

NGI - I2 - vBNS

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I2 - vBNS

- Advanced infrastructure support, NSFNET review, 1Q96
- AUP, 3Q96
- Pricing model, 2Q97
- I2 announcement of vBNS as first “inter-gigapop” network, 2Q97

I2 - vBNS

- Rural issues
- Network expansion

NGI Goals

- 1.1 network: ~100 research institutions at 100x performance
- 1.2 network: ~10 institutions at 1000x performance
- 2: R&D for next generation networking technologies
- 3: Advanced applications

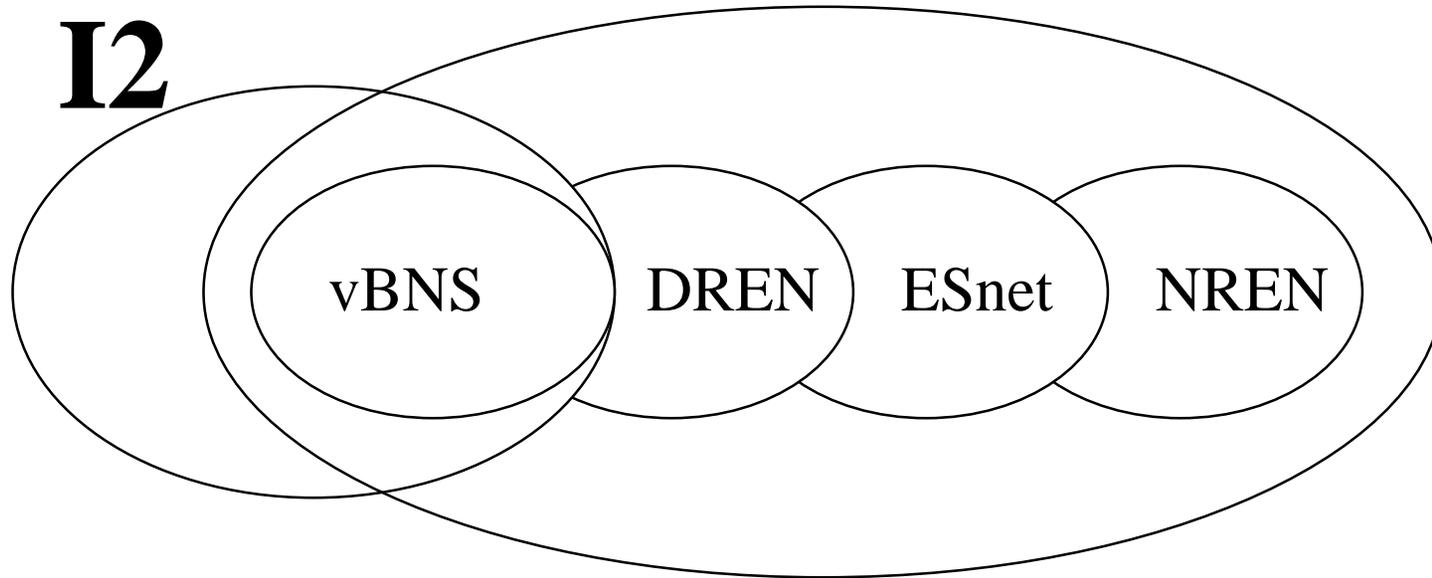
Initiative Goals

1. Promote experimentation with the next generation of network technologies
2. Develop a next generation network testbed to connect universities and federal research institutions at rates that are sufficient to demonstrate new technologies and support future research
3. Demonstrate new applications that meet important national goals and missions

Metrics

- quality of service including security
- adoption of technologies by private sector
- ability of network testbed to accommodate goal one research results and goal three applications
- 100-1000 times end-to-end performance improvement
- about 100 research institutions connected
- 100+ high-importance applications
- value of applications in testing networking technologies

NGI 2.1 Network



How many NGI nets?

- Networking research and research networks
- NGI Workshop, 2Q97
- Should/can there be a network to support networking research? (a “1.0” network)

NGI Budgetary Benefits for Universities

- vBNS core from \$15M to \$23M
(\$8M/yr: from ds-3 to oc-3)
- hp conns from \$350K to \$700K
(\$12M/yr)
- network R&D from \$12M to \$15M
(\$3M/yr)

Conclusions

- vBNS - I2 - NGI closely and beneficially related
- great opportunity to build an advanced networking facility for science and engineering
- we now work “in the spotlight of success”, making our politics more complicated