



The Power of Information Availability

What Every Senior Executive Should Know

Recovering Business Value from Unprofitable Downtime



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Executive Summary

Every business—large or small—faces multiple marketplace challenges. They come from increasing competition and customer churn and from productivity and profitability concerns. Overwhelming, you're being asked to find and deliver new value at every turn. And you expect information and technology to deliver cost-effective value.

Your existing IT infrastructure may be able to deliver even more value by unleashing the potential locked inside planned downtime—when systems, applications and databases are brought down for maintenance, backups or reporting activities. This downtime currently delivers zero value to your business operations—and adds nothing to your bottom line.

“ Information availability is fast becoming a board room issue because companies are asking for more money and resources ... ”
— Survey of Fortune 1,000 CEOs, Contingency Planning and Management Magazine

This white paper explores how the power of an information availability solution can transform that non-productive, non-profitable downtime into the optimum level of value-producing business uptime for your organization. First, by eliminating or minimizing disruptions from planned system downtime; second, by eliminating or minimizing delays and latency from your information and business processes, speeding up the ability of your employees, customers or partners to act—to buy, to decide, to analyze, to share, to market, to deliver on time, to service, to expand and to profit. You'll find the worksheets you'll need to discuss these issues with your business unit and IT executives.

Aligning Business and IT

Over the last few years, every business has faced an onslaught of challenges: global economic volatility, fierce competition, customer churn, mergers and acquisitions, rising security concerns and waves of regulatory compliance issues. Meanwhile, stakeholders continue to demand that top executives increase profits, lower costs, expand market share and grow revenue.

To solve these issues, much has been demanded from you and your IT executives. The most successful organizations have been able to harness these complex, often competing, initiatives into a larger, strategic vision supported by emerging technologies. When properly aligned with that vision, information technology becomes a potent force for solving business pain throughout the organization, creating competitive advantage and driving shareholder value at every level.

Some businesses have been more adept at this alignment of interests than others. And more will be demanded in the next few years. Users always need more: more data, more data sharing, more applications, more processing time, more reports and more access. Customers want more choices, more convenience, more access points and more flexibility. Shareholders want to see more value, higher profits, greater efficiencies and more return for every dollar spent.

Your organization may be dealing with some of these challenges today; others may pose long-term obstacles to your business strategies or growth. You need the ability to ensure that IT can and will continue to deliver on your goals. That's why it's important to make "information availability" a key issue in discussions with your IT executives.

Realizing the Power of Information Availability


" Business continuity is now so vital to business success that it is no longer a matter for the IT department alone, but for the heads of all business departments, and their boards. "
— Cranfield School of Management

Businesses of all sizes can solve "the move" challenges by deploying strategies and products based on highly accessible, free flowing information to serve customers more effectively, deliver products and services, reach across the globe, increase profits and productivity and create deeper relationships. For these organizations, information has become a powerful engine to address emerging business challenges and bring technology in closer alignment with stakeholder value and the goals of the organization.

The ability to deliver and assure optimum accessibility and information will be crucial to effectively enabling your most important initiatives in the next few years.

What Does Information Availability Mean?

Information availability means ***accessibility*** - having data, applications and systems working exactly as they should when you need them. Any interruption or interference (downtime) that makes your information or applications inaccessible or inaccurate adds delay to your go-to-market processes, supply chain, analyses and decisions. Most importantly, downtime prevents immediate ***action*** from your customers, employees and business partners.



Even the most highly effective information-driven organization inevitably suffers some form of interference to access and information flow. While some *unplanned* downtime results from weather or other disaster, most happens because of hardware or application failures, human errors and security violations. Surprisingly though, studies show that *planned* interruptions (downtime) caused by routine daily/weekly backups, system upgrades, performance tuning and batch jobs create 70-90 percent of interruptions for most businesses.

Information Availability and Your Bottom Line

Whatever its cause, downtime adds no value to your business goals. It's the equivalent of turning out the lights and sending everyone home. This downtime interferes with and delays the forward movement of your strategies and reduces the profitability and return your shareholders expect. For example, a study by Contingency Planning Research shows 54 percent of surveyed businesses indicated that each hour of downtime would cost between \$51,000 – \$1 million (US).

“ System downtime longer than 20 minutes was reflected in users changing their task at hand, disrupting processes and yielding effective outages measured in hours when seen from the user’s perspective. ”
— “Designing for High Availability,” DM Review

No doubt your organization uses large volumes of data and multiple, complex applications. Each requires some level of maintenance to keep it running efficiently, and that requires downtime. If your business undergoes even one hour of planned downtime a week—a very conservative estimate—you may be failing to capture and use anywhere from \$2.7 to \$52 million (US) in value per year.

Of even more concern, in the case of an unplanned event, such as system failure, a majority of surveyed Fortune 1,000 C-level executives said that on average restoring access and availability to critical information systems would take 9–12 hours. Such an interruption could result in nearly \$500,000 to \$12 million (US) in delays and potential losses for a single occurrence.

Manufacturing

This major plastics manufacturer guards its “reliable supplier” reputation vigorously. It turns out rigid plastic containers 24/7 at its 11 plants. With production lines working round-the-clock, it cannot afford to let its business computing systems go down at any time. The power of information availability transformed its strategies and ensures that it meets the most aggressive service level agreements with its customers - a definite competitive edge. The IT department now performs application upgrades or system maintenance at any time, while its SAP and legacy environments keep producing. By eliminating several hours of non-value producing downtime a month, the business realized a recovered value of almost \$3 million a year.

Putting Value-Producing Information to Work

Once an information availability solution liberates non-value producing downtime—and the monetary consequences it represents—you and your top IT executives must determine how best to redeploy it to generate the highest return. Information availability frees your increasingly complex, sophisticated and vital IT infrastructure to support your business endeavours in the most efficient and effective ways. In the process, it aligns your IT processes more closely than ever to your business.

Increase Profitability

Profitability goes beyond simply doing more with existing resources. It means being able to use and deploy every available technology resource at any time to empower your people with the tools they need to do their jobs. This level of availability can deliver an immediate boost to productivity and profitability throughout the organization, especially one moving toward a more mobile, ad-hoc workforce.

By eliminating downtime from your information processes, you can immediately leverage existing staff and technology to do and deliver more even as you continue to focus on cutting costs and alleviating profitability pressures. Accessible, real-time information and systems powered by an information availability solution speeds collaboration, buying, marketing and daily interaction as well. For example, removing employees from entrenched silos of operation with simplified, continuous access to cross-enterprise data has been effective in telescoping decision-making, enabling real-time collaboration, and realizing the full value of enterprise applications.

Industrial Chemicals

Electronic commerce opened new global markets for this specialty chemical company, helped streamline internal and supply-chain operations and dramatically reduced costs. To be effective, internet channels require on-demand availability and near continuous access to information and applications. Consequently, the company wanted to eliminate more than \$16 million (US) in potential downtime delays and costs from its just-in-time manufacturing systems to ensure that it would be able to supply customers on their schedules—and through whatever channel they chose. The company now uses the power of information availability to fuel continuous uptime and minimum data loss for its critical supply chain and internet applications.

Get Closer to Customers

“Lack of accessibility turns out to be the prime customer dis-satisfier and reason why consumers desert a company.”
— NEDRIX survey, Purdue University, CRM project

As your organization works to achieve a 360-degree view of its customers, access to the most current customer information at any time becomes even more important. Interruptions in customer service processes, CRM application functions and data exchange delay routine business activity. Long term, these interruptions can impact your market share and brand value. Information availability solutions ensure that your customer-centric strategies can continue no matter what. Information keeps moving, applications keep working and customers and employees continue to interact.

As customers migrate to internet-enabled services, any interference in their ability to interact with you online risks losing their loyalty and share of wallet. As many organizations have realized, internet services enable the migration of simple, labor-intensive activities to self-service channels. The internet enables more effective cross selling of services to your existing customers and new revenue sources. All contribute to increased profitability and growth strategies as well. Delay and inaccessibility create barriers that will drive customers to competitors. Information availability, however, gives you the on-demand, accessible, optimally available customer face you need to delight customers and build their loyalty.



Grow Market Share and Revenue

Eliminating delays from your go-to-market processes enables faster response to competitors and accelerated product/service development and rollout. Optimum availability of applications and information means faster, more reliable analyses and more confident decisions about market trends, customer cross-selling paths, marketing programs and the next opportunities.

As your organization grows through mergers or acquisitions, optimum information availability can help smooth the inevitable IT transitions. Because it works in the background, an information availability solution can continue to provide optimum access to information and applications as consolidation and cost-reduction efforts take place behind the scenes. In the past, these efforts may have required extensive, expensive downtime.

Off Shore and Outsource Business Functions

Moving operations to lower-cost locations offers an opportunity to dramatically reduce operating costs. But off shoring business functions poses distance complexities and availability issues. Since off shoring or outsourcing a business function requires cross-time zone operation, any level of downtime can affect accessibility and service quality on either side of the partnership.

Information availability solutions provide protection against service delays in the off shoring equation. In addition, they can empower your organization to require information availability metrics in service level agreements (SLAs) with off shore or outsource partners. Both partners now have greater confidence in the ability of the other to deliver and even guarantee availability and access whenever needed.

Tackle New Regulatory Compliance Issues

Today, publicly traded organizations and others face demanding financial management and disclosure regulations, which carry severe penalties for noncompliance. An information availability solution can enable a confident, accurate response because it protects the vital IT infrastructure and data from planned and unplanned downtime that may occur at any time before or during the compliance period. Among these compliance challenges are:

- Gramm-Leach-Bliley Financial Services Modernization Act
- Sarbanes-Oxley Act
- USA PATRIOT Act
- Health Insurance Portability and Accountability Act (HIPAA)

Since all of these regulations and guidelines require accurate, accessible, timely and complete information and reporting, an availability solution ensures that your organization can fully respond and meet the reporting requirements and deadlines no matter what situation arises. In addition, information availability solutions deliver comprehensive disaster recovery when data and systems are backed up to a remote location, ensuring that your data remains protected from unplanned events.

Healthcare experts estimate that system downtime costs an average 500-bed hospital more than \$264 per minute. If systems were down only 1 percent of the time, the organization never realizes more than \$1.4 million in potential value.

Under Sarbanes-Oxley, for example, the CEO and CFO of publicly traded organizations are legally responsible for the content of financial disclosure reports to the SEC within an accelerated reporting deadline. The loss or inaccessibility of critical data or applications during this reporting period could severely impact the quality of the data and the timeliness of the reports. Likewise, under the USA PATRIOT act, banks have 120 hours to produce requested records to Federal agencies involved in enforcing anti-money laundering laws. Such requests will always impact normal workloads, but they can become an even greater burden should applications or information become unavailable.

Organizations that handle, process or deliver healthcare information must, under HIPAA, assure the protection, integrity and confidentiality of information for their patients, insureds, providers and health plans. And they must ensure that this information remains available on demand within five days of a request. HIPAA mandates that covered organizations deploy contingency plans that include data backup strategies, disaster recovery plans, and emergency mode operation to enable continuation of critical business processes. Loss of data or inability to access the data within the specified timeframe can incur severe penalties and possible legal action.

Turning Downtime to Value-Producing Uptime

Did You Know?
Research shows that on average 80 percent of mission-critical application service downtime is directly caused by people or process failures.

An information availability software solution ensures that information and applications remain as accessible and available as needed. That means they continue to drive revenue, profitability, productivity and compliance at acceptable levels no matter what planned or unplanned events occur.

Most organizations define uptime along a continuum that allows multiple hours of downtime with significant data loss all the way to real-time, 24/7 uptime with zero data loss. Depending on your business operations, an availability solution can completely eliminate interruptions—both planned and unplanned—or at the very least minimize the impact they have on your financial picture.

The first step in determining your organization's optimum availability starts by taking an inventory of your information systems and your underlying systems and data needs, then determining the level of availability required by each to support your business goals and comply with current and future regulations. For example, any loss of EDI-fed supply chain data would seriously impact a manufacturer's ability to deliver on time and may result in monetary penalties or loss of future business. However, the applications and systems that

Logistics

This major UK-based logistics company fields a fleet of 600 vehicles to deliver 1.2 million tons of drinks a year to 25,000 distribution points on time, every time. That's their competitive edge in a cost-conscious market. The company uses the power of information availability to dramatically increase their ability to deliver for their customers and gain the flexibility and scalability to grow market share. The power of information availability enables the company to switch from production systems to backups on a regular basis—with no business or data loss. Senior executives have confidence that information and applications remain accessible and available to provide competitive edge with continuous service.

analyze that data internally may tolerate the occasional few minutes of downtime provided these events are infrequent and they result in zero data loss. In contrast, your PBX traffic accounting system may tolerate more downtime and possibly loss of hours worth of data.

Deploying an information availability solution means working with your IT executives to find the right combination of business and technical solutions to a) liberate the unrealized value of current downtime from critical information processes; and b) minimize acceptable downtime and data loss for non-critical data and applications so they can deliver the maximum return for your organization. Whatever that combination, the power of an information availability solution rests in its ability to:

- Protect your data, applications and systems so that whatever happens there is zero or minimum interference with business processes.
- Manage your information environment for the highest level of value-producing uptime with extensive automation to minimize impact on staff, IT resources or new skill requirements.
- Assure the integrity and quality of your environment for maximum confidence in the ability of the business to continue without interruption or with as minimal impact as possible.

Above all, the goal of any information availability solution must be to transform any nonproductive, non-profitable *downtime* into the optimum level of *value-producing business uptime*. What this optimum level should be depends on your business.

The process of deploying an information availability solution will identify for your organization the optimum accessibility for your data and applications that will produce the greatest results for your users, customers and partners and generate the greatest return for the organization and shareholders. In addition, with the right availability solution, the organization receives the protection of a disaster recovery solution—a value-add business asset to mitigate the effects of unplanned interruptions and other disasters.

Bottom line: If your organization can minimize or eliminate planned downtime, it can free up specific, measurable (currently unrealized) potential that can immediately support your business strategies.

Banking

NovaBank specializes in the highly competitive retail-banking sector and as such, their prime interest is to serve their clients quickly and efficiently. As a relative new player in the very competitive retail banking market, this bank launched an aggressive strategy to open 45 branches in one day. Its IT department got behind the strategy with the power of information availability. It provided seamless access and availability through non-stop backup protection that eliminated any possibility of unplanned events affecting customer satisfaction and undermining the bank's go to market strategy. Later, after successfully launching its locations, its information availability solution enabled them to transparently upgrade its systems and applications—without stopping business.



Next Step: Business and IT Alignment Guide

Realizing the value of turning your organization's downtime into value-producing uptime requires careful analysis of how the effects of inaccessible data and applications affects the productivity of your business strategies. The goal should be to identify where any planned downtime interrupts or prevents business analysis, buying or selling decisions, achieving on-demand customer service, or complying with or responding to regulatory requirements. As part of this research, it helps to have a complete understanding of current disaster recovery processes and how continuous availability can replace or support those processes.

See Business Process and IT Process Evaluation Worksheets at the end of this document.

Conclusion

As your organization handles the multiple challenges of competition, market share, productivity and profitability, your one overriding task is to return value at every level of every business process. In the past, most businesses have operated more or less effectively with a certain level of non-productive downtime—whether required to maintain systems, applications and data or to produce daily analysis reports.

Unfortunately today's emphasis on driving ever-greater productivity and profitability through faster, more cost-effective business processes means that downtime becomes an obstacle to improving future performance and delivering value—the two essential conditions that will make your business competitive and profitable today and in years to come. No matter how large or small your organization, information availability software solutions can help you solve these issues.

The power of an information availability solution lies in its ability to transform any nonproductive, non-profitable *downtime* into the optimum level of *value-producing business uptime*. This squeezes out delays and latency from business processes and speeds up the ability of the employee, customer or partner to act.

The power of information availability offers the opportunity for your business to breakthrough current productivity and profitability barriers by providing the optimum accessibility for your data and applications for the greatest results—and value—for your users, customers and partners. And that will deliver the greatest return for business.



Business Process Evaluation Worksheet

You and your IT executives should assess the following business processes for the potential impact downtime may cause to effectiveness and value:

- Go to market strategies—including the ability to eliminate or minimize delays and latency from information access, delivery or data accuracy; speed up analyses and decisions in the product development cycle; improve target marketing; serve sales channels more flexibly and effectively; as well as meet stringent service level agreements.
- Customer profitability—including the ability to protect customer activity information, make it accessible for a given customer or customer organization, eliminate delay from the analysis and action process, and ensure the availability of CRM applications and service centers.
- Sales force automation—including the ability to reduce or eliminate the effects and costs of downtime in driving sales processes, develop real-time analysis, share and deliver information across applications and the enterprise, launch rapid response marketing campaigns and gain real-time reporting analysis.
- ERP—including the ability to reduce or eliminate the effects and potential costs of downtime on production processes, supply chain, distribution network, warehouse, delivery and transportation processes (even RFID), especially how they impact service level agreements with customers.
- Front-middle-back office processes—including the elimination of latency from the exchange, use or analysis of electronic information interchange and electronic feeds to G/L, finance and accounting applications.
- Business intelligence—including the elimination or reduction of delays and costs associated with programming application interfaces, easy, real-time data sharing, assured availability and protection of data warehouse/data mart investments and the potential loss of critical data during unplanned interruptions.
- Workforce mobility—including the reduction or elimination of barriers to on-demand accessibility and availability of applications and data to enable off-site and off-hours work as well as unconventional working arrangements.



IT Process Evaluation Worksheet

To better align business strategies with information technology, ask your IT executives to evaluate the cost and impact of delays and barriers posed by non-value producing downtime in IT processes:

- Shrinking backup windows - including how eBusiness and supply-chain processes, ever growing data volumes and distributed applications affect backup time and lengthening downtime.
- Expanded internet dependence - including the current impact of downtime in fully exploiting internet channels to market, serve customers and reduce costs; in addition the impact of downtime and potential loss of email applications on business activity.
- Globalized computing - including the current barriers and impact downtime poses to world-wide access to data and applications for collaboration, financial exchange, remote or field employees and offshore/outsourced business functions.
- Mission critical “killer” applications - including the current impact of downtime on applications running across multiple servers and how planned or unplanned events affect access and availability as well as the ability of business users to make decisions or take action.
- Server consolidation - including how information availability solutions can help accomplish this cost-effective, profitability enhancing strategy without impacting users or customers with planned downtime; and how information availability can mitigate or eliminate added risks to data and applications running in a consolidated environment.



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