

Diploma in Telecommunications Management Studies

11 August – 19 September 2014
Olifansfontein, South Africa



COMMONWEALTH
TELECOMMUNICATIONS
ORGANISATION

Overview

The fast moving telecommunications industry driven mainly by rapidly changing technologies, evolving services and increasingly complex consumer demands, generate new business challenges, requiring the professionals in the industry to be constantly updated. This six week course is designed to provide participants with tools that will enhance their ability to master the changes in the business and technical environment to assure operational and business success for their organisations. This course will examine essential elements of technology evolution, the changing institutional/legal/regulatory frameworks and the challenges of creating value through enterprise and effective management practices. Essential management theories and frameworks will be adopted to suit the ICT sector. The course is designed to be challenging, and provide delegates with a practical hands on approach.

For more information
about this course, or to
register, contact us on:
Tel: +44 (0) 208 600 3800
Fax: +44 (0) 208 600 3819
Email: programmes@cto.int

OBJECTIVES

This course will provide participants with a broad and holistic view of the industry and equip them with the ability to adopt end-to-end approaches in tackling the key issues that drive value creation and performance in this highly competitive market place.

EXPECTED OUTCOMES

This course will provide participants with an in-depth knowledge of the essential principles, theories and frameworks that underpin technology deployment, regulation /competition and the challenge of value creation through enterprise and applied management. A blended learning approach involving lectures, case studies and hands-on application of key concepts has been adopted for the course to enhance the learning experience and outcomes.

TARGET AUDIENCE

Telecommunications professionals of operational companies, both fixed and mobile, and regulatory agencies working in various departments such as planning, strategy, technical, regulatory, legal, marketing, sales and business development.

COURSE OUTLINE

Weeks 1 – 2

<p>Module 1: Telecoms Fundamentals (3 days)</p>	<ul style="list-style-type: none"> • Overview of telecom networks • Switching and signalling basics • Transmission basics (OFC and OFS) and networks (PDH and SDH) • Data communications • IP routing, VoIP and MPLS • Fixed and wireless access technologies • Broadband fundamentals, including DSL technologies • NGN, IMS, and soft switch architecture • Radio cells principles • GSM and CDMA network architectures • Call and mobility management • GPRS, EDGE, 3G, WCDMA, 4G/LTE. • WiBRO-WiFi, WiMAX, and future mobile trends • Convergence of wired and wireless technologies • The future market place (4G and beyond)
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<p>Module 2: Planning and Designing of Fixed and Wireless Networks (3 days)</p>	<ul style="list-style-type: none"> • Fixed network optimisation • Planning of telecom nodes and transmission centres • Spectrum planning and optimisation • Spectrum management and pricing • Call management and mobility management • Quality of Service monitoring • Power control in mobile communications • Mobile networks and standards: GSM and CDMA • Mobile data networks: GPRS, EDGE, EV-DO and HSDPA • Mobile network deployment and expansion • Value Added Service Providers (VAS) and Mobile Virtual Network Operators (MVNOs) • Wi-Fi, WiMAX, 4G, LTE, and future trends in mobile communications • Global telecom standards
<p>Module 3: Data Networks (1 day)</p>	<ul style="list-style-type: none"> • Concept of data communication • Packet switching • Message switching • Transport technologies: ATM, Frame Relay, and X.25 • Access technologies: ISDN and xDSL • IP networks • VoIP • Triple and quad-play networks • Convergence beyond triple and quad-play
<p>Module 4: Next Generation Networks and Services (1 day)</p>	<ul style="list-style-type: none"> • Next Generation Networks (NGN) • NGN principles • NGN architecture • Fibre optic cables & systems • Latest trend in access technologies (FTTH, GPON and GEAPON) • Migration of legacy systems to NGN • Emerging Technologies • NGN Services <ul style="list-style-type: none"> ⇒ Basic telecom services - voice and data ⇒ VAS including voice management options ⇒ IP services such as VoIP, Rich Voice including protocols such as H.323 and SIP ⇒ Multimedia services including triple play, quad play and IPTV ⇒ Cloud Services, IaaS, PaaS, SaaS and others • QoS and its impact on bandwidth provisioning • Service security policies and management • Service evolution including Apps, Content • Services and OTT

Module 5:
Network
Interconnect
(2 days)

- The need to interconnect, types of interconnects and co-location
- Categories of network interconnect in fixed, wireline and wireless networks
- Essential facilities as specified by global standards
- Interconnect agreements and tariffs
- Security in access to structures/co-location of dominant service providers
- Revenue allocation, measured and non-measured traffic interchange
- Forecasting future requirements for capital planning
- Network interconnect/co-location as a business opportunity

Week 3

Module 6:
Understanding
Strategy
(1 day)

- A generic approach (Michael Porter)
- A problem based approach (Richard Rumelt)
- Strategic choices informed by vision, mission and objectives (Ansoff, BCG GE-Mckinsey and TOWS Matrix)
- Strategic implementation and valuation

Module 7:
Change
Management
(1 day)

- Types of change (planned, driven and evolved)
- Change Management Strategies
- Top-down transformation and bottom-up change
- Stages of change
- Forces for change
- Sources of resistance
- Managing the politics of change

Module 8:
Project
Management
(1 day)

- The project concept
- Project planning and project scope
- Project problems and impact on successful implementation
- Project budget and control
- Allocation and levelling of project resources
- Building and sustaining effective project teams
- Project monitoring and tools
- Project risk management
- Project closure

Module 9:
Risk Man-
agement
(1 day)

- Understanding risks within and outside the business
- Emerging threats
- Performing a business impact analysis
- Risk assessment and monitoring
- Developing risk management strategies
- Risks in IT and data

Module 10:
Business
Continuity
Planning
(1 day)

- Identification and assessment of key business risk areas
- Corporate risk matrices and profiles
- Development of risk management frameworks
- Disaster management, including action plans
- Business continuity planning: strategy, organisation and procedures

Week 4

Module 11:
Strategic
Human
Resource
Manage-
ment
(2 days)

- Human resource management basics
- Effective communication
- Time management
- Decision making
- Personnel Management
- Job Analysis & Design
- Performance measurement, rewards and feedback
- Recruitment
- Training
- Strategic talent management
- Succession planning
- Stress management
- Conflict management
- Motivation
- Team building
- Leadership and team management
- Managing cross teams
- Emotional intelligence
- HR information management
- Managing diversity strategies
- Succession planning

Module 12:
Business
Intelli-
gence, Mar-
keting and
Sales
(2 days)

- The telecommunications business environment
- Competitive intelligence
- Business intelligence, marketing research and customer segmentation
- Decision making
- Marketing management basics and process
- Applying global marketing principles to regulation
- Marketing strategies including effective e-marketing tactics
- Portfolio management
- Marketing of services
- Service positioning, differentiation and consumer buying behaviour (the strategy clock and other models)
- Brand management
- Churn management
- Sales strategy and management
- Sales channels and management
- Supply chain management

- Targeting global markets
- Enterprise marketing management
- Risk management and measurement

Module 13:
Strategic
Customer
Relationship
Management
(1 day)

- Changing from a technology-centric to a customer-centric approach
- Understanding customer needs and behavior
- Attitude improvement for CRM
- CRM Basics and its components
- CRM strategy
- Business process management
- CRM measurement
- Customer care
- CRM in a convergent scenario

Week 5

Module 14:
ICT Policy
and
Regulation
(3 days)

- Telecom policy
- National ICT policy
- **Policy from a stakeholder's perspective**
- Policy objectives and implementation
- Global standards and compliance
- Regulatory functions and models
- Regulatory governance and independence
- Service and content regulation
- Technology regulation and net-neutrality
- Economic regulation and competition
- Market definition, market analysis and forward planning
- Dominance and anti-competitive behaviour (cross-subsidisation, price discrimination and predatory pricing)
- Price regulation (price cap regulation and rate of return regulation)
- Unbundling and access to essential facilities
- The LRIC process and access pricing including interconnection and unbundled access
- Mergers and acquisitions
- Customer care under convergence
- Licensing and market entry
- Spectrum management and development of new services
- Universal access
- Environmental issues
- Data and privacy protection
- e-and m-applications such as e-governance and m-governance
- Dispute resolution

Module 15:
Technology
and Financial
Management
(2 days)

- Economic Environment of Business
- Accounting Principles
- Financial Management
- Preparation and analysis of General Financial Statements and Ratio Analysis
- Capital structure

- CAPEX vs. OPEX
- Working capital management
- Telecommunications asset management
- Costing and MIS as a tool for accounting
- Preparing business plans
- Cost of migration to new technologies
- Costs and tariffs
- Revenue assurance

Week 6

Module 16:
Telecom
Fraud De-
tection and
Management
(2 days)

- Description of fraud, evolution of fraud and fraud drivers
- SIM card fraud, Man-in-the Middle and subscription fraud
- Fraud risk identification, identifying weaknesses, grading risks and counter measures
- Vulnerability assessment
- Fraud techniques
- Fraud targets
- Fraud channels
- Fraud mitigation
- External vs. internal fraud
- Detection and Prevention

Module 17:
Cyber is-
sues
(1 day)

- Cybersecurity
- Critical Information Infrastructure Protection
- Cyber crime and cyber threats
- Privacy and data protection
- Protection of children on line
- Global Cybersecurity initiatives

Module 18:
Business
Communi-
cations
(1 day)

- Principles of business and workplace etiquette
- Business communication
- Challenges in a competitive scenario
- Business writing skills

Module 19:
Writing a
Business
Case
(1 day)

- Product, service or problem description
- Market research (customers and competitors)
- Operation planning
- Business controls
- Financial analysis
- Developing and presenting a business plan with confidence

EXPERT PROFILES

Manish Shukla

Manish Shukla is an Engineering graduate in Electronics and Communication and has an MBA and Post Graduate degree in Sociology. He has submitted his Doctoral work on "Social Effects of Broadband". Manish also holds a diploma in French and Public Administration. He joined Indian Telecom Services through a competitive examination held across India by Government of India in 1990. He has almost 22 years of experience of working in the telecom industry and has been heavily involved in installation of switching equipment and broadband networks in the BSNL network. He has undergone training on OCB-283 switching equipment, IN, GSM, WLL. Telecom technologies, as well as NEAX technology switching systems. Presently he is in charge of Regional Telecom Training Centre BSNL at Seminary Hills, Nagpur, India.

Manish has delivered the Diploma in Telecommunication Management Studies in Ghana (2010), India (2011) and South Africa (2012) and sits on the ITU select panel for Study Group 15 deliberating on Quality of Service and Management of Telecom Networks.

Ram Pratap Singh

Ram Pratap Singh is an Engineering graduate in Electronics and Communication and holds a masters in Communication Systems from Indian Institute of Technology Roorkee, India.

With more than 13 years of experience in the telecom sector his area of expertise is installations and commissioning of telecom switches. He has undergone training on switching equipment, transmission, IN, GSM, WLL and networking. Ram also has expertise in planning, operation and maintenance of telecom services in rural and urban areas. He is currently working as Deputy General Manager in BSNL at ALTTC, an apex and world-class training centre of BSNL and is engaged in the training activities of BSNL since last 9 years.

He heads up the broadband and IT faculty and has contributed in developing and designing of training modules on Broadband, MPLS, IP Networking, Multi-play services, WiMax and IPv6. He has trained more than 1000 telecom executives from the public and private sector. He has delivered a 2 week training on "interconnect Issues" in Vanuatu for the CTO in 2012.

He is a member of the core committee set up by Government of India for discussing National IPv6 implementation issues.

About the CTO

The Commonwealth Telecommunications Organisation (CTO) is an international development partnership between Commonwealth and non-Commonwealth governments, business and civil society organisations.

It provides the international community with effective means to help bridge the digital divide and achieve social and economic development through the use of Information and Communication Technologies (ICT) in the specific areas of telecommunications, IT, broadcasting and the internet.

About the Programme for Development & Training (PDT)

Managed by the CTO, the PDT is a unique low-cost membership programme providing professional training and capacity building courses on telecommunications policy, regulation, technologies and business management.

The PDT has delivered over 3700 bilateral training and consultancy projects, covering every aspect of the telecommunications industry, training over 36,000 professionals in 33 countries of the Commonwealth.

To discuss your own in-house/bespoke training requirements, please contact us at +44 20 8600 3800 or email us at programmes@cto.int

Please fill in this application form and fax it back to +44 20 8600 3819 or return it to the CTO at the e-mail address below. Please use CAPITAL LETTERS.

Personal details

Mr/Mrs/Ms/Other First name Last name

Job title

Organisation

Address

City Postcode Country

Tel Mobile Fax

Email

Authorising line manager's name

Authorising line manager's email

Payment options

1) Select Delegate Rate (Please Refer to the list of CTO/PDT Partners provided overleaf)

Standard Rate Early Registration by: 11 July 2014

CTO Members	<input type="checkbox"/>	£2,600	<input type="checkbox"/>	£2,400
PDT Partners	<input type="checkbox"/>	£2,600	<input type="checkbox"/>	£2,400
Others	<input type="checkbox"/>	£3,000	<input type="checkbox"/>	£2,800

2) Payment mode (choose one option only)

- Invoice**
Invoice me at the above address (Discounts do not apply, payment must be received by us prior to event).
- Cheque**
Cheque enclosed, payable to "CTO HQ"
- Bank transfer**
Make payments to: Coutts & Co.
440 Strand, London, WC2R 0QS, UK
A/C Name: CTO; A/C Number 083675071
Bank Sort Code :18-00-02
SWIFT Code: COUT GB22
IBAN Reference: GB72COUT18000208367507

Credit Card: Visa / Mastercard (delete as appropriate)

Card holder's name

Card holder's billing address (if different from above)

Card number

Valid from / / Expiry date / / 3 digit security code on back of card

Signature

Date Name Signature

Additional information

To help us improve our services to you and your organisation, please tell us more about yourself and your organisation.

Your role in the organisation

- | | | |
|--|---|--|
| <input type="checkbox"/> Strategic / executive | <input type="checkbox"/> Business development | <input type="checkbox"/> Marketing and sales |
| <input type="checkbox"/> Planning | <input type="checkbox"/> Corporate affairs | <input type="checkbox"/> Public relations and corporate communications |
| <input type="checkbox"/> Control | <input type="checkbox"/> Customer service and care | <input type="checkbox"/> Regulatory and legal affairs |
| <input type="checkbox"/> Operational | <input type="checkbox"/> Engineering and technical management | <input type="checkbox"/> Telecoms network management |
| | <input type="checkbox"/> Financial, purchasing & investor relations | <input type="checkbox"/> Human resources |
| | <input type="checkbox"/> IT / IP management | <input type="checkbox"/> Other |




Your organisation type

- | | | |
|---------------------------------------|---|---|
| <input type="checkbox"/> Government | <input type="checkbox"/> Fixed network / services | <input type="checkbox"/> Broadcasting |
| <input type="checkbox"/> Regulator | <input type="checkbox"/> Mobile / wireless network / services | <input type="checkbox"/> Value-added services |
| <input type="checkbox"/> Operator | <input type="checkbox"/> Satellite network / services | <input type="checkbox"/> Support |
| <input type="checkbox"/> Manufacturer | <input type="checkbox"/> Internet | <input type="checkbox"/> Other services |
| <input type="checkbox"/> Other | | |

REGISTRATION DEADLINE

Prior to course start.

3 SIMPLE WAYS TO REGISTER

-  Fill in and fax this form back to +44 20 8600 3819
-  Call the programme team at +44 20 8600 3800
-  E-mail the programme team at programmes@cto.int, quoting the course title.

NEED HELP?

Call us now on +44 20 8600 3800 or e-mail the programme team at programmes@cto.int

Summary Terms and Conditions

The CTO will endeavour, as can be reasonably expected, to ensure that the course is delivered to meet delegates' expectations. Registration is subject to availability and payment received by the deadline where specified for each course. Dates may be subject to changes. Travel, accommodation, daily transportation to venue, subsistence and other costs are the sole responsibility of the delegate and are not included in the above fees. Applicants are responsible for their visa arrangements and other formalities wherever required. Course bookings may be cancelled at the discretion of the CTO or its partners. Applicants paying by bank transfer are responsible for bank charges and any other such costs and should ensure the exact amount in GBP Sterling is credited in the CTO bank account. Applicants requiring additional information prior to their booking should ensure they provide sufficient time before the booking deadline. Cancellation rules apply, as summarised below. For a full version of our Ethical Framework or our Terms and Conditions, please visit our website at www.cto.int.

Cancellations / Refunds

For delegate cancellations/withdrawals, the following refund rules apply:

- 31 days or more prior to event: the full amount less a handling charge of 10% or a minimum of £55, whichever applies
- 30 days or less prior to event: no refund

For CTO cancellations/withdrawals, delegates are entitled to a 100% refund within 60 days of the withdrawal/cancellation. Refunds will be made by bank transfer only.

Data Protection / Privacy

The CTO does not sell, rent or lease its customer information to third parties. We may, from time to time, contact you on behalf of a third party/partner about a particular offering that may be of interest to you. In those cases, your unique personally identifiable information (email, name, address, telephone number) is not transferred to the third party/partner. In addition, we may share your information with trusted partners to help us perform statistical analyses, send you by e-mail or postal mail, provide customer support, or arrange for deliveries or other such services. All such third parties are prohibited from using your personal information except to provide these services to the CTO and they are required to maintain the confidentiality of your information. For more information about our privacy policy, visit our website at

www.cto.int