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Hyperscale Cloud Providers and Telecoms: Overview and Fundamentals

Overview
Hyperscale cloud providers (HCPs) continue to innovate in providing on-demand access to an ever-increasing range of resources and services. Communication service providers (CSPs) are facing enormous demands for connectivity based services resulting in rapidly rising complexity and cost pressures. This has led CSPs to begin to migrate services to cloud native to meet and manage the demand as well as achieve operational efficiencies. This course is for engineers who would like an overview of the hyperscale paradigm and the core services provided by the three main hyperscale cloud providers and how they relate and apply to the trends in telecoms and CSPs.

Attendees will learn
- The hyperscale paradigm
- The main cloud services provided by AWS, Azure and Google
- The differences and similarities in services from these providers
- How these services may be used in a CSP context
- Some real-life examples of HCP and CSP collaborations

Audience and Recommended Background
The course is for anybody interested in cloud computing and gaining a high-level view of the services the main three hyperscale providers deliver and how they relate to telecommunications. It is suitable for both management and technical professionals.

Course Approach
The course is presentation based and has live demonstrations of provisioning and operating resources with different hyperscale cloud providers

Course Duration: 1 day

Course Content

Introduction to Hyperscale and Some Concepts
- Who are the providers?
- What do they deliver?
- Hybrid, multi-clouds, public and private clouds
- Edge, both near and far

Architecture and Service Guarantees
- Geographies
- Datacentres and regions
- Availability zones
- Service level agreements
- Application reliability

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Compute Options
- Compute concepts
- Compute options
  - Virtual machines
  - App service
  - Kubernetes service
  - Serverless computing

Data Storage Options
- Storage concepts
- Storage options
- Storage examples

Networking Options
- Cloud networking concepts
- Virtual networks
- Load balancers
- Traffic manager
- VPN

Security
- Shared responsibility model
- Identity and access
- Network protection
- Advanced threat protection

AI and Machine Learning, Big Data, Analytics
- AI services
- Machine learning and the HCPs service models
- Big Data solutions
- Analytic services

HCP and Hybrid/Multi Cloud Solutions
- Private self-hosted solutions
- Mulit-cloud integrations
- Edge solutions

Telecoms and HCPs
- Private self-hosted solutions
- Mulit-cloud integrations
- Edge, network and IT solutions
- Anthos for telecom, Azure for operators
- Current CSP HCP adoption trends
- HCP/CSP business models
- Examples of HCP and CSP deployments