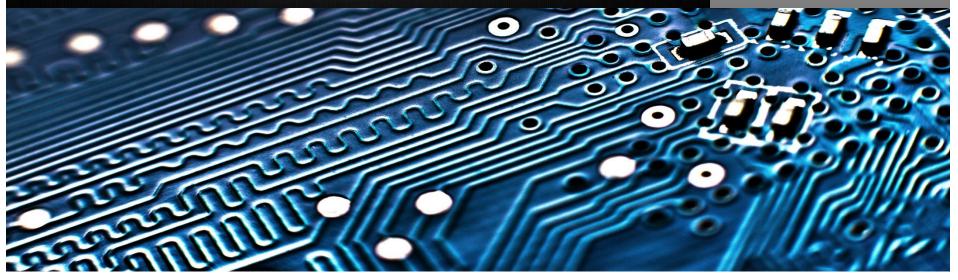




## GaDOE K12 Network

GaDOE Technology Summit April 15, 2015

Presenter – Dave Nix



#### **GaDOE and BOR Partnership**

- The Board of Regents of the University System of Georgia (BOR), through a strategic partnership with the Georgia Department of Education (GaDOE), is creating a statewide educational network for the K12 community.
- The BOR is currently facilitating the implementation of the GaDOE K12 Network.
- The network will deliver to each district, the equivalent of 100Mb/s times the number of schools within the district.
- The existing PeachNet fiber infrastructure will provide a dedicated optical backbone for the GaDOE K12 Network.

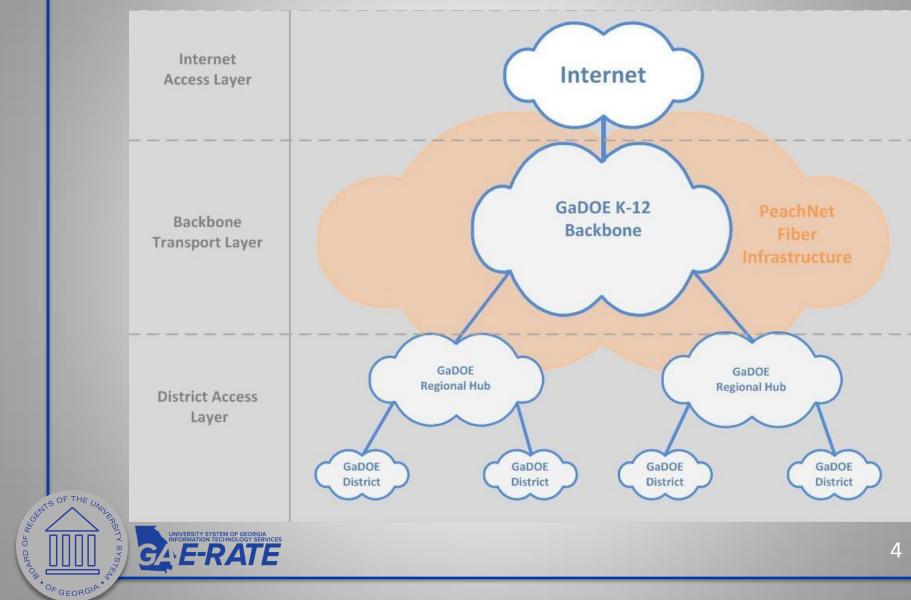


#### **GaDOE K12 Network Architecture**

- District Access Layer
  - Managed Routers and Circuits
  - Out of Band Management
- Backbone Transport Layer
  - Dedicated Optical Transport
  - Provisioned on PeachNet Infrastructure
- Internet Access Layer
  - Redundant GaDOE Core Routers
  - Internet Access



#### **GaDOE K12 Network Overview**

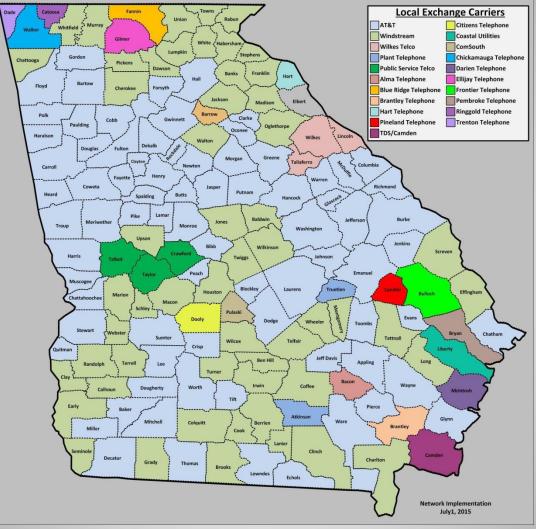


#### **GaDOE K12 Network Providers**

- District Access Layer
  - Contract Awarded to AT&T
  - E-rate Discount Eligible
- Backbone Transport Layer – MOU With BOR / ITS
- Internet Access Layer
  - Contract Awarded to Network Services, LLC
  - E-rate Discount Eligible

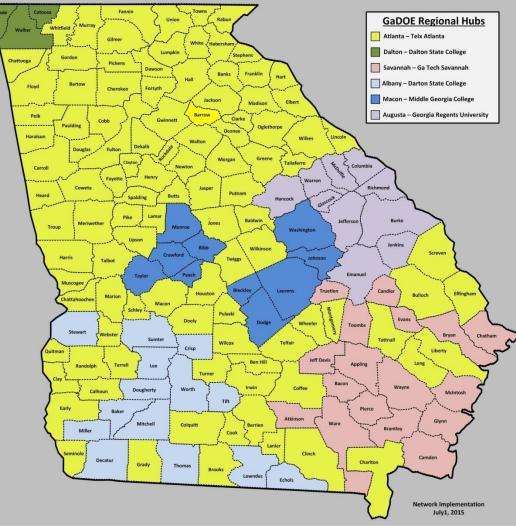


#### **Local Exchange Carriers**





#### **GaDOE Regional Hubs**





### **District Access Layer**

- High Bandwidth Circuits
- Managed Network Router
- Out of Band Management
- Use Same IP Addresses
- Carrier Class Regional Routers



#### **Implementation Schedule**

- Jan Mar 2015 Circuit Site Surveys
- Feb Jun 2015 Circuit Installations
- Mar May 2015 Management Line Installs
- Apr May 2015 Router Site Surveys
- May Jun 2015 Router Installations
- June 2015 Circuit and Router Testing
- July 1, 2015
- GaDOE Network Turn-up





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#### **Backbone Transport Layer**

- Dedicated GaDOE Backbone
- 10Gb/s Optical Waves
- Utilizes PeachNet Fiber Infrastructure
- Optical Ring Protection
- 24 Hour Monitoring and Notifications



### **Internet Access Layer**

- Tier 1 Internet Access
- PeachNet and Internet 2 Access
- Access to Telx Internet Exchange
- Multiple GaDOE Core Routers
- Located in Telx Carrier Hotel



#### **Backbone and Internet Schedule**

- Feb- May 2015 Provision GaDOE Backbone
- Mar- Jun 2015 Install / Test Internet Access
- Apr Jun 2015 GaDOE Core Router Installation
- June 2015 Circuit and Router Testing
- July 1, 2015 GaDOE Network Turn-up



#### **Network Management**

- Network Monitoring
- Performance Statistics
- Quality of Service
- Network Security and Abuse



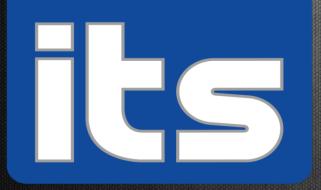
#### Network Cutover July 1, 2015

- BOR
  - Send Network Activation Survey To Districts
  - Monitor District Activation Status
  - Coordinate Required Maintenance Actions
- AT&T
  - Activate New Network To All Districts
  - Existing Network Will be Turned Down
  - Will Have Technicians Available For Troubles
- GaDOE Districts
  - Connect Local Network to New Circuit
  - Test and Verify Connectivity To The Internet
  - Report Status Via Network Activation Survey



# Questions?





#### University System of Georgia Information Technology Services

