
The logo for Tertiary Education Network (TENET) is displayed within a rectangular frame. The top portion of the frame is a solid red rectangle containing the word "TENET" in a large, white, bold, italicized sans-serif font. The bottom portion of the frame is a white rectangle containing the words "Tertiary Education Network" in a black, italicized sans-serif font.

TENET

Tertiary Education Network

IPv6 – An African Perspective

Presentation by Andrew Alston
Australian IPv6 Summit 2006

The Current State of Internet in Africa

Current IPv6 in Africa

IPv6 – The African business case

The case beyond the numbers

The Current State of Internet In Africa

- Low Rates of current penetration
 - 3.6% of Africa connected
 - 32 million users
 - One of the highest penetration growth rates globally
 - Between 2000 and 2006
 - Global growth rate of 195.5%
 - 625% increase in Internet user base between 2000 and 2006
 - African population of 915 million, 14.1% of global population
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The Current State of Internet In Africa

- Hampered by high costs and large incumbent monopoly providers
 - Bandwidth costs are high – TENET's current network with 175mbit of international bandwidth has a running cost in excess of \$10 million US
 - Sattelite bandwidth is the general rule – fiber is the exception, and with this comes high latencies
 - Telecomms companies don't want to sell layer 2 services
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Current IPv6 in Africa

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The case beyond the numbers

- Extremely limited deployment across the continent
 - IPv6 deployment limited due to lack of any infrastructure
 - Some deployment within the Academic sector
 - Some interest, little action from commercial ISPs
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IPv6 – The African Business Case

- Business is about communication
 - There has been a 10 fold increase in economic trade between China and Africa between 1995 and 2005
 - Neither the Asia Pacific region or the African continent can hope to provide connectivity with IPv4 – The address space isn't there
 - IPv6 will be required for future business continuity
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The chance to do things differently

- The implementation of IPv6 provides a chance to collaborate and to bring people together
 - The use of multicast can drastically reduce costs associated with video streaming and content distribution.
 - Green fields infrastructure means there are no huge costs associated with IPv6 rollout at this point!
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