Partnership for Higher Education in Africa

Internet2: Enhancing Research & Education Networking in Africa
Jennifer Pawlowski, Rockefeller Foundation
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Partnership for Higher Education in Africa

SOUTH AFRICA
All Partners

MOZAMBIQUE
Ford/RF

KENYA
RF/Ford

UGANDA
All Partners

TANZANIA
Carnegie/RF/Ford

GHANA
Carnegie/Ford

NIGERIA
MacArthur/Carnegie/Ford

SOUTH AFRICA
All Partners

Partnership for Higher Education in Africa
Strategic Focus

• Build field of higher education studies

• Foster network approaches to capacity building & research

• Accelerate development of leadership & governance

• Extend low-cost bandwidth access & strengthen management of ICTs for research & training

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
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<tbody>
<tr>
<td>Joint Initiatives</td>
<td>$11 MM</td>
</tr>
<tr>
<td>Grants by Individual Foundations</td>
<td>$135 MM</td>
</tr>
<tr>
<td>Total Partnership Grantmaking</td>
<td>$146 MM</td>
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http://www.foundation-partnership.org/
ICT as Partnership Priority (2002-03)

  - Identified priority: Bandwidth Accessibility & Affordability

- Feb-July 2003: Commissioned UDSM to convene task force (BandITs) & coordinate study

http://www.foundation-partnership.org/pubs
BandITs Study (October 2003)

• Main Finding:
  ➢ Bandwidth rates in African universities are significantly more expensive than in US/Europe

• Recommendations:
  ➢ Improve connectivity rates via economies of scale
  ➢ University consortium arrangement
  ➢ Foster efficient management & appropriate bandwidth utilization
Next Steps (2004)

• Establish agreement w/ Partner institutions to purchase bandwidth as consortium

• Create or identify entity to serve as bandwidth consolidator, negotiator & manager

• Link universities w/ tools & expertise to improve internal bandwidth management & technical capacities
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Consortium Members

• GHANA
  - Association of African Universities
  - University of Education
  - University of Ghana

• MOZAMBIQUE
  - Eduardo Mondlane University

• UGANDA
  - Makerere University

• NIGERIA
  - Ahmadu Bello University
  - Bayero University
  - Obafemi Awolowo University
  - University of Ibadan
  - University of Jos
  - University Port Harcourt

• TANZANIA
  - University of Dar es Salaam

Partnership for Higher Education in Africa
African Virtual University

• March 2004 Partnership & AVU discuss opportunities

• AVU contracted to conduct technical & cost assessment to establish consortium

• AVU experienced in identifying satellite companies & vendors working in Africa
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Partnership Workshop (September 2004)

AVU Bandwidth Findings:
• Available = 16 Mbps // Demand = 108 Mbps
• Ave. monthly price = $7.30 Kbps (VSAT)
• University-proposed target = $2.5 Kbps or lower

Conclusions:
• Consortium approach practical & effective
  ➢ Economies of scale
  ➢ Network building & information sharing
  ➢ Burstable bandwidth
• Partnership universities have infrastructure & technical capacity for additional bandwidth
Partnership Workshop (September 2004)

Action Items:

• VCs signed MOU giving AVU right to negotiate w/ satellite company for target price of $2.5 / unit

• TENET provided mandate to build universities’ bandwidth management capacities

• University IT staff established steering committee to liaise w/ AVU & TENET

• October – December 2004
  - NetSat unable to yield $2.5 target
  - RFP widely circulated & yields bid to supply bandwidth below $2.50 per Kbps

• Spring 2005
  - Contract w/ IntelSat for 93 Mbps at a price < $2.50 Kbps - *six-fold* bandwidth increase
  - Foundations finalizing grants to AVU, TENET & Association of African Universities (July ‘05)
AVU – Bandwidth Consolidator

AVU grant will cover:

- University equipment purchases
- 3-year bandwidth subsidies
- Development of contracts, management of financial procedures & troubleshooting
Bandwidth Improvements to Date

• Last 12 months = more than 33% increase in bandwidth for Partnership universities

• Reduced bandwidth costs per month
  - To buy 10 Mbps up/ 26 Mbps down
    - Pre-consortium: $114,472
    - Consortium: $84,327
  - SAVINGS: $30,145

• Expertise sharing among universities for improved bandwidth management
Regional Consortium Potential

• Current project “proof of concept”

• Sustainable scale up
  ➢ Partnership lacks capacity to achieve alone
  ➢ 12 institutions not enough

• Collaboration needed to build larger regional consortium
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