Cloud to Edge Datacenter Trends

AN IDC CONTINUOUS INTELLIGENCE SERVICE

IDC's *Cloud to Edge Datacenter Trends* research provides a holistic view of the factors impacting enterprise and service provider datacenter investments. Organizations need to more effectively support mobile, cloud, business integrated analytics, and the Internet of Things services, and edge deployments are changing workloads in corporate datacenters and driving greater use of service provider datacenters. While IT managers are sourcing and deploying IT infrastructure in new ways to support digital transformation initiatives, datacenter managers are increasingly concerned with limiting factors such as floor space, power and cooling, datacenter life-cycle management, and staffing. IDC examines the shifting demands on datacenter resources and forecasts the number of datacenters and deployment of IT assets in enterprise, service provider, and hyperscale datacenters based on IDC's datacenter taxonomy.

Markets and Subjects Analyzed

- Worldwide and U.S. datacenter build and remodel forecasts
- Datacenter infrastructure and hardware designs
- Power and cooling initiatives for the datacenter
- Alternative energy sources for the datacenter
- Datacenter optimization and software-defined datacenters
- Business alignment of U.S. datacenters with key business objectives
- Business macro trends that are shaping datacenter design to ensure a viable and agile IT organization

- Smart datacenter technology adoption trends
- Preparing for IT at the edge
- Cloud computing's impact on the physical datacenter
- Datacenter infrastructure requirements for power and cooling, capacity planning, change control processes, system utilization, compute density, and alternate power
- IT staffing and datacenter real estate/location/regionalization
- Modular, containerized, and micro datacenters
- Datacenter infrastructure management (DCIM)

Core Research

- Datacenter Construction and Rebuild Trends
- Worldwide Datacenter FutureScape
- Worldwide Smarter Datacenter MaturityScape
- Impact of Integrated Systems and Hyperscale on Datacenters
- Worldwide and U.S. Datacenter Deployment Model and Spend Forecast

- Modular Datacenters, Container Datacenters, and Micro Datacenters
- Use of Service Provider Datacenter Assets
- Smarter Datacenter Technology Adoption
- Datacenter Infrastructure Management Solution Adoption Trends

In addition to the insight provided in this service, IDC may conduct research on specific topics or emerging market segments via research offerings that require additional IDC funding and client investment. To learn more about the analysts and published research, please visit: Cloud to Edge Datacenter Trends.

Key Questions Answered

1. How many datacenters are there worldwide and in the United States?
2. How are business and IT changes reshaping datacenter managers' investment and operations strategies?
3. How are the acquisitions of infrastructure solutions changing?

4. How do developments such as converged infrastructure and software-defined IT impact the datacenter?
5. What role will new datacenter types such as containers, prefab, and modular play in supporting cloud, mobile, and Internet of Things services?

Companies Analyzed

This service reviews the strategies, market positioning, and future direction of several providers in the datacenter market, including:

ABB, Alibaba Web Services (United States), Amazon Web Services, AMD, Arrow, AT&T, Avnet, CenturyLink, Cisco, CoreSite, CyrusOne, Dell, Digital Realty Trust, Dimension Data, Eaton, EMC-VMware-Virtustream, Equinix, Facebook, Fujitsu, Gateway, Google, Hewlett Packard Enterprise, Hitachi, Huawei, IBM, Intel, Iron Mountain, Legrand, Microsoft, NCR, NetApp, Nlyte, Oracle, Panduit, Rackspace, Raritan, Red Hat, SAP, Schneider Electric, Siemens, Sunbird Software, Verizon, and Vertiv.