

A Roundtable Discussion Lead by Peter A. Todd and Wynne W. Chin

An energetic roundtable met in March to discuss e-business infrastructure. In February, John Sifonis from Cisco Systems discussed how to get the organization Net Ready. The topic thread continued in March with Dr. Peter Todd and Dr. Wynne Chin leading the discussion about how IT should respond to an organization's move toward Net Readiness.

INTRODUCTION AND OVERVIEW

"E-business will be seamlessly merged into the core business of any enterprise. That is the next natural progression of IT's role in business."

The Gartner Group's recent conclusion should come as no surprise to the members attending the March ISRC meeting. While the discussion in February focused on the business side of Net Readiness, the March roundtable investigated the IT infrastructure issues of preparing an organization for the e-world. With U. S. companies spending \$153 billion in online infrastructure in 1999, and expectations of spending approaching \$350 billion by 2003, infrastructure issues will continue to be an e-headache into the e-future.

What has changed?

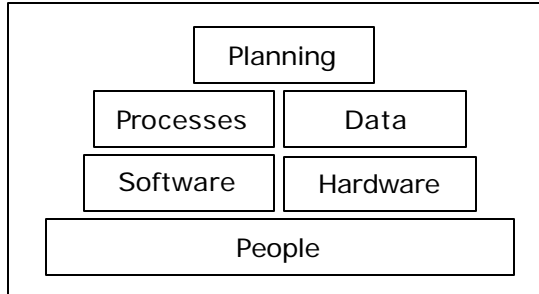
As IT seeks to merge e-business into the core business of an enterprise one of the first questions that arises is: what is so different about the e-world? What makes e-business so special? Participants shared many opinions about the differences in the e-world and the traditional business environment. Consistently, participants felt that the e-world offered more opportunities and exposure, but also came with more risk and higher expectations.

Participant Thoughts	
More opportunities: helps IT to improve their image and add value to the customer	More risk: No more buffers. Mistakes happen more frequently and are apparent to everyone—even your customers
More exposure: Integrates elements inside and outside of the organization—organizational boundaries are changed	Higher expectations: New levels of complexity, yet the problems need to be solved in "net time"

What are the challenges?

Within the context of IT, e-business offers several new challenges to IT, including:

- Integration issues: More complex systems means less opportunities for compatibility
- Capacity issues become even more critical when customers and partners are directly interfacing with your system
- Security issues: More points of vulnerability
- Boundaries of business processes are broadened to include members of the value chain. IT loses some control over how customers and partners are accessing their system and challenging the infrastructure



e-Infrastructure

Given the e-challenges to contemporary organizations and IT, what can be done to assess infrastructure and plan for the e-world of tomorrow? The participants discussed five areas of infrastructure assessment: planning, processes, data, software, hardware, and people.

Planning

Planning in the e-world can be difficult, given the changing technological environment. The platform of today is not necessarily the architecture of tomorrow. Yet, participants at the roundtable offered a number of suggestions for planning. The discussion focused on two areas: mechanisms to help plan for e-strategy and how to assess e-strategy system proposals.

Participant Thoughts	
Planning e-Strategy	Assessing e-Strategy
<ul style="list-style-type: none"> ➤ Develop a team of executives with a global perspective to build an e-strategy ➤ Examine what you are doing now—can these be transformed? ➤ Ensure architects are sitting with the team of executives and all business analysts ➤ Build a “sandbox” where applications can be tested within the network 	<p>Questions to ask:</p> <ul style="list-style-type: none"> ➤ What is the market potential for this proposal? ➤ What is the customer value for this proposal? ➤ Does the strategy match with our capabilities? ➤ Who is willing to pay?

Processes

One part of the planning of e-strategy is to examine the current processes and determine how they can be transformed. But how does this occur? Participants at the roundtable suggested having individuals inside business units that can help bring technology to processes. Once the individuals have identified the processes that need to be improved, leadership at the top must champion the project to the global executive e-strategy team, so that the top pushes the project down. Finally, the global team must constantly scan the environment, to think about what can be done or done better.

Data

The need for integration in the e-world creates a number of data problems. Participants offered a number of problems and solutions.

Participant Thoughts	
Problem	Solution
How do I make all of the different systems talk to each other?	Use a messaging center, such as enterprise integration software
How do I control data access globally—who sees what data?	Use directories to define access for appropriate users
Which data is the most important?	Classify the data with priorities to determine the most important data to the organization
How do I deal with language and cultural differences?	Recognize that there are cultural and language differences. Set different standards in different countries to be able to adapt to local issues.
What happens when partners become competitors and relationships change?	Be prepared from the beginning of the relationship and plan adequately for this potential.

Software

Just as data standards are important, so are software standards. Participants acknowledge that setting software standards is a delicate balancing act and that the criticality of sticking to standards needs to be addressed and that, pragmatically, IT must assess if the standards will work globally. Suggestions for setting global software standards include:

- Set some hard standards first (such as your operating system). These hard standards will then drive the other softer standards.
- From the set of soft standards, pick out the standards that you want to leverage globally and focus on delivering value from those standards first
- After delivering value from the soft standards, determine which are the core set of standards and the “nice-to-have” standards

Hardware

After setting the data and software standards, the next step is to look at the hardware needed for e-business infrastructure. The biggest problem cited by the participants was scalability in the e-world. Given the risk of failure, participants offered a number of ideas about how to handle the hardware problems, including:

- Partner with someone else that has more scalability
- Balance the load with a technological solution
- Use a partner where you can buy what you use

People

Given all of the technological challenges, perhaps one of the biggest challenges is how to get people in position to solve the e-problems. Participants said that the most important skills in the e-world are:

- Project management skills to manage the complex projects
- Domain knowledge that can be applied technical skills in context
- Forward thinking so that the organization can look at where technology is headed
- Business maturity so that the employee can go in front of the customer

Concluding Thoughts

The e-business environment is one in which there are complex problems to solve. In handling these issues, IT is expected to find the solution quicker, with less room for error, with more integration, and with more partners. As such, IT needs to plan for a business that does not know where it is headed, thus allowing for innovation while imposing standards. To accomplish this, we can pick one standard that is robust enough to plug in partners and build a platform for innovation that supports the organization. We cannot optimize the infrastructure, always do the best thing, or predict where technology is headed. So, in the complex e-world where there are more questions and fewer answers, the irony is that IT must plan for uncertainty.

Additional Information

How Net Ready are you? Take the CISCO quiz:

<http://www.cisco.com/warp/public/779/ibs/netreadiness/scorecard.html>

PC World's perspective on e-business infrastructure. While you are there, take the infrastructure IQ Quiz at the end of the page:

<http://www.zdnet.com/pcmag/stories/reviews/0,6755,2433801,00.html#>

The e-commerce reading room has a number of articles from a variety of sources:

<http://www.wilsonweb.com/research/intro.htm>

IBM's thoughts on e-business infrastructure and their survivability test:

[http://www-4.ibm.com/cgi-](http://www-4.ibm.com/cgi-bin/software/track3.cgi?file=/software/info/ei/index.html&S_TACT=100BLE23&S_CMP=campaign)

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