



# Solution Snapshot

IBM Director:

A Foundation for Systems Management

The Benefits of Using IBM Director in  
Small and Medium-Sized Businesses

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# IBM Director: A Foundation for Systems Management

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## ABSTRACT

*There is no question that today every organization is more dependent than ever before on its IT systems. Indeed for many the reliance is almost absolute. At the heart of this are servers running the mission-critical applications that allow modern businesses to operate. It is essential that these servers operate as effectively as possible and be available during business hours, a requirement that is often approaching 24/7 availability. This dependence on IT makes the ongoing management and administration of servers vitally important.*

*The reliance that business operations now place on their IT systems requires that the monitoring and management of servers must be continuous if IT services are to be delivered at the necessary level of service. With daily management costs representing a large portion of the TCO of IT solutions it is imperative that effective monitoring and management tools be employed. IBM Director is a suite of software tools that supply a common monitoring and management framework capable of working on a wide variety of Intel / AMD based servers running both Microsoft Windows and Linux. x86 platforms are frequently the core server platforms deployed by most small and medium-sized businesses (SMBs), supporting nearly all mainstream business applications. Such servers are important to businesses of all sizes in almost every industry worldwide. IBM Director is also available on a wide range of servers including IBM System i and IBM System p.*

*IBM Director monitors core hardware resources and availability and is simple to deploy and to employ in daily operations. The software is supplied with most IBM servers including System x, at no additional charge, and supports monitoring for a variety of servers from other vendors. IBM Director provides a solid foundation on which to build the systems monitoring and management capabilities necessary to ensure IT service delivery. It offers a range of capabilities from the relatively straightforward to the more complex, especially when interoperating with other data protection tools, and the many systems and storage management tools with which it is well integrated to provide the overall management capabilities required for keeping IT operations available and responsive.*

*IBM Director is now the central hardware management component found in a number of Solutions Builder Express (SBE) service enablers. It is recognized that management software is only effective when deployed and utilized. The IBM Director SBEs enable IBM's partners to deliver services that ensure customers can quickly implement and exploit hardware and systems management effectively. In addition it is now well established for IBM's partners to deliver services based around IBM Director to monitor and/or manage the servers they are selling to their small and mid-sized customers.*

*Systems management is no longer a necessity for just large enterprises. Today every organization needs to keep its systems functioning effectively and SMBs now require simple-to-install, easy-to-operate systems management capabilities just as much as larger businesses. In this paper, we examine IBM Director as well as a range of service offerings available from IBM's business partners that are designed to ensure that the platforms utilized by SMBs are available and operational to support business needs, day in, day out.*

# IBM Director: A Foundation for Systems Management

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## What is IBM Director?

IBM Director supplies the core capabilities required to administer server hardware while also supplying a number of key discovery and software management facilities. IBM Director assists in the routine management and monitoring of servers with the goals of increasing system and application availability while reducing labor and management costs.

Although IBM Director is simple to install, deploy, and use, numerous services are available from IBM's partners to help organizations exploit the facilities available in IBM Director. These range from "basic" services, such as implementation and hardware health monitoring, to "enhanced" services providing proactive management capabilities.

It should be noted that while IBM Director provides its greatest functionality on IBM x86 Servers, including new BladeCenter systems, it also has agents available to monitor and manage x86 servers supplied by a number of vendors, including HP and Dell. x86 platforms often comprise the core server platforms deployed by most small and medium-sized businesses (SMBs), frequently supporting nearly all mainstream business applications. Indeed such servers are important to businesses of all sizes and in almost every industry vertical across the globe. In addition to x86 servers IBM Director also supports and run across IBM's entire server line, including System p (UNIX), System i (midrange), and System z (mainframe).

Through a single management console IBM Director provides the following functionality:

- ◆ Discovery of deployed servers, their physical characteristics, resources, and processes.
- ◆ Discovery of IBM and a wide range of ISV applications.
- ◆ Sophisticated event notification, including critical inventory change, hardware status, and action initiation.
- ◆ Software health check (BIOS, firmware, and device drivers for IBM servers) to identify software not at the latest release levels.
- ◆ Scheduling of IBM Director Tasks on remote systems.
- ◆ Management of most tasks (security, alerting, thresholds, etc.) by single server, group of servers, or all servers.
- ◆ Elementary Asset Management capabilities and reporting.

IBM Director, with its core focus on hardware platform and availability management, supplies a firm management foundation. In addition to the base IBM Director, additional IBM Director Extensions are available to deliver supplementary functionality. There are a number of IBM Solutions Builder Express (SBE) offerings that describe the implementation of IBM Director and Director Extensions enabling business partners to offer implementation services and other systems management solutions. IBM Tivoli systems management tools can provide additional management functionality such as application management, data and information storage management, all the way up to enterprise-wide service management capabilities.

## What's New in IBM Director V5.2

The latest release of IBM Director V5.2 adds many significant new features and makes the solution an attractive foundation for systems monitoring and management services. The new features and functionality develop the IBM Director attributes that make the monitoring and routine management of servers easy and fast to get working. It is evident that providing organizations with a basic, but very effective, platform management tool in a simple-to-get-working and straight forward-to-use solution are very much the themes of IBM Director V5.2. We believe these attributes will enhance the appeal and usability of IBM Director to organizations of all sizes and levels of sophistication. However, for SMBs these qualities are more than simply highly desirable; they are essential. These new features in IBM Director V5.2 position this management tool extremely relevant to SMBs and will likely attract the attention of the channel community that deliver services and solutions to this market.

Perhaps the most useful new feature for small and medium-sized businesses in IBM Director V5.2 is the Express installation option. The option utilizes extensive experience of IBM Director installations by IBM and its partners to install the software in a manner that is likely to suit many organizations with minimum user input and experience required. This makes it very quick and straight forward for the software to be up and running either by the customer or by the IBM Business partner.

Among the many new features of IBM Director V5.2 is improved firmware and driver update management along with enhanced virtualization management. IBM Director is now “HA” (high availability) ready. Enhancements have been made to the BladeCenter Configuration Manager to help streamline system configuration. Several security enhancements have been added, especially in integration with Microsoft Active Directory and LDAP, thereby simplifying centralized management. Sub-task authorization is now more granular. A number of new alerts with security implications are highlighted and remote alert capabilities are also enhanced.

IBM Director V5.2 provides improved storage integration through a new Storage Configuration Manager. Enhancements to available IBM Director Extensions include the new IBM Virtualization Manager, an extension that allows IBM Director to manage physical and virtual machines from its single console. The software also features improvements to the command line interface along with integration with BMC event log monitoring and clearing.

## Services Available through IBM's Business Partners

It is generally accepted that the initial purchase price of new IT systems accounts for only a minority of the cost of keeping such systems running over their lifetimes. The human resources spent keeping platforms operational typically represents the majority of the lifetime costs with management and downtime time comprising the remaining bulk of such costs. For an organization running ten x86 servers it would not be unusual to employ a system administrator to ensure that the servers keep running and to undertake routine maintenance at a cost of at least \$55,000 per annum. There is clearly an opportunity for IBM's partners to utilize the remote monitoring and management capabilities of IBM Director to offer a simple managed service to replace the need for the dedicated server hardware administrator thereby freeing skilled resources to focus on higher value issues.

While the management software itself has the capability to maximize operational availability and minimize administration effort, IBM Director is only effective when it is properly deployed and utilized. To help enable IBM partners to begin to offer basic services or to enhance their services offerings, new SBE service enablers with graduated levels of service have been designed by IBM and its partners for building on industry best practices to ensure that systems are available and operating effectively. These services seek to ensure that customers can make immediate use of their platforms while adding maximum value to business operations. The IBM SBE service enablers are available in two versions: “Providing Basic Services to Maintain Hardware Platform Health” and “Providing Enhanced Systems Management Services.”

“Providing Basic Services to Maintain Hardware Platform Health” is focused on allowing partners to provide services to ensure that hardware platforms operate as effectively as possible. Focusing on “Hardware Health,” the “Providing Basic Services to Maintain Hardware Platform Health” enabler covers the essential care and feeding of the underlying hardware on which business applications run. Making use of the IBM Director software and IBM Director Agents, “Providing Basic Services to Maintain Hardware Platform Health” allows partners to provide services to monitor the health of systems and ensures that systems alerting is in place. The Director Agents also provide elementary hardware asset discovery capabilities. A typical service delivered here by partners could also set up systems so that IBM hardware updates (firmware and drivers) are actioned and that Predictive Failure Analysis (PFA) is performed on critical platform hardware components including CPU, hard drives, memory, and voltage regulators. When servers crash and neither the operating system nor IBM Director are up and running, remote administration can still be actioned if an optional IBM Remote Supervisor Adapter (RSA I or II) is utilized.

“Providing Enhanced Systems Management Services” builds on top of the “Providing Basic Services to Maintain Hardware Platform Health” enabler by utilizing additional IBM software tools to make it possible for partners to deliver more proactive management capabilities and services. The “Providing Enhanced Systems Management Services” enabler makes it possible for partners to extend basic services to cover a range of non-IBM platforms, including DELL and HP, with firmware and driver updates while PFA is performed on additional hardware components such as fans and power supplies. (Non-IBM server support is also provided in the “Basic” SBE.) Several optional software components are available to complement the “Providing Enhanced Systems Management Services” enabler to further augment systems availability and protection. Among these, IBM Remote Deployment Manager helps install operating system images to remote end points while IBM Software Distribution Premium Edition allows server application software (e.g., Microsoft SQL Server, etc.) to be distributed to target end server platforms or client applications (e.g., Microsoft Office, etc.) to be automatically deployed to client machines. Optional software solutions such as IBM Tivoli Storage Manager Express can be utilized to centralize server data backup and restore capabilities to ensure that critical business information is adequately protected. In addition IBM Tivoli Continuous Data Protection for Files allows essential data files to be backed up and restored centrally from user PCs in real time without the need for system administrator or user intervention. The Tivoli products are both tested to ensure that they interoperate well with IBM Director.

IBM Global Finance has also made it easier than ever for SMB customers to find payment solutions that meet their budgetary requirements. We expect such financial flexibility would be an area of particular importance for many SMBs where cash flow and available capital may be limited.

It should be noted that all of the solutions and services offered have been designed with ongoing simplicity of use firmly in mind. Once deployed, the solutions are straightforward to operate either by the organization itself or perhaps through additional remote management services provided by the business partner. To help customers identify partner service delivery capabilities, in November 2006 IBM is introducing the System x IBM Director Certification exam which covers IBM Director V5.2. Details on the System x Director Certification program can be found on the IBM Professional Certification Program web page.

## Strategic Business Benefits Delivered Through IBM Director and Tivoli

The business benefits available to customers using IBM Director revolve around the high availability of the hardware platforms and the minimization of human management efforts to keep the platforms operational. Organizations today are more dependent than ever on their IT systems and having business applications available is a key priority. IBM Director Software helps to maximize availability ensuring that applications are available for use when needed. In addition the ability of IBM Director to reduce the demand for high-cost IT skills by simplifying many aspects of server administration is very beneficial to organizations where dedicated IT resources may be scarce or non-existent. When optional software tools such as IBM Tivoli Storage Manager Express and IBM Tivoli Continuous Data Protection for Files are considered, the value to customers through high availability and the protection of business information is easy to recognize.

## Business Partner Benefits Available Delivering Services with IBM Director and Tivoli

There are many potential benefits to IBM business partners that are provided by their adding SBE services associated with IBM Director V5.2. At its heart a Solutions Builder Express offering describes a set of tools and service enablers designed specifically to help IBM Business Partners sell infrastructure solutions and services to small and mid-sized businesses across a wide range of industries. These solutions are easier to install than traditional offerings and have been extensively tested to ensure that any potential integration issues have been addressed. SBE offerings provide Business Partners with a Solution Overview document and technical Implementation Guides to assist Business Partners in delivering customer projects.

## New Business Opportunities for IBM Business Partners

The two SBE services enablers are simple, low-risk, low-cost entry points available for partners to provide customers with value-added services associated with IBM platforms. These SBE offerings were created to help IBM's business partners to deliver services alongside IBM hardware platforms.

Delivering services to customers helps partners establish customer relationships that are more consultative in nature rather than simply being a hardware supplier. This in turn frequently results in deeper relationships that deliver higher revenue from each customer, often with higher profit margins. There is a clear opportunity here for partners to utilize the capabilities of IBM Director to direct alerts to email, cell phone text message, or pager to identify new opportunities to serve their customers. Such opportunities could encompass a full managed hardware service or simply using alerts to identify faulty parts to be replaced. These potential services fall within the areas where partners are already highly skilled and could deliver new revenues while boosting customer satisfaction considerably by helping ensure servers are more available and reliable, thus simplifying daily operations for the mid-market customer.

The SBE enablers associated with IBM Director open up potential new revenue streams for IBM's traditional hardware reseller network from sales of services, additional IBM Director options, and IBM Tivoli software. It should be noted that the SBE enablers leverage the existing hardware and implementation skills base of these IBM partners.

The services associated with IBM Director SBE enablers are designed to offer hardware resellers an easy entry into supplying their customers with value-added services. The solutions typically have a low cost of entry as they make use of IBM technology that is either delivered with the platforms or free of charge for use with most IBM systems. Equally IBM levies no charge on IBM business partners to use SBE offerings. IBM also offers bundled pricing for the chargeable options and extensions associated with IBM Director software. The bundled pricing offers are made available to lower the cost of entry for business partners to engage in the associated SBE-enabled services.

As the services are simple to deliver with IBM equipment and provide clear customer value, business partners have the potential to generate additional revenues each time an IBM server is sold. The program also offers a clear path to grow services and associated IBM software revenues by moving from the IBM Providing Basic Services to Maintain Hardware Platform Health Partner services to the Enhanced Partner Services as the partner's experience and confidence increase. Business partners can optionally take advantage of the new System x Partner Certification for IBM Director, a visible means for potential customers to identify suppliers of IBM Director services.

## The Commercial Opportunities for IBM Business Partners

There are clear commercial advantages for IBM Business Partners to offer services based around IBM Director and the SBEs. Equally it is readily apparent that customers making use of IBM Director will experience appreciable increases in the availability of their systems while the costs and efforts associated with the ongoing management of the systems will be reduced. These factors, coupled with the pricing and financing offers available for IBM Director, should make the overall package very attractive. There is also considerable scope for customers to enjoy higher satisfaction with the platform, potentially resulting in higher loyalty to both IBM platforms and to their channel supplier.

Indeed the scope for IBM business partners to garner even higher levels of customer satisfaction and commercial benefit can be considerably extended when "Providing Enhanced Systems Management Services" is taken into account. These services are delivered around Director and the complementary Tivoli software tools, namely Tivoli Storage Manager Express for server backup and restore and Tivoli Continuous Data Protection for Files. These applications have been specifically designed for SMB customers to supply simple-to-use backup and restore capabilities, capabilities that are extremely valuable in a world where business information is of the utmost importance. The fact that IBM has made it simple for its channel partners to wrap enhanced services around these Tivoli management

tools specifically to meet the needs of SMB customers offers considerable benefits to both customers and IBM's partner community.

There is even scope for individual members of the IBM partner base community to team together to supply yet more sophisticated levels of service. For example there is the opportunity for partners with different skill sets and experience to combine to deliver a range of installation and ongoing managed services for platforms utilizing IBM Servers, IBM Director and its options coupled with IBM Tivoli software offerings.

## Looking at the Competition

IBM Director software and the associated Solutions Builder Express service offerings allow customers to build a solid basis for the management of their x86 hardware platforms, both IBM System x servers and those available from other vendors. While HP and Dell both offer initial services to help customers implement new x86 servers they appear to have nothing that directly matches IBM's SBE program available through its extensive business partner community.

Dell offers customers installation and configuration support at no additional charge to get its OpenManage product operational; however, there is no comparable program that targets hardware management and associated server protection offerings with best practice guides and central support. The company does offer fee based services around OpenManage at the specific request of a customer. Dell utilizes a small number of partners to deliver services. HP offers services to SMB customers around its Insight Manager hardware management software. In the SMB market the majority of said services are supplied via its extensive business partner community. However, there appears to be no equivalent targeted program based around best practice and pre-tested integrated solutions.

The management of servers in the SMB market is an area that the tools of many systems management vendors address. Perhaps the best known are Microsoft's SMS and MOM, although elements of these are often combined with management solutions from many other suppliers. However, the combination of IBM Director and IBM Tivoli are designed to work together making it easy to deploy solutions based around avoiding complexity and risk, thereby reducing the time required to deliver services. Solutions based around combinations of other management tools may not have undergone such pre-testing and may make each new installation an entirely new undertaking.

## What It All Means

We believe there is demonstrable value received by customers who deploy and utilize IBM Director software and the associated SBE service enablers. Systems management is today an absolute requirement for all organizations and IBM Director supplies a solid foundation on which to build hardware x86 platform availability. The services available from IBM's extensive, certified channel community can ensure that customers get their systems working very quickly and cost-effectively. The additional benefits that IBM Director delivers by helping to simplify server administration cannot be over-valued. Given its capabilities and attractive licensing options that IBM is making available, we believe IBM Director is well positioned to meet the needs of many organizations.

Overall, we believe IBM Director and the SBE service enablers are well positioned to encourage IBM's business partners to move towards supplying customer services and offering other elements of the IBM Tivoli management portfolio. Business partners that do undertake to provide these services open up the opportunity to become more than simply hardware suppliers. The potential exists for them to become a much more consultative partner to their customer base, a situation that should prove to be beneficial to both the business partners and their customers as they achieve enhanced utilization and return on their IT investment.