IBM

Nortel and IBM build on each other's strengths to create innovative solutions for tomorrow's market.

Alliance Overview

■ *Challenge*

Service providers need to ready themselves for the next generation of services – and tighter competition.

■ *Why Become an On Demand Business?*

Service providers need flexibility and intelligence in their next-generation networks. Moving carriers from a siloed service model to tomorrow's open one is beyond the scope of any single vendor.

■ *Solution*

IBM and Nortel have formed an alliance to promote collaborative innovation between the companies and to aid carriers in meeting the opportunities and challenges of next-generation services.

■ *Key Benefits*

• *Faster time-to-market*

• *US$1B revenue opportunity associated with jointly developed solutions*

» **On Demand Business defined**
An enterprise whose business processes – integrated end-to-end across the company and with key partners, suppliers and customers – can respond with speed to any customer demand, market opportunity or external threat.

Nortel and IBM forged a broad-based alliance that establishes the capability to deliver an end-to-end next-generation solution to service providers – one that only collaborative development could enable. The alliance will leverage IBM SOA and IT capabilities with Nortel's experience in telecommunications.

The last decade or so has been a period of revolutionary change for the communications industry. On the customer side, skyrocketing adoption of newer services, such as mobile telephony and broadband, has pushed penetration to mass-market levels. Fueling this growth has been a steady increase in the range of new services and features available to them, from text, instant and video messaging to advanced multimedia and data services. On the service provider side, growth has also been the dominant theme – in terms of not only customer base but also the diversity of their core businesses.

" Working with IBM is a bold step forward in our efforts to transform our business by reaching an entirely new level of R&D collaboration while introducing products faster and serving a broad range of customers more rapidly."

– Mike Zafirovski, Chief Executive Officer, Nortel

ON DEMAND BUSINESS™

Collaborative Innovation Solution Benefits

- Improved solution performance due to tighter integration between products

- Ability to combine IBM's strength in enterprise IT solutions with Nortel's strength in carrier-hosted services

- Stronger position to address emerging communications market opportunities such as IMS

> *"Nortel is a company with a strong history of innovation. Together, we are working to reduce complexity and cost of service delivery while enabling innovation for a new set of on demand services. This is at the core of what we do."*
>
> – Bill Zeitler, Senior Vice President and Group Executive, IBM Systems and Technology Group

The "triple play" of voice, video and data services is an increasingly common product strategy employed by service providers to both strengthen their competitive position, to grow revenues, and to forge broader, deeper and more churn-resistant bonds with their customers.

A new services paradigm

While the above trends will continue – in some cases even accelerate – the signs are that a new kind of revolution is beginning to take hold in the communications industry. If the story till now has been one of proliferation, the future story is shaping up into one of convergence and simplification, with the catalyst coming from both customer needs and competitive forces. The traditional service paradigm – under which services tend to be "walled off" from each other, requiring customers to employ specific devices to access specific services – is under assault. Yes, service providers more than ever see an expansion of their offerings as the key to differentiation and profitability. But they also recognize that changes in competitive dynamics and in their customers' needs are rendering silo-based service delivery obsolete.

In today's mature communications market, continuous innovation and speed to market are more important than ever. To hold onto their margins and their customers, service providers need to infuse their business models and their technical capabilities with maximum flexibility at every point in the service delivery cycle. While a proprietary, monolithic approach worked for service providers in yesterday's market environment, the future demands that they can adapt rapidly to new revenue opportunities and changing customer requirements. It means the ability to seamlessly offer a growing pool of third-party services and content, all the while maintaining service quality across a growing ecosystem of providers and partners. For service providers, these demands signal the need to move their IT strategies closer to the heart of their business models. They serve to extend the definition of "strategic infrastructure" from the traditional network fabric of switches, transmitters and service platforms to the layer of industry-standard servers, databases and middleware that will define next-generation networks.

Given the depth and breadth of technology, process and transformational expertise required to make this vision a reality, no single technology vendor can pull it off alone. That's one of the big reasons IBM and Nortel formed a broad-based alliance known as the Joint Development Center (JDC). Among the alliance's most important high-level goals is the melding of Nortel's strengths in carrier infrastructure technology with IBM's strength in IT and business process consulting, all in the form of joint solution development. The role of the JDC is to identify opportunities for alignment within IBM's and Nortel's product

lines and, once found, to provide a framework to encourage and enable collaborative innovation between the organizations. Like most effective alliances, the strength of IBM and Nortel's collaboration is a function of commonalities and differences. While bound by a deeply entrenched culture of innovation, IBM and Nortel address very different parts of the telco infrastructure. Consider the traditional way of looking at a telecom infrastructure through a series of horizontal layers, with networking at the bottom and Operation Support System (OSS) and Business Support Systems (BSS) on top. While this provides a framework for viewing their respective strengths – with IBM stronger in the top layers and Nortel stronger in the bottom layers – the synergy is in fact even more granular, since in some key cases they have strengths in different parts of the same layer. Within OSS, for example, Nortel's strength in monitoring individual network elements is complemented by IBM's strength in providing a more global view of network management. One of the key strengths of the alliance is the idea that such granular synergy will enable IBM and Nortel to deliver a quantum improvement in functionality and performance by making their products work better together.

Positioned for the next generation

But the real benefit of the alliance is seen on the broad strategic level, since the combined capabilities of IBM and Nortel constitute nearly all of the technology components and expertise – the building blocks – required to deliver next-generation solutions to the service provider community. The best example of how IBM and Nortel are addressing it is seen in their combined efforts around IP Multimedia Services (IMS), the support of which is broadly seen as the defining characteristic of converged, next-generation networks. At a high level, IMS represents a framework for carriers to introduce advanced services that essentially does away with siloing, in which offerings are tied to particular networks (such as wireless or wireline). For consumers, the most visible benefit is the convenience and simplicity of accessing any service from any kind of device, wherever they are.

But that's just the beginning. IMS is also about delivering more valuable and innovative services to customers in both the consumer and enterprise space, which establishes why next-generation capabilities like IMS are so critical to the carriers' future profitability and competitiveness. With IMS, services will be enhanced by a greater degree of intelligence in the network. With real-time knowledge of their customers' preferences, location, presence and other key parameters, service providers can offer more personalized services and optimize the way they are delivered. This means, for example, being able to automatically and dynamically adjust quality of service to ensure that customers get maximum performance when they use multimedia services like streaming video. It means, in short, a fundamental change in the nature of services. Getting there will require an equally fundamental transformation in the way services are offered – which plays directly to the alliance's strong suit.

Product Focus of Joint IMS Solution

*IBM – Service Delivery
and Network Management*

- IBM WebSphere® products
- IBM Tivoli® Netcool
- IBM BladeCenter®/
  IBM BladeCenter T products
- IBM Global Business Services for
  design and implementation services
- IBM Global Technology Services

*Nortel – Control Plane
and Application Servers*

- Nortel Call Session Controller
- Nortel Home Subscriber Server
- Nortel Media Gateway Controller
- Nortel Policy Controller
- Multimedia Communication Server 5200

Why it matters

Service providers are entering into a new, competitive domain where rapid, efficient service delivery is a must. While the opportunities are huge, so are the challenges to getting there, chiefly the need to deploy more open, flexible and intelligent networks. The key will be a closer blending of traditional networking with open IT architectures like SOA – a challenge no single vendor can do alone. Recognizing this, IBM and Nortel are now working together to deliver end-to-end solutions that will enable service providers to offer a new level of capabilities to their customers. The key is collaboration that begins not on the sales call but in the lab.

The rubber meets the road

Through the JDC, IBM and Nortel have begun a collaborative innovation effort aimed at developing and bringing to market a range of IMS offerings. Nortel's contributions to the effort are focused around its carrier-grade equipment, its world-class applications expertise and its strong control-layer capabilities. These complement IBM's IMS building blocks, which are anchored by its core infrastructure software (WebSphere, Tivoli), its overall expertise in service-oriented architectures (SOAs) and its strong support for industry standards.

While these core technologies constitute a solid and necessary foundation for service providers to build toward an IMS future, business process and transformational expertise will also be required to meet the unique operational challenges of IMS. Take billing, for instance. Under more flexible IMS environments, service providers will work much more extensively with third-party content providers as part of joint service offerings. Nortel's policy control solution enables service providers to map billing models to subscribers, applications and service agreements, thus giving them more control. IBM – through IBM Global Business Services and IBM Global Technology Services – can then integrate this new empowerment to operator billing systems. Similarly, with self-service portals becoming the primary interface between carriers and their customers, IBM's extensive experience in designing and deploying them further strengthens the IBM and Nortel IMS play. Last but not least is the depth of research expertise IBM brings to the alliance through the Watson Research Center, which will collaborate with Nortel's Ottawa Research and Design Labs to develop products to support next-generation telecom services.

With the more open, flexible environments IMS enables, service providers will be able to develop and deliver more integrated services faster and at lower cost. Nearly the same can be said for IBM and Nortel's alliance, with the fruits of collaborative innovation targeted to yield an additional US$1B in combined revenue over the next five years and a much shorter time-to-market. Like any good alliance, IBM and Nortel play to each other's strengths in the IMS space, while providing benefits across the entire telecom services value chain.

For more information

Please contact your IBM representative or IBM Business Partner.

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