



# Blended Distance Learning: An Alaska Case Study and IPv6 Lab



**Rick McDonald**  
**University of Alaska Southeast–Ketchikan**

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# Bridging Alaska Communities with Education and Workforce Development



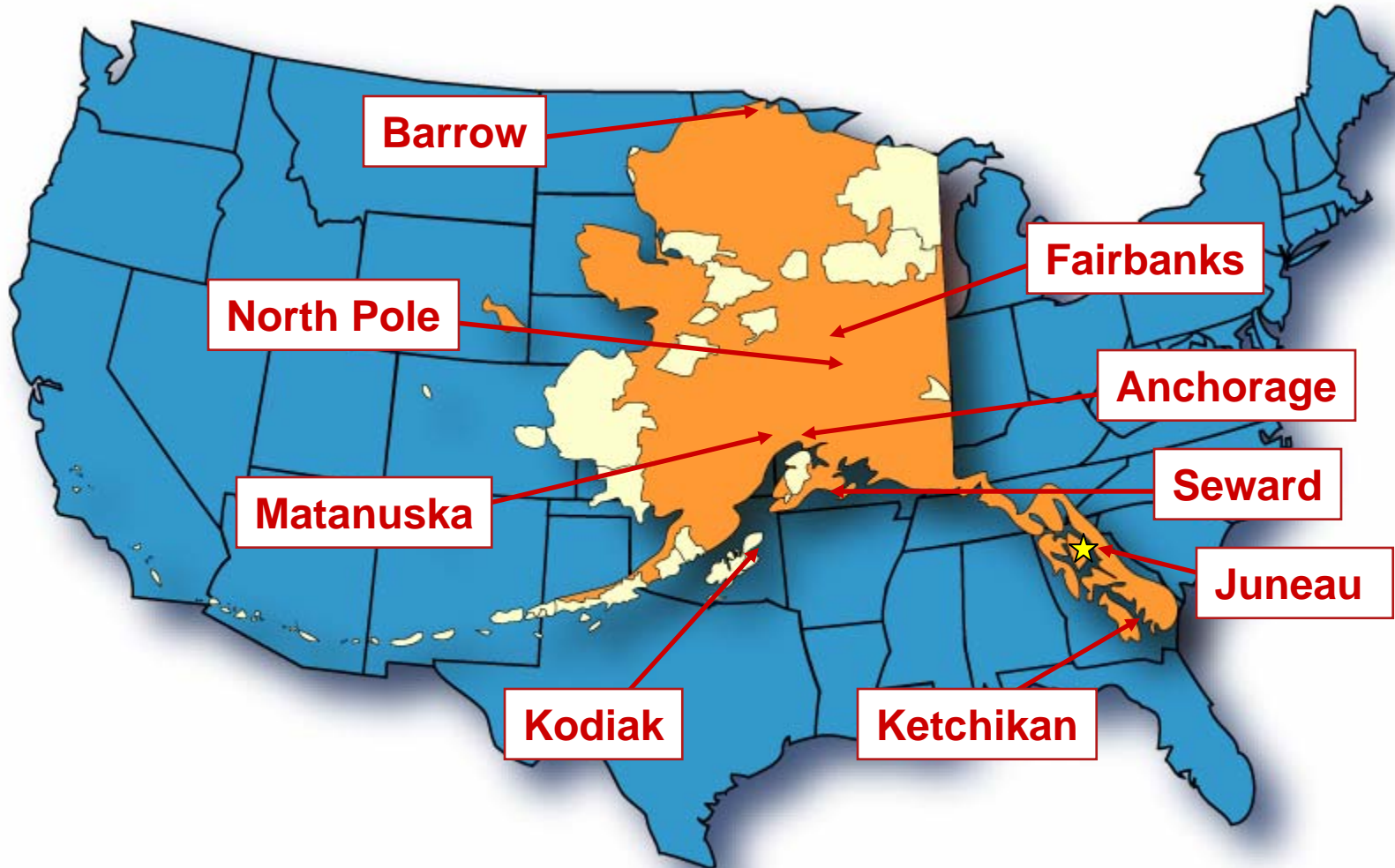
# The Opportunity:

- Cisco Academy programs were mature and enrollments were dropping
- University was looking to increase distance offerings through workforce development programs
- Wanted to retain experienced faculty and industry connections
- Statewide need for shared resources to strengthen existing Cisco Academy programs including areas with limited bandwidth

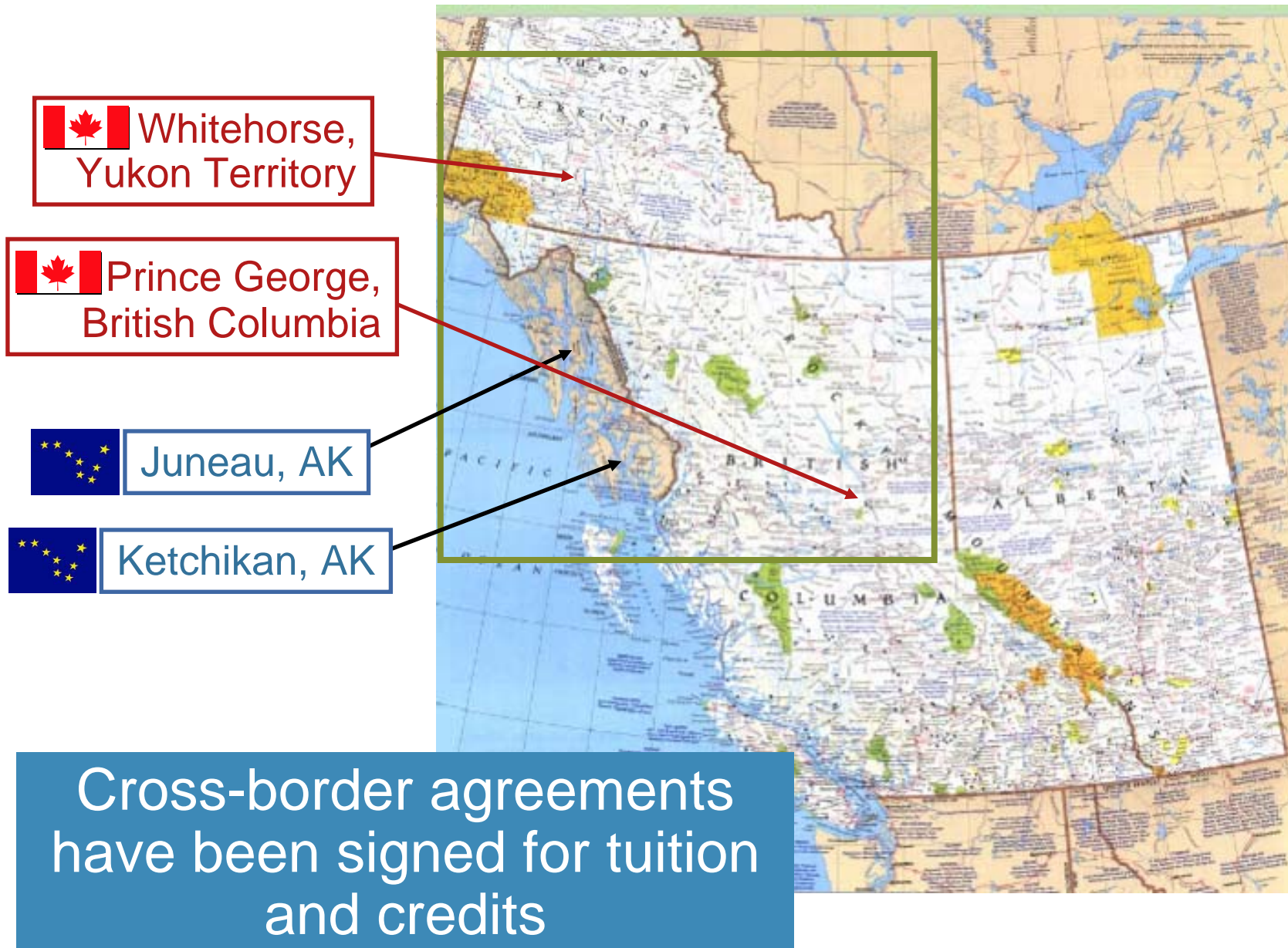
# The Answer:

- Provide advanced technical training to students throughout Alaska
- Provide access to technology otherwise unavailable in remote areas
- Utilize a blended distance learning model

# Distance in Alaska



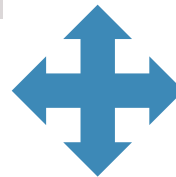
- A total of 12 Alaska academies serve remote and “urban” communities



# Working Together



# Tools for Student Access to Learning



# Teaching Hands-on via Distance: Things to Think About...



# Distance Learning Terms

- **Synchronous** - students meet at the same time
- **Asynchronous** - not meeting at the same time
- **Blended Distance Learning (BDL)** - combination of synchronous and asynchronous course work

# Establishing a Successful Program Has Hurdles

- Institutional
- Pedagogical
- Implementation
- Quality

# Institutional Lessons

- Do not do this alone:
  - Establish credibility with superiors—nothing happens without their support
  - Establish credibility with peers (on going)
  - Offer to share ownership of the process of change
- Change is not a natural process in an institution:
  - Distance education is ill defined and quality varies
  - Seek change at the edges where it is most needed
  - Demonstrate success on a small scale first

# Pedagogical Challenges

- Get training in distance delivery
  - Teaching online is **not** the same as in a class or lab
  - Many good programs available online; take a distance class before teaching one
- Build your class community online
  - Students welcome the chance to know and help each other
- Collaboration is key
  - Cultivate student engagement in synchronous sessions

# Implementation Challenges

- Build slowly
  - Try different tools and choose the one that suits your goals
  - Consider using a familiar learning management system (LMS)
- Partner with your IT department
- Address registration and textbook delivery issues

# Quality Challenges

- Keep the technology transparent
  - Keep tools to a minimum to reduce confusion
- Prepare your students
  - Students should login **before** the first class
- Insist on quality instruction and instructor training
- Record sessions
- Do the labs **with** students online
  - Many teachable moments to be found

"The Cisco Academy supports blended distance learning models for course delivery. It is the domain of the teaching institution to determine the proportions of the synchronous and asynchronous components, the methods, and tools used for course delivery, and the assessment environment for the class."

Jackie Barker  
Networking Academy Global Operations Manager

# Teaching with NETLAB<sup>®</sup> and Elluminate<sup>®</sup>



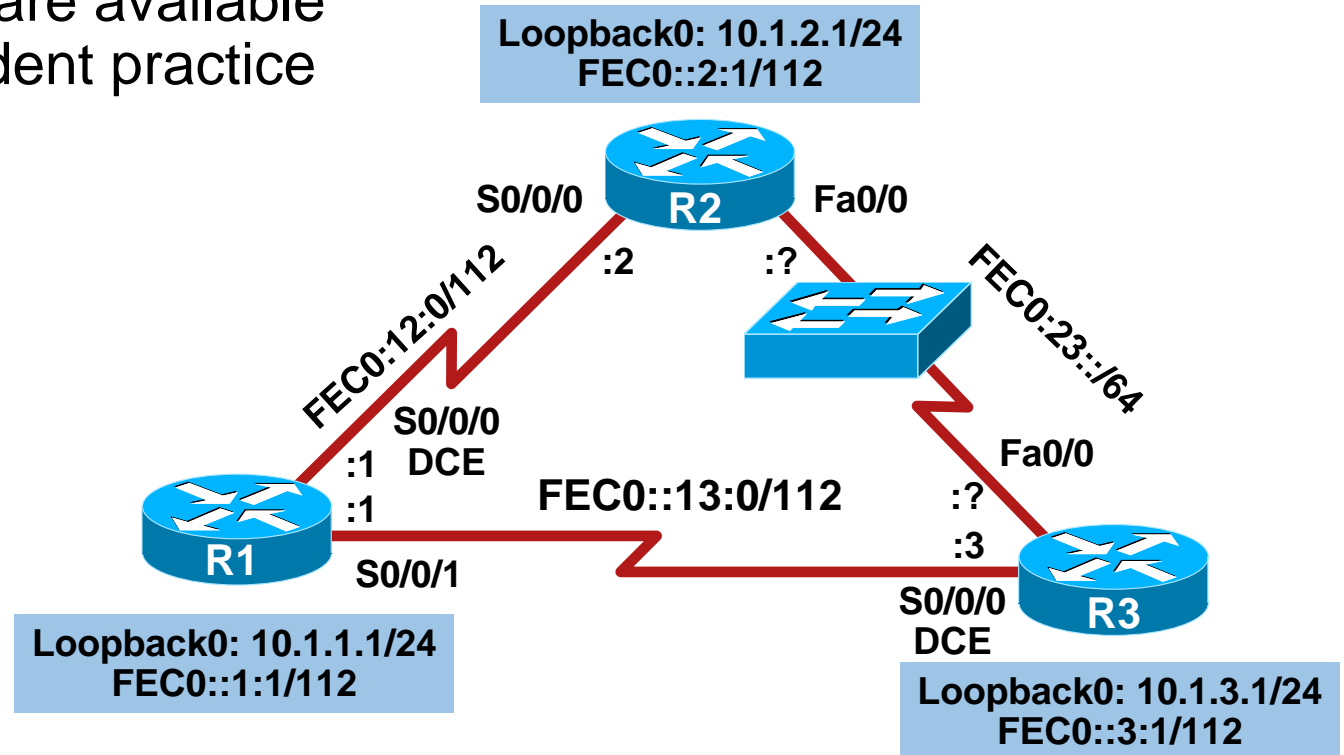
# Eliminate to Communicate NETLAB to Collaborate

- Eliminate sessions for lectures, slides, and voice
  - Use breakout rooms for small groups
  - Record lectures for missing students
- NETLAB provides real-time access to shared routers
  - Academy topologies are loaded in routers
  - Students see work on all routers
  - Virtual hosts can ping on real routers and switches
  - Sessions are saved and logged for reference and instruction

# Lab: 8-1 Configuring OSPF for IPv6

## CCNP: Building Scalable Internetworks v5.0

- Participants meet on Elluminate using NETLAB pods
- Students communicate through headsets with microphones
- Other pods are available for independent practice



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