AN IDC INFOGRAPHIC

COVID-19 Drives Datacenter Deployment Management and Monitoring at the Edge

In Asia/Pacific excluding Japan (APEJ), COVID-19 has accelerated the need for enterprises to transform their ICT infrastructure, datacenters (DC) and business models. Resiliency is top-of-mind for most executives. Business continuity and disaster recovery (BCDR) is part of the essential strategy as they look to provide high-quality and secure DC infrastructure with high uptime to support digital initiatives.

63%
of enterprises and service providers (SPs) say COVID-19 and the resulting social distancing efforts impacted DC resources.

COVID-19 highlights the need for smarter DCs and SPs to ensure consistent performance

Businesses were challenged to provide consistent application performance with pressure placed on both the core and edge. Greater reliance was placed on SPs to manage DCs and workloads.

48%
said the immediate shift to **work-at-home** put pressure on resources to support remote locations.

37%
shifted more **workloads to cloud** or managed services provider.

27%
relied on **colocation provider** for remote hands service as personnel are limited in their physical interaction with the infrastructure.

COVID-19 heightened the need for remote monitoring and DC partners

Prediction:
40% of APEJ core enterprise DCs and **60%** of major edge IT sites will leverage **machine learning (ML)- and artificial intelligence (AI)-enabled controls** to transform maintenance and improve the efficient use of energy resources by 2023.

Based on what DC operators are experiencing now with COVID-19:

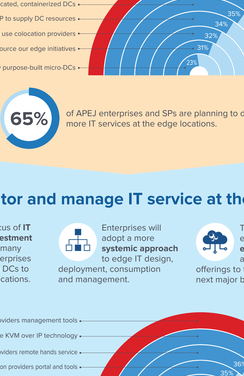
50%
plan to invest more in **remote monitoring** and control technology for their DCs.

39%
plan to use more infrastructure "as a service" such as **SaaS, PaaS and IaaS**.

32%
plan to increase their use of **colocation DCs**.

Define your edge

Edge IT is not a single type of device nor a single kind of location. Some enterprises choose to compare the edge IT ecosystem with an inverted multilayer wedding cake ranging from millions/billions of sensors to a central core residing in a few enterprises or cloud DCs. A more useful metaphor is the set of rings. Each ring varies in depth and density.



Don't forget the core, even at the edge

Action	Reasoning
Treat the edge as a logical extension of your core	Edge computing cannot be treated as a tier "bolted on" to the firm's main infrastructure (aka the core). It must be functionally and logically treated as an extension of the firm's core. A mismatch can lead to downtime and unavailability. Inadequate resources create a mismatch between expected service levels and the infrastructure.
Take a multipronged "always on" approach to security	Edge computing changes the way firms view security — both physical and digital. Data collection devices compromise the integrity of their entire business; security can no longer just be about physical access to their datacenter, network access or securing applications.

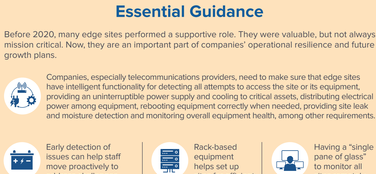
Plan to deploy IT services at the edge

Prediction:
By 2023, in APEJ, more than **30%** of **new infrastructure** deployed will be in increasingly critical edge locations rather than in corporate DCs, up from less than 10% today.

Infrastructure deployed to edge

Outsource to telco, colocation and SPs

New form factors prefabricated, containerized and micro-DCs



65% of APEJ enterprises and SPs are planning to deploy more IT services at the edge locations.

Monitor and manage IT service at the edge

Focus of **IT investment** for many enterprises is shifting from DCs to critical edge locations.

Enterprises will adopt a more **systemic approach** to edge IT design, deployment, consumption and management.

The race to extend **cloud environments** and SaaS-like offerings to the edge is the next major battleground.

Essential Guidance

Before 2020, many edge sites performed a supportive role. They were valuable, but not always mission critical. Now, they are an important part of companies' operational resilience and future growth plans.

Companies, especially telecommunications providers, need to make sure that edge sites have intelligent functionality for detecting all attempts to access the site or its equipment, providing an uninterruptible power supply and cooling to critical assets, distributing electrical power among equipment, rebooting equipment correctly when needed, providing site leak and moisture detection and monitoring overall equipment health, among other requirements.

Early detection of issues can help staff move proactively to address challenges, such as moving to battery power, sending technicians in for proactive repairs or switching traffic to another site as equipment is replaced.

Rack-based equipment helps set up sites for efficient servicing and ongoing management at more technology-intensive sites.

Having a "single pane of glass" to monitor all sites remotely from the comfort and safety of their own homes can give businesses today the competitive edge.

Sources:
IDC APeJ Datacenter Operational Survey 2020 (n = 309)
IDC's Edge IT: The Engine Powering Digital Transformation
IDC FutureScape: Worldwide Datacenter 2020 Predictions – APEJ Implications

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