

Interconnection

29 June – 3 July 2015,
Maputo, Mozambique



COMMONWEALTH
TELECOMMUNICATIONS
ORGANISATION



Overview

The course addresses the regulatory obligation of the dominant network operator to interconnect with competing networks. It covers the technical aspects of interconnections, and the commercial opportunities, as well as the regulatory requirements and their limitations, explaining the pertinent agreements and other regulatory requirements.

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: h.muchando@cto.int



OBJECTIVES

- Understand the need for network interconnection and ability to identify interconnection structure required.
- Review and understand the regulator's role in setting interconnect rules, standards and regulations.
- Understand the need for the dominant service provider to recover full cost of interconnection and steps required to achieve this objective.
- Understand the importance of a comprehensive interconnect agreement (RIO) or tariff to prevent inappropriate use of interconnect facilities.
- Be able to provide a consistent approach to each category of alternate service providers, i.e. fixed wireline versus wireless, cellular, etc.
- Approval of interconnect tariffs and/or agreements
- Conflict resolution processes

Module 3: Preparatory Steps:

- Identification of interconnect facility pieces
- Unbundling and cost determination
- Pricing and regulatory approval
- Interconnect tariffs and Interconnect agreements, draft and review of other jurisdictions
- Preparation of access arrangements between competitors
- Review of practices elsewhere

Module 4: Business Opportunity:

- UNE marketing
- Market demand for co-location
- Pricing of co-location services
- Security considerations

The following topics will be covered in additional details:

- Review of existing network topologies
- The need for interconnection between networks
- Technical aspects of interconnection between circuit switched networks and packet switched networks
- Issues concerning Voice over IP (Internet Protocol)
- Mobile network issues
- The Internet
- Seamless and uninterrupted provisioning of services to customers of different carriers
- Co-location
- ROW, access rights to towers, poles, shared use of ducts
- Manpower allocation
- Security issues between competing carriers when entering co-location space
- Electricity, HVAC provisioning to Interconnectors
- Rates for network interconnection
- Revenue sharing and allocation
- Resolution of conflicts

TARGET AUDIENCE

Both technical and non-technical staff from operators and regulatory agencies who work on interoperability or interconnection issues.

COURSE OUTLINE

Module 1: Technical Section:

- Interconnect facilities for fixed wireline as compared to cellular wireless networks
- Shared interconnection versus co-location
- Unbundled Network Elements (UNE)
- Technical interfaces
- Co-location arrangements
- Impact of interconnection on existing infrastructure
- Cost identification of interconnect facilities and services
- Circuit-switched versus IP packet-switched network interconnection
- Number Portability
- Operations and maintenance issues: fault management, traffic management, others

Module 2: Regulatory Compliance:

- Unbundling of facilities
- Essential facilities as determined by World Bank
- Access to ROW and attachment rights to towers and poles, duct use
- Cost-based pricing
- Reporting of interconnect use and availability
- The vulnerability in forecasting to the provider and interconnector
- Extent and confidentiality of information sharing



COURSE TRAINER

Karl Hentschel

Karl Hentschel carries a BEng (Bachelor in Electronic Engineering) and an MBA (Betriebswirtschaftsverwaltung) obtained in Germany. In addition, he participated in deep dive training throughout his career, specifically in project management, risk mitigation, business continuity, marketing concepts and other topics relevant to his responsibilities.

From 1968 to 1990, Karl held senior line and staff positions in the areas of regulatory relations, network operations, planning and expansion, customer service, marketing, training and product development at AT&T Canada. He was a senior member of the team supporting long distance competition in Canada, responsible for developing the operational plan and the underlying budgets. He worked closely with regulatory staff at the CRTC in Canada and with the FCC in the US on cross border services and facilities.

In his consulting practice, Karl conducts training courses and workshops globally ranging from competitive marketing strategies in Saudi Arabia to detailed technology topics in both fixed wireline and wireless network environments in several Commonwealth countries. He conducted courses covering a similar topic in Jamaica, Fiji, Cameroon and The Gambia previously. He is a member of BICSI, PMI and IEEE.

UPCOMING COURSES

Diploma in Telecommunications Management Studies	Accra, Ghana	June 8 - 19, 2015
Costs and Tariffs in Telecommunications	Yaounde, Cameroon	June 15 - 20, 2015
Strategic Human Resource Management	Maputo, Mozambique	June 28 - July 3, 2015
Interconnection	Maputo, Mozambique	June 28 - July 3, 2015
Finance for Telecommunications Regulation	Bamenda, Cameroon	June 28 - July 3, 2015
Fundamentals of Best Practice Broadcasting Content Regulation	Kenya	July 20 - July 25, 2015
Digital Broadcasting and Regulation of Internet Protocol Based Broadcasting and Social Media	Kenya	July 27 - July 31, 2015
Project Management and Appraisal	Johannesburg, South Africa	August 24 - August 28, 2015
Diploma in Telecommunications Management Studies	Olifantsfontein, South Africa	August 30 - September 10, 2015

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.



Registration Form

Personal Details

Mr/Mrs/Ms/Other _____ First Name _____ Last Name _____
 Job Title _____
 Organisation _____
 Address _____
 City _____ Postcode _____ Country _____
 Tel. _____ Mobile _____ Fax _____
 E-mail _____
 Authorising Line Manager's Name _____
 Authorising Line Manager's E-mail _____

Payment Options

1. **Select Delegate Rate** (please refer to the list of CTO members/PDT Partners provided overleaf)

	Standard Rate	Early Registration by: 15 May 2015
CTO Members	<input type="checkbox"/> £750	<input type="checkbox"/> £700
Others	<input type="checkbox"/> £1,150	<input type="checkbox"/> £1,100

2. **Payment Mode** (choose from either Invoice, Bank Transfer, Cheque, or Credit Card)

Invoice

Invoice me at the above address
(Discounts do not apply, payment must be received by us prior to the above event's start date)

Bank Transfer

To: Coutts & Co., 440 Strand, London WC2R 0QS, UK
 A/c Name: CTO; A/c Number: 83675071
 Reference: GB72COUT18000208367507
 Sort Code: 18-00-02; Swift Code: COUT GB22

Cheque

Cheque enclosed,
payable to "CTO HQ"

Credit Card: Visa / Mastercard (circle 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 you and your organisation.

Your role in the organisation

- Strategic/executive
 Planning
 Control
 Operational

Your area of work in the organisation

- Business development
 Corporate affairs
 Customer service and care
 Engineering and technical management
 Financial, purchasing and investor relations
 IT/IP management
 Marketing and sales
 Public relations and corporate communications
 Regulatory and legal affairs
 Telecoms network management
 Human resources
 Other

Your organisation type

- Government
 Regulator
 Operator
 Manufacture
 Other

Your organisation's service areas

- Fixed network/services
 Mobile/wireless network/services
 Satellite network/services
 Internet
 Broadcasting
 Value-added services
 Support
 Other services

REGISTRATION DEADLINE

19 June 2015

3 SIMPLE WAYS TO REGISTER!

Fill in and fax this form back at
+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
"Event ID" above.

NEED HELP?

Call us now on +44 20 8600 3800
or e-mail the Programmes 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, or else before the course start date, whichever applies. 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 (e-mail, 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.

Fax it back to +44 20 8600 3819, or return to the CTO at programmes@cto.int.