.

FIRMS MUST BE SMART -- NOT STUBBORN -- ABOUT WEB BUYING

Even the most sophisticated online companies cannot do -- or cannot afford to do -- everything in-house. We chose four Web site architectures and identified what it cost to run these sites in-house -- and found significant savings from hosting. What's more, Web infrastructure providers are becoming increasingly savvy at serving customers.

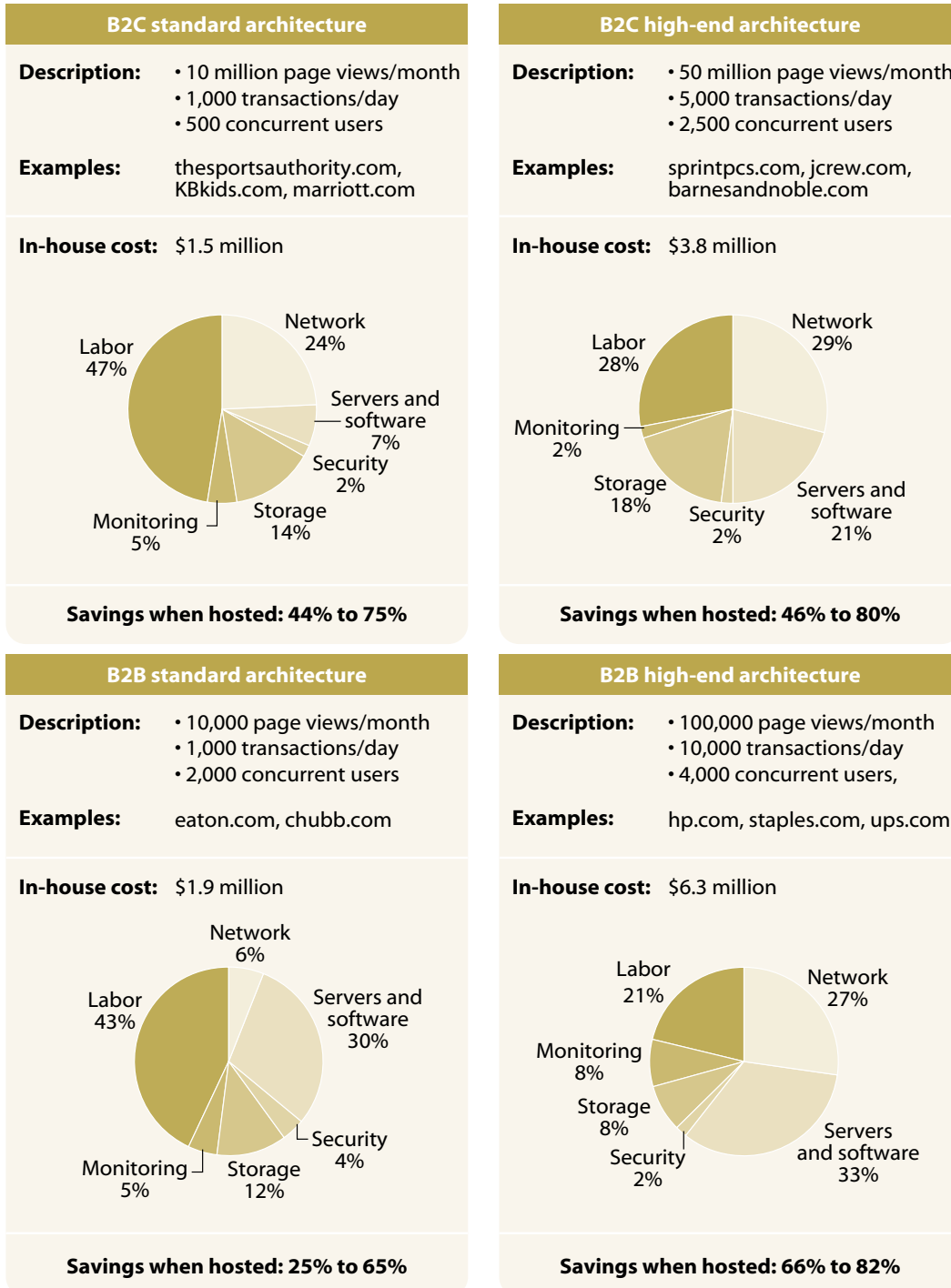
Firms Can Chalk Up Cost Savings Of 25% To 80%

Forty percent of recently interviewed Global 3,500 companies believe that they can run their Web sites and apps cheaper in-house (see the April 2001 Forrester Report “Customer-Defined Networks”).⁶ Our analysis indicates that they are fooling themselves (see Figure 3). Firms that host chalk up substantial savings by:

- **Avoiding premium salaries for Web infrastructure experts.** Staffing expenses claim a huge chunk of insiders' Web operation costs, ranging from 22% to 47% of the total budget for the sites we modeled. As Web infrastructure becomes more complex, firms will require more specialized expertise to manage in-house systems.

Figure 3 Cost Models Show Hosting Savings Of 25% To 80%

A spreadsheet is available online by clicking the "Get Data" button above this figure



(percentages may not total 100 because of rounding)

Source: Forrester Research, Inc.

And there's the rub: Our interviewees say they're understaffed by 31% (see the October 2000 Forrester Report "Pumping Up Internal eBusiness Talent").⁷

- **Capping network expenses.** Firms that run their B2C eCommerce sites in-house spend 25% to 30% of their Web infrastructure budget on networking. Bandwidth alone absorbs 80% of this spend -- set to grow further when retailers like Sears, Roebuck introduce 360-degree rotational views of their merchandise. For high-end B2B sites, networking still soaks up 30% of the budget, thanks to data center redundancy and the high-speed pipes needed to connect them.
- **Offloading storage spend.** Storage constitutes between 8% and 18% of typical Web site costs. But storage requirements will grow by more than 50% per year, resulting in astronomical expenses over time -- and urgent directives from the CIO for new ways to manage storage (see the March 2001 Forrester Report "Slaying The Storage Beast").⁸

And Web Infrastructure Providers Are Better Than Many Buyers Believe

Believe it or not, many Web infrastructure providers have tuned in to customers' demands for more flexible offers, better pricing, and higher levels of expertise. Leading hosters offer customers:

- **Infrastructure choices.** "All or nothing" outsourcing doesn't cut it for Global 3,500 firms looking for Web infrastructure support. So Loudcloud made its Opsware site management software available to enterprises that want to keep their hardware in-house, giving companies the option to run sites internally or externally. When Intira customer VocalPoint Technologies settled on text-to-speech software that only ran on Linux systems, Intira launched a Linux platform.
- **On-demand capacity and pay-as-you-go pricing.** H&R Block didn't want to build the church for Easter, so it hosts its online tax application with DataReturn. Because H&R Block requires three times as many servers during tax season as it does for the remaining eight months of the year, DataReturn dials bandwidth, servers, and storage up and down as demand dictates -- and H&R Block pays only for what it uses.
- **Smarter systems.** EMC's Symmetrix storage system has the smarts to literally call home for service if the system encounters a glitch it cannot fix itself. Genuity's engineers are burning the midnight oil on "smart" access. Systems with smart access -- due out in the next 18 months -- know whether a site's visitor uses a wireline or wireless device, has narrowband or broadband capability, and expects a voice or text response -- and delivers the app matched to the access.

WEB INFRASTRUCTURE BUYING ISN'T ONE-SIZE-FITS-ALL

Buying Web infrastructure isn't an all or nothing proposition, nor is it identical for all firms. Companies should chart their course in buying Web infrastructure by asking themselves two questions: 1) How extensive are my firm's Web infrastructure assets?, and 2) Where does my firm stand in executing our eBusiness strategy? (see Figure 4). The self-test determines which buying approach a company should take for Web infrastructure: minimalist, harmonizer, or maximalist.

Type 1: Minimalists Should Buy Managed Service Elements

IT shops at giant firms like BP could run circles around managed Web hosters -- if they wanted to. But BP intends to focus on its crude oil extraction and petrochemical businesses -- and let SAIC run its eProcurement app and Exalt Systems manage benefits for its 100,000 employees. Other minimalists should follow suit and (see Figure 5):

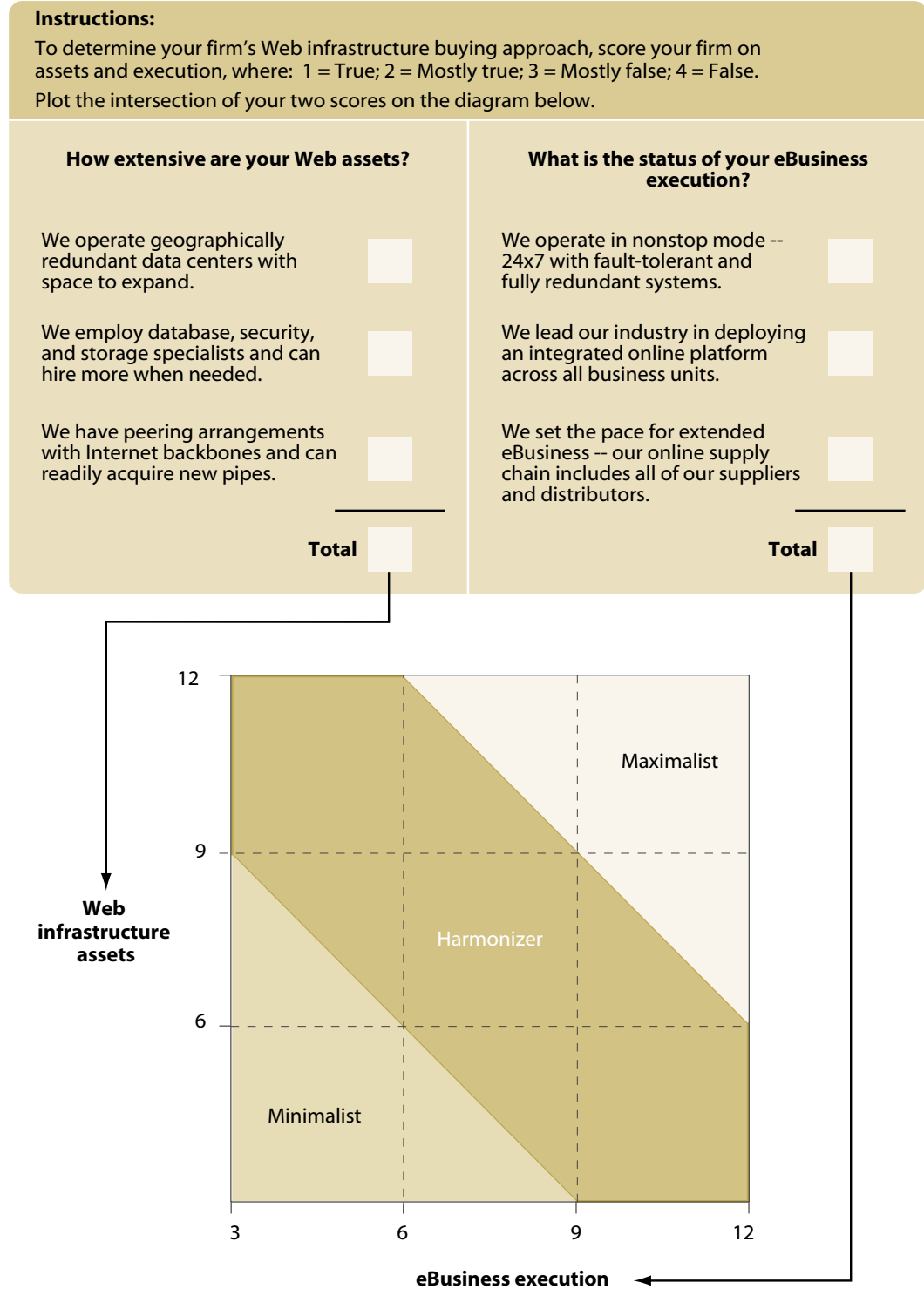
- **Beef up network connectivity with NAPs.** Network hubs like Internap Network Services will take the pain out of network connectivity and peering for IT shops that choose to run Web sites internally. Instead of buying T3s to a half-dozen IP backbones, sign on with Equinix to secure connectivity to dozens of backbone networks collocated at a single Equinix network access point (NAP).
- **Buy a managed storage service instead of storage hardware.** EMC, IBM, and Compaq sell storage devices, but these equipment providers also provide managed storage services on-site for enterprises. Firms should choose Ethernet-attached storage for file-based applications and Fibre Channel-based SANs for high-performance connectivity.
- **Offload site management and monitoring to MSPs.** Rather than track performance logs from a half-dozen different monitoring tools, firms should look to management service providers like SevenSpace or Totality for an integrated view of their site's performance -- plus round-the-clock monitoring of their Web infrastructure and apps.

Type 2: Harmonizers Should Augment Their IT Assets

Firms like Schwab that run their Web sites in-house can't do everything themselves -- Web infrastructure requirements like scalability labs or diesel generators are just too impractical to deploy internally. So harmonizers should:

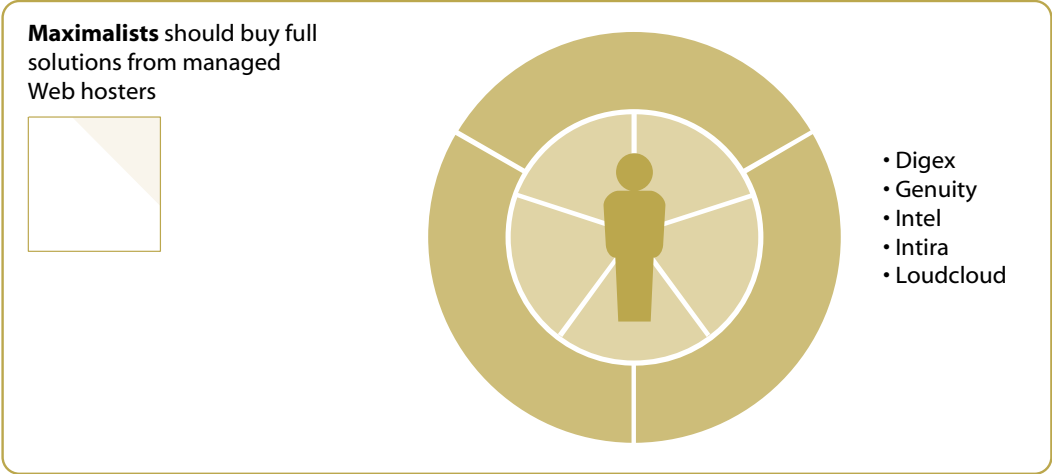
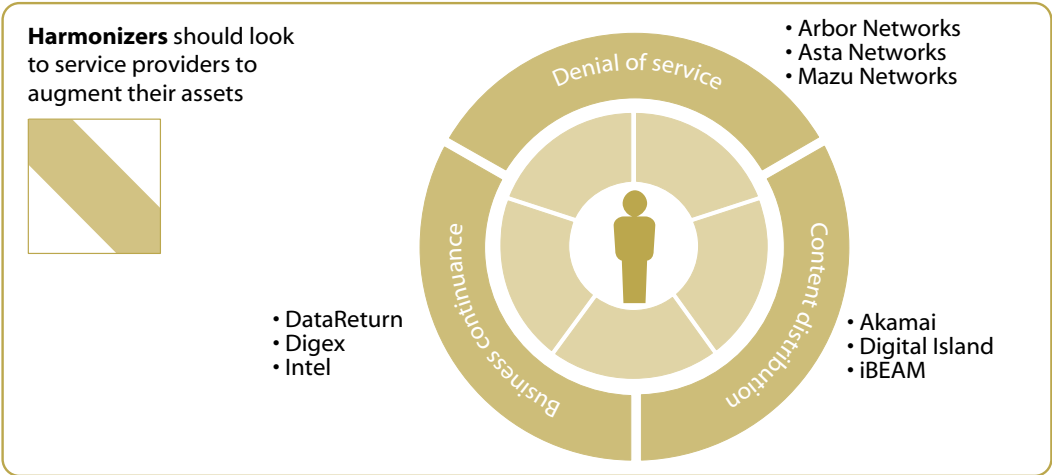
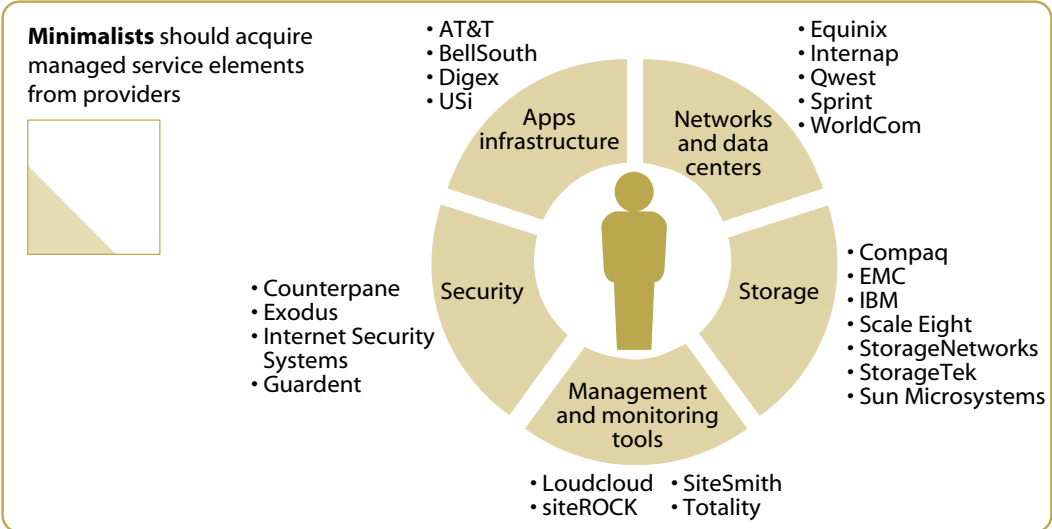
- **Push content to the edge with content distributors.** Moving content to the edge of the network cuts server costs, decreases download intervals, and allows companies to customize content based on an end user's profile or location. When J.Crew got "Akamaized," the retailer's download times improved by a whopping 50%.

Figure 4 A Buyer's Approach Depends On IT Assets And eBusiness Execution



Source: Forrester Research, Inc.

Figure 5 Three Approaches To Buying Web Infrastructure



Source: Forrester Research, Inc.

And J.Crew is able to target its catalog content to a customer's locale -- marketing parkas to customers in Minneapolis, not Miami.

- **Build in failover capability with third-party business continuance offers.**

Firms that want to ensure that a hurricane in Florida or a power outage in California never takes down their site can duplicate their in-house facilities at twice the cost -- or let a managed Web hoster like Intel, DataReturn, or Digex provide transparent failover at a fraction of the cost of doing it in-house.

- **Deflect denial of service (DOS) attacks with managed security offers.**

Companies know that by the time they're grappling with a DOS onslaught, the site is down. But vendors like Arbor Networks provide a solution that recognizes an attack and recommends a device-appropriate filter for it in minutes -- nipping the attack in the bud.

Type 3: Maximalists Should Choose Managed Web Hosters

Firms with limited IT assets or those just starting down the path toward eBusiness should turn to managed Web hosters like Loudcloud, Intel, or Intira for a full managed solution rather than throw up their hands in defeat like Borders did (see the April 11, 2001 Forrester Brief "Borders Cuts And Runs -- Backwards").⁹ Why? Because managed Web hosters provide the capabilities and experience that newcomers to eBusiness need:

- **Reliable, available, and secure infrastructure.** Managed Web hosters like Genuity and Digex provide topnotch facilities, geographic redundancy, and fault-tolerant systems. Technology platforms that provide automatic provisioning, capacity on-demand, and lights-out management and monitoring up through the apps keep sites humming day or night.
- **Web site architecture and performance expertise.** Hosters like IBM and Intel design, architect, and test Web infrastructure, as well as operate it -- which is a huge plus for enterprise buyers just starting out. And because many enterprises are hard-pressed to hire database, storage, and security specialists, they can count on managed hosters for a deep bench of specialized Web expertise, too.
- **Cost efficiencies available via sharing, scale, and technology.** Managed hosters like DataReturn and Loudcloud manage hundreds of servers, along with the apps and other infrastructure resources behind them. They also have a small army of software geeks continually evaluating new technology and crafting software-based improvements to their provisioning and management platforms -- with costs shared across all customers.

ACTION

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We've mapped a Web infrastructure buying approach for enterprise customers. Now what should Web hosters do to meet customer requirements?



Shelve the “my way or the highway” notion.

Enterprise customers have plenty of options for procuring Web infrastructure today -- and long-term contracts won't be an obstacle to changing course. Web infrastructure providers must confront this new reality, break apart packaged services into more flexible offers, and provide managed service options for customers.



Develop “Solution Selling” techniques for each customer type.

Web infrastructure providers must assess what kind of a prospect they're facing -- minimalist, harmonizer, or maximalist -- and tailor their offer and selling approach to that type of buyer. Trying to convince a minimalist to walk away from sunken costs in data centers, hardware, and tools and technology will only be an exercise in frustration for both parties.



Establish technology partnerships with infrastructure specialists.


Web hosters must seek out best-of-breed software and hardware Web infrastructure providers and establish technology partnerships (see the January 2001 Forrester Report “Building A Partnership Mosaic”).¹⁰ Hosters like Teleglobe that plan to build content distribution networks themselves rather than partner with Akamai, for example, have it wrong. Why? Specialists like Akamai will run innovation circles around telecom companies married to whatever version of CDN technology they bought, installed, and depreciated.





Make every component of Web infrastructure “smart.”


Winners in the Web hosting market will be hardware and software technology innovators that develop and deploy: 1) an information fabric that automates the ordering, provisioning, monitoring and management, reporting, and billing of site infrastructure, and 2) context-aware and self-correcting systems that dynamically respond to the site traffic and performance conditions they encounter.

WHAT IT MEANS

-  **CFOs become the frontline to prospects, as well as Wall Street.**

The current downbeat in the technology sector gives skittish enterprise customers another excuse to postpone turning Web sites over to hosters. Given Web hosters' revised (downward) financial outlooks, across-the-board layoffs, and investment cutbacks, potential customers will want assurances that hosters won't "pull a NorthPoint" on them, taking their Web site down without notice. Prospects will insist on up-to-date financial audits before signing any contract -- just adding to the pressure that a Web hoster's CFO already faces.
-  **Line-item pricing helps decision-making.**

Pay-as-you-go pricing for servers, bandwidth, and storage will shine much-needed light on managed Web hosters' service and pricing. As it stands now, managed hosters typically provide a single monthly price for a packaged hosting offer with little, if any, itemization. Insight into component pricing will give customers better information on which to base a make/buy decision and to differentiate Web infrastructure providers. Web hosters will be forced to trash their glib marketing materials -- and substitute technical writers for creative ones.
-  **Shakeout, not consolidation, ahead.**

The ground continues to shift under the Web infrastructure market. While there are lots of new service providers like Teleglobe and BT Ignite entering the market, there are more than a few providers like COLO.COM, Dantis, and PSINet folding, too. While one would think that data centers and other assets would be snapped up at bargain prices, that's not happening either. Why? Companies with cash are hoarding it, and anyone with equity can't exchange it.
-  **Saving drives up costs.**

Companies that save money on their eCommerce sites by buying services from Web infrastructure providers won't give the budget back to the CFO. They'll spend it on marketing or improving the usability of the site -- both of which translate into higher hit rates or higher look-to-buy ratios and higher revenue. But more eyeballs generate more traffic, and more apps mean more infrastructure.

RELATED MATERIAL

Online Resource

A spreadsheet showing the cost comparisons for four Web site architectures featured in Figure 3 is available online.

Companies Interviewed For This Report

Akamai Technologies
www.akamai.com

Arbor Networks
www.arbornetworks.com

Avasta
www.avasta.com

BP Amoco
www.bp.com

Conxion
www.conxion.com

Dantis USA

DataReturn
www.datareturn.com

Deloitte & Touche
www.us.deloitte.com

Digex
www.digex.com

Digital Island
www.digitalisland.com

EMC
www.emc.com

Fannie Mae
www.fanniemae.com

Freshwater Software
www.freshwater.com

Genuity
www.genuity.com

H&R Block
www.hrblock.com

Intel
www.intel.com

Intira
www.intira.com

J.Crew
www.jcrew.com

Logictier
www.logictier.com

Loudcloud
www.loudcloud.com

Microsoft
www.microsoft.com

NaviSite
www.navisite.com

Rackspace Managed
Hosting
www.rackspace.com

Sapient
www.sapient.com

SiteSmith
www.sitesmith.com

Sun Microsystems
www.sun.com

Tanning Technology
www.tanning.com

Totality
www.totality.com

WorldCom
www.worldcom.com

Related Research

March 26, 2001 Forrester Brief “MSPs Bridge The Gap To Managed Web Hosting”

March 2001 Forrester Report “Slaying The Storage Beast”

January 2001 Forrester Report “The Forrester Case Study: Staples’ Path To Nonstop eBusiness”

May 2000 Forrester Report “Hosting’s Moving On Up”

G R A P E V I N E

The newest xSP is an eSP.

We had Sun Microsystems execs Glenn Weinberg and Jeff Greenwald on the telephone talking about Sun's hardware and software for Web infrastructure and its SunTone certification program. Sun is focused on the newest xSP -- the enterprise service provider. In Sun's view of the world, enterprise data centers like Schwab's or GM's will look just like that of a third-party hoster -- but will provide Web infrastructure services solely to internal clients. Forrester believes that about 35% of Fortune 1,000 companies would be in this league -- but Sun estimates twice that at 70%.

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HOT or NOT? is hot.

James Hong told us he and his housemate thought up HOT or NOT? one night over beers when James's housemate claimed he had just met the perfect "10" at a party. The pair launched their site last October on borrowed hardware. But when Salon.com ran an article about the site, business boomed -- forcing it to host with managed hoster Rackspace. Talk about capacity on-demand! HOT or NOT? added a server a day for the first week -- making its first SOS to Rackspace at 2 a.m.

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Multiply eCommerce site costs by 10.

Sapient consultant Craig McDermott talked with us about Sapient's experience in helping clients design and implement Web sites. Craig told us that Sapient is less focused on building stovepiped Web sites than on helping clients build a business online that integrates multiple channels and shares a consistent base of functionality across channels. Building a Web site, Craig says, will run a couple of million dollars for the first release. On the other hand, a company that builds a business online will spend \$10 million to \$30 million.

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Who says NT isn't stable?

We spoke with DataReturn VP of Marketing Todd Steitle about Web hosting one recent evening. Todd was still going strong as we were running out of steam for the day. We try to grab some "quiet time" early in the morning; Todd grabs his at night -- after all the Web developers go home. "You'd be surprised," he chuckled, "at how reliable our systems are when nobody is touching them."

E N D N O T E S

- 1 By 2004, managed Web hosting in the US will generate \$9.6 billion in revenue, with custom Web hosting pulling in \$6.8 billion.
- 2 Management service providers provide integrated and hassle-free tool sets, analyzed output, and round-the-clock support for IT shops. But MSPs typically don't offer disaster recovery or capacity on-demand because they have no facilities to do so.
- 3 As industries cross the eCommerce threshold, they transition to what Forrester calls eBusiness networks: resilient structures of interdependent players cooperating in real time over the Net.
- 4 To stay ahead of its competition, Staples had to change its organizational structure, embrace new technology, and devise new metrics for success.
- 5 Firms must embrace a strategy of win-win partnerships enabled by sharing business activities across an online network of allies. The collaboration imperative is highest for industries like retail and high-tech that face rapid product turnover and complex market structures.
- 6 Telecom service providers must fine-tune their offers rather than compete with ASPs. They will do so by creating customer-defined networks -- networks that allow each customer to create, modify, and monitor customized telecom services across any set of service providers -- that will be user-defined, bandwidth-adaptive, and application-aware.
- 7 Our interviewees say that 41% of their eBusiness projects are stalled because of staff shortages.
- 8 Although almost half of our interviewees say they will never outsource storage, firms need a new approach for dealing with expanding storage requirements. Forrester believes firms can reduce storage costs 28% over five years by networking storage using SAN and NAS and by turning to managed storage solutions.
- 9 By doing a deal with Amazon.com, Borders adopted a short-term strategy to cut its eCommerce losses, which dragged down overall fourth-quarter 2000 profits by 48%. But customers continue to go online in record numbers -- eCommerce revenues grew from \$7.8 billion in 1998 to nearly \$45 billion in 2000. Amazon wins, but Borders loses.
- 10 Partnerships allow service providers to specialize in what they do best while leveraging partners' brands, channels, and know-how.