

**HCLTech** | Supercharging  
Progress™

# Empowering the future of networking

with HCLTech's Managed  
Data Center Networking



# Overview

Modern data centers are the foundation of digital business, yet traditional networking approaches struggle to meet today's demands for seamless low latency connectivity, multi-tenant environments, and hybrid infrastructure management, more aligned to Enterprise business needs with defined outcomes. As organizations prioritize real-time data processing, DevOps agility, and continuous availability, the need for intelligent, future-ready network has never been greater.

HCLTech's Managed Data Center Networking delivers the answer through our software-defined, cloud-first, best-solution-for approach which is complemented by HCLTech's three decades' expansive experience of transforming, deploying, and managing both business and mission critical Networks for our customers. Our SDN-based solution empowers enterprises to build secure, scalable, high-performance network infrastructures that adapt to evolving business needs while optimizing costs and operational efficiency.

## Data Center network fabric is evolving beyond basic connectivity

The dimensions on which robust DC Networking is measured have undergone a big transformation in terms of technology adoption, convergence of multiple moving elements in a single solution in a transformative operating model which can align to business performance indicators. Traditional networking architectures can't keep up with today's demands. These rigid, hardware-centric networks lack automation and scalability, creating complexity when managing diverse environments like VMs, containers, and legacy systems. Physical appliances strain data center resources while limited centralized control makes it difficult to enforce policies and respond to threats quickly. The result? Reduced agility increased operational costs, and failure to meet modern digital infrastructure expectations.

### Legacy data center



- Less focus on AI workloads
- Connectivity and switching focus
- Networking and security services deployed per VM
- Centralized switches with limited scale
- High complexity and cost
- Limited automation



### New age data center



- AI workload ready
- Cloud first operational model
- Unified infra and fabric services
- 100% distributed services for all workloads
- Streamlined service insertion in DC fabric
- Hyper automation, observability and analytics



# The key factors driving this digital transformation are



## AI/ML workloads explosion (Networks for AI)

GenAI and ML workloads demand high-bandwidth, low-latency networking that traditional architectures cannot efficiently support at scale



## Cloud first digital transformation

Enterprises require networking fabric that can support hybrid multicloud environments with consistent policy enforcement and automated service delivery



## Automation and DevOps mandates

Modern app development needs speed and scale, but legacy networking creates bottlenecks. New fabrics enable automation, policy control and IaC for DevOps



## Evolving network management

DC teams are increasingly adopting cloud principles and skills to create cloud-native infrastructure within on-premises environments



## Enhanced security and compliance requirements

Modern threats demand microsegmentation, zero-trust and integrated security—best delivered via software-defined, programmable fabrics



## Sustainability taking center stage

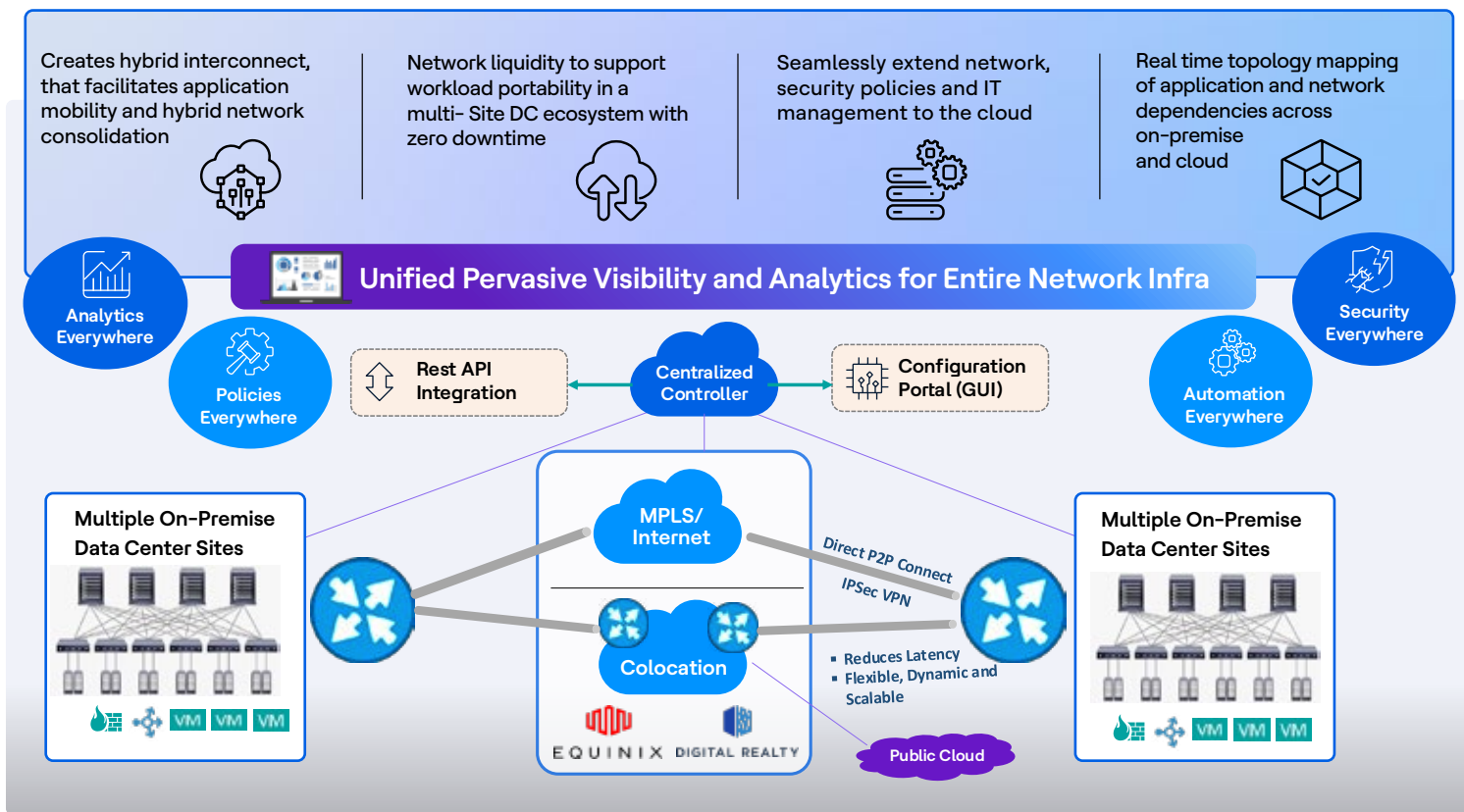
Rising regulations and sustainability goals drive smaller hardware footprints, renewable-powered facilities, and greater automation

## How HCLTech's Managed Data Center Networking is transforming enterprise digital landscape

HCLTech's software defined framework for data center networking covers end-to-end data center network transformation through automated policy enforcement, intelligent abstraction, and hybrid interconnects across a multi-cloud and on-premises environment.

Our software-defined network (SDN) approach transforms data center networks with a holistic, vendor-neutral strategy. By emphasizing software-based control and API-driven agility, we deliver programmable, virtualized, and automated networks that adapt to evolving workloads and hybrid ecosystems. This ensures seamless alignment with complex multi-tower strategies.





HCLTech approach to strategic Data Center Networking



### Application Modernization

- Existing app transformation
- Next-gen app development
- App standardization
- Proximity to public cloud



### DC Consolidation or Exit

- DC right sizing
- DC footprint reduction
- DC site retirement
- On-premise exit
- On-premises to cloud transition



### Microsegmentation

- Third party access control
- Zero trust segmentation
- Threat detection and response
- Critical application ringfencing



### DC Expansion or Cloud Repatriation

- Regional expansion
- M&A activity / seasonal spike
- Transient workloads
- Public cloud to private/ on-prem migration

Addresses diverse customer requirements from infrastructure modernization to DC extension.

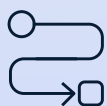
# Sample usecases that drive real world results

- Initial design and DC fabric build and deployment through SDN Controller
- Validation of fabric operation and monitoring through SDN Controller
- Validation of end-to-end traffic flow on intra-tenant (same segment) routing SDN controller
- Validation of end-to-end traffic flow on inter-tenant (different segments) routing SDN controller
- Validation of end-to-end traffic flow between endpoints hosted on different OEM fabrics
- Test and validate DCI over L2 and L3 networks between difference OEM fabrics.

## Our value propositions

- DC and multi-cloud workload management with analytics, automation and observability at the core
- An industry leading SDN readiness assessment of current network infrastructure with actionable recommendations
- Centralized policy enforcement and control enabling unified management and orchestration of different sites and controllers.
- Offers hybrid interconnect facilitating application mobility, hybrid network consolidation and workload portability

## Key business benefits



### Greater network agility

Network programmability and virtualization dynamically adjust the network-wide traffic flow based on workload demands



### Faster time to market

Rapid design and deployment of applications through network virtualization and policy based hyper-automation



### Improved security

Advanced security posture for applications and network endpoints through microsegmentation and Zero-Trust security



### Improved operational efficiency

Single pane of glass for all change management and policy needs, including automated provisioning, configuration, and control.



### Pervasive visibility and analytics

Real time monitoring and analytics for the entire network infrastructure through machine learning and behavior analysis-based techniques

# HCLTech differentiators

- A vendor-neutral approach ensuring seamless integration with third-party tools via Open APIs
- Robust partnership ecosystem with best of the breed OEMs across the value chain in data center networking



- Automation first mindset enabling faster deployments and reduced troubleshooting time.
- State-of-the-art SDN ready lab to deploy and test SDN solutions from different vendors.
- Strict SLA management for higher service availability, quicker recovery, and optimized infrastructure.
- 24x7x365 near real-time managed services for faster onboarding and business-as-usual
- Dedicated Centre of Excellence for automation, network design, and security
- A consultative approach to provide best fit architecture and solution based on Enterprise business requirements.

## Case studies: Clients success stories

### 1) APAC based large retain chain

#### Challenges and requirements



- SDN Fabric designed & built.
- Applications to be migrated from Legacy to SDN Fabric
- Legacy technologies like OTV, Fabric Path were being used for L2 extension across DCs
- Multiple business units to be served from the single fabric

#### What we have done



- HCL redesigned SDN fabric to multi-tenant architecture to meet business requirements & overcome existing challenges.
- Automated Scripts to configure SDN fabric for Application migration.
- Careful planning of connectivity with technologies like OTV/Fabric Path
- VMM Integrations to enable SDN fabric for adoption of Micro-Segmentation

#### Benefits



- Agility, scalability & availability across network layer in DC
- Software Defined Fabric for faster provisioning of workloads.
- Micro-Segmentation capability to adopt Zero Trust model.
- Mitigation of migration challenges with experienced people onboard

## 2) Europe based healthcare organization

### Challenges and requirements



- Datacenter with legacy 3 tier architecture
- Lack of centralized management
- Agility in go to market
- Architecture to be highly scalable.
- Minimal downtime during migration
- Enhanced security for East-west traffic

### What we have done



- SDN deployment & migration
- L2 Extension between Legacy Fabric & SDN Fabric for workload migration
- VMM integration with SDN
- SDN deployment across two DCs
- Multi-tenant architecture to achieve segmentation across different BUs

### Benefits



- Agility, scalability & availability across network layer in DC
- Faster deployment with central pane of management
- Near zero downtime in workload migration
- Automated network provisioning on VMware with SDN integrations
- Enhanced security posture/reduction in blast radius for workloads

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