

IBM Data Center Design and Build Services

Design and build a more flexible, cost-effective and resilient data center for today and the future



Business benefits

- Design and build more simplified, adaptive and responsive data centers using a single, manageable ecosystem of partners to accomplish a complex task easily
 - Help optimize and standardize your data center(s) with modular data center solutions
 - Achieve greater scalability, greater levels of availability and real-time responsiveness to changes in your IT environment with IBM's modular data center innovations
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What are IBM Data Center Design and Build Services?

Data centers are no longer simply a collection of physical IT assets installed in low power density racks within a massive “meat locker”. With every business focused on applications such as cloud computing, analytics, high performance computing, cognitive computing and so on, the data center is now the foundation of every business. Without a properly built, resilient and scalable data center, no businesses would be able to run those applications, function, support its clients, generate revenue or grow. With the quick changing business environment, new IT technologies, global operations and the reliance on IT equipment to run every business, the resiliency, reliability and ability of the data center to adapt to the ever changing needs is critical.

In 2008, IBM Site, Facilities and Data Center Services introduced the concept of modular data centers to ensure the data centers flexibility, scalability and resiliency as well as give the client the ability to control capital and operating costs. Today, more than ever, the concept of the modular data center is critical and creates the foundation for the IT operations and the business. But, keep in mind, designing and building data centers are unique and complex projects that require a strategy, a statement of requirements, a strong understanding of the IT equipment needs and how the IT environment and the building interact. The design and technology requirements mandate an approach that may not be core to your business or to design and construction firms that do not specialize in data centers.

Redundancy requirements mandates by government legislation or customer concerns, protection against downtime, mergers and acquisitions, and technological growth projections that outpace current space, power and cooling capacity are just a few of the many reasons why businesses today are reassessing their data center infrastructure. Will you need to expand your data center beyond its current walls, renovate its infrastructure or build a completely new facility on a new site?



IBM® Site, Facilities and Data Center Services specialists help you design a next-generation data center strategy that is flexible, scalable and agile to help address the dynamic demands of your hybrid infrastructure.

We can create a data center environment that is simplified, adaptive and responsive, allows IT organizations to shift time and attention from maintaining a legacy data center to focusing on innovating business solutions.

IBM's modular data center solutions are scalable to not only meet the needs of today, but also provide the scalability and flexibility to meet future needs—and are cost optimized to help reduce upfront capital and ongoing operational costs. Our solutions are designed to help you right-size the capacity, resiliency and efficiency of the data center you plan to implement.

Why choose IBM Data Center Design and Build Services?

IBM understands that businesses need flexible, always-on data center architectures to meet the demands of mobile, social, cloud and big data applications. We provide you with our expertise in data center technology innovation, industry leadership and our best-practices methodology utilizing highly skilled data center specialists. IBM has over 30 years of extensive, hands-on experience in designing and supporting data centers, and can provide the thought leadership necessary to plan for today and the future while helping reduce the complexity and risks associated with your data center design and build project.

Requirements phase



What are your data center requirements?

- Number of data centers
- Location(s)
- Availability requirements
- Merger or consolidation
- Main or back-up data center
- New or retrofit

Planning and design phase



Create a design based on the requirements, defining:

- Amount of IT rack space
- Power density (total and rack)
- Cooling requirements
- Monitoring and management
- Scalability
- Security
- Network and cabling requirements

Implementation phase



Turnkey construction:

- New construction or retrofit
- Vapor barriers and walls
- Electrical and mechanical systems
- Fire detection and protection systems
- Security systems
- Remote monitoring and controls
- Cabling systems

Final testing phase



Site turnover:

- Startup and test of power and cooling systems
 - IT equipment relocation and migration
 - Integrated systems testing
 - Cabling testing
 - Commissioning and solution turnover
 - Client education
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IBM Modular Data Center Family

Scalable modular data center	Enterprise modular data center	Prefabricated modular data center	High-density zone
<ul style="list-style-type: none">• Can be installed in existing facility without raised floor• 500 to 2,500 square feet• Deployed in 8 to 12 weeks after design is complete• Up to 25 percent reduced total cost of ownership (TCO) than traditional datacenters¹	<ul style="list-style-type: none">• Turnkey design-build, single or multistory• 5,000 square feet and up• Plug-and-play capacity for power and cooling• Defer up to 50 percent of capital cost and operating expenses¹	<ul style="list-style-type: none">• Fully functional data center is factory prefabricated, preassembled and delivered to your site• Standard sizes and configurations for fast deployment• Custom solutions to meet individual site and customer needs• Suitable for harsh climates when required	<ul style="list-style-type: none">• Employs hot-aisle and cold design• Brings cooling to the rack• Up to 35 percent lower cost than site retrofit¹

IBM Data Center Design and Build Services provides a strong vision for your data center, with an adaptive infrastructure that can respond to change in a non-disruptive manner, removing technology silos and integrating legacy and new architectures into a single, manageable ecosystem.

In a typical data center, optimization efforts are focused on improving IT metrics like utilization, response time and availability. With IBM's modular data center solutions, the focus is on breaking down the functional silos and cultural obstacles that can get in the way of innovative development and service optimization, and optimizing the services that help keep the business moving forward and propel growth.

Building or retrofitting a data center requires significant capital investment. IBM helps organizations significantly reduce capital and operating costs through the use of a modular, "pay as you grow" approach in the physical data center environment. Centralization and consolidation, improved facilities management, modular data centers, increased hardware utilization through virtualization, application integration and automated provisioning through cloud have all resulted in a simpler, more adaptive infrastructure capable of responding to disruptive change, aging technology silos and integrating legacy and new architectures in a single, manageable ecosystem.

About IBM Site, Facilities and Data Center Services

IBM has more than 30 years of global experience helping clients globally to design, build and run their IT environments and improve their business resiliency. We have experience designing and constructing approximately 30 million square feet of data center facilities floor space globally. We leverage patent-pending analytics tools and extensive database of conceptual drawings to help develop fact-based data center requirements. In addition, our strong relationships with local providers can enable us to successfully provide design and build services for data centers of virtually any size. IBM Site, Facilities and Data Center Services has installed over 1,000 modular data centers worldwide for clients and utilizes a very strong ecosystem of global alliance partners and suppliers providing technology and services.

Our expertise in technological innovation, design/build, best-practices methodology, highly skilled data center specialists and hands-on experience in designing and supporting data centers can provide the thought leadership necessary to plan for the future while reducing the complexity and risks associated with your new or retrofitted data center. Inherent risks associated with building a new data center facility can be reduced by capitalizing on IBM's project experience and intellectual capital.

Take the next step

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