

# SHARED SERVICES SCHOOL CONNECTIVITY INITIATIVE ACT II

RttT NC Education Cloud Team  
December 2010



Public Schools of North Carolina



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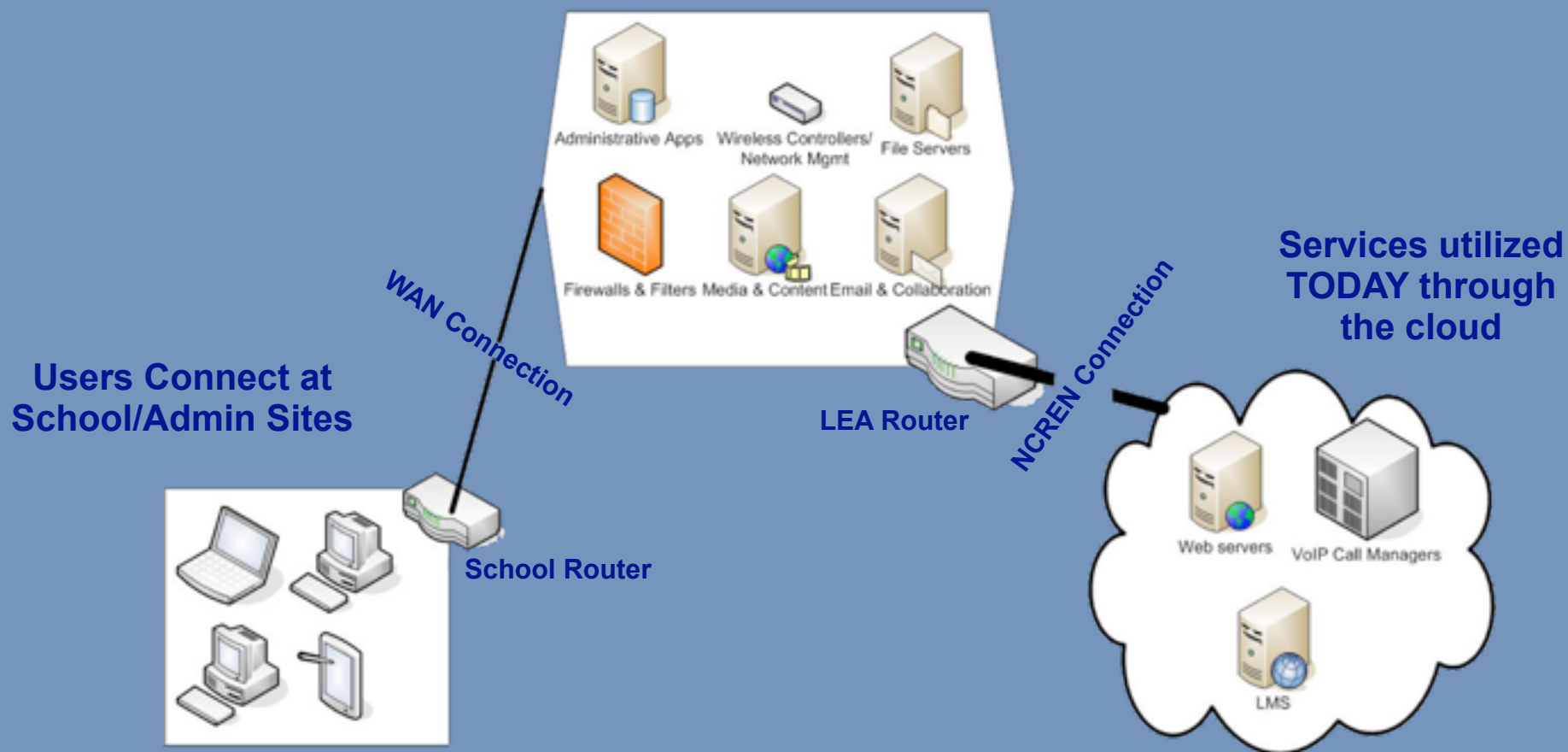
# SCI Act I - Highlights

- The School Connectivity Initiative has delivered to LEAs
  - Over \$56M in new technology funding... so far
  - Substantially increased network capacity
  - Connectivity to world class NCREN
  - Access to network engineering experts
  - Future-ready Internet access
  - Equity of access

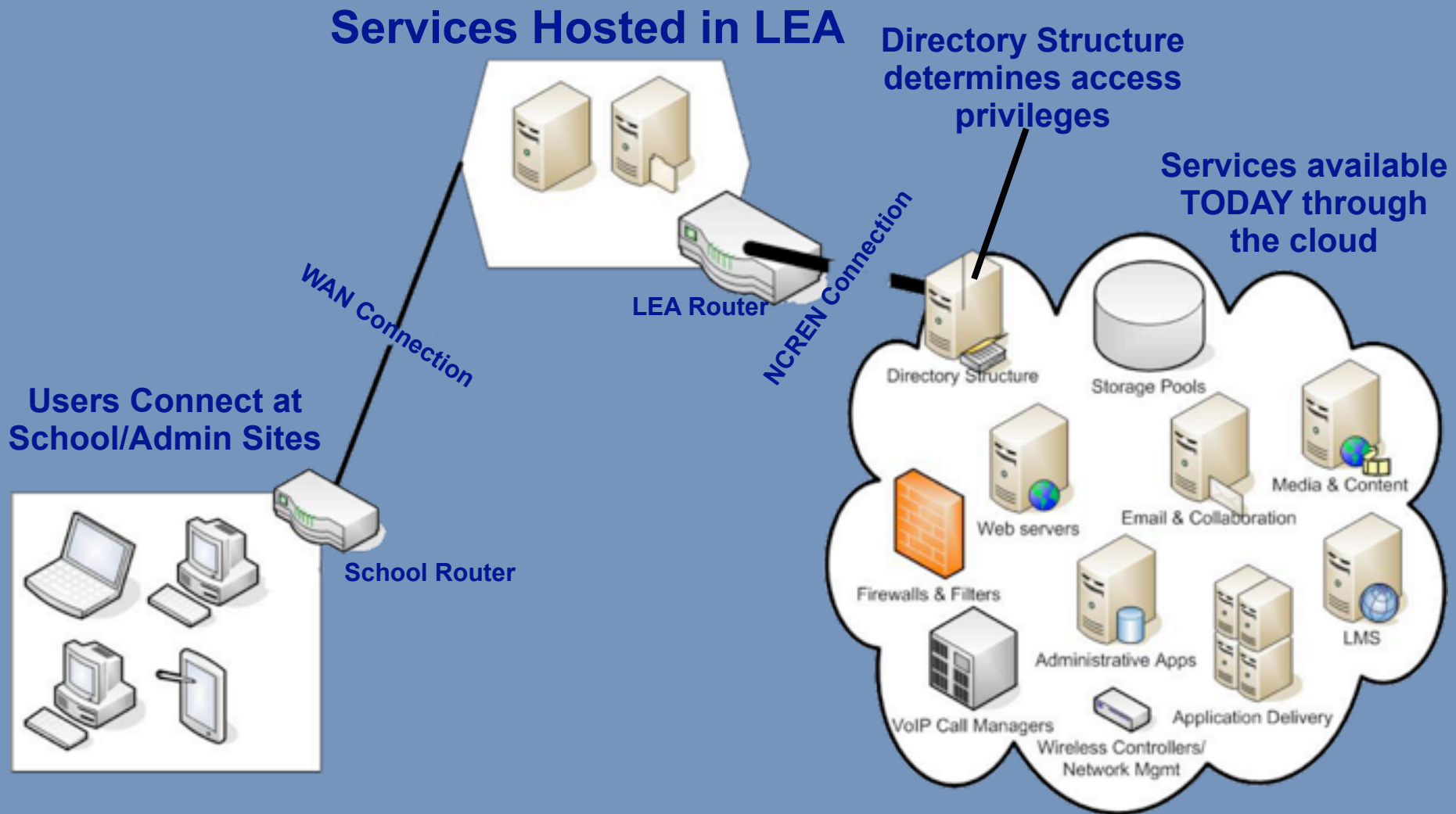


# Service Delivery Today

## Typical Services Hosted in LEA



# Shared Services...in the Cloud



# Act II – Shared Services

- Collaborative procurement
- Aggregating demand
- Buy services versus build infrastructure
- Pay for use infrastructure models
- Statewide licensing – perhaps across K20
- Sustainable, shared support models



# North Carolina Race to the Top



Update  
*December, 2010*



Wednesday, December 8, 2010

# Race to the Top

- Overview and Pillars
- NC Education Cloud





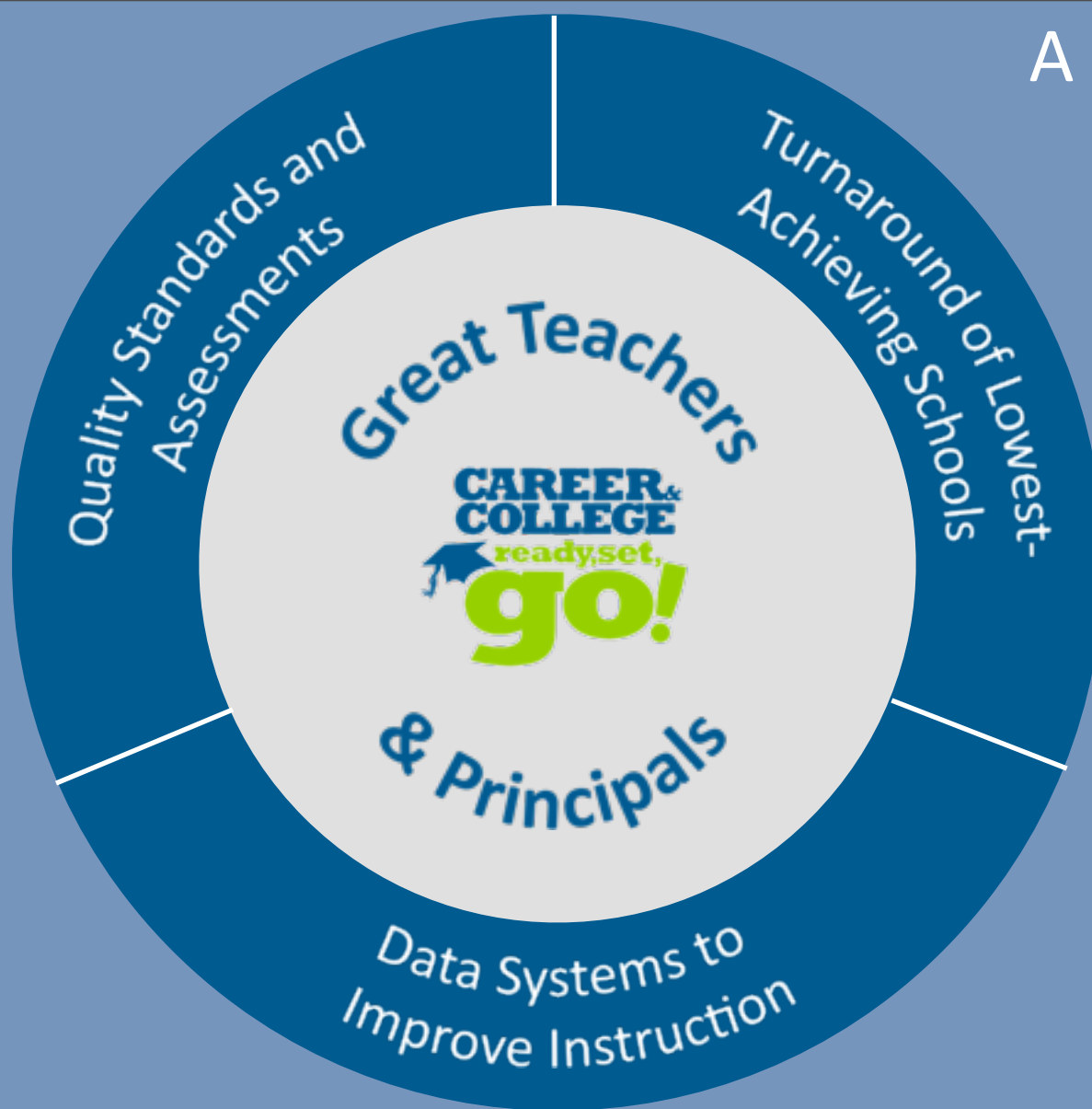
# RttT Proposal and History

- First Attempt (\$490M) not awarded
- Second Attempt (\$400M) *awarded* to NC
- Three funding parts
  - \$200M State scope of work
  - \$34M NC Education Cloud
  - \$166M LEA scopes of Work
- Five “pillars” of the proposal





# A Coherent Plan for Statewide Impact



## NC Education Cloud & Infrastructure



Public Schools of North Carolina

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# Standards and Assessments

- Transition to new standards (Core Curriculum and Essential Standards) and 21st century assessments
  - Ensure that all teachers understand the new standards and assessments
  - Ensure that stakeholders understand and use summative assessments effectively and appropriately
- **Angela Quick** is NCDPI lead coordinator



# Data Systems to Support Instruction

- State data use
  - Ensure that NC data are accessible to all relevant stakeholders
  - Ensure that data are used to support decision-making and continuous improvement processes
- **Adam Levinson** is the NCDPI lead contact for this part of the Data Systems pillar



# Data Systems to Support Instruction

- Instructional Improvement System (IIS)
  - Develop a statewide IIS to support curriculum-embedded assessments, diagnostic assessments, curriculum monitoring, and summative assessments to inform teacher planning and student placement decisions
  - Provide technology infrastructure to support effective use of the instructional improvement system
- **Angela Quick** is the DPI coordinator for this portion of the Data Systems pillar



# Great Teachers & Leaders

- Lead by **Lynne Johnson, Rebecca Garland, Pat Ashley, Superintendent June Atkinson, and SBE Chair Bill Harrison**
- Teacher and principal evaluation processes
- Performance incentives for lowest-achieving schools
- Teacher effectiveness evaluation planning
- Regional Leadership Academies
- Professional Development



# Evaluation and Policy Analysis

- Coordinated by **Martez Hill**
- Provide ongoing evaluations to inform continuous improvement of RttT initiatives
- Provide summative analyses to inform future program, policy, and funding decisions
- Conduct analyses of NC policies to inform the removal of policy barriers and the development of policies that support reforms
  - **Friday Institute (NCSU)**
  - **SERVE (UNC-G)**
  - **Carolina Policy Institute (UNC-CH)**



# Technology Infrastructures and Resources

- Coordinated by **Phil Emer**
  - Establish PK-12 education technology “cloud” infrastructure to provide cost-effective and robust networking infrastructure for LEAs
  - Provide digital tools and resources to support all RttT initiatives





# NC Cloud Planning Outline

- Timeline and calendar:
  - Gather resources.....1/1/2011
  - Initial Site surveys.....1st quarter 2011
  - DRAFT plan.....5/1/2011
  - Approved Plan.....6/1/2011
  - Complete site surveys.....7/1/2011
  - RFPs.....2nd half 2011
  - Deploy services.....4Q2011-1Q2012
  - Migrate and operate.....4thQ2011-4thQ2014



# Outline, continued

- Methodology
  - Team and functions
    - Planning, including information gathering
    - Identity management
    - Systems architecture and infrastructure blueprint
    - Platforms for instruction
  - LEA participation
    - Gathering of data and information
      - Technology spending plans/Ed Tech Plan
    - Working groups



# Outline, continued

- Financials
  - Budgets
  - TCO analysis
  - Sustainability
- LEA technology spending
  - Coordinate timing and specifications with state pillars/projects
  - Address issues of scale, support model, coordination, sustainability



# LEA DSW Technology Summary

Initiative	Total Budgeted	LEAs Participating
Wireless Networks	\$48.54M	66
1:1 Initiatives	\$25.53M	57
Interactive Classrooms	\$6.26M	12
Total	\$80.33M	94*

Does not include 34.6M budgeted for NC Ed Cloud.



# Possibilities

- ***Statewide Directory***
  - Necessary to deliver all services
- ***Administrative tools***
  - ***Email*** migrations into the cloud (Google, MS)
  - Central hosting of ***administrative applications*** – instead of hosting an ***AS/400*** for instance
- ***Instructional Tools***
  - ***Virtual desktops*** (think Windows desktop inside a web browser) on an old PC or on a new *netbook*
  - ***Unified Learning Management System*** (LMS) for K20 & ***Learning Object Repository*** (LOR)



# Possibilities

- ***Infrastructure as a Service***
  - ***Wireless controller services*** bought as a service instead of built out by the LEA
  - ***Cloud-based network dashboards*** that utilize statewide directory to provide user access
- ***Network Services***
  - ***Cloud-based content filter, network security, and network prioritization tools***
  - ***Cloud-based back-up and disaster recovery***



# Reality

- LEAs pay substantially less as part of a buyer's consortium
- A shift in emphasis from technology to instructional support
- Increased IT efficiency – fewer more highly utilized servers
- Increased service reliability – servers hosted in professional data centers with backup, DR, and service level guarantees





# Lets Run Some Numbers

- Define “*substantial*” savings
- Replacing apples with ice cream
- Efficiency and reliability
- Some examples now...



# SCI, Consortium Purchasing, Internet Bandwidth, and “Substantial”

- LEAs pay \$65-\$200 per Mbps/mo.
- Using 50 Mbps for the average LEA
- Between \$39K and \$120K per year
- Extrapolate across 115 LEAS and we get between \$4.5M and \$13.8M per year
- With a 70% e-rate discount \$1.4M – \$4.1M
- MCNC pays on average \$10 per Mbps/mo.
- That is \$690K per year



# Email

Costs [per user/yr]	LEA Hosted	Google Education	MS Live@Edu	Google/MS Enterprise
Licenses	\$0-78	-	-	\$30-60
Storage [1 Gbyte/user]	\$46-360	- [8 GB incl]	- [10 GB incl]	-
Disaster Recovery	Included in Storage	-	-	-
Archiving	-	N/A	N/A	\$30
Total	\$46-\$438	FREE	FREE	\$30-\$90

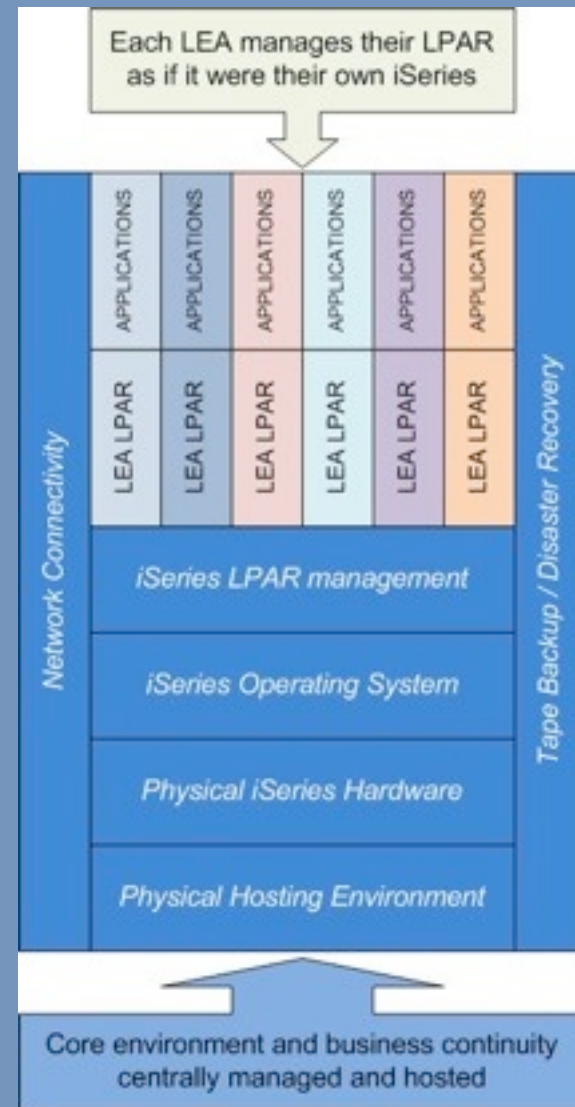
**Kentucky** (700k students): Move to Microsoft Live@Edu reduced operating costs by \$6.3M/year.

**Oregon** (500k students): Move to Google Apps reduced licensing costs by \$1.5M/year



# AS/400

- Most districts host an IBM AS/400 server
- Supports HRMS, SARTOX, ISIS, etc
- Typically upgraded on a 3-year cycle
- Legacy applications – terminal emulation
- Prime candidate for sharing in the cloud



# Please collaborate with us

- Encourage your LEA leadership team to help us identify opportunities.
- Support shared services data gathering
- Notify us if you are interested in learning more about email or AS/400 migration.
- For updating project information and status visit:  
<http://snurl.com/ncedcloud>



# QUESTIONS & COMMENTS

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