Wireless/Satellite Internet Connections

Greg Jones
Dandin Group

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Dandin Group

- The Dandin Group, Inc (DGI) believes wideband wireless technology is the most promising technology for connecting the world and fulfilling the promise of the Internet. This belief drives a comprehensive vision of how -- and why -- wireless communications can be delivered.

  - Users as First-Mile, Not Last-Mile Consumers
  - Scalable Wireless Networking
  - Symmetrical Bandwidth to the User
  - VoIP (Voice over IP) on Wireless Networks
  - Spectrum Regulations
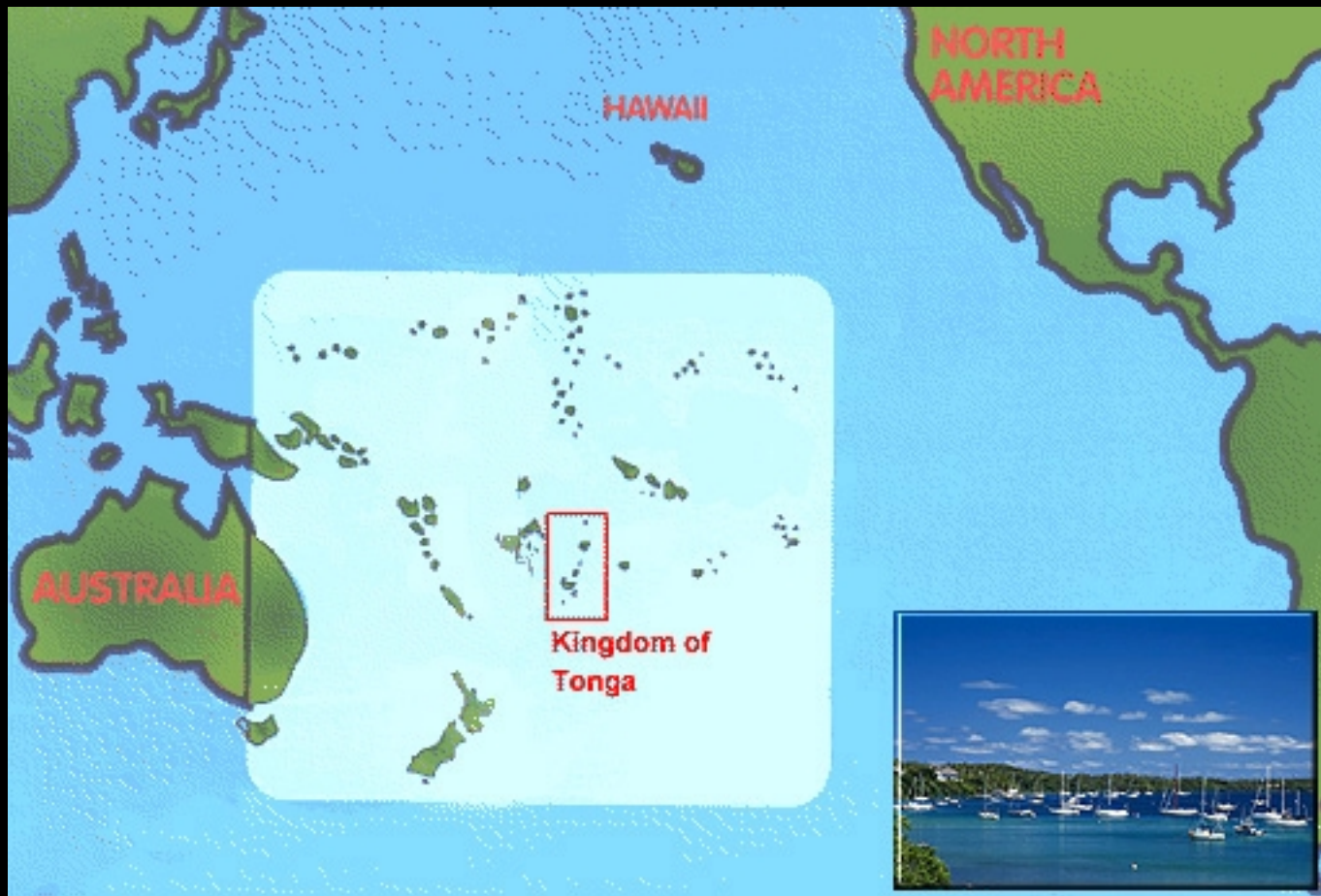 - Spread Spectrum Developments

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AN-MSI Project

- Advisors to EDUCAUSE
- Provide information and consulting for technology aspects of the pilot projects during the grant.
- Use similar architecture and technologies from the Dandin Tonga effort.
- Adapt to US regulatory environment
- Innovative use of two-way satellite and terrestrial wireless
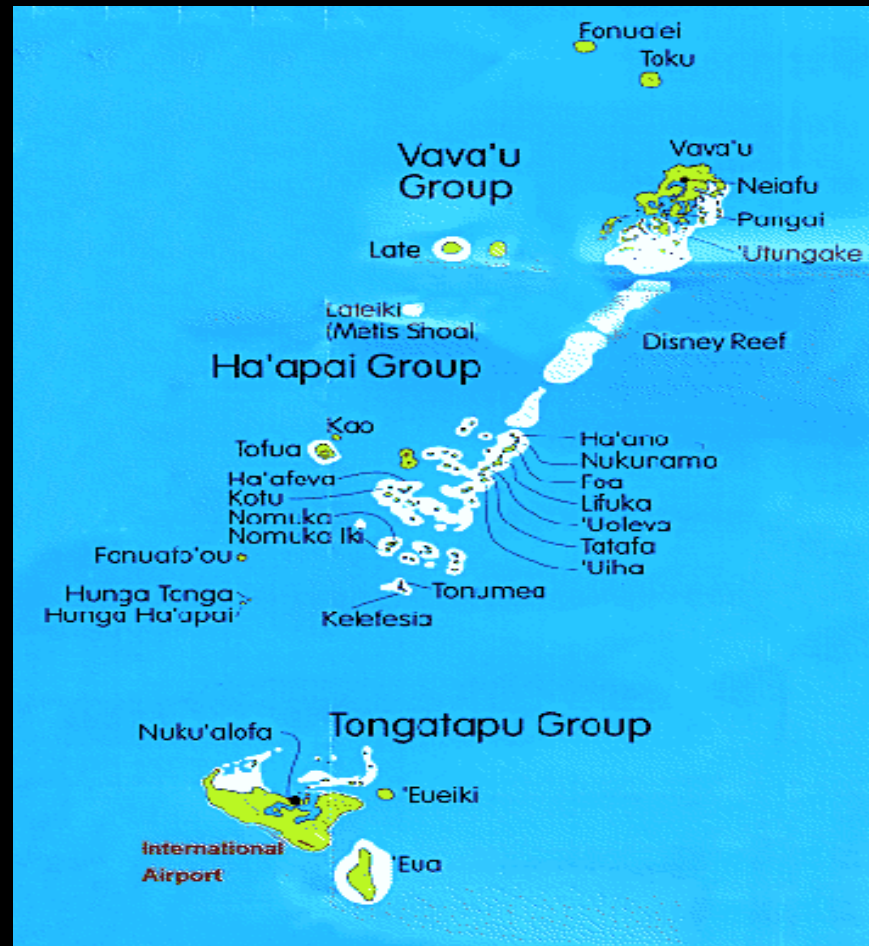
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Kingdom of Tonga

Islands of Tonga

Kingdom of Tonga Project

- Island group in the South Pacific
- About 171 islands, 70 inhabited
- 100K people in Tonga, about the same number outside Tonga
- Agricultural exports main source of $
- One of the last true monarchies

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Technologies

- Wireless Multiservices IP Networking
- Bandwidth management of existing Internet connections.
  - QOS (Quality of Services)
  - Bandwidth Management Tools
  - Intelligent use of the bandwidth
- Use of wideband wireless devices
  - Spread Spectrum
  - Ultrawideband
- New two-way VSAT technologies
- Hybrid networking solutions
- Support for new Internet appliances
  - New PDA's
  - Playstation II
- Software Defined Radios

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Regulatory Summary

- Regulatory issues are the biggest problem in the way of a paradigm shift for wireless!

- More technology available than we know what to do with!

- Need to find a place where wireless regulatory issues are absent or can be highly reduced.
  - FCC: Extending Wireless Telecommunications Services To Tribal Lands

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The Best Technology Solution is not the only Issue

- The key to deployment and then successful usage of wireless systems is not just the selection of technology, but to determine the appropriate solution to fit the multiple needs.

- Don't forget training/education (beyond the techie) for the user (student, teacher, community)

- Don't forget the impact of e-commerce

- Remember to take a total view of the project and not focus on just the technology.

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Questions?

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