



MISSION POSSIBLE

BIG DATA IMPLEMENTATIONS:

HOW TO ADAPT TO THE NEW PARADIGM

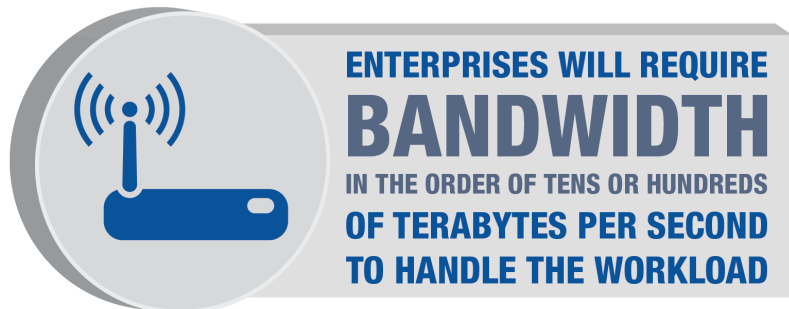


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IS YOUR INFRASTRUCTURE READY?

By its very nature, Big Data exceeds the ability of traditional infrastructure and analytical tools. From a networking perspective alone, Big Data most assuredly has the potential to saturate current deployments. Big Data solutions create higher interconnect traffic both within and among data center locations. Given the added requirements of network security, enterprises will require bandwidth in the order of tens or hundreds of terabytes per second to handle the workload.



Furthermore, Big Data storage requirements also exceed the capabilities of legacy infrastructure. In fact, there is no single Big Data storage solution on the market today. Multiple technologies may be necessary to accommodate the exponential growth of the digital universe.

Depending on the particular use case, SAN-based storage may be wholly insufficient. In lieu of these shortcomings, NAS-based storage and direct attached storage have stepped forward as possible solutions. In either instance, it is imperative for enterprises to turn toward a Big-Data-ready infrastructure, adapting to a new paradigm of information management and analytics.

BIG DATA MEANS ENTERPRISES MUST ADAPT TO A NEW STATUS QUO

Today, misconceptions abound concerning what Big Data actually means. “Big” is a matter of context and perspective more often than not, so there is no single one-size-fits-all software solution or analytical appliance to answer the challenge quickly. Enterprises must reevaluate the readiness of their infrastructure to deliver actionable insights in real-time and at a reasonable cost.



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The key question that enterprises face is how to position themselves to take advantage of the exponential growth of the digital universe over the foreseeable future. The size of the digital universe continues to expand at an unprecedented pace. According to McKinsey Global Institute’s (MGI) 2013 study *Game Changers: Five Opportunities for US Growth and Renewal*, 2,700 exabytes of data were collected in 2012; by 2020, MGI expects the digital universe to expand to 40,000 exabytes of data.



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The challenges of leveraging and integrating large structured, semi-structured and unstructured data sets are not insurmountable, but they will force enterprises to look beyond traditional data center deployments. At its core, Big Data represents a paradigm shift, paving the way for new technologies such as shared-nothing massively parallel processing (MPP) Big Data platforms.

To bring timely ROI to fruition when implementing new Big Data technology, organizations must choose implementation vendors that can lower total cost of ownership in concert with ensuring a Big-Data-ready infrastructure is in place. Contrary to popular misconception, the most cost-effective strategy is not implementing incrementally more advanced technology. Big Data demands that enterprises look beyond their legacy data centers and toward a new paradigm with new solutions.



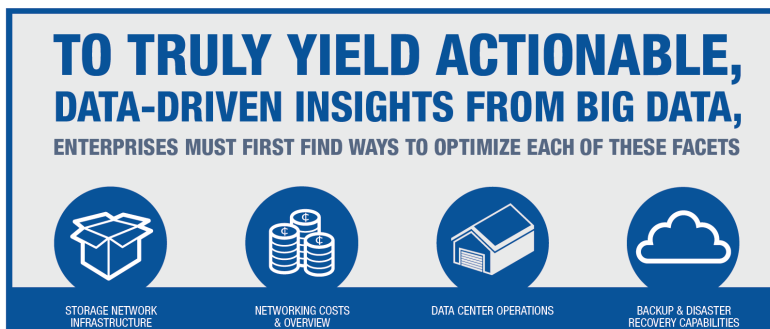
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IIS ADVANCES THE NEW BIG DATA PARADIGM

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Harnessing the potential of Big Data starts with the realization that legacy data centers cannot accommodate the massive scale of the Big Data problem. Organizations need industry-specific solutions and actionable insights derived from Big Data, not a one-size-fits-all software or analytical appliance. To begin the process, IIS starts with assessing an organization's current data center resources to gauge organizational readiness and maturity.



To truly yield actionable, data-driven insights from Big Data, enterprises must first find ways to optimize each of these facets with an eye toward the ever-expanding digital universe. IIS' services afford enterprises the benefit of partnering with a consultancy that works proactively to provide the right Big Data solutions and deploy data-center resources to anticipate Big Data.

As experts in the architecting of shared-nothing MPP environments, IIS understands the intricacies of building networks to accommodate the needs of Big Data clusters. By helping enterprises adapt to the new Big Data paradigm, IIS guides organizations through the uncharted waters of Big Data and its unforeseen pitfalls.

Certainly, Big Data presents enterprises with a huge opportunity, but the true definition of Big Data has been lost in the hype. To glean the most value-added insights from Big Data, enterprises must prepare themselves to accommodate Big Data by looking beyond the traditional data center.