Building an agile cloud core with next-generation connectivity

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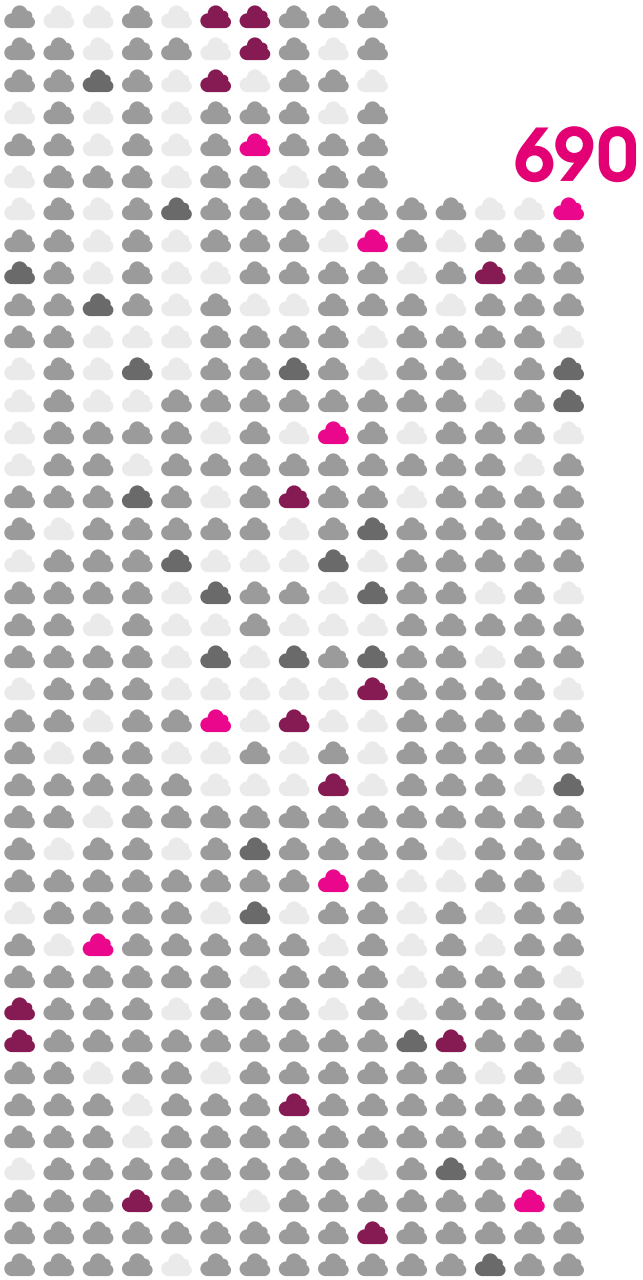


The cloud is the core of enterprise IT.

Enterprises have adopted cloud computing as the core of their IT infrastructure to power digital transformation.

An avalanche of survey statistics bears this out. According to the 2021 Flexera State of the Cloud report[1], 92% of enterprises say they have adopted a hybrid or multi-cloud strategy. Applications have led the way, with nearly 50% of all application spending now in the cloud.

Netskope has tracked the growth of enterprise cloud application usage for years, and their 2021 Cloud and Threat report reveals that organizations with 500 to 2,000 employees now use on average **690 distinct cloud apps** per month.

The pandemic has only accelerated cloud adoption. According to Gartner's Market Trends: Cloud Shift 2020 Through 2024 report, the percentage of IT spending in cloud-shifted arenas will grow from 33% to 45% between 2020 and 2024[2].

References

[1] Flexera 2021 State of the Cloud Report https://info.flexera.com/CM-REPORT-State-of-the-Cloud

[2] Market Trends: Cloud Shift — 2020 Through 2024. 13 August 2020 - ID G00721225

The cloud core is at the center of your business.

The core of your cloud architecture is where mission-critical applications and data flow. These app-to-app and machine-to-machine flows drive processes that lie at the heart of your business.

Today, these workflows are distributed, with volumetric data sets moving between multiple cloud providers, multiple colocation data center providers, enterprise SaaS like Salesforce, and specialized cloud providers. Enterprises are building hybrid and multi-cloud architectures to access best of breed capabilities, optimize cloud region and colocated sites, and reduce concentration risk.

Because workflows in the cloud are so critical, they need uncompromising performance, privacy, security, scalability, and reliability.

After all, if these workflows stop, your business stops.

Examples of cloud data flows

- Inventory management
- Payment and transaction processing
- Financial reporting
- Booking systems
- Aggregated employee and partner application traffic
- Backbone traffic between apps and services

An agile cloud core is essential.

Cloud-based IT solutions offer agility in their technical and consumption models. That agility is key to the enterprise cloud core being able to meet four distinct types of business demands:

Steady State

Every business has a baseline set of business processes and digital experience flows that generate a steady stream of demands on the cloud core. In most businesses, this demand is growing, but at a relatively predictable rate.

Seasonal

Many businesses experience seasonal demands. The most obvious examples include retail, travel and hospitality, back-to-school, and tax seasons. But many other businesses experience cyclical demand patterns for IT workflows.

Ad-hoc

Innovation, digital transformation, disaster recovery scenarios, site migrations, and short-term business initiatives often create spikes in demand for critical IT workflows in the cloud core. Some industries extensively function on this basis, such as Media and Entertainment, where creative productions become distinct business entities that only last for 6 to 9 months.

Disruptive

Every organization faces unpredictable events that create unexpected demands for critical IT processing in the cloud core. The unavoidable example is the pandemic, which dramatically increased digital enablement needs for remote workers and shifted cloud traffic patterns away from offices. Yet, these disruptions can take many forms, including new market opportunities or threats, new regulatory requirements, and mergers and acquisitions.

Leaving your cloud core to the Internet is unpredictable, insecure, and costly.

Internet connectivity is problematic for mission-critical cloud core flows. To begin with, Internet connectivity is simply not private or secure, and no VPN tunnel overlay can fundamentally change that fact. Performance is also problematic. The Internet is best effort, with no latency SLAs. Internet transit suffers from relatively high latency and latency variation over time, which cause unacceptable throughput and performance issues.

In addition, the volumetrics of cloud core workflows are at odds with cloud provider network consumption models that are built for serving applications to users and charge for network traffic egress on a usage basis. The result is that hybrid and multi-cloud Internet transport can be highly cost-inefficient.

Traditional designs can't keep pace with today's business demands.

Connecting your hybrid and multi-cloud core has historically meant choosing between traditional and Internet options that come with serious tradeoffs in either speed and agility, or in security and performance.

The alternative to Internet connectivity for the cloud core has been traditional telecom services. These services offer predictable performance backed by SLAs, security and privacy as well as predictable bandwidth costs. Unfortunately, up to now, such services offered by most telecom providers have lacked the agility in both their the technical and consumption models that enterprises increasingly need for their cloud-based IT architectures.

In today's demanding digital business environment, the connectivity tying your cloud core together needs to deliver highly predictable performance and security while giving you the flexibility to shift resources on-demand to meet seasonal needs, power innovation, and address emerging opportunities and challenges.

Your cloud core requires unconventional thinking.

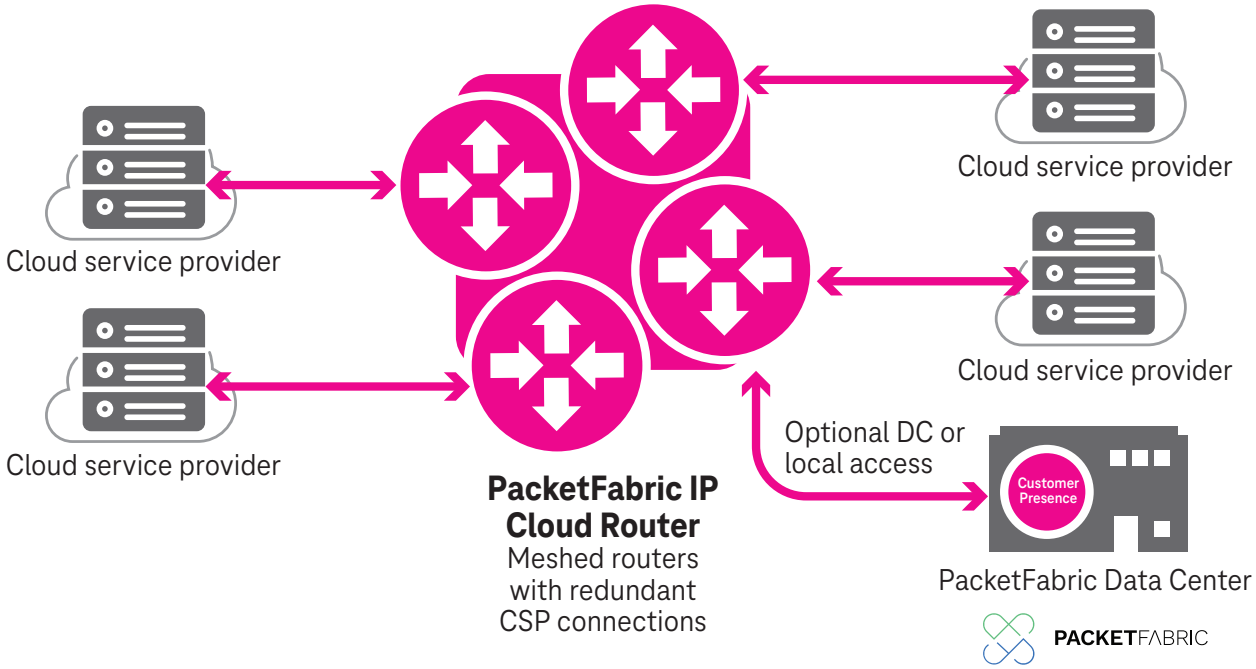
Next-generation connectivity for the cloud core

Through its partnership with next-generation provider PacketFabric, T-Mobile now offers enterprises hybrid and multi-connectivity with transformational agility. This offering is based on a carrier-class, global, private, secure optical Network-as-a-Service (NaaS) platform with redundant stacks and paths in every PoP.

The T-Mobile NaaS solution is purpose-built for hybrid and multi-cloud IT, designed to deliver all the agility, scalability, predictable performance, and flexible consumption that enterprises need from their cloud ecosystems.

The PacketFabric platform provides Layer 2 and Layer 3 connectivity between hundreds of colocation data centers and cloud service providers. The platform communicates with a broad ecosystem of providers of software-as-a-service, Internet exchange, disaster recovery and backup as service, and more—allowing you to completely bypass the public Internet for safer access.

Distributed edge architecture makes cloud-to-cloud connectivity a breeze.



Enable connectivity between cloud service and software-as-a-service providers such as:

- Amazon Web Services
- Microsoft Azure
- Google Cloud Platform
- IBM
- Oracle
- Salesforce
- Webex

IT and network buyers can connect ports at low cost to the network in colocation data centers and create any number of virtual connections to other data centers, hosted cloud on-ramps, and other providers at different terms from month-to-month and longer. If high-performance, multi-cloud connectivity is the requirement, it's even easier, with zero hardware or data center presence required to connect at speeds from 50Mbps to 100Gbps.

Your WAN can meet the cloud agility challenge.

It's time for your WAN services to meet the cloud agility challenge. Join hundreds of enterprises who have overcome the challenges of connecting their hybrid and multi-cloud core and built an agile digital business stance.

To get started on your journey with a free consultation visit our Cloud Networking Services web page.

T-Mobile.com/business/solutions/networking/cloud-networking

Let's talk. 866–653–1056

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