



FUTURE OF
Digital Infrastructure

***Best Practices: Maximizing the Business Value of
Consumption-as-a-Service***

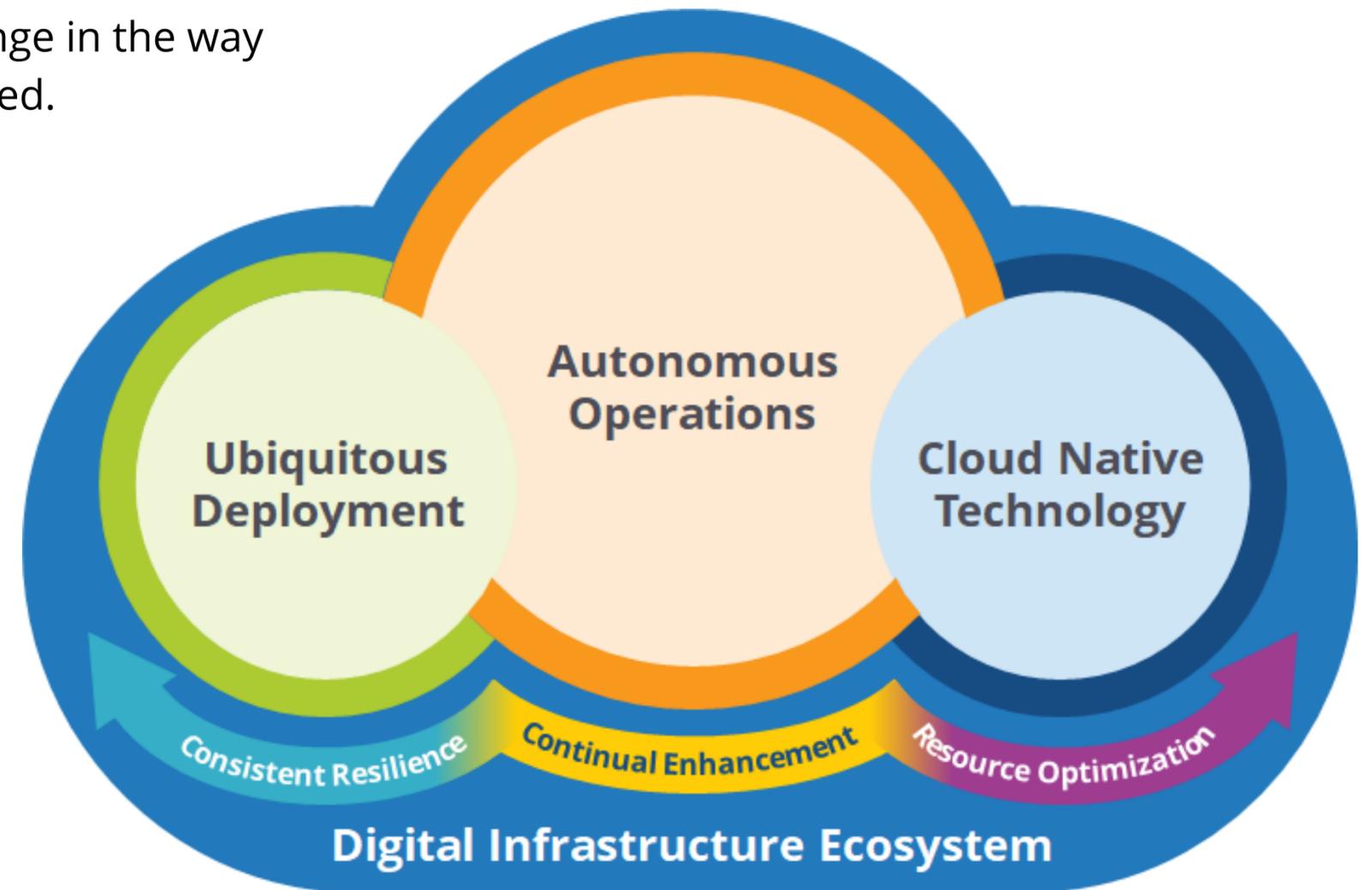


Most major digital infrastructure suppliers have introduced consumption-as-a-service offerings that provide customers with the flexibility to consume dedicated on-premises or hosted infrastructure on an on-demand basis. For many technology buyers, this represents a fundamental change in the way that digital infrastructure is architected, supported, and funded.

Leveraging agreements that extend beyond traditional leasing models to incorporate proactive, remote vendor life-cycle support services, pre-provisioning of surge capacity, and responsibility for decommissioning the equipment, enterprises can focus on business outcomes while linking infrastructure spending and refresh decisions to business KPIs and SLAs.

Maximizing Business Value of Consumption-as-a-Service

IDC has identified four practices for maximizing the business value of consumption-as-a-service models for digital infrastructure. These practices enable enterprises to partner more deeply with application and business owners, better align infrastructure spending with business needs, and free up internal staff to focus on critical business priorities.



IDC's Future of Digital Infrastructure framework

Source: Future of Digital Infrastructure: Ever Faster Delivery of Reliable Digital Services and Experiences (IDC #US46807920)

Practice 1: Use the Consumption-as-a-Service Surge Capacity to De-Risk Business Operations

Challenge: Traditional approaches to procurement of dedicated on-premises infrastructure are time consuming and complex:

- Correctly estimating capacity requirements for memory, CPU, storage can be problematic – different types of workloads have different configuration requirements and dependencies with some being more memory intensive and others being more processing intensive.
- Modern cloud-native development approaches drive almost continuous updates and changes to applications that, over time, can have significant impacts on storage, processing, and network connectivity requirements.
- Given accounting rules for depreciation, traditional capex investments need to be sized for projected capacity requirements at least three years down the road.

In practice, organizations will frequently specify and pay for more capacity than they currently need. Even if they ultimately use the extra capacity, some portion of its useful life will be wasted as it sits idle.

Guidance: Enterprises should take advantage of consumption-as-a-service models for dedicated on-premises infrastructure that offer cloud-like usage-based pricing for infrastructure that includes built-in surge capacity that can be accessed, and paid for, only when needed. These flexible consumption models allow customers to better match infrastructure spending to business requirements over time without overpaying for capacity.

Practice 2: Shift Life-Cycle Management to Consumption-as-a-Service Vendors to Free Internal Staff to Support Line of Business Needs

Challenge: Maintaining existing systems and mission-critical applications is difficult, and it can be almost impossible to train and retain experts on many emerging technologies. As the scale and complexity of enterprise infrastructure environments continue to explode, many IT organizations find themselves short on head count and lacking high-demand skills such as SRE, Kubernetes, and software-defined programmable automation capabilities. As a consequence, IT organizations frequently fall behind on modernization projects and continue to be weighed down, supporting technical debt.

Guidance: Enterprises can redirect in-house IT staff to higher value-added activities that directly benefit their businesses by taking advantage of consumption-as-a-service models that include life-cycle support services. By relying on vendors to define system configurations and remotely manage lifecycle updates, patching, repairs, and troubleshooting, customers can deploy consumption-as-a-service platforms quickly and scale them as they migrate workloads from legacy to modern infrastructure. Vendor-provided services are often more automated and standardized with lower error rates than can be achieved by enterprises with internal staff.

IDC's digital infrastructure research shows that more than 60% of enterprises have interest in shifting at least some of their on-premises/hosted digital infrastructure spending to the consumption-as-a-service model for subscription offerings

Practice 3: Focus on KPIs and Business Outcomes, and Let the Vendor Determine Feeds and Speeds

Challenge: Enterprise IT teams are typically responsible for working with the vendors and application owners to assess and define requirements that will support business needs for several years. But, this process is complex – traditional enterprise digital infrastructure evaluation and procurement efforts involve sizing and configuring memory, processing speeds, operating systems, storage capacity and drive technologies, I/O, connectivity, and other attributes required to support specific workloads and user groups. The growth of hyperconverged, software-defined, composable architectures, edge computing systems, open-source software, and purpose-built GPUs only increase that complexity.

At the same time, accurately predicting workload capacity and performance requirements several years into the future is becoming more difficult because of the impacts of agile development, AI/ML analytics, and widespread automation. Wrong decisions increase both the costs and risks to organization.

Guidance: Enterprise should leverage digital infrastructure consumption-as-a-service models to focus more sharply on business outcomes and KPIs when specifying what they want to purchase. Consumption-based offerings are typically available using predefined "T-shirt" sizes that map to different operational tradeoffs, pricing levels, and support tiers. With this approach, customers can shift their focus to the needs of the business and rely on the vendor to deliver the best "feeds and speeds" configurations needed to deliver on the specified outcomes and KPIs. The SLAs become the basis of the system specification discussion, and internal IT teams can better focus on ensuring that business needs are fully supported.

Practice 4: Partner with Application Owners to Engage Finance Early in the Process

Challenge: Traditional capex infrastructure purchasing is often compartmentalized across technology silos, which presents challenges across the enterprise:

- Network, storage, and compute platforms may be on different refresh and depreciation cycles, and comprehensive infrastructure updates can be difficult to cost justify.
- Capex proposals are heavily scrutinized by finance organizations. And, once a contract is approved, it can take weeks or months to get the equipment on site and ready for use.
- If additional capacity is needed because of unexpected increases in application or storage requirements, the procurement process has to start over again from scratch.
- IT often struggles to articulate business ROI.

In many cases, application owners deploy new applications on public cloud resources to sidestep these internal issues.

Guidance: IT and application teams can jointly advocate for the business value delivered by having full-stack, on-demand, scalable, and supported infrastructure deployed to support specific business outcomes immediately and over time. Infrastructure architects find it easier to build a business case for a consumption-as-a-service model that includes all related dependencies for one predictable price while cost predictability helps simplify the way IT organizations talk to application owners about ROI for a project and makes it easier to engage finance earlier.

As digital infrastructure consumption-as-a-service models become more an important option for sourcing and supporting complex dedicated compute, network, and storage environments, enterprises must change the way they define requirements to focus on business outcomes.

Watch our latest [video](#) to learn how IDC can help your organization navigate the Future of Digital Infrastructure.



To learn more about IDC's Future of Digital Infrastructure research, please visit [idc.com/FoX](https://www.idc.com/FoX).

More information about Consumption-as-a-Service for digital infrastructure can be found in IDC's published report, [*IDC PeerScape: Practices for Maximizing the Business Value of Digital Infrastructure Consumption-as-a-Service Subscriptions*](#).

