IP Networking

(including Bandwidth Optimization & Expansion)

Register by 16th July 2010 for a 10% discount!

26 - 30 July 2010
Fiji Islands

CTO
COMMONWEALTH TELECOMMUNICATIONS ORGANISATION

Overview

A one-week course that will enable participants to plan and prepare for the implementation Fintel's IP networks including the need to optimize and expand bandwidth to support application-centric services.

Background

Given the explosion in the requirements for data combined with the pent-up demand, there is a need for carriers to better understand specific customer requirements and applications for the use of broadband networks. Telco and mobile carriers have concluded that the Average Rev Per User (ARPU) should not be the focus of their future strategies. Rather, more companies are looking to understand markets and micro segments within markets. These include horizontal and vertical market segments and applications for data in order to develop application-centric services. This includes growing joint ventures and mergers between content and application providers and competitive carriers.

The recent joint venture agreement between Verizon, a major North American carrier and Skype to provide free use of Skype confirmed such a change in focus in which carriers themselves with cyber companies and/or application/content providers. Recent history has shown that the development of backbone networks utilizing high bandwidth technology such as fiber has resulted not only in a glut of fiber buried in the various countries but also in major bankruptcies and failures of the raw network providers.

The message moving forward is to fully analyze and craft a sustainable market strategy that includes the development of application-centric services and to support various segments of the market. A high end example of bandwidth optimization is the growing strategy by major carriers to deploy managed services. This would allow better control of the client use and offer application-centric services. At the same time, the same network would support various applications ranging from basic Internet service access to a high capacity managed services.

PDT

For more programmes and courses run by the PDT contact us at:
Tel: +44 (0) 208 600 3800 **Fax:** +44 (0) 208 600 3819 **Email:** programmes@cto.int

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Objectives

Review the technical concepts of Internet Protocol

- Investigate the growing trend toward optimizing and/or expanding network bandwidth including high bandwidth networks for large content and application network such as mobile networks, ISP networks and so on
- Compare best practices in similar environments
- Identify "hybrid" TDM/IP solutions versus all-IP system implementation
- Analyze requirements for physical plant, endpoints and IP PBXs
- Summarize challenges and opportunities in Fiji for IP Networks and their applications.

Target audience

Senior technicians, assistant engineers, engineers and managers. Also, we seriously recommend that senior product and marketing should be encouraged to attend given the focus in the development of applications centric and managed applications' centric services.

In addition, managers working in the regulatory department who work closely with marketing staff on competitive services can both benefit and can contribute to class discussion.

Learning environment

Traditional classroom including collaborative learning.
Use of presentations, group learning, class exercises, and problem solving.

About the programme for development and training (PDT)

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

The PDT has delivered over 3600 bilateral training and consultancy projects, covering every aspect of the telecommunications industry, training over 35,000 professionals in 33 countries of the Commonwealth.

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Expected outcome

- Describe technical concepts of Internet Protocol and the growing trend toward the use of integrated multimedia IP networks
- Investigate the changing landscape of the Telecom Industry and Foundations of Telecom and IP networking Compare "hybrid" TDM/IP solutions versus all-IP system implementation
- Investigate better network topology/design: bandwidth optimization in WAN
- Determine better performance and competitive advantage
- Identify technology considerations
  - Readiness of Fintel's data network for voice i.e. Voice Over Internet Protocol Better placement of key servers
  - QoS (Prioritization, Shaping, Policing, ...)
  - Proxy/Firewalling Migration to all digital networks
  - Plant upgrades including economics of increased bandwidth
  - Advanced Video Coding (AVC)
  - Switched Digital Video (SDV)
  - Segmentation of Nodes
  - RF over Glass (RFoG)
- Identify costs
  - Inter-country links
  - International links
  - Computer and communication systems
- Determine Issues
  - Licensing
  - Security
  - Congestion at ISP level
- Compare policies on how the network should be used
- Determine how to monitor and analyze the bandwidth usage
- Explain how to implement and enforce policies if necessary
- Investigate the need for user education
- Explain horizontal and vertical market segments
  - Managed services
  - Support for content providers in terms of their delivery of content to end users
  - SLA based services for ISP
  - Network management of enterprise data networks
  - Support for banking and mobile banking transaction networks thru managed services
- Describe applications for data in order to develop application-centric services
- Investigate the deployment of managed services

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Course outline

The course is designed to cover a broad area of emerging networking standards and applications relating to IP networks to allow participants to better understand IP Networks and supporting Bandwidth requirements fromtechnology and application perspectives.

The following topics will be covered

1 Technical Concepts

- Promises of Broadband technology
  - Improved quality of service at the user end
  - Security and privacy
  - Service management
- TCP/IP protocol suite and features
- Evolving global standards for IP networks such as MPLS, etc, to allow migration of legacy network traffic to an IPbackbone
- Applications, markets, and technologies that are driving the emergence, acceptance, and implementation of the IP Technologies

2 The Changing Landscape of the Telecom Industry and Foundations of Telecom and IP networking including:

- Emerging trends in the changing world of telecommunications
- Focus on Applications and Services being developed and deployed by major carriers
- Interconnection issues
- Regulatory issues and governance under an IP regime
- Consumer protection issues and competitive safeguards
- Security issues of IP Networks

3 Readiness of Data Network

- Security issues of IP Networks
- Meeting the demand of a changing user environment e.g. Video on Demand
- Required routing protocols

4 System Implementations

- Aspects of IP implementation that inter-work with legacy networks
- Operational and implementation issues
- Cost impacts related to full versus a hybrid network architecture for Fintel

5 IP Platforms, IP Networks

6 Wireless IP Platforms

7 Applications and Business Issues related to IP networks including IP Numbering plans such as ENUM

8 IP Networks Applications and Managed Services: Operational, Governance and Implementation Issues.

Course leader

Zain Khan B.Chem Eng, B.Comm, CMC

Zain Khan is a Certified Management Consultant through the Canadian Association of Management Consultants (CAMC), which is recognised in at least sixty countries. After 16 years in the private sector, Zain founded Alliances Consulting Group Inc., which has a focus in telecommunications consulting, management consulting, and training.

As a seasoned ICT professional, Zain has held several management positions with a major Telco in Canada in sales, marketing, strategic planning, product management, policy development and regulatory support for new products and services including economic evaluations and studies. As Practice Unit Leader and Manager at Coopers & Lybrand (PWC), he consulted for many major Fortune 100 companies and carriers he has conducted strategic and tactical engagements involving ICT infrastructure, strategy, and performance management. Alliances as a firm, is a major supplier of CTO and Zain as its CEO has been involved as member of the CTO PDT management committee. Alliances has conducted over 120 programs for the CTO since 1999.

Zain has delivered training for most PDT members including the premier Regional Diploma in Telecommunications Management Studies since its inception in Nigeria (2007) and subsequent Diploma Programs in South Africa (2008) and Cameroon (2009).

Zain has also crafted and delivered a condensed version of Diploma Program including a Certificate in Telecommunication for TSTT. As an integral part of his personal development, Zain has taught ICT courses at The Ryerson University in Toronto and several Community colleges including being a member of major steering committees for curriculum and program development at the college and university level. Zain is well known in Africa and globally and respected for his commitment, high level of energy, friendliness, and dedication to deliver excellence.

He recently was one of the key note speakers in Kenya and Nigeria for the AITECH Conference on Mobile Banking and most recently in Libya at the First International Conference Governance speaking on eConsumers. He is a member of the Advisory Board for AITECH and more recently a Board of Director for the African Centre for Mobile Financial Inclusion (ACMFI).

His current practice areas include Strategic Planning in the Information Communication Technology (ICT) sector including technology transformation and implementation; competition and marketing strategy for Telco and other businesses, Network Based (web-based) software development, and management/ICT related training.

In partnership with:
Alliances Consulting Group Inc. (Canada)

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.

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Registration form

IP Networking (including Bandwidth Optimization & Expansion)
26 - 30 July 2010, Fiji Islands

ID: 6909

Please fill in this application form and fax it back to +44 208 600 3819 or return it to the CTO at the 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

	Standard rate	Early Registration
CTO members	☐ £799	☐ 10%
PDT partners	☐ £799	☐ 10%
Others	☐ £1,199	☐ 10%

* two or more delegates from same organisation

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 |_|_|_|

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
- ☐ 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 & 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
- ☐ Manufacturer
- ☐ 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

16 July 2010

3 SIMPLE WAYS TO REGISTER

Fill in and fax this form back to **+44 208 600 3819**

Call the programme team at **+44 208 600 3800**

E-mail the programme team at programmes@cto.int, quoting the course "ID" above.

EARLY REGISTRATION DISCOUNT

45 days prior to start of event

NEED HELP?

Call us now on +44 208 600 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 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

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