



Discussion Document

# Taking IT Outside: A Proposition for Managed Services

## The current reality

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The rules have changed. Where only a few short years ago Canadian businesses were reducing IT budgets, today there's a realization that technology investments must be made. But the investment has to have a specific purpose: a recent IT World Canada survey showed CIOs and senior IT managers expect any technology investments they make to improve productivity and enable innovation.

The imperative to deliver productivity and innovation is being driven by increasing competitive pressure. Companies are facing the fundamental challenge of dealing with increasing IT complexity and cost, and the need to deliver value from their technology investments. Corporate leaders are demanding IT infrastructures that support competitive requirements to evolve with market conditions, quickly implement new functionality to support changing models, and quickly realign processes in order to seize new opportunities as they appear.

IT's ability to meet these requirements is challenged by the reality that many companies still spend significant amounts of time and money struggling with the administrative, operational and maintenance aspects of essential day-to-day IT management, rather than being focused on IT activities which tie more directly to revenue generation and competitive advantage – such as business/IT alignment or application/process creation and advancement. Too often IT itself becomes the main obstacle to growth, particularly when complex, heterogeneous computing environments make it difficult to minimize downtime; address security requirements; keep pace with advanced technology and skills changes; and support growing demands for compliance and other regulatory issues.

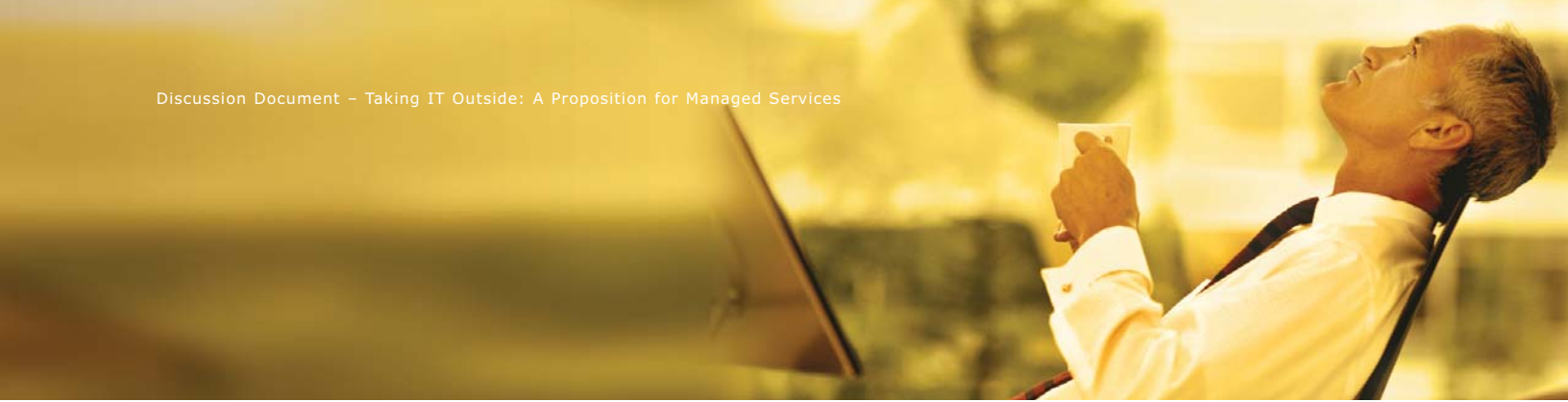
## Consider the challenges posed by each individual requirement:

**Downtime:** Globalization, partnering and operational trends such as just-in-time manufacturing have created many critical interdependencies and interlocking IT-enabled processes outside of any single organization's firewalls. The potential damage and cost to a company's reputation and business relationships in the event of disaster pushes many organizations to require "always on" reliability.

**Security:** Today, companies recognize information is a vital asset and key component to maintaining competitive advantage: both customer and internal information is used to identify and drive opportunities for generating internal efficiencies and winning new deals. Without the foundation of a secure IT infrastructure to protect vital information, ever-increasing and newly developing security threats and attacks hinder and potentially destroy IT's ability to deliver value.

**Keeping pace:** IT staff are spending too much time on administrative, operational and maintenance tasks, and too little time keeping the organization's enabling technology finely tuned, up-to-date and continually advancing. Keeping pace with user needs and the constantly evolving application development skills needed to support new initiatives and increase operational effectiveness is often seriously compromised – which in turn impacts competitiveness.

**Compliance and business regulations:** The explosion of information processing and storage needs generated by compliance requirements and other governance regulations have created a challenging situation. Companies must consider how IT will be used to help achieving corporate compliance overall, and how compliance will be addressed within the IT department itself. It's yet another headache for busy senior IT managers, who must now consider existing and looming regulations as influencing factors on all existing and future IT investments.



Managed IT services are emerging for many Canadian organizations as a compelling solution to maximizing operational efficiency and leveraging a sound IT foundation which can support a company's most vital processes and applications. It's an approach to IT investment that's designed to remove the burden of lower value day-to-day operational and maintenance activities and allow companies to focus their valuable IT talent and resources on activities that provide clear competitive advantage and/or contribute directly to a company's financial health.

## What are managed services?

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As is the case in many emerging areas of IT, Managed Services can be defined many different ways and can mean many different things. In the context of this discussion, IT World Canada defines Managed Services as:

- IT computing and/or network infrastructure, operating systems, and/or applications delivered by a third party, IT service or Managed Services provider. The Managed Services provider assumes responsibility and accountability for the availability, performance, and reliability of the entire set of IT processes and computing/communication capabilities they provide to a customer.
- The architecting, deployment, 24x7x365 monitoring, and proactive management of these IT environments, which typically must be "always available and always secure." Services may also include the applications.
- Services that provide key functions such as security, business continuity, disaster recovery, data integrity, and high availability, so a customer might instead focus internal IT resources on core activities and processes.

## There are two distinct categories of managed services:

**Managed Infrastructure Services:** These are services delivered from fully redundant managed data centres that provide power, bandwidth, backup, security and monitoring. Customers receive a specific level of guaranteed infrastructure performance.

**Managed Application Services:** Certified technical experts are engaged by a Managed Service provider to maintain critical services, software and applications such as the network, operating system, database, Web applications, ecommerce applications, and messaging and collaboration applications. Customers receive a level of guaranteed application performance.

## The business case for a managed services offering

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As previously mentioned, Canadian customers are seeking IT investments that will increase their efficiency and their ability to drive growth. Managed Services can help many customers achieve this aim by simplifying their IT operational and investment challenges with the delivery of IT infrastructure and applications as completely administered services that:

- Allow a company to leverage new and best-of-breed technology without making the capital investment themselves. Managed Services can deliver advanced applications and hardware, plus other new technology as computing capability that's purchased based upon a customer's capacity requirements and actual usage needs. A customer need not spend capital dollars to refurbish or retrofit an internal IT infrastructure and can instead, through operational budgets, leverage the infrastructure and application facilities of a Managed Service provider.

- Bring to bear the Managed Service provider’s core competencies and technical skills as a 24x7x365 IT back-end team for managing, administering, and maintaining the day-to-day operations of the most sophisticated and up-to-date IT infrastructures available to customers. These are expensive skills that many companies might not be inclined to retain themselves, particularly if IT management is not deemed a necessary core competence.
- Mitigate IT risk for guaranteed availability, always up-to-date infrastructure, and security. The Managed Service provider assumes the operational risk for performance requirements and IT equipment investment.
- Free IT staff from the administrative, operations and maintenance load of managing existing systems, so that in-house IT organizations can be refocused on revenue generating and high-value add activities such as application development.

## **The concerns and costs of doing it in-house**

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IT management can be an expensive undertaking. It’s been suggested by market researchers such as Gartner Group and IDC that IT administration and maintenance costs account for more than 80% of the typical enterprise IT budget. And the cost of maintaining in-house IT infrastructures may increase even further when mission-critical requirements for always-on reliability, security, rapid response problem management and patching, and the need to keep pace with quickly changing technology are factored into the equation:

### **The cost of maintaining always-on reliability in-house**

In today’s competitive environment, a few hours of downtime can often be the difference between a company’s stability and its very existence. But always-on reliability achieved through in-house IT resources can be an unrealistic proposition. In a 2003 research study titled “Operation Zero Downtime” Gartner found: “Enterprises that want to remove the majority of planned downtime for an application, represented by achieving 99% to 99.5% availability, will need to spend approximately three and a half times the cost of the application. Even then, only 20% of the applications targeted will [actually] achieve 99.5% availability.”

### **The cost of handling security in-house**

Today’s high-risk computing world with ever-increasing security threats makes in-house security management a strategy that may expose organizations to exponentially increasing costs. A secure physical facility – the most basic ingredient in any security strategy – has by itself become a hugely expensive undertaking, leading some corporations to consider data centre features such as explosive and fire-resistant construction, biometrics, mantraps, and sophisticated closed-circuit observation systems.



But security risks go far beyond mere physical threats. The annual cost of viruses and threats such as Mydoom, Slammer, Lovesan/Sobig/Nimda, and Blaster has been estimated in the hundreds of millions of dollars in lost sales and productivity by the U.S. government. Even more disturbing may be the fact that security patches have been available for many vulnerabilities, but were never applied by in-house IT personnel due to lack of budget; unavailable IT resources; limited security knowledge and expertise; and/or the absence of rigorous in-house processes, policies and procedures to ensure up-to-date security.

### **The cost of in-house problem management and patching**

Continuing advancements in IT, particularly around distributed computing, have come at the price of significantly increased complexity, security vulnerabilities, and software bugs, resulting in significant and costly increases in problem management, patching, and fix requirements.

- The U.S. Department of Commerce estimates software bugs cost the U.S. economy over USD\$59 billion per year; market analysts The Strategic Counsel estimates the cost to the Canadian economy is close to CDN\$3 billion per year.
- Industry researchers IDC (International Data Corporation) Canada estimate Canadian corporations spend more than \$1.1 billion per year on patch management for operating system software alone; and that it costs the typical Canadian enterprise \$175,000 per year to manually deploy security through in-house IT resources.

### **The cost of keeping pace with technology and upgrades**

Using IT to support efficiency and competitive advantage typically requires keeping pace with the latest technology changes and upgrades in order to maximize the benefits available in the applications and equipment purchased. The increasing complexity and interdependence of infrastructure and applications software has made technology upgrades a task that is so complex that major new software iterations can now take months – or years – to install and complete.

The effort may also require costly capital investments to overhaul enterprise hardware and associated operating systems needed to support new software iterations. For many customers, the effort ends up consuming all available in-house IT resources just to support the upgrade cycle.

### **Selecting the right managed service offering**

#### **IT management can be an expensive**

Managed Services providers should not be confused with management service providers (MSPs), that focus only on externally delivered monitoring and management of servers, routers, firewalls, and other types of computing hardware. MSPs typically deliver infrastructure management services on a subscription basis, similar to the model used by application service providers (ASPs). Unlike Managed Services providers, MSPs do not actually provide the supporting IT infrastructure for customers. Instead MSPs administer/monitor customer-owned IT infrastructure equipment through a centralized network and/or systems operations centre. The downside of this model is that the customer still has accountability, since an MSP does not control the many fail-points in the on-premise infrastructure. If security and availability are not critical, this scenario may work well. However, if the application is mission-critical, the customer may merely benefit from a reduction in administrative work.

Today's successful Managed Services providers utilize "mass-customized" service offerings, where customers are able to build a more tailored solution to suit their needs from a wide variety of standardized, building-block services. The general appeal of mass-customization is the ability to design externally delivered systems and network infrastructures to satisfy a customer's unique needs for supporting advanced applications and processes. A customer can choose to enrich these capabilities by purchasing increased computing function, managed process, and application extensions.

In this context, service flexibility becomes the key selection criterion. Customers typically seek a Managed Service that allows them to start small and gradually build a more comprehensive service package as the critical value of the Managed Service is demonstrated and as more IT function or application/process capability is required.

## Selecting the right vendor

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Key considerations for selecting a Managed Services provider include:

### Focus

The Managed Services provider should be focused on delivery of the entire managed services value chain that encompasses IT infrastructure, systems, applications, and processes. These should be based on standards and open architectures that allow customers to easily implement managed services and rapidly align them to specific processes and application requirements. A provider with a higher degree of focus on these services may have a delivery advantage over less specialized competitors.

### Technical skills and certified expertise

The Managed Service provider should have certified technical people on staff to implement the solution; and provide performance tuning, capacity planning, data recovery, problem management, and security administration with the level of efficiency needed to deliver always-on and always reliable service.

### Operations excellence

The Managed Service provider's business and operations policies should be designed to be flexible and responsive to customer need. A Managed Service provider's policies, for example, should not make an IT task such as contract administration a more complicated process than it was before a customer decided to go the Managed Services route.

### Stability and reputation

An IT services engagement is typically a longer-term relationship between customer and supplier. A customer should consider a number of questions, including:

- Will the Managed Service provider be around for the long haul?
- What's the history of the company and how steadily has it grown?
- Where is the Managed Service provider focused? For example, does the vendor specialize in more basic shared or collocation services or is the vendor specialized in the delivery of dedicated managed offerings, which are typically of greater value and more tailored to suit the unique requirements of individual customers?
- What other well-known customers trust the provider with their mission-critical applications?

### Performance guarantees

Customers should expect guaranteed performance in all three critical areas of a managed services offering, including the facilities, network, and applications. Without performance guarantees, customers risk having no specific recourse for timely problem resolution and compensation in the event that a managed services offering does not meet their expectations.



## Conclusion

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There are many reasons to consider Managed Services as a viable option for computing infrastructure and application delivery. Among them are:

- The capital and operating budget required in a do-it-yourself, in-house approach may be too costly – both in terms of dollars spent and to the opportunity cost of focusing too many IT resources on maintenance, administration and infrastructure support.
- The technical skills and certified expertise required to build, develop, maintain, administer, and manage IT infrastructures and applications in today’s environment of ever-increasing IT complexity are difficult to recruit and expensive retain.
- Managed Services providers – through the use of best practices, the latest technologies, highly automated environments, and employed skill-sets available both directly and through partner relationships – typically achieve economies of scale in the performance of IT infrastructure management, allowing them to do it better and at lower cost than most in-house efforts.

Managed Services may help customers avoid the trap of supporting an in-house IT team that is only dedicated to serving and performing administrative, operations, and maintenance tasks. The complexity and heterogeneity of most computing environments makes it difficult to both deliver and maintain mission-critical requirements. Providing “always-on” reliability; tight security, current technology; updated skills, compliance and other regulatory processes has become a full-time job for the IT team. In these cases, IT – through no fault of its own – often becomes a barrier to business development instead of the enabler it needs to be.

Managed Services have for many customers delivered short-term benefits such as cost savings, more predictable IT expenditures, and significant reductions in IT capital costs. But the long-term benefit of removing in-house IT staff from basic infrastructure tasks and responsibilities, and re-focusing their efforts on growth may prove to be the biggest, and most important impact of the growing trend toward fully managed IT services.

