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learntelecoms interactive e-learning course from PTT covering
Next Generation Networks.

Telecommunications has experienced major changes in the last few years but perhaps the most radical transformation is occurring now with the introduction of Next Generation Networks (NGNs). These IP-based networks promise long-term cost savings for operators and innovative new services for both residential and business customers.

PTT's NGN e-learning course begins by explaining the concept, architecture and advantages of NGNs. The course then provides an overview of the role and facilities of the underlying technologies and techniques used in NGNs while considering the implications of migrating from a conventional system to an NGN.

Who will benefit from studying the NGN course:

Technical personnel involved in the planning, implementation and maintenance of NGNs.
Sales and Marketing staff requiring an appreciation of the services and facilities offered by NGNs will benefit from studying at least the first two modules of this course.

Training delivery:

Study online over the Internet or company intranet.

Training facilities:

The NGN e-learning course:

- provides over 6 hours of authoritative technical training.
 - uses interactive simulations, hypertext links and question sessions to involve the trainee fully in the learning experience.
 - provides personalised training - each trainee can make his/her own notes and place book marks.
 - provides a structured assessed course and can also be used to browse for revision or reference.
 - provides a record of progress and level of achievement. At the end of a course, a trainee can obtain a personalised certificate of achievement.
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Related PTT e-learning courses:

The following courses provide a more detailed treatment of aspects of NGNs:

IP networks – Principles and operation of IP networks

Advanced IP networks – Providing a differentiated quality of service (QoS) over IP networks.

Voice over IP – Techniques and protocols used to offer telephony services over IP networks.

Video over IP - provision of IP-based television services over NGN access networks.

AccessNet suite of courses – the technologies used to provide broadband services over NGN access networks

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Next Generation Networks course

Pre-requisite:

A basic understanding of the principles and features of packet and circuit switched networks. It is recommended that PTT's e-learning course TransNet A: "Principles of Wide Area Networks" is studied before attempting this course.

For those planning to study the module of this course covering virtual network services, an understanding of Ethernet switching would be an advantage. It is recommended that PTT's e-learning course LanNet B: "Ethernet LANs" is studied before attempting this module.

Course Aim:

To introduce the advantages, architecture, key technologies and service capabilities of Next Generation Networks.

Course objectives :

At the end of this course, the trainee will be able to:

describe the technical, economic and service advantages of next generation networks.

describe the basic architecture of a next generation network (NGN) with reference to its service, control and transport layers.

describe the functions and facilities of the various technologies used to transport traffic over an NGN with reference to the relationship between them.

describe and compare the various methods of providing connection-oriented services over a NGN with reference to MPLS, MPLS-TE and T-MPLS.

describe and compare various NGN virtual network services with reference to VPNs, VLANs, pseudowires, VPLS and typical applications.

Number of modules: 6

Approximate study time: 7 hours