



Problem

Creating dynamic and scalable partner value chains across business ecosystems is challenging due to traffic flows degraded by demand spikes and outages.



Solution

Leverage an ecosystem of service providers that can expand and contract based on business-driven policy decisions that can be enacted via real-time configuration control. Adapt to changing business needs and support new business models across time zones with shifting traffic patterns and new regulations, and as technical innovation and new capability needs drive change to operational and business requirements. Store service quality policies in local data repositories at the edge. Drive traffic demand to the interconnected edge node mesh where digital ecosystems can route the traffic most efficiently. Dynamically rewire services and connectivity to continually adapt to planned and unplanned business and technical environment shifts.



Constraints

1. Fears of being caught without sufficient bandwidth cause firms to over-provision in a fixed-price architecture, but demand can remain dangerously unpredictable.
2. Volume and bandwidth policy management were not considered feasible or strategic, given historical experiences in IT.
3. Dispersed, policy-driven volume management is unfeasible in a traditional hub-and-spoke network architecture with a few central hubs.
4. Service connections are often fixed, limiting the responsiveness required in a crisis.
5. The mix of workload interactions (i.e., collaboration, transactions and workflow) requires sophisticated QoS transmission policies to ensure delays don't adversely affect user experience (e.g., transaction failure due to timeouts).



Steps

1. Install and enact business policies at the edge that enable dynamic responses to spikes in demand or outages by leveraging local vendor and business ecosystems.
2. Drive more traffic volume to the inter-node mesh, allocating resources where needed while meeting user experience requirements.
3. Employ policy-based acquisition of service chaining in real time to leverage a global ecosystem of on-demand digital services.
4. Leverage cross-regional business ecosystems to find the optimal partner service chain across clouds.
5. Leverage predictive analytics to inform policies about real-time changes to demand across the distributed enterprise.



Forces

- Technology change rapidly accelerates the range and impact of potential new business models; agility is the new competitive advantage.
- Real-time, flexible partner value chains are a strategic enabler of a global digital enterprise.
- Meeting unpredictable demand is becoming a strategic differentiator in a partner ecosystem.
- Demand will fluctuate sufficiently to challenge assumptions about capacity management in traditional architectures.
- Planning for periodic shifts in demand is a policy versus engineering issue.



Results

- Technical**
- Utilize real-time analytics and predictive models to inform business strategies and link marketing to results.
 - Expand services and bandwidth without re-architecting every few years.
- Business**
- A dynamic, real-time enterprise responds to changing needs in demand by increasing infrastructure supply to meet user expectations where and when needed, saving resources when demand drops without re-architecting the network.
 - Ability to consistently enhance local user experience based on local and regional needs.
 - Ability to enhance business strategy, operations and execution in real time by finding new partner value chains for new business models globally.

Reference View

