Data Center 2.0
A Roadmap for Data Center Transformation

By Tony Bishop, author of Next Generation Data Centers in Financial Services

A PRACTITIONER’S PERSPECTIVE / WHITE PAPER
The case for a re-envisioned data center is being made every day, and at an increasingly urgent pace. Growing technology demands, transforming global economics, corporate efficiency initiatives, and required business agility are among the drivers making change not merely a strategy, but a prerequisite for survival.

CIO organizations that don’t focus strategic attention and investment in the data center physical infrastructure are destined to be left behind. The good news is that when it comes to data centers, the future has already arrived—in the form of Data Center 2.0. Forward thinking businesses are already reaping the benefits of this new strategy, which has the potential to transform data centers from expensive and unwieldy barriers to innovation into the kind of powerful and adaptable engines that can move businesses forward at the formidable speed of now.

Key Takeaways

1. **The predominantly static data center and its limitations are dangerously antiquated.** The “1.0” mindset exposes organizations to stagnation and overall inefficiency while draining significant financial, physical and business resources, and sacrificing delivery quality.

2. **A perfect storm is on the data center horizon,** made up of an explosion in demand, and supply constraints that point toward a crisis of data center operational complexity that must be prioritized and transformed.

3. **The future of the data center world has taken shape in the form of Data Center 2.0.** This represents a new paradigm, a fundamental transformation of the Data Center DNA that is built around the pillars of composition, economics and service delivery. This technology-based, sustainable solution features standardized capacity units, integrated automation, a highly agile delivery model and maximized efficiency.

4. **IO has emerged as the leader in an evolving market.** Currently, IO is the only data center technology vendor that provides UL certified data center footprints. This includes integrated hardware and software capabilities that can be delivered on premise or as a service, flexible configuration, deployment and operational models that achieve the highest performance and lowest cost to adopt.

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Transformation Roadmap

As stated in The New CIO Leader, “Once you know the fundamentals of your enterprise and where it currently stands, you need to start looking at what major trends are likely to impact your organization” (Broadbent and Kitzis, 2005). Today's successful CIO leaders must be equal parts organizational engineers and visionaries, wading through overwhelming amounts of information to identify those trends that will both meet their needs and move their businesses forward. Leaders are facing three clear issues emerging in the Enterprise IT Market:

- **Failure to reconcile rising expectations and diminishing resources will inevitably mean disaster.** The discrepancy between what is expected from IT efforts and the resources allocated to satisfy the demand has never been larger. The increasing convergence of Enterprise IT, Web 2.0 and the growing requirements for content, data and instant knowledge is fueling a massive transformation in how business is executed. This inevitably will result in a strain on how IT will perform its critical functions to make it all happen. Capacity demands have been projected to grow 31% year-over-year according to Cisco's Global Cloud Index Study. At the same time, capacity budgets are projected to remain flat or decrease 20% each year for the foreseeable future. The situation as it currently stands is unsustainable, and can only be remedied with a next generation mindset and a new strategic focus.

- **Data Center economics are out of control.** The prevailing economic model for data centers dooms them to failure by turning a potential catalyst into an anchor. Data center physical infrastructure costs continue to rise year-over-year. According to Rubin Worldwide surveys, data center operational costs have climbed to over 50% of the bill of IT in some large organizations. At a time when CIO's should be considering data centers as the powerful solutions they can be, these facilities have in essence become the number one barrier for CIOs in meeting business objectives.

- **Current delivery models are antiquated.** A new digital reality is transforming the way every organization is able to connect, transact, collaborate and deliver on-demand, dynamically tailored support to their clients and partners. So why is it that our data centers remain so far behind these times? The need for new capacity is counterbalanced by long, complex and inconsistent approaches to facility construction. It can take months, or even years, to provision new capacity, and configuration options that are severely limited by a one-size fits all approach. While transformative technology rules the day in nearly every other business area, data centers remain stuck in the digital dark ages, still married to an outdated approach to siloed, non-correlated monitoring, supplemented with manual routines. As a result, resolving critically important incidents can take hours to days versus the seconds to minutes demanded by today's business world. Change is not an option, but an absolute necessity for any company looking to end up on the right side of what is clearly an "evolve or die" proposition.
The (R)evolution of the Data Center is Now

Traditional data centers (let’s call them Data Center 1.0) have been designed, created and operated similarly to commercial real estate, and with little difference to people space. They essentially were intended to be built for the long-term with long-range investment and depreciation cycles measured in decades. Individual mechanical or electrical components were maintained (and occasionally replenished), and racks and cooling periodically reconfigured over periods of many years. Little or no attention was paid to the concurrent and far more dynamic innovation and evolution of the IT Kit, which has resulted in refresh cycles of 2 to 4 years with step function gains in performance to cost.

If there is one thing we are learning in today’s business world, it’s that it doesn’t make sense to throw 20th Century solutions at 21st Century problems. Historical supply approaches to data center capacity simply are no match for the demand drivers that are forcing organizations to rethink their planning, sourcing, delivery and operating models.

There is a temptation to turn to business as usual IT strategies such as consolidation, virtualization and cloud delivery models. These approaches are inevitably unsuitable because they only provide temporary relief around issues like demand explosion and supply cost. But in essence, the symptoms are treated instead of attacking the root causing the problems, which is the data center physical infrastructure operation.

Think of the demands put on service providers, particularly in today’s economic climate. It is important to consider the data center in those terms. For any digital business, the data center is the foundational service provider, and needs to be treated as such by the CIO and the entire organization.

The data center in a 1.0 version is not only a significant cost problem, but more importantly, it remains to be the number one barrier to the real-time, agile operating model a business needs to succeed.

The next evolution of the data center must become a prioritized focus for every CIO. Otherwise, the entire supply chain and all of its optimization investments will collapse under its weight. Today data centers must become more responsive, more efficient, and less capital intensive. They must be seen as an engine that can drive business rather than as anchors that routinely hold it back. This means a fundamental shift in the way organizations think about their data center strategies and that starts with a strategic view of how IT is enabled and delivered, beginning with the data center physical layer of an IT infrastructure.

The appropriate delivery models may change based on each enterprise. But the core message of the transformation manifesto MUST be heard, and acted upon: Evolve your data center strategy today, or risk devastating consequences for your business tomorrow.
Data Center 2.0

The old data center paradigm of adding more infrastructure, redundancy, people, and throwing large buckets of capital every year towards preventative maintenance has hit an evolutionary dead end.

A technological and operational transformation of the data center is already underway. Leading organizations are transforming their data center facilities and facility’s partners towards a digital factory operating model that is dynamically managed, effectively delivered and that employs continuous efficiency optimization.

Data Center 2.0 transcends 1.0 methodology by embracing the dynamic nature of data management and access needs. Combining modular infrastructure with software controls to maximize IT utilization, resiliency, energy efficiency and global data center performance, the 2.0 data center can address the needs of the business in real-time. Because organizations can no longer afford fundamental disconnects between its IT and data center footprints that create operational risk, inefficiency, waste and agility barriers, 2.0 enables a significant shift toward an integrated, optimized and standardized data center and IT footprint operation. As a new operating paradigm in which the data center becomes the foundation of business alignment and IT transformation, Data Center 2.0 creates a sustainable competitive advantage for conducting business.

The strategy signals a fundamental shift in the way data centers are assembled, consumed and operated. Yesterday’s complex and often unwieldy enterprise data center operations have been transformed into a simplified plug and play capacity delivery model of rapid assembly, lights-out automation and best in class efficiency.

Data Center 2.0 Capability Transformation

The following table outlines the top 10 capabilities that are transformed when adopting a Data Center 2.0 strategy. It serves as a transformation framework to help Enterprise IT organizations map their own data center change program in a systematic, capability-driven manner.

Enterprise IT organizations should orient their data center strategy towards a change program that will transform the data center DNA. Data Center 2.0 creates wholesale DNA changes in terms of economics, productivity, service delivery and the operational model.
As documented in the book *Next Generation Data Centers - Driving Extreme Efficiency and Effective Cost Savings* (Elsevier 2009), it is critical for Enterprise IT organizations to align, design and operate their delivery model with a capability driven service orientation. This enables a continuously optimizing IT strategy that exploits new innovations and technology for maximum business value impact.

By researching and benchmarking Data Center 2.0 capabilities, it can be strongly argued that organizations who adopt a Data Center 2.0 strategy will leapfrog their competition and future-proof the sustainability of their data center operations.

<table>
<thead>
<tr>
<th>CAPABILITY</th>
<th>DATA CENTER 1.0</th>
<th>DATA CENTER 2.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESIGN AND ENGINEERING</td>
<td>Extensive engineering</td>
<td>Manufactured and certified</td>
</tr>
<tr>
<td>CONSTRUCTION AND INTEGRATION</td>
<td>Expensive and custom</td>
<td>Affordable and sustainable</td>
</tr>
<tr>
<td>GRANULARITY</td>
<td>One size fits all, 20 year increments</td>
<td>Fit-for-purpose and thin provisioning</td>
</tr>
<tr>
<td>MODULARITY</td>
<td>Disparate components</td>
<td>Standardized and modular unit of function and delivery</td>
</tr>
<tr>
<td>DEPLOYMENT ELAPSED TIME</td>
<td>Long provisioning cycle times</td>
<td>Rapid, just-in-time provisioning</td>
</tr>
<tr>
<td>MANAGEMENT INTEGRATION</td>
<td>Siloed data center and IT operations</td>
<td>Integrated operations</td>
</tr>
<tr>
<td>OPERATIONS</td>
<td>Manual support and mixed cooling</td>
<td>Lights out automation and automatic operations</td>
</tr>
<tr>
<td>MAINTENANCE AND LABOR</td>
<td>Significant repairs</td>
<td>Minimal repairs, maintenance and parts</td>
</tr>
<tr>
<td>REPLACEMENT OR UPGRADE</td>
<td>Difficult to upgrade, whole system changes</td>
<td>Rapid hot-swappable component level change management</td>
</tr>
<tr>
<td>SUSTAINABLE OPERATIONS</td>
<td>Waste across the value chain; high dependency on scarce resources</td>
<td>Minimal waste; alternative energy management; trending towards zero carbon footprint; self-optimizing</td>
</tr>
</tbody>
</table>
Business Enablement Scenario
Data Center 1.0 Versus 2.0

Now that the “why” questions of data center transformation have been stated, the focus now shifts to the “how.” The following day in the life example illustrates the difference between the Data Center 1.0 approach to business enablement versus the Data Center 2.0 model that will define the new paradigm.

Scenario 1: Data Center 1.0
The business needs to launch a new pilot product for approximately a six-month period. The market research and customer feedback indicates the new product could have breakout revenue potential. Fiscal results have been tight, so the product launch needs to be covered in the run rate. The product is very conducive to an ecommerce model, so substantial capacity needs to be temporarily reallocated from other resources to run the pilot.

DESIRED OUTCOME
The business, and the IT team, would like to be able to have the new application finalized and deployed on temporary infrastructure quickly. Ideally, the application would be provisioned into production deployment within the next 30 days.

ATTEMPTED APPROACH
The CIO calls the head of infrastructure to take advantage of the virtualization and private cloud platform they have been building. Virtual resources and an on-demand application platform sound perfect for this business requirement. Unfortunately, the firm has not fully deployed virtualization, and the data center provisioned capacity has been allocated as fully consumed, even though most racks are 1/3 populated and they are drawing less than 1/2 the power capacity. To build additional capacity will take at least 36 weeks, and the full cost would need to be allocated to the requesting business unit—even if they only need a small percentage of the capacity.

INTERFERING FACTORS
Traditional data center physical infrastructure implementations create waste and inflexibility. In particular, the traditional approach wastes energy, space and cooling, creating inefficient allocation and capacity management scenarios. Other interfering factors of a traditional Data Center 1.0 approach are: time to deploy, size of deployment and one size only limitations that make scaling and service delivery to the business problematic.

CONSEQUENCES
Revenue opportunity is lost. IT takes a double credibility hit—inability to meet the business need and inability to demonstrate the value and innovation of the investments in private cloud and virtualization. This is caused by the complexity and inflexibility of the Data Center 1.0 physical infrastructure.
Scenario 1: Data Center 2.0 Infrastructure

The firm has implemented a Data Center 2.0 technology approach to capacity and operations within the physical infrastructure. Power, cooling and IT Housing (whitespace in traditional model) are deployed in modular, secure and fully automated footprints. This operational model enables the IT team to exploit available data center capacity, rapidly deploy virtualization, harvest low utilization infrastructure and enable the private cloud platform to spin up the business application at no additional cost.

**ENABLING FACTORS**
In a Data Center 2.0 paradigm, integrated hardware and software modules are deployed as modular footprints in contrast to large mechanical, electrical, distribution and white space raised floor. This results in approximately double the capacity, while operating at less than half the cost and eliminates significant waste when compared to the traditional approach.

**REWARD**
Revenue opportunity is enabled, new IT capabilities are exploited and the data center becomes a foundation for business enablement instead of business prevention. The 2.0 Data Center provides scalability that leverages existing unused capacity to save a tremendous amount of time and cost over the 1.0 model without compromising security or providing a significant distraction to other operations.
Consolidation Scenario
Data Center 1.0 Versus 2.0

Now let’s look at a scenario that puts the focus on technology strategy orientation as opposed to business enablement. This scenario analyzes how a data center consolidation plan might be approached with, and without, a Data Center 2.0 strategy.

Scenario 2: Data Center 1.0
Senior management has asked business, corporate functions and IT to drive 20% reduction out of their run rate in the next 18 to 24 months. The technology team has put together a plan for the CIO to consolidate operations that includes producing an IT Kit refresh, exiting data center facility leases, employing virtualization and moving to converged infrastructure architecture.

DESIRED OUTCOME
The plan would be for the team to coordinate the application moves, data center infrastructure retrofitting, and a physical infrastructure build-out within the remaining data centers. The team would deploy an IT Kit in a timeline that achieves lease exits and savings commitment timelines the CIO needs to reach for senior management.

ATTEMPTED APPROACH
The firm employs the proven playbook: maintain tight controls, build the data center capacity in a similar manner as before, and attempt to automate the move process as much as possible. The team will harness inventory systems and portfolio and capacity systems to ensure a data-driven approach to migration that minimizes risk. Two problems typically arise in this scenario. The first is that data center capacity takes longer than planned to build out, risking lease exits and savings commitment. The second, is unsupported application infrastructure that is required to be physically moved in the consolidation instead of leveraging virtual move and new IT Kit. This also risks savings and space exit.

INTERFERING FACTORS
Traditional data center physical infrastructure implementations are slow, complex, inflexible and somewhat unpredictable. Even with templated approaches to expanding capacity, long lead times and significant integration and commissioning create high variable risk in terms of tight time frames and ability to accommodate change. Additionally, traditional data center physical implementations are built only to a single configuration for resiliency, density and efficiency.

CONSEQUENCES
Savings targets are missed. IT credibility takes a hit and the data center physical infrastructure remains unoptimized.
Scenario 2: Data Center 2.0

Infrastructure

The firm has implemented a Data Center 2.0 technology approach to capacity and operations within the physical infrastructure. Power, cooling and IT Housing (whitespace in traditional model) are deployed in modular, secure and fully automated footprints. This enables IT to achieve three key milestones for the consolidation program.

1. The team is able to accelerate the migration schedule as new capacity in the data center is brought online within weeks.

2. The team is able to accommodate the legacy infrastructure move leveraging the IT housing footprint of the Data Center 2.0 strategy to achieve a timely, secure and simplified move, meeting program timeframes.

3. The team is able to achieve additional 30% savings over what was projected for the program by using its Data Center 2.0 strategy to leverage a mixed configuration model, combined with a smaller unit of capacity in the data center physical infrastructure.

ENABLING FACTORS

In a Data Center 2.0 paradigm, integrated hardware and software modules are deployed as modular footprints in contrast to large mechanical, electrical, distribution and whitespace raised floor. Time to capacity ranges from 6 to 12 weeks for initial install of capacity versus 6 to 12 months in traditional approaches. Mixed service configurations of resiliency, density and efficiency can be deployed in the same data center in contrast to the one size fits all model employed in traditional data center approaches. Finally, the ability to provision in smaller capacity units with alternative configurations can be exploited with a Data Center 2.0 paradigm.

REWARD

Project savings are exceeded. Sustaining operating model of the data center improved. Flexibility is enhanced while risk is reduced. Accelerating the project enables less project expense. Building capacity in smaller unit sizes in a much shorter timeframe reduces capital costs, carrying costs and on-going operational expense. Exploiting a mixed configuration model can radically transform the economics and service delivery of the enterprise.
Data Center 2.0 Value Model

The mandate being heard in IT offices across the world is the same: do more with less. This translates into cutting costs, optimizing existing assets, improving service levels and satisfying ever-strict compliance requirements. All the while, IT is pressed to make smarter investments, automate processes and to adjust the core IT infrastructure to keep better pace with the business.

All of this is quite a challenge if you consider resources. Start with the fact that 90% of IT budgets are required to maintain the status quo. Companies then have to find ways to redirect that expense into innovation with projects and sourcing options that will cut costs, reduce footprint, energy use, risk, and achieve optimal quality.

Data Center 2.0 provides a value framework that empowers organizations to transform the data center and operations in both a strategic and economic context.

**Strategically**, Data Center 2.0 enables:
- Best in class execution capabilities
- Mix/Match service levels to best fit demand
- Improved agility, resiliency and stability
- Reduced time to capacity
- Ability to dynamically maximize efficiency
- A “Pay as You Grow” model
- Integrated physical and logical security
- Reduced operational risk skills, points of failure, time to resolve incidents and reduced complexity

**Economically**, Data Center 2.0 enables:
- Elimination of waste
- Reduced requirements for people, parts, power, cooling and components
- Reduction in depreciation
- Reduced repairs and maintenance costs
- Reduced utility costs
- Reduction in capital requirements

Benchmarked results from usage analysis found that adopting a Data Center 2.0 strategy achieves:
- 70% reduction in TCO of the data center
- 80% improvement in use of space, power, cooling and labor
- 75% increase in return on data center asset
Comparative Benchmarks of Data Center as a Service 1.0 vs. 2.0

As a provider of Data Center 2.0 technology, IO employs its own software and hardware technology to transform its legacy colocation business to a Data Center 2.0 model. IO provides this data center capacity and management as a service to the largest firms in the world such as Goldman Sachs, Allianz, CBS and LexisNexis. IO is the only Data Center 2.0 technology provider that also operates data centers utilizing the technology it provides to the marketplace. Below are some of the metrics derived when benchmarking IO’s technology in their Data Center as a Service (DCaaS™) operation supporting nearly 1,000 clients.

**Benchmarking IO’s Technology in the Data Center**

<table>
<thead>
<tr>
<th>METRIC</th>
<th>DATA CENTER 1.0</th>
<th>DATA CENTER 2.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPACITY BUILD TIME</td>
<td>36 weeks</td>
<td>8 weeks</td>
</tr>
<tr>
<td>NEW SITE CAPACITY BUILD TIME</td>
<td>24 months</td>
<td>120 days</td>
</tr>
<tr>
<td>IT FIT OUT</td>
<td>$4M/MW</td>
<td>$1M/MW</td>
</tr>
<tr>
<td>OPS FTW/MW</td>
<td>7.5/MW</td>
<td>2.5/MW</td>
</tr>
<tr>
<td>TIME TO RESOLVE INCIDENTS</td>
<td>Hours</td>
<td>Minutes</td>
</tr>
<tr>
<td>COOLING AND POWER UTILIZATION</td>
<td>25%</td>
<td>70%</td>
</tr>
<tr>
<td>POWER USAGE EFFECTIVENESS</td>
<td>1.9</td>
<td>1.17</td>
</tr>
<tr>
<td>REPAIR COSTS/MW</td>
<td>$1M/MW</td>
<td>$250k/MW</td>
</tr>
</tbody>
</table>
The Journey

Every organization is different. Two companies who do the exact same thing and achieve the exact same results could employ a wide variety of strategies to get there due to any number of dynamic factors. What makes the Data Center 2.0 strategy so attractive to Enterprise IT organizations and professionals is that it not only works, it works on the terms determined by the organization. Data Center 2.0 provides unprecedented flexibility that allows organizations to apply and adopt their strategies incrementally, within existing operations, across the entire portfolio or in a completely new fulfillment paradigm. Bottom line, the Data Center 2.0 strategy can assist any organization and accommodate any level of readiness from tactical to strategic.

The table below identifies the wide range of challenges Data Center 2.0 can address, and the value its unmatched solutions can bring to any organization.

<table>
<thead>
<tr>
<th>INITIATIVE</th>
<th>PROGRAM CAPABILITY</th>
<th>PROGRAM BENEFIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEED TO ADD CAPACITY</td>
<td>Add capacity to existing facility faster with a smaller footprint and mixed configuration</td>
<td>Lower CAPEX, carrying costs, operating costs and cost to deploy</td>
</tr>
<tr>
<td>EXTEND/MAXIMIZE LIFE OF EXISTING DATA CENTER ASSET</td>
<td>Deploy components outside facility, use less space, power, cooling to deploy new capacity in facility</td>
<td>Improved asset utilization/return, avoidance of large scale investments, reduced risk, cheaper provisioning, ability to shift investments to innovation</td>
</tr>
<tr>
<td>RETROFIT/REFRESH EXISTING DATA CENTER ASSET</td>
<td>Retrofit capacity faster, higher efficiency, less effort to complete, more flexible operating model</td>
<td>Faster time to benefit, lower investment and operating costs, ability to shift investment to innovation</td>
</tr>
<tr>
<td>ACCELERATE DATA CENTER CONSOLIDATION</td>
<td>Faster time to results, higher efficiency capacity, more flexible operating model</td>
<td>Greater savings, lower project investment and operating costs, ability to shift investment to innovation</td>
</tr>
<tr>
<td>IMPLEMENT A MIXED SERVICE CONFIGURATION MODEL</td>
<td>Mix and match resiliency, density and efficiency to best fit business requirement</td>
<td>New savings opportunities, lower cost to operate, ability to shift new investment to innovation</td>
</tr>
<tr>
<td>DATA CENTER AS A SERVICE</td>
<td>Exploit all the capabilities identified above as a hosted service alternative fulfillment model versus on site owned/leased assets</td>
<td>Time bound costs, arbitrage demand/supply fulfillment models for best use of capital/balance sheet while meeting service levels and security requirements of the business</td>
</tr>
</tbody>
</table>
Market Synopsis
Not surprising, when you consider the myriad of benefits discussed, the concept of Data Center 2.0 is attracting significant attention in the marketplace from industry experts and practitioners alike. Multiple analysts are tracking and reporting on the trend. Large firms who are strategic adopters of technology are publicly stating their selection and commitment to a 2.0 type strategy. Data Center 2.0 has created a new dialogue and the conversations are growing as more technology leaders experience the benefits.

Strategy Validation
According to The 451 Group, LLC in its research paper Data Center 2.0—The Industrial Evolution, “the industry (data centers) is facing a period of fundamental, disruptive change, and modularity and standardization are at the heart of it. Data Center 2.0 describes a fundamental shift in the way that data centers are designed, built and commissioned. The term refers to a comprehensive, turnkey, off-the-shelf, data center that is pre-engineered, tested, fabricated, and delivered to the location of the customer’s choice in modular components. These can then be assembled into an efficient data center in a time period that is considerably shorter with less investment than is achievable using normal construction methods.”

Value Impact Validation
“Today’s data center is obsolete when taking modularity and the fast maturation of this market into consideration,” according to Tier1 Research. “If data center owners and operators are not at least exploring and considering modular components as a means for data center expansions and new builds, they are putting themselves at a significant disadvantage from a scalability, cost and possibly maintenance standpoint.”

“When planning for data center growth, it is important that all alternatives be reviewed,” states David Cappuccio of Gartner Group. “Newer modular design techniques and container-based solutions should be a critical piece of your analysis. When used appropriately, they can solve specific problems, while reducing capital costs and the time it takes to implement new capacity.”
Public Validation

Recent market announcements seem to validate the modular data center trend. For example, in a recent press release, Goldman Sachs announced the selection of IO, a provider of modular data center technology, as its preferred global modular data center provider.

The press release states that Goldman’s selection signals a shift from the large real estate based infrastructures to flexible and sustainable modular installations. In addition to greater operating and capital expense savings, Goldman Sachs expects to enhance energy conservation and power usage effectiveness (PUE) associated with its data center facilities through its service agreement with IO.

“IO’s innovative technology and services will allow Goldman Sachs to scale its data center operations more efficiently and further advance the firm’s broader commitment to environmental stewardship and reduced carbon footprint,” said Don Duet, global co-chief operating officer of Goldman Sachs’ technology division, in the release.

Closing Thoughts

From the perspective of leaders that have used and operated data centers, the transformational opportunity the Data Center 2.0 strategy offers is an exciting innovation for the industry and the perfect solution for today’s fast-moving, technology dominated business landscape. It allows companies to think big, and to implement on their own terms. The flexibility afforded by this new offering is unprecedented, allowing companies to start small and build to meet their needs as those needs, and the technology’s capabilities, evolve.

It is important to understand that this is about much more than technological innovation. This is a critically important, game-changing opportunity. Data Center 2.0 gives companies a chance to transform their entire businesses by starting at the very foundation of their entire IT value chain—the data center.

This strategy marks a fundamental redefinition of the data center. What was once a complex facility paradigm burdened by heavy cost burdens and timetable-crushing inefficiency, is now a nimble, modular digital factory that acts as an accelerant for any business. There are few other strategies with such wide-ranging positive implications, from reinventing delivery models to improving efficiency, enhancing agility, reducing risk and more.
The Time is Now

Someday, when we look back at this business era, we will find that the companies who thrived were those who positioned themselves for business and capacity agility while improving the consistency of delivery and operations. Data Center 2.0 has the potential to achieve this more efficiently, and more effectively than any other single tool. This marks the start of a new era, and like so many eras in the history of business, it will be those companies who are bold and insightful enough to recognize opportunity, and flexible enough to adopt new strategies, who will dominate the conversation. With companies like IO leading the way with innovation and market leadership, there is a significant opportunity for change at a time when the status quo is no longer an option.

The future has arrived in data center management and performance. As organizations and IT professionals embrace Data Center 2.0, businesses will increasingly meet the growing challenges that face them to realize a new potential in today's complex and demanding market.

Learn More

To learn more about IO or how you can transform your data center, visit io.com.