WHAT IS FRAME RELAY?

Frame Relay

Is → **Next Generation X.25**

Is → **More Efficient Than Private Lines**

Because It's

- **Faster**
  - More Data
  - Higher Speeds
- **Simpler**
  - Lower Latency (In Network)
  - No Need for Hop-by-Hop error correction

Because Of

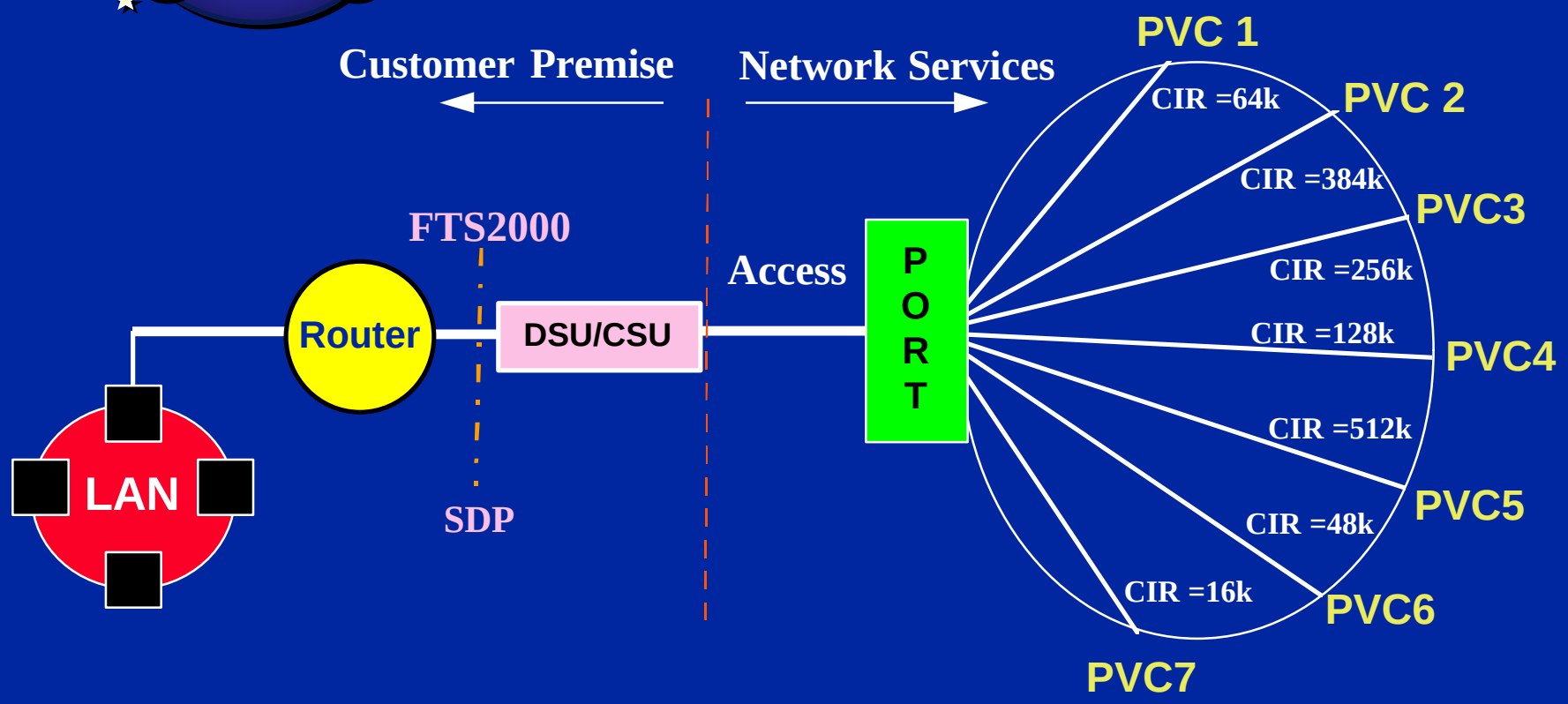
- **Efficient Access Utilization**
  - Increased Burstiness
  - Unpredictable Traffic
  - Bandwidth on Demand
  - High Peak/Avg. Ratios
  - Statistically Multiplexed
- **High Connectivity**
  - Mesh Flows
  - Custom Connectivity
  - Avoid Cost of Tandem Routing

AND SUPPORTS THESE APPLICATION CHARACTERISTICS

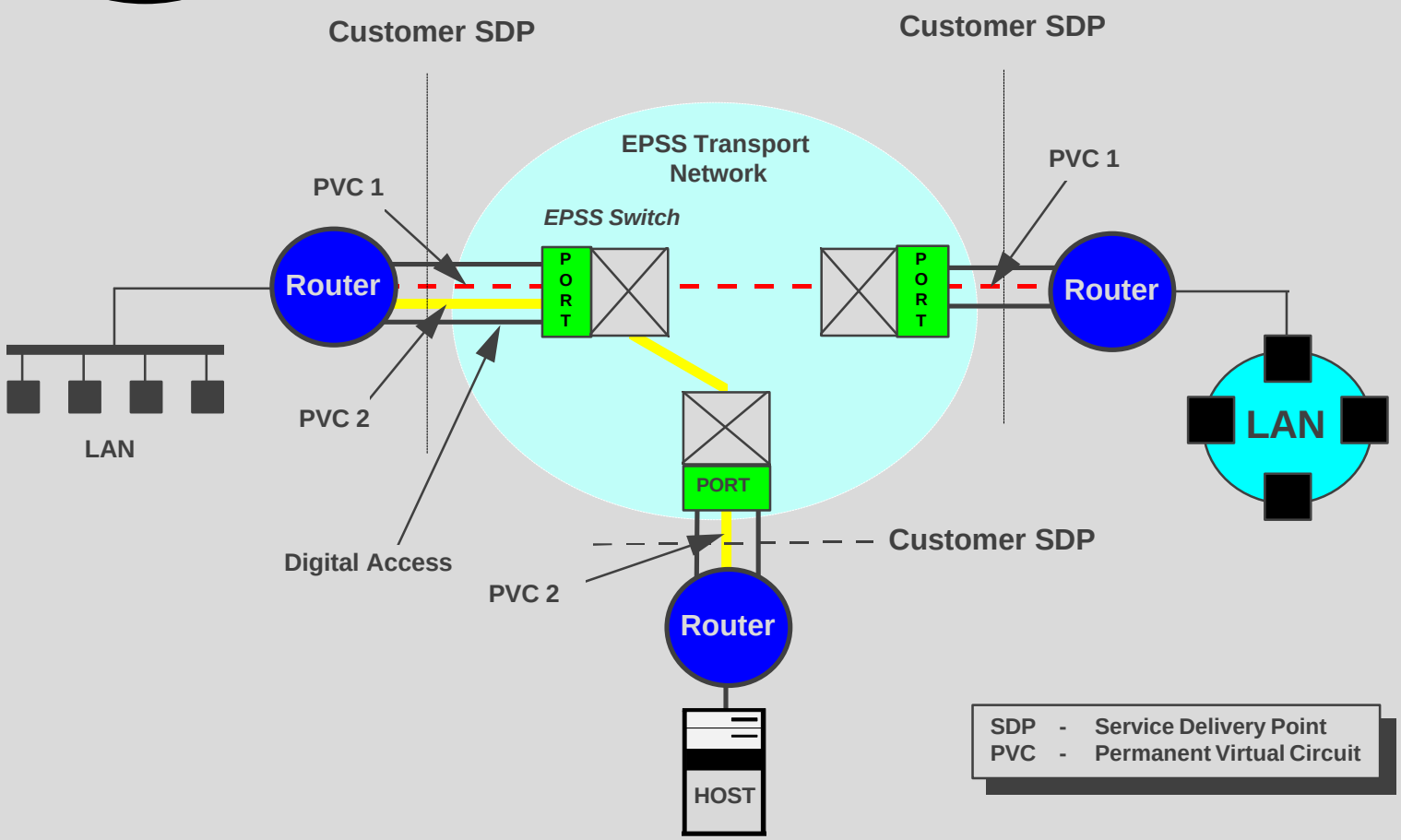
ELEMENTS OF EPSS SERVICE

- **ACCESS:** Physical connection between customer location and FTS2000.
- **PORT:** Physical connection on the frame relay switch.
- **PERMANENT VIRTUAL CIRCUIT (PVC):** A "defined path" connecting two ports through one or more frame relay switches.
- **COMMITTED INFORMATION RATE (CIR):** Minimum guaranteed throughput (bits/second) across the network on a given PVC.

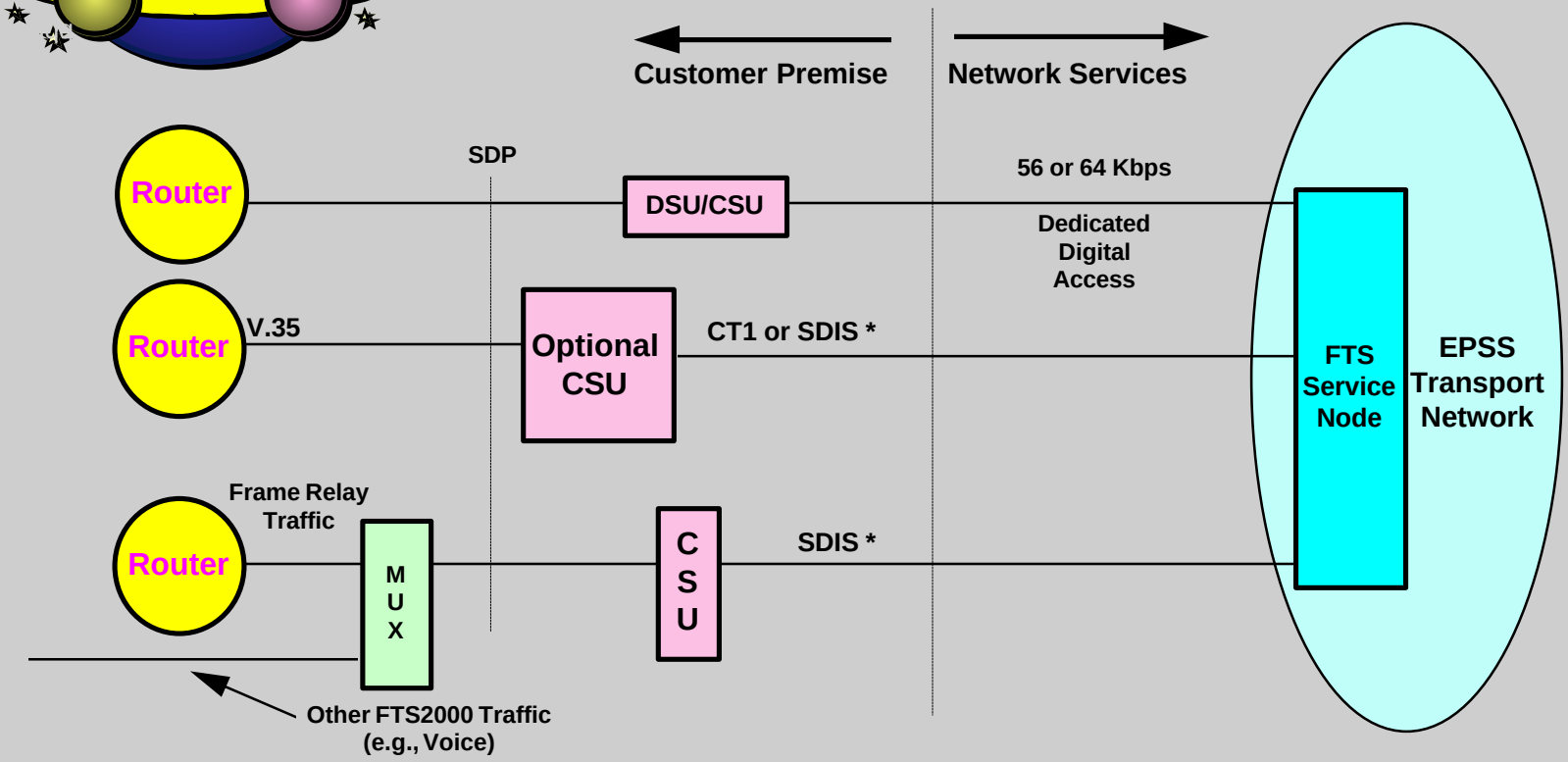
ELEMENTS OF EPSS SERVICE



FRAME RELAY NETWORK COMPONENTS



DATA ACCESS CONFIGURATION



* Coding Restrictions Apply
SDIS type 1 only

SDP - Service Delivery Point
SDIS - Switched Digital Integrated Service
CT1 - Channelized T1

SERVICE PARAMETERS

- Access/Port Speeds
  - 56/64 Dedicated Digital Access
  - SDIS or Channelized T1
    - » 56/64, 128, 256, 384, 512, 768, 1024 and 1536 kbps
- Committed Information Rate (CIR)
    - » 4, 8, 16, 32, 48, 56, 64, 128, 256, 512, 768 and 1024 kbps

SERVICE FEATURES

- Usage In-Sensitive
- Distance In-Sensitive
- Bi-Directional PVCs
- FTS2000 Provides DSU/CSU
  (or Optional CSU)
- Customer Provides Router / FRAD

CUSTOMER NETWORK MANAGEMENT REPORTS

- **Agency Specific** Weekly & Monthly Reports
- Overall Network Performance Statistics
- Port / PVC - *Utilization, Performance, and Exception*
- Ports and PVC - *Failure Reports*
- Both a Graphical and Tabular Format

PRICE COMPONENTS

REDUCED BY 10.6% WITH PR/SR AWARD

- **Access**
  - Monthly Recurring Charge Based on Digital Access Type
  - Access Initiation Charge
- **Port**
  - Monthly Recurring Charge Based on Port Speed
  - Port Initiation Charge
- **Committed Information Rate (CIR)**
  - Monthly Recurring Charge Based on CIR Speed
  - PVC Initiation Charge

AT&T FTS2000 SERVICE ADVANTAGES

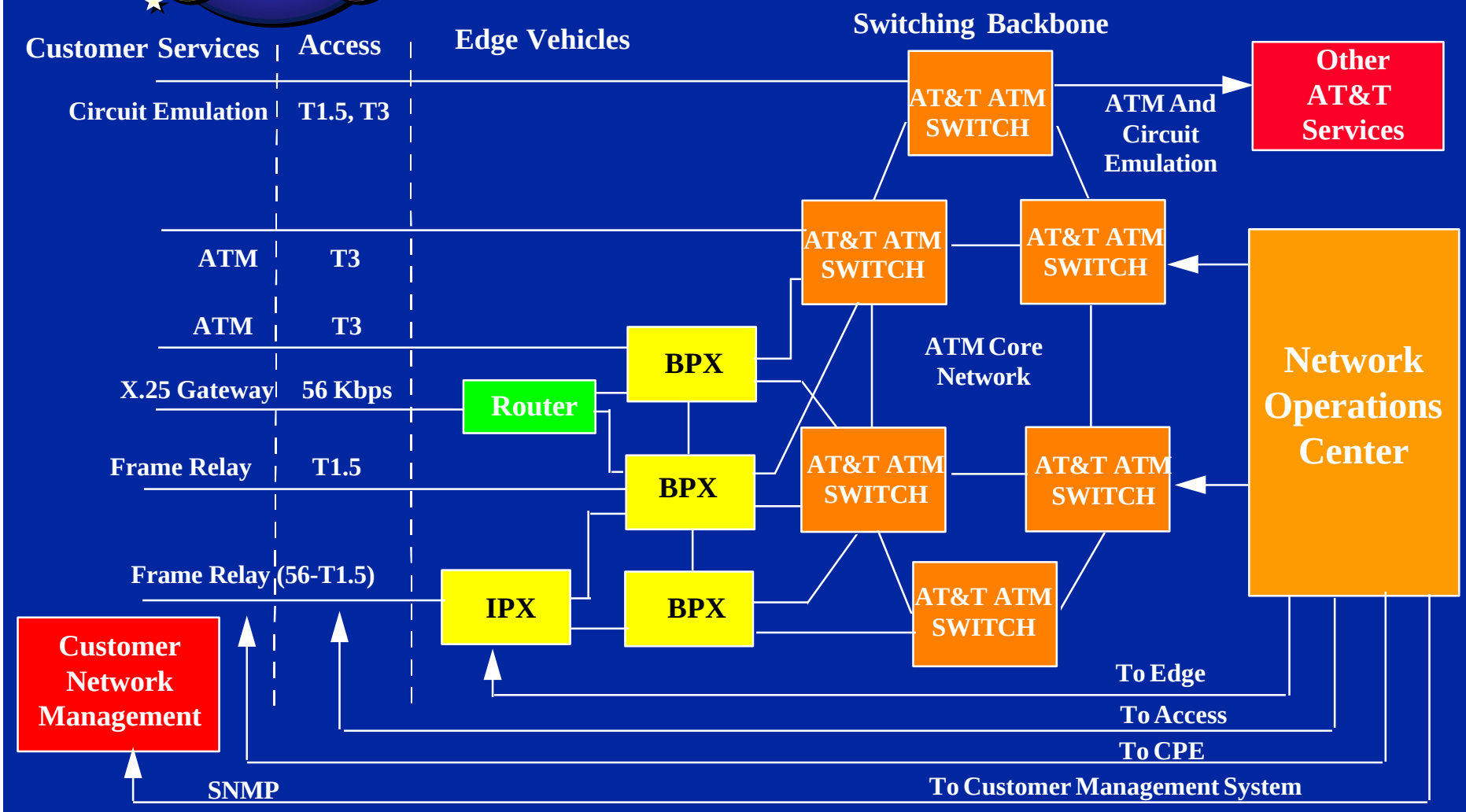
- **Assuring Excellent Service and Support**
  - Single Point of Contact (SPOC)
  - Project Implementation Manager
  - Designated Engineer For Network Design
  - Network Operations Center (7x24)
  - Bell Laboratories Technical Support
  - Integration Testing

INTERNET CONNECTIVITY OPTION

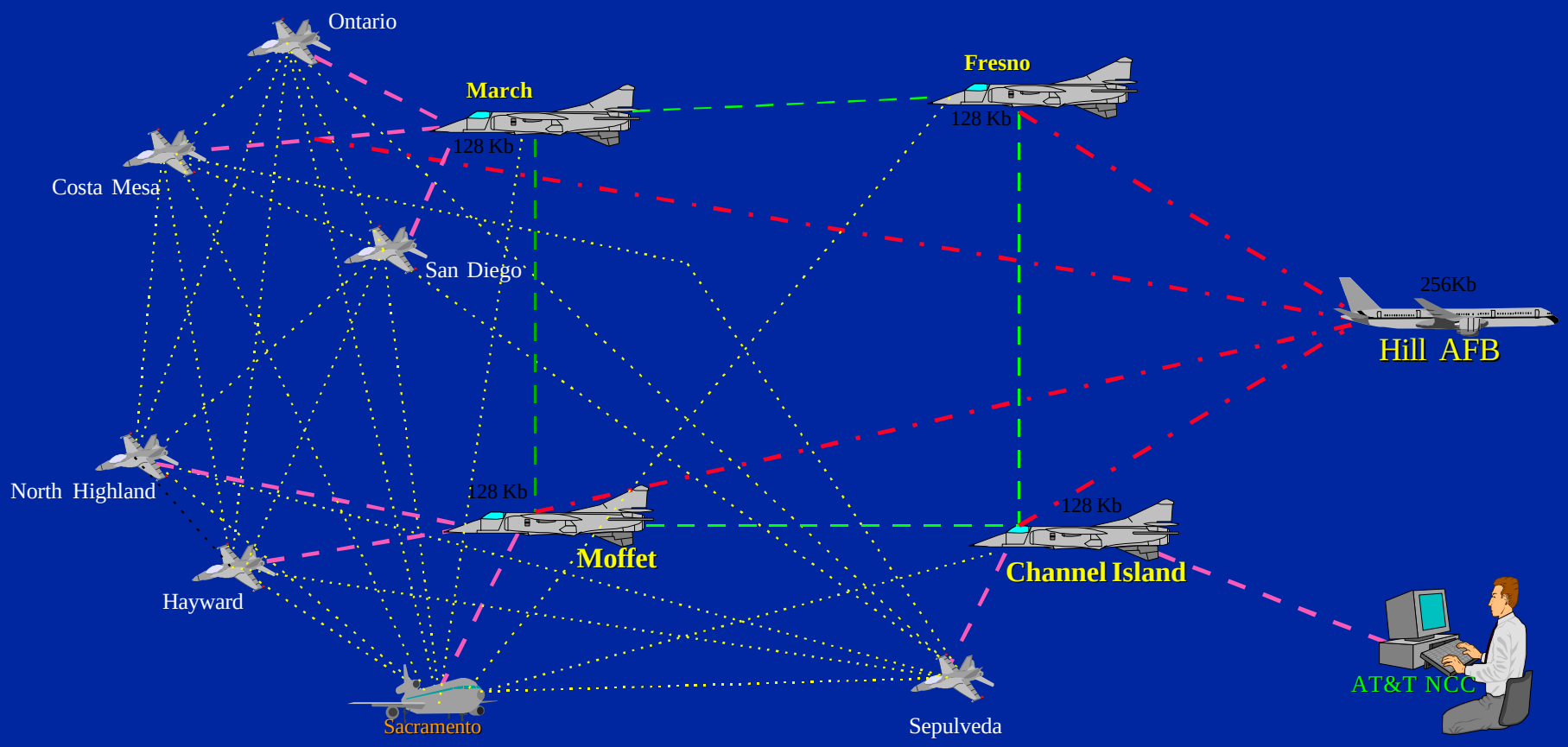
EPSS (Proposed Enhancement)

- PVC from 4 Kbps to 1024 Kbps
- Both *Telnet* and *SLIP* provided
- Will obtain customer's IP Address
- Domain Name Service (DNS) provided

HIGH SPEED SERVICE: FUTURE ARCHITECTURE



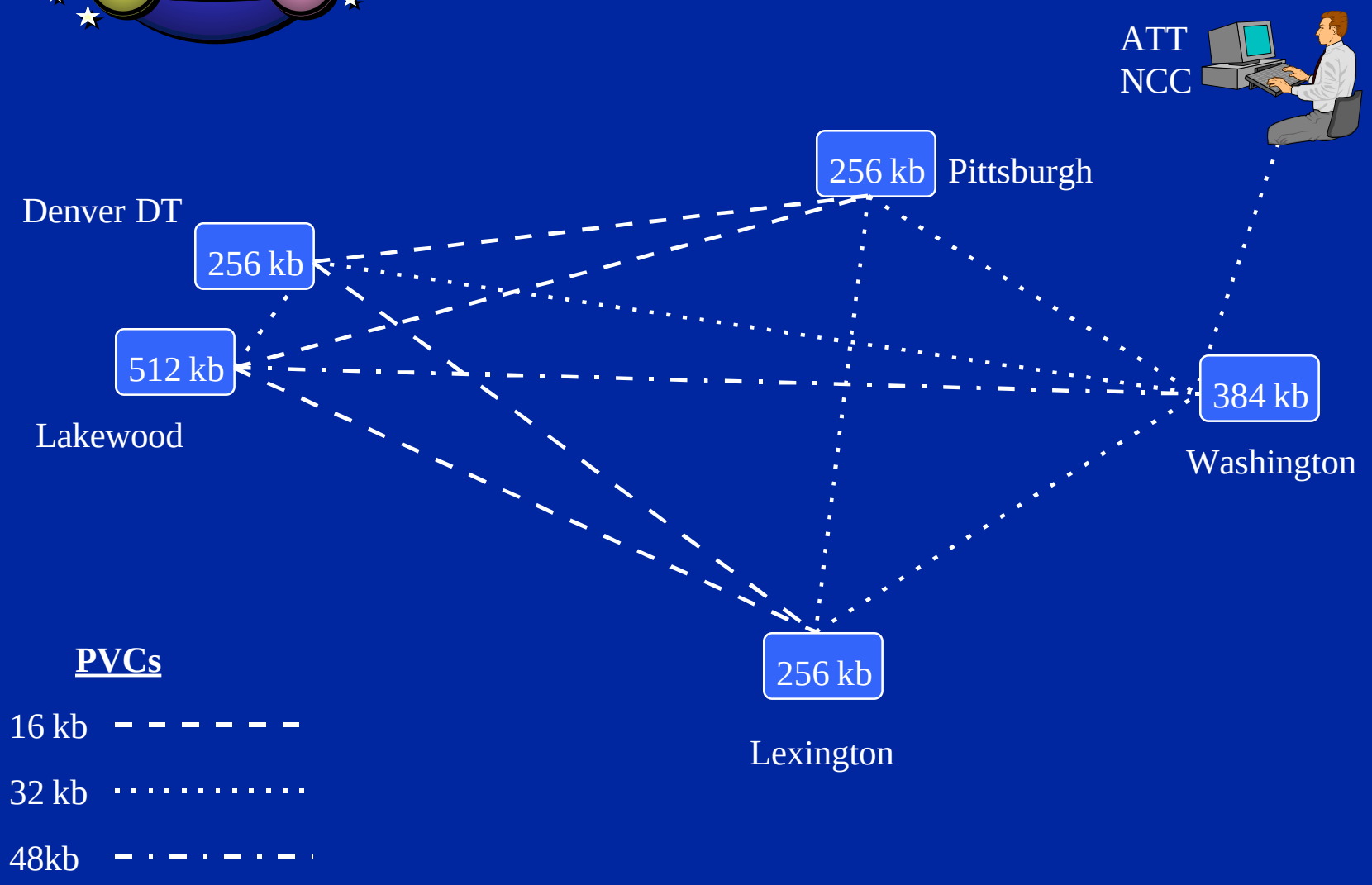
California ANG Frame Network



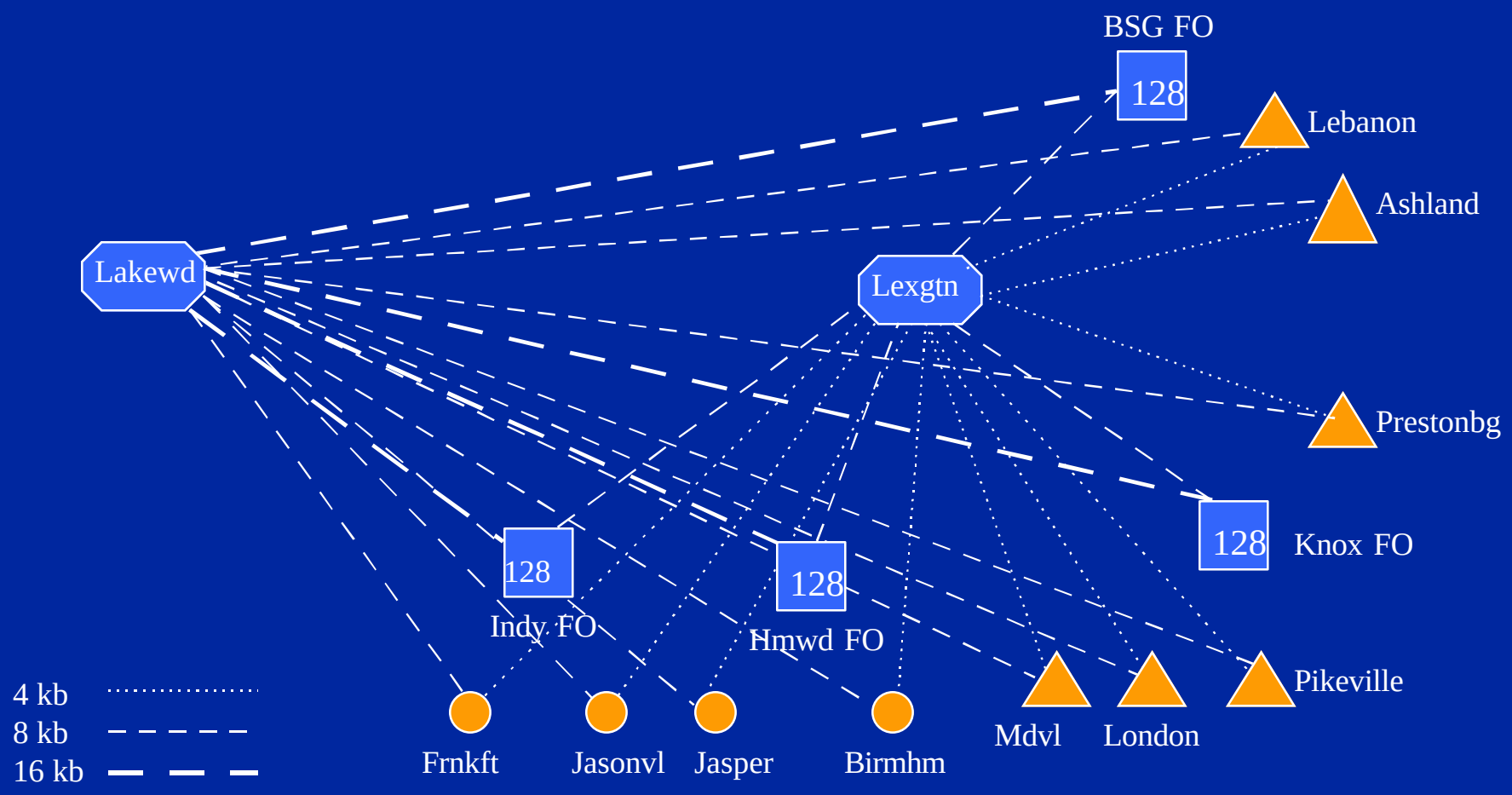
4Kb PVCs..... 16Kb PVCs 32Kb PVCs 48Kb PVCs

95NSF2KPS018
Ron Patterson
703-277-3901

OSMNET Backbone

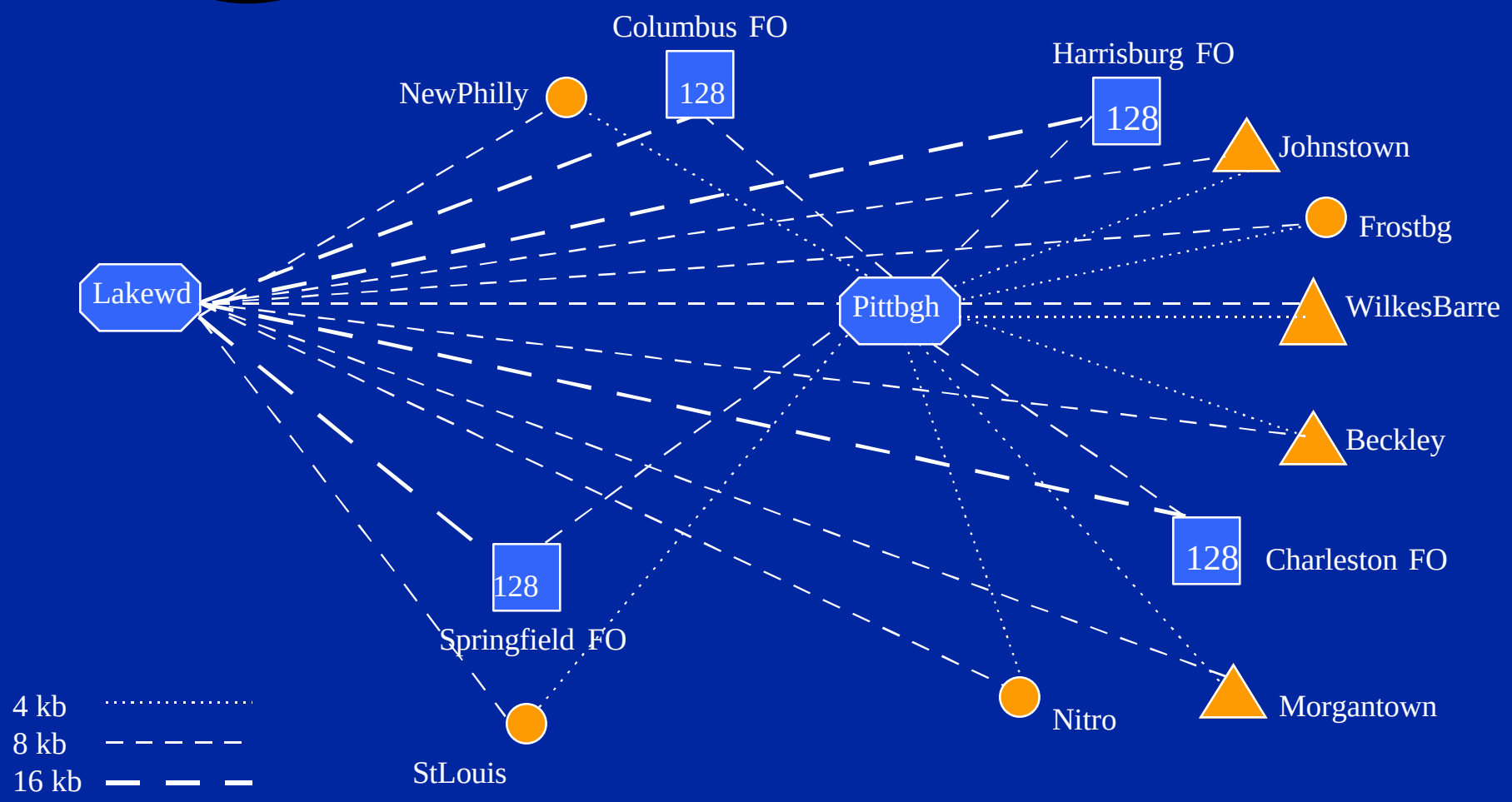


Lexington Node



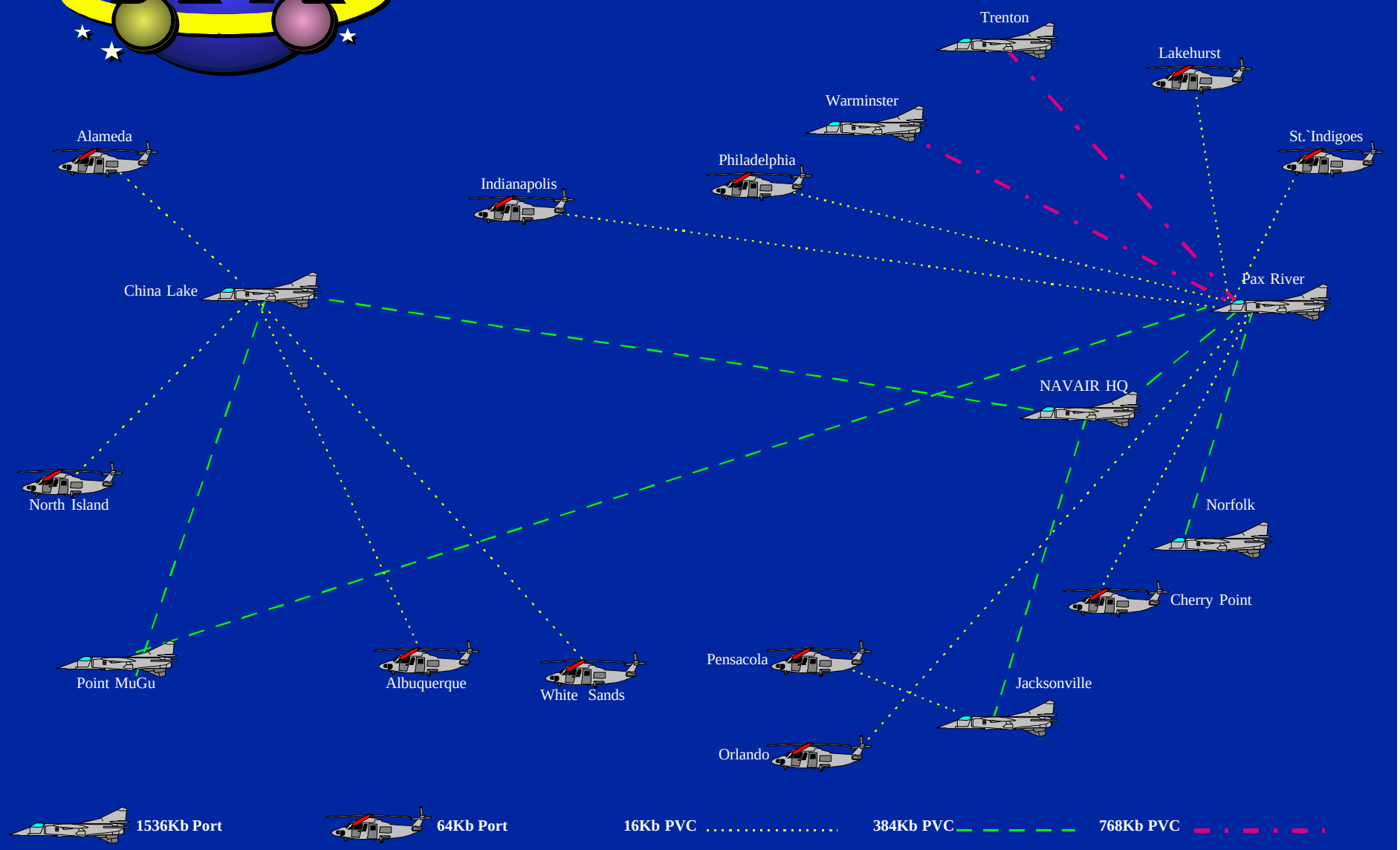
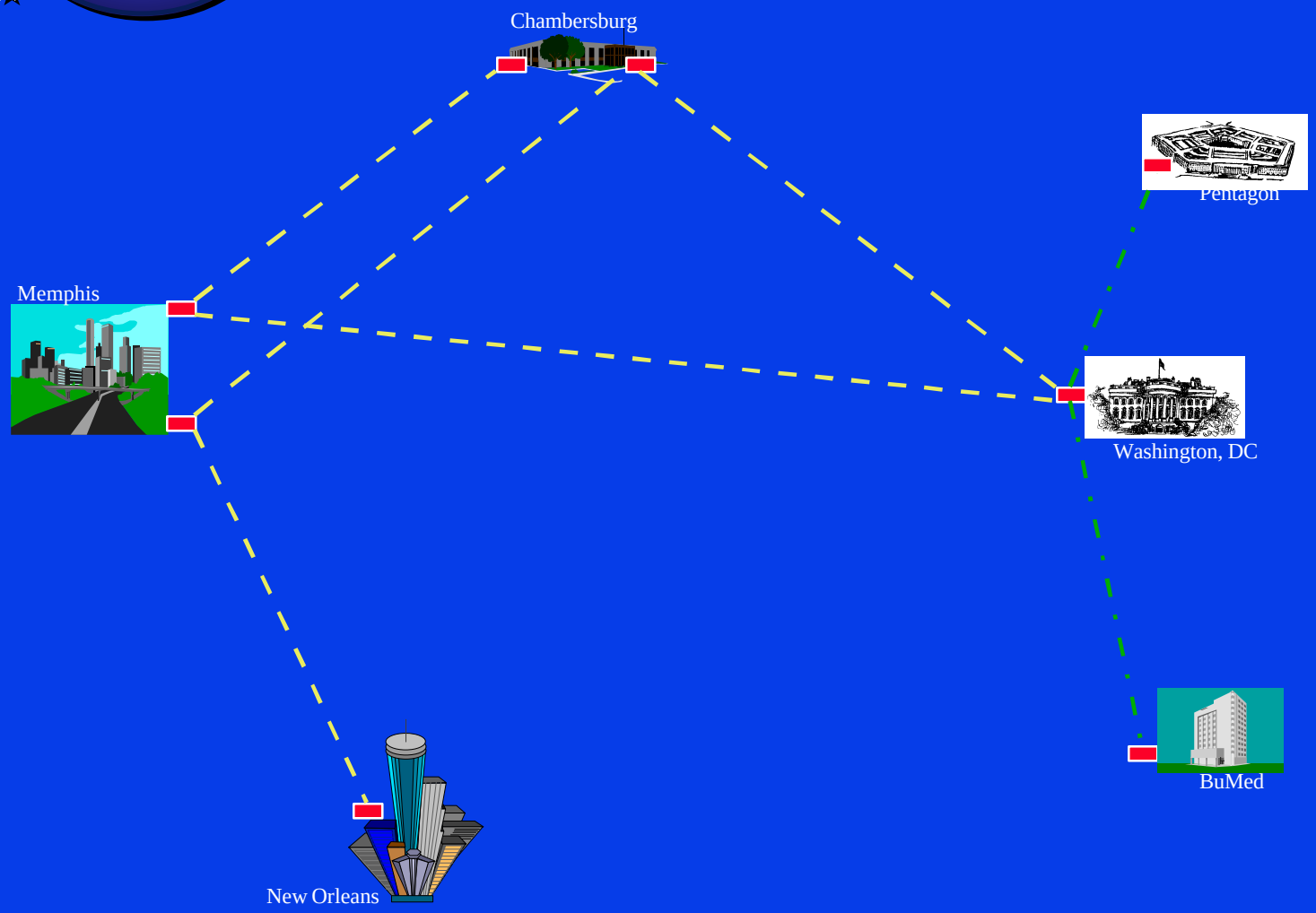
AO & SRO = 64Kb Port

Pittsburgh Node



AO & SRO = 64Kb Port

NCTS-Pensacola NAVWAN



U.S. Navy PERSNET