

IT Services Group

Progress on Action Plan

Summary of Objectives

- ICT Based service providers sign SLA with EthioTelecom
- Launch VISP/ISP services
- Create an enabling environment for eCommerce services
- Launch local hosting services

SLA WITH ETHIO TELECOM

Why is an SLA Important?

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An SLA
a servic
and its



between
(telecom)
Services

Business,

DRAFT SLA Framework

- Service Description
- Service Standards
 - Parameters
 - Performance Standards
- Objective Measurements and Penalties
- Roles & Responsibilities

Fixed Broadband Unlimited

Service Description

- Fixed Wired Broadband Internet, is a high speed Internet provided through copper or fiber with different access speed options starting from 256 Kbps up to 100Mbps with unlimited usage. More access speed options are available for your business up on your request.
- EthioTelecom is currently providing unlimited Broadband Internet service only to its enterprise customers

Fixed Broadband Unlimited

Service Standards

| Parameter | Performance Standard |
|-------------------------------|--|
| Installation | 15 business days |
| Availability | 95% |
| Bandwidth | 95% of subscribed service, 95% of the time |
| Time to Repair | 4 hours |
| Proactive Outage notification | 15 minutes |

Fixed Broadband Unlimited

Objective Measurements and Penalties

Availability

Definition – percentage of time in a given billing period for which the service is not subject to service interruption

Objective measure – total number of hours for which service is available in a given billing period divided by the total number of hours for which Ethio Telecom has committed to providing service.

Penalties – credit applied to customer bill, compensation for lost business

Other Identified Services

We've identified the following other services for inclusion in an SLA

- Fixed Broadband
- ISDN-E1 Service
- Short code Services
- Bulk SMS Services

PROGRESS → SLA with Ethio Telecom

| TASK | EXPECTED OUTCOME | STATUS |
|--|---|-------------|
| Initial meeting with ET to discuss implementation of SLA | Agreement to move forward and formation of task force | ✓ |
| Develop draft SLA | Draft SLA | ✓ |
| Stakeholder review and discussion on SLA | Final version of SLA | Not Started |

ENABLING ENVIRONMENT FOR E-COMMERCE

PROGRESS → eCommerce

| TASK | EXPECTED OUTCOME | STATUS |
|--|---------------------------|-------------|
| Conduct consultative meetings with private sector on eCommerce law | Consultative meeting held | Not Started |
| Incorporate private sector input and feedback on draft eCommerce law | | Not Started |
| Enact eCommerce law | eCommerce law enacted | Not Started |

VISP / ISP SERVICES

Launching vISP Internet Services

Rationale for Starting with Local Companies



Agenda

- Introduction - Why vISP?
- Costs and risks of inactivity
- Benefits of vISP
- Why we need vISP in Ethiopia?
- Why start with local companies?
- Recommendations

Why vISP?

- ethio tecom needs to focus on infrastructure expansion
- Should use local companies to grow its subscriber base
- vISPs will provide customers exactly what they want
- vISPs can quickly scale up services to match demand
- Quickly respond to customer enquiries on speed and utilization
- The deployed resources expect on ROI
- No apparent risks to ethio telecom rather increase its revenue streams

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Costs and risks of inactivity

- Inefficient use of available telecom infrastructure
- Limiting Internet access penetration in the country
- Restraining business efficiency and stifling technological innovation of local companies
- Lost revenue for ethio telecom

Benefits of vISP services

- Increased Internet access penetration
- Easy subscription and delivery and support for Internet subscribers
- Additional options for subscribers
- Open up local telecom service market competition

Why we need vISP in Ethiopia?

- Single service provider that has limitation in the quality of service
- The country's economic growth is attracting international companies that expect better and competitive service
- Broadband Internet is one of the most critical enabling factor that helps other economic sectors to be competitive

Why Start with Local Companies?

- Ethiopian law imposes restrictions on foreign equity ownership in the service industry including the retail sector and vISP is a retail service
- Local companies are flexible to accommodate ethio telecom's requests
- Foreign companies tend to be highly selective to maximize profit
- Multinationals possess state-of-the-art technologies & enormous financial resources to quickly overrun local rivals

Recommendations

- ethio telecom has selected the model and the tariff structure
- Platform is ready
- The private sector is eagerly awaiting the launch of the service
- MCIT needs to give a clear direction to ethio telecom to start the service with local companies at least initially

LOCAL HOSTING

Providing Local Hosting Services

Developing a Thriving Local Internet Ecosystem



What is the current situation?

- Ethio telecom provides hosting with limited success
- There are no private local hosting companies
- Most content providers host content abroad
- Most of Ethiopia's Internet traffic comes from overseas
- Content hosted abroad must be delivered back over international Internet transit links

What are the problems with it?

- Significantly high international transit costs
- Diminished user experience
- Discourages local content development
- Discourages the use of .et ccTLD domain name

Local Hosting: Benefits

- Avoids international links
- Improves the user experience
- Provides ethio telecom and users substantial cost savings
- Hard currency savings for the country
- Promotes the repatriation of local content hosted abroad
- Reduces latency and drive up usage and demand
- Promotes the use of .et (or ccTLD) domain names
- Helps make the country a regional IXP

The Case of Rwanda

- International connectivity cost is very high
- Taken several steps to lower the cost of international connectivity
- The RINEX was established in 2004 to both reduce the need for international transit and improve performance
- The IXP counts all of Rwanda's ISPs as members
- GGC and Akamai are locally present
- Both are available to all ISPs connected to RINEX

The Case of Rwanda

- Internet penetration in Rwanda is growing exponentially
- Government policy aims at growing the Internet economy
- There are several data centers operational in Rwanda
- Content producers hosting their websites abroad recognize the benefits in hosting their content locally
- By hosting the content in a local cache, latency decreases, making it faster for users to access the content
- Data in Rwanda show that hosting content locally is beneficial to all parties

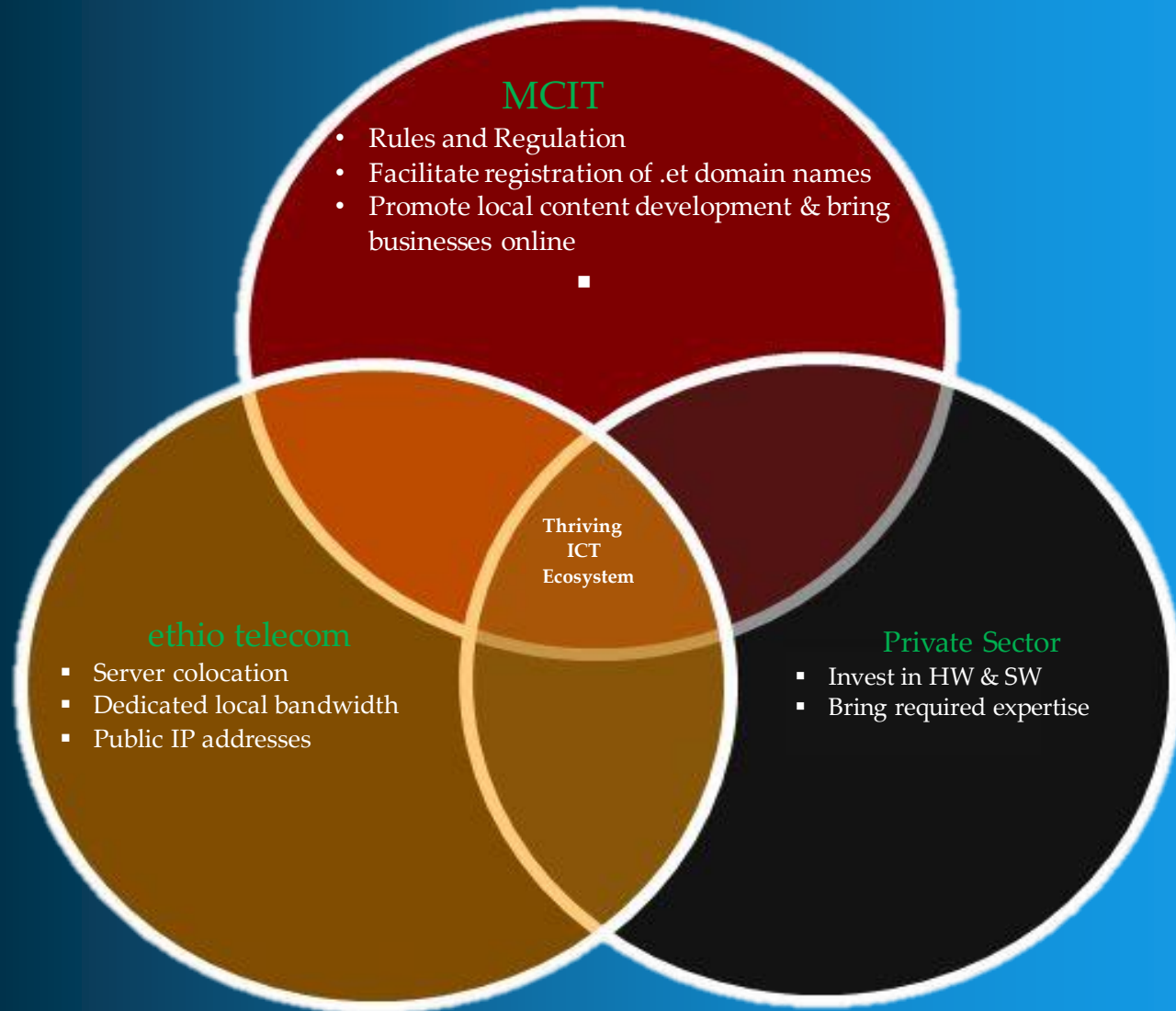
What can the stakeholders do?

- **ethio telecom**
 - Server colocation services from ethio telecom
 - Dedicated local bandwidth
 - Public IP address blocks
- **Private Sector**
 - Investment in hosting services HW and SW
 - Technical expertise

What can the stakeholders do?

- **MCIT**
 - Promote the use of .et domain names
 - Encourage businesses to get online
 - Encourage local content development

Proposed Local Hosting Model






Switching to a different topic

Autonomous System Number & IPv4 Address Space

Ethiopia needs to get a fair share from these quickly
depleting Internet resources

What is Ethiopia getting, compared with

| Country | ASNs | Who is getting ASN |
|--|------|--|
| Ethiopia  | 1 | ISP in Ethiopia (Ethio Telecom) |
| Uganda  | 27 | Telecoms, ISPs, hosting providers, Banks, National Bank, MCIT equivalent, University, education networks (REN), large enterprise, etc. |
| Kenya  | 65 | Telecoms, ISPs, hosting providers, Banks, National Bank, MCIT equivalent, University, education networks (REN), large enterprise, etc. |

Source:

<http://bgp.he.net/country/ET>

<http://bgp.he.net/country/UG>

<http://bgp.he.net/country/KE>

2-Byte ASN status in the World

| RIR | RIR Pool | Unadv | Adv | 16-bit | Unadv | Adv | 32-bit | Unadv | Adv |
|----------|----------|-------|-------|--------|-------|-------|--------|-------|------|
| AFRINIC | 967 | 380 | 955 | 268 | 266 | 744 | 699 | 114 | 211 |
| APNIC | 810 | 4804 | 7333 | 387 | 2818 | 5233 | 423 | 1986 | 2100 |
| ARIN | 5250 | 8711 | 15564 | 1294 | 8698 | 15536 | 3956 | 13 | 28 |
| RIPE NCC | 3910 | 6454 | 22940 | 2690 | 4789 | 18145 | 1220 | 1665 | 4795 |
| LACNIC | 981 | 940 | 4991 | 395 | 549 | 2483 | 586 | 391 | 2508 |
| | | | | | | | | | |
| TOTAL | 11918 | 21289 | 51783 | 5034 | 17120 | 42141 | 6884 | 4169 | 9642 |

AFRINIC: only **268** 2-octet ASNs left ... out of 1278 total allocated for AFRINIC

World: only **5034** 2-octet ASNs left ... out of 64,295 total pool

Source: <http://www.potaroo.net/tools/asn32/>

What can we do to help Ethiopia get its fair share

- Collaboration between MCIT, Internet experts and Ethio Telecom to engage with AFRINIC
- Help large enterprises (such as CBE), Education network, WoredaNet, and potential content providers to get their own ASN
- This is very important for the growth of Internet in Ethiopia – we all have stake, and we should all help with this effort.

THANK YOU