Case Study

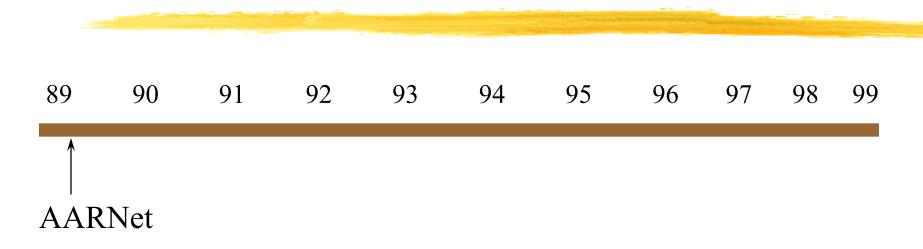
Australia

Geoff Huston NTW Track 4

Phase 1

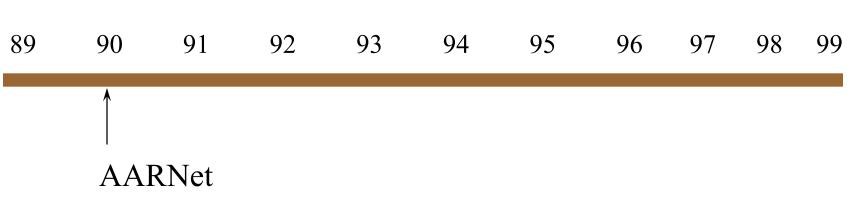
- The Enthusiasts
- **1**984 1989
- uucp-styled mail connectivity
- university computer science project
- modems and X.25 trunks

1989 - Initiative



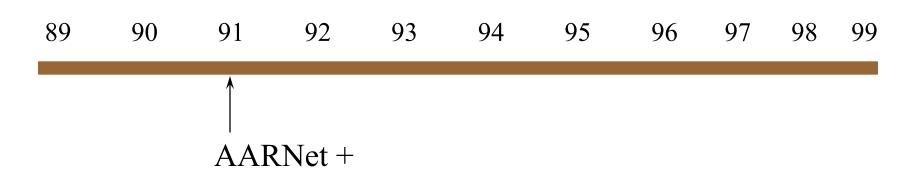
Initiative to create a national university network Australian Vice-Chancellors' Committee program Multi-protocol design Seed funding from Australian Research Council 56Kbps link Melbourne - Hawaii

1990 - Implementation



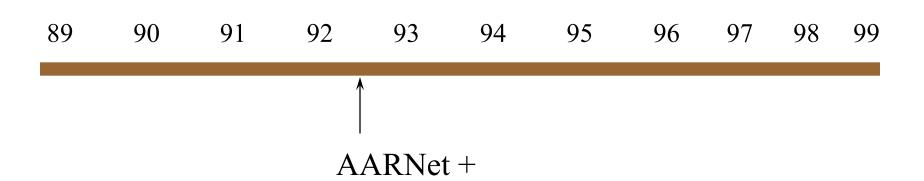
Initial Network Roll-out
48Kbps national network using star topology
TCP/IP and DECnet protocol support
2Mbps Melbourne - Canberra - Sydney
38 sites - universities
academic and research funding base
128Kbps link - Melbourne - Hawaii
email, usenet, ftp

1991 - Academic Network



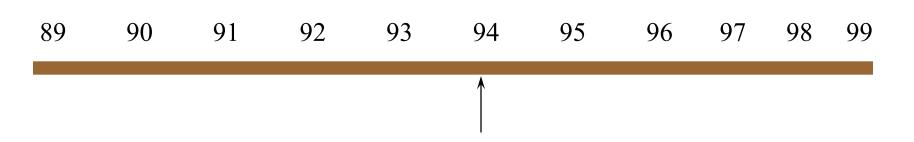
Resale to academic and research partners
2Mbps links to Brisbane, Adelaide
TCP/IP Internet network
academic and research funding base
256Kbps link - Melbourne - US West Coast
email, usenet, ftp, gopher, wais
library uptake in information resource activities

1992/93- Expansion



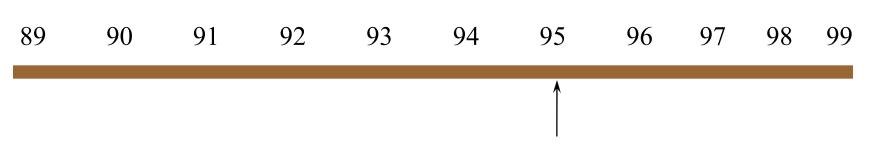
Commercial resellers of Internet dial access Research Data Network funding initiative 768Kbps link - Melbourne - US West Coast email, usenet, ftp, gopher, wais multicast audio/video conferencing experiments

1994 - Commercial Internets



Multiple Australian Internet Service Providers
Multiple Australia - US links
2Mbps total capacity
The World Wide Web takes over the net!

1995 - The National Internet



Telstra purchases AARNet Australia - US capacity expanded to 10Mbps Dial Access providers expand:

Ozemail, Access One, connect.com.au, On Australia,.....
Netscape dominates the Web market
Internet Commerce viability

150 Internet Service Providers in the market

1997



Australia - US capacity expanded to 130 Mbps 550 Internet Service Providers
Access market opens to include:
cable modem access
dial - isdn

Large scale industry investment in Internet markets

89 90 91 92 93 94 95 96 97 98 99

Australia - US capacity expanded to >600 Mbps 650 Internet Service Providers Regulatory Involvement now visible

Futures ...
ADSL technologies for access
QoS
VPNs