

# Next Generation Networks (All IP Networks for the 21<sup>st</sup> Century)

## Next Generation Networks Technical Concepts Training Course

### COURSE BENEFITS

### COURSE FEATURES

#### DIRECTIONS-OBJECTIVES

Compare a current traditional network infrastructure vs. a Next Generation Network infrastructure and identify how these differ. Explain the requirements, trends, directions, areas of convergence and why and how Carriers are implementing these Next Generation Networks. Identify the objectives and challenges that Service Providers are focused on in implementing the NGN All-IP Network of the 21st Century.

#### NGN CORE

Discuss the concepts, requirements, technologies and platforms of the Next Generation Core (IP/MPLS) Network.

#### NGN AGGREGATION

Examine the concepts, requirements, technologies and platforms of the Next Generation Aggregation (Metro Ethernet) Network.

#### NGN ACCESS

Review the concepts, requirements, technologies and platforms of the Next Generation Access Network.

#### NGN HOME/SOHO

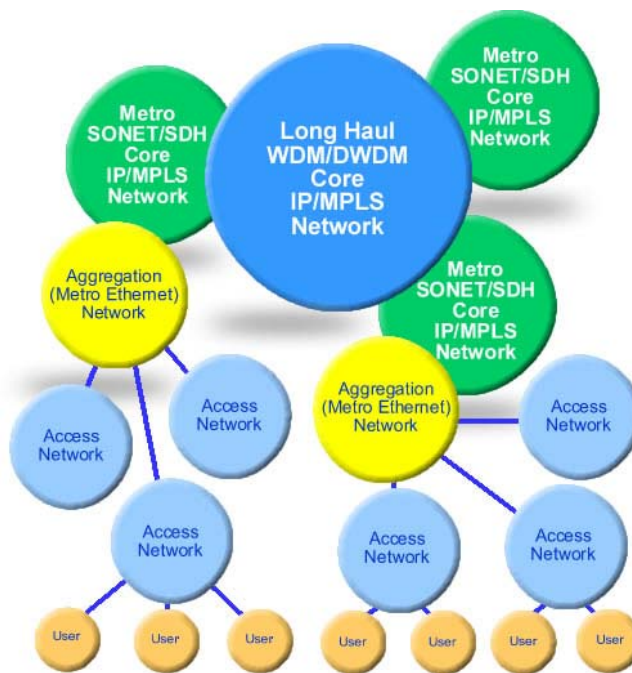
Analyze the concepts, requirements, technologies and platforms of the Next Generation Home/SOHO Network plus the Service and Application Plane which supports NGN services.

#### NGN ACTIVITIES

Conceptually design and model a Next Generation Core (IP/MPLS) Network, Aggregation (Metro Ethernet) Network, Access Network, Home/SOHO Network and Service and Application Plane.

For more information on any of our products or services please call or visit us on the Web.

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Most major Service Providers and Enterprise Customers are moving toward IP NGNs. Though they may use different terms for Next Generation Networking, broadly speaking, they share many of the same basic concepts in their vision for tomorrow's carrier infrastructure.

Individual Service Providers and Enterprise Customers will migrate to an IP NGN at their own pace based upon their business requirements and regulatory issues. This phased development of the IP NGN involves creating an intelligent infrastructure from which application-aware services are delivered by service-aware networks.

This type of intelligent IP NGN will open new opportunities for service providers to offer end customers advanced, value-added, and personalized all-media services securely and seamlessly over wireline and wireless connections.

To get the most from this course you should have a solid understanding of current data networking technology such as; Backbone infrastructures, Edge technologies, Access services and Customer Premises components and applications.

Our Data Network Design Course provides all of the prerequisite background needed for this course.

## WHY IS NEXT GENERATION NETWORKS TRAINING NEEDED?

As network technology continued to evolve, the number of networks multiplied to a point where most carriers run a very broad range of platforms, each with its own distinct characteristics and billing and support systems.

NGN is about simplifying and layering networks which can provide a cost effective service portfolio, lower CapEx demands, and deliver efficiency improvements.

The Aggregation (Metro Ethernet) Network is the heart of the IP NGN Carrier Ethernet Design.

It aggregates the access network across a Carrier Ethernet network and provides interconnectivity to the IP/MPLS edge and into the IP/MPLS core for long haul transport.

It provides Ethernet transport services for all types of services, customers, and access technologies.

This 3-day Instructor-Led course covers converging and evolving data networking technologies in hardware, software, security, management and services in the Core, Aggregation, Access and Home/SOHO Networks which service providers, local access providers and Enterprise Customers are implementing to convert their network infrastructures into all IP networks of the 21st century.

This course provides requirements, trends, directions, areas of convergence, why and how Service Providers and Enterprise Customers are implementing Next Generation Networks and the objectives and challenges that Service Providers are focused on in implementing the Next Generation Network of the 21st Century.

It discusses platforms and technologies used. It provides design and modeling practice for a Core (IP/MPLS) Network, Aggregation (Metro Ethernet) Network, an Access Network and a Home/SOHO Network incorporating Next Generation Network design requirements and components.