

AFIX-TF

TECHNICAL WORKSHOP REPORT (ZAMBIA)

I. Introduction

The African Internet Exchange Task Force (AFIX-TF) held a two-day technical training workshop in Lusaka Zambia at Holiday Inn Hotel on Monday 18 July and Tuesday 19 July, 2005. Trainers: Mark Tinka & Didier Kasole. Report written by Didier Kasole Workshop team leader.

II. Planned Outcome and Benefit

Participants at the Workshop will be able to establish and maintain an Internet Exchange Point. The implicit benefit of the workshop will be to establish technical cooperation between ISPs.

III. Workshop Structure

Day 0

Preparation of classroom by instructors, installation and test of equipments.

Day 1

Session 0: Opening Session

8:30-10:15

Panel: Representative of the Minister of Communication, AfrISPA Chairman, KTH representative & ZamNet CEO (local host)

Session 1: High-level overview

10:30-10:00

This session provides a brief look at the history and current status of the Internet and its architecture, and introduces (or refreshes) some key concepts.

Session 2: Cost savings exercise

11:00-12:00

This session explores the cost-savings dynamics associated with participation in an IXP by an ISP, including the dynamics for the overall ISP market.

Session 3: Technical refresher exercises

12:00-13:00

14:00-18:00

This session refreshes the concepts of static and dynamic routing and provides several exercises, which are the most significant part of the content.

Day 2:

Session 4: Technical aspects of peering (continued) **8:30-10:30**
11:00-13:00
14:00-15:00

This session focuses more closely on how to set up peering, give more detail on BGP parameters and configuration.

Session 5: Preparation for an IXP **17:30-18:15**

This session focuses more closely on how to set up an IXP.

Session 6: Business aspects of Internet Exchanges **15:00-16:00**

This session explores the business models applicable to an IXP and the associated financial and business implications.

Session 7: Policies for peering and IXPs **16:15-17:30**

This session will explore the most common issues around peering from an ISP policy point of view, and review some general conditions of and criteria for peering. During the session participants will study three real-world examples of different bilateral and multilateral peering arrangements.

Session 8: Final exercise and wrap **--:-- --:--**

We did not have enough time to do this session during which participants would explore the strategic and financial role of peering in an ISP strategy, through playing the Peering Game developed by WB Norton.

IV. Participants attendees

Name	E-mail	Company
Jay Bande	jay@coppernet.zm	CopperNET Solutions
Stephan Ngala	sngala@zamnet.zm	ZamNet
Caesar Mufesa	cmufesa@zamtel.zm	Zamtel Online
Absalom Sakala	sakalaab@yahoo.co.uk	CBU
Frank Ng'andwe	frank@africonnect.co.zm	Africonnect
Gary Mukelabai	garrymu@asc.com.zm	Realtime
Kally Malumba	malumba@microkink.zm	Microlink Tech
Patrick Ndegwa	pndegwa@zm.uu.net	UUNet

V. Workshop Evaluation

In general, the assessments were favorable, with an overall average of 4.0 (“good”) on the scale 1 to 5. 86 % of participants were very satisfied by the workshop.

	All 8 participants completed the evaluation forms	
On the Question: How useful did you find the workshop?	Very useful	8
	Somewhat useful	
	Not useful	
On the Question: How did it match your expectations? (Were the aims communicated in advance?)	Exceeded	3
	As expected	5
	Below	

Individual session evaluations and trainers evaluations

Session 1: Overall introduction

Trainer’s name: Didier Kasole

Please rate the following on a scale of 1 to 5:

	5 = Excellent, 4 = Good, 3 = Average, 2 = Poor, 1 = Very poor
Presentation skills	4.00
Presentation content	4.50
Handouts	4.00
Overall	4.13

Session 2: Cost savings exercise

Trainer’s name: Didier Kasole

Please rate the following on a scale of 1 to 5:

	5 = Excellent, 4 = Good, 3 = Average, 2 = Poor, 1 = Very poor
Presentation skills	3.88
Presentation content	3.88
Handouts	3.50
Overall	3.63

Session 3: Technical refresher: presentation

Trainer's name: ___Didier Kasole___

Please rate the following on a scale of 1 to 5:

	5 = Excellent, 4 = Good, 3 = Average, 2 = Poor, 1 = Very poor
Presentation skills	3.88
Presentation content	4.25
Handouts	3.88
Overall	4.00

Session 3: Technical refresher: exercises

Trainer's name: ___Mark Tinka___

Please rate the following on a scale of 1 to 5:

	5 = Excellent, 4 = Good, 3 = Average, 2 = Poor, 1 = Very poor
Presentation skills	4.00
Presentation content	4.25
Handouts	3.88
Overall	4.13

Session 4: Technical aspects of peering

Trainer's name: ___Mark Tinka___

Please rate the following on a scale of 1 to 5:

	5 = Excellent, 4 = Good, 3 = Average, 2 = Poor, 1 = Very poor
Presentation skills	4.29
Presentation content	4.29
Handouts	3.86
Overall	4.14

Any additional comments?

- Brilliant , explained very simply + eloquently

Session 7: Business Aspects

Trainer's name: ___Didier Kasole___

Please rate the following on a scale of 1 to 5:

	5 = Excellent, 4 = Good, 3 = Average, 2 = Poor, 1 = Very poor
Presentation skills	4.13
Presentation content	4.13
Handouts	4.00
Overall	4.00

Session 8: Policies

Trainer's name: ___Didier Kasole___

Please rate the following on a scale of 1 to 5:

	5 = Excellent, 4 = Good, 3 = Average, 2 = Poor, 1 = Very poor
Presentation skills	4.00
Presentation content	4.14
Handouts	4.14
Overall	4.14

Session 9: Setup an IXP

Trainer's name: ___Mark Tinka___

Please rate the following on a scale of 1 to 5:

	5 = Excellent, 4 = Good, 3 = Average, 2 = Poor, 1 = Very poor
Presentation skills	4.17
Presentation content	4.33
Handouts	4.17
Overall	4.33

Overall Workshop Evaluation

How did you find the length of the workshop?	Too short	29%
	About right	71%
	Too long	0%
How did you find the pace of the workshop?	Too slow	14%
	About right	86%
	Too fast	0%
How satisfied were you with the organisation of the workshop?	Not satisfied	0%
	Somewhat satisfied	14%
	Very satisfied	86%
<p>Any other comments?</p> <ul style="list-style-type: none"> • Very informative, mind opening. A bit more summaries needed to reinforce learned skills • This was a very helpful workshop to prepare us to build a reliable and scalable IXP • Many thanks. This has shown me that BGP is NOT Evil. And the need to implement Carrier Grade voting is important for setup of IXP • Need more time for revision before getting into the heavy stuff. Exercise needed to be better documented showing expected result and what prove. Workshop exceeded my expectation however I did not have enough preparation material 		

VI. Conclusion & follow up

After the previous workshop only 36% of participants was very satisfied, at this workshop it is increased to 86%. The pace was a big problem for this workshop so we will introduce a question on the evaluation about length of each session. A deposit was require by Customs to let us take the equipment out of Customs, so we need to check Customs constraints for each Country before shipping equipment.

As all ISP in Zambia have leased line to Telco and Telco is willing to host the exchange point, AFIX-TF need to keep in touch and help Zambia ISPs for the establishment of Scalable IXP.