

Diploma in Telecommunications Management Studies

15 August – 23 September 2016
Johannesburg, 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 utilises a practical, hands-on approach and is designed to be challenging and thorough.

For more information:
about this course, or to register,
contact us on:
Tel: **+44 (0) 208 600 3818**
email: **h.muchando@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.

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.

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.

Course Outline

Weeks 1 – 2

Module 1: Telecoms Fundamentals (3 days)

- 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)

Module 2: Planning and Designing of Fixed and Wireless Networks (3 days)

- Key components of fixed and mobile networks
- Strategic planning and network design
- 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

Module 3: Data Networks (1 day)

- 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

Module 4: Next Generation Networks and Services (1 day)

- 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
- 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

Module 4:
Next Generation
Networks and
Services
(1 day)
(Continued)

- 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
Management
(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
Management
(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
Intelligence,
Marketing 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

Module 12:
Business Intelligence, Marketing and Sales
(2 days)

- 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 behaviour
- 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 facility
- 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

Module 14:
ICT Policy and Regulation
(Continued)

- 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 Detection 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 issues
(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 Communications
(1day)

- 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

Who we are

The CTO is the oldest and largest Commonwealth organisation engaged in multilateral collaboration in the field of ICTs. Using in-house and partner experience, it supports members in integrating ICTs to deliver effective development interventions that emancipate, enrich, equalise and empower people within the Commonwealth and beyond.

What we do

The work of the CTO goes back to the Organisation's creation in 1901 as the Pacific Cable Board. Since then, the CTO has been at the centre of continuous and extensive international communications development funding, cooperation and assistance programmes. Since 1985, the Organisation has delivered to its members in Europe, the Caribbean, the Americas, Africa and Asia-Pacific over 3,760 bilateral and multilateral telecommunications and ICT capacity building projects in the form of policy, operational and regulatory training, and expert assistance. Moreover, the CTO has been at the forefront of generating cutting-edge knowledge through its research and consultancy services, as well as sharing ideas through its conferences and workshops held around the world. This long history as a development facilitator provides the Organisation with a unique and growing delivery capacity for ICT4D programmes and services.

Supporting ICT4D in the Commonwealth

The CTO seeks to work collaboratively with other Commonwealth bodies to build mutually beneficial synergies in the interests of its members. The CTO has a key role to play in leading ICT4D initiatives across the Commonwealth, and it is committed to working together with other Commonwealth entities to reduce overlap and replication of activities. The CTO welcomes the opportunity to offer secretariat support to any Commonwealth ICT initiatives that reflect the needs and interests of its members.



Event	Date/ Location	Event type
Regulatory Boards Workshop	11 - 15 April 2016, London	Workshop
Digital Broadcasting Africa Forum 2016	11 - 13 May 2016, Abuja	Conference
Commonwealth ICT Ministers Forum 2016	14 - 16 June 2016, London	Conference
Commonwealth Spectrum Auction Workshop	June 2016, Namibia	Workshop
Broadband Caribbean Forum 2016	14 - 15 July 2016, Port of Spain	Conference
Regulatory Boards Workshop	18 - 22 July 2016, London	Workshop
Commonwealth Telecommunications Organisation Forum 2016	12 - 16 September 2016, Nadi	Conference
Broadband Asia Forum 2016	October/November 2016	Conference
Commonwealth Human Resources and ICTs Forum 2016	21- 22 November 2016, Kingston	Conference
Spectrum Management Conference	November 2016,	Conference
Broadband Pricing	23 - 28 May 2016, Yaounde, Cameroon	Workshop
SS7 Signalling and Applications in Mobile	23- 28 May 2016, Gaborone, Botswana	Workshop
Business Scenario for 3G Mobile Networks	06 - 11 June 2016, Yaounde, Cameroon	Workshop
Telecommunications Business Process Re-engineering	06 - 11 June 2016, Accra, Ghana	Workshop
Regulating ICTs Workshop	04 - 09 July 2016, London, United Kingdom	Workshop
Overview: ICT Policy and Regulation	04 - 09 July 2016, Johannesburg, South Africa	Workshop
Talent Management, Knowledge Management and Change in a Dynamic Environment	11 July - 16 2016, Mbabane, Swaziland	Workshop
Marketing of Telecommunication Services	18 - 23 July 2016, Trinidad and Tobago	Workshop

