

Containerized Data Centers: Compelling Economics and Efficiency



Challenge

Today's data centers increasingly struggle to balance capacity and business requirements. Many organizations have discovered that existing data centers simply cannot provide the energy, cooling and equipment density required to support evolving needs. In addition, building a new data center is a lengthy, capital-intensive process, with additional capacity not available until years after the start of construction. IT managers also find it difficult to predict future needs with technology and the business environment changing so rapidly. This uncertainty heightens the risk that companies will overinvest in data center build-outs, paying for capacity that they might not need for several years. A rapidly increasing number of organizations are looking for highly efficient solutions that increase data center capacity in a timely, pay-as-you-grow manner.

Flexible, Standards-based Solution

The Cisco® Containerized Data Center Solution provides a fast, flexible way to expand, complement or even replace traditional brick-and-mortar data centers. This modular approach adds capacity as needed, in manageable, cost-effective increments. It can reduce capital expenditures by as much as 50 percent, along with a potential 30 percent savings in operating expenditures.

The Cisco Containerized Data Center uses ISO-standard shipping containers to deliver reduced-footprint, self-contained data centers virtually anywhere. The containers are shipped fully populated and tested, with installation as simple as connecting to power, chilled water and your network. The Cisco Containerized Data Center can be deployed as an extension to an existing brick-and-mortar data center facility or on a standalone basis.

Rapid Deployment

From initial order to installation, it can take as few as 12 to 16 weeks to deploy the Cisco Containerized Data Center. Accelerated deployment makes this data center solution especially suited for organizations that want to add swing space for new applications quickly, or that need to bring business continuity or disaster recovery solutions online as soon as possible.

Energy Efficient

The Cisco Containerized Data Center delivers a power usage efficiency (PUE) of 1.05 to 1.25, a significant improvement over even the best brick-and-mortar data centers, which typically have a PUE of 1.7 to 2.0. A smaller PUE means that more effective power is delivered to your IT equipment at a lower cost.

With data center power consumption doubling about every five years, data centers often exhaust their available power budget before running out of physical space. From a cost perspective, energy is the largest controllable operating expense for a typical facility. Data centers have also come under scrutiny for their potential impact on power grid reliability and greenhouse gases. The Cisco Containerized Data Center can help IT managers to reduce power consumption and maximize efficiency.

Turnkey Delivery

The Cisco Containerized Data Center is delivered as a completely turnkey data center solution. A wide range of Cisco and third-party equipment can be integrated and tested prior to container shipment. The solution arrives at your destination already cabled, racked, stacked and ready to operate, minimizing the impact of data center growth on your IT staff and budget.

Transportable Data Center

Many organizations need to locate data center facilities in diverse locations. Some may want to expand in areas where power is more available or less expensive. Others may need to add capacity closer to key user populations, or even support missions in remote areas of the world. The Cisco Containerized Data Center can be shipped almost anywhere around the globe by air, sea, or land—providing complete location flexibility.

Innovative Solutions for a Changing World

To keep pace with a rapidly changing world, Cisco's Global Government Solutions Group is leading the way by delivering an innovative, integrated containerized data center solution. The Cisco Containerized Data Center is a fast, flexible and highly efficient way to implement Cisco's Data Center 3.0 vision, providing a solid foundation for a low-risk, incremental build-out of a virtualized, network-based data center architecture.

Advantages of Containerized Data Centers

- Adds data center capacity in manageable increments; reduces capital expenditures by up to 50 percent
- Deployable in 12 to 16 weeks
- Highly energy efficient, with PUE of 1.05 to 1.25; reduces operating expenses by up to 30 percent
- Turnkey solution reduces installation costs and improves time to live deployment
- Transportability provides unparalleled location flexibility

The Cisco Global Government Solutions Group supports governments and defense agencies worldwide by delivering innovative, integrated capabilities through thought leadership, advanced technologies and services. The group comprises a team of top experts from space, military, homeland security, public safety organizations and the intelligence community from all levels of government around the world. Not only do they understand the unique challenges of government and the enterprise, but they also bring years of experience to solve them.

For More Information

Learn more about the Cisco Containerized Data Center and other government solutions and services at www.cisco.com/go/defense.



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