GIS Education at GSC

The GSC **Institute for Environmental & Spatial Analysis** is as a teaching, research, and public service resource focused on education and training in the geospatial technologies. The Institute offers a variety of educational options including a Certificate in GIS and a B.S degree in Applied Environmental Spatial Analysis. In 2008, GSC IESA became the southeastern partner of the GeoTech Center.

Certificate in GIS

- Introduction to GIS
- Cartography & Earth Measure
- Data Acquisition & Conversion
- Remote Sensing
- Spatial Analysis
- Internship/Special Topics
- Application Development in GIS*
- Digital Image Processing*

B.S. in AESA

This degree contains all of the courses listed in the GIS Certificate. The student then chooses an area to specialize in from the following:

- **Environmental Science Track**
- **Environmental Studies Track**
- **Information Technology Track**

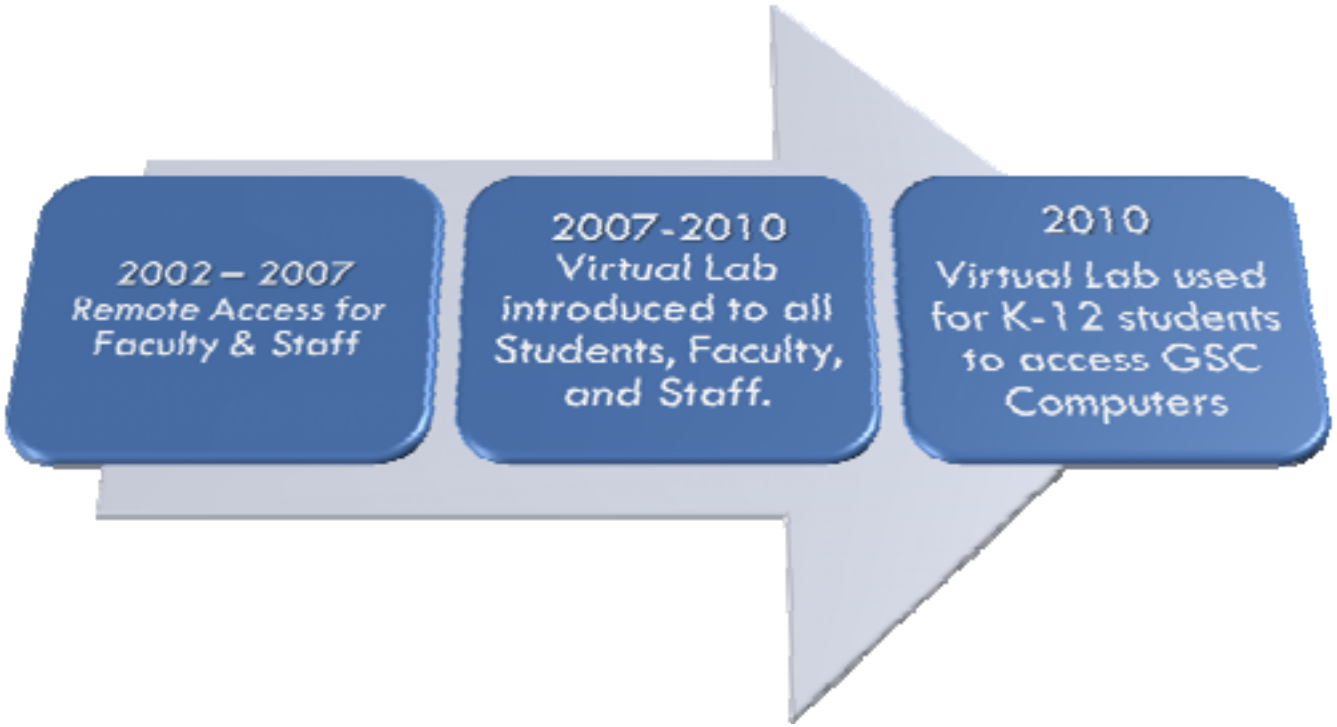
Remote Access to GIS

A look into a successful pilot program with Middle Schools

Lance Hundt (lhundt@gsc.edu)
Virtual Systems Administrator
Gainesville State College

Background

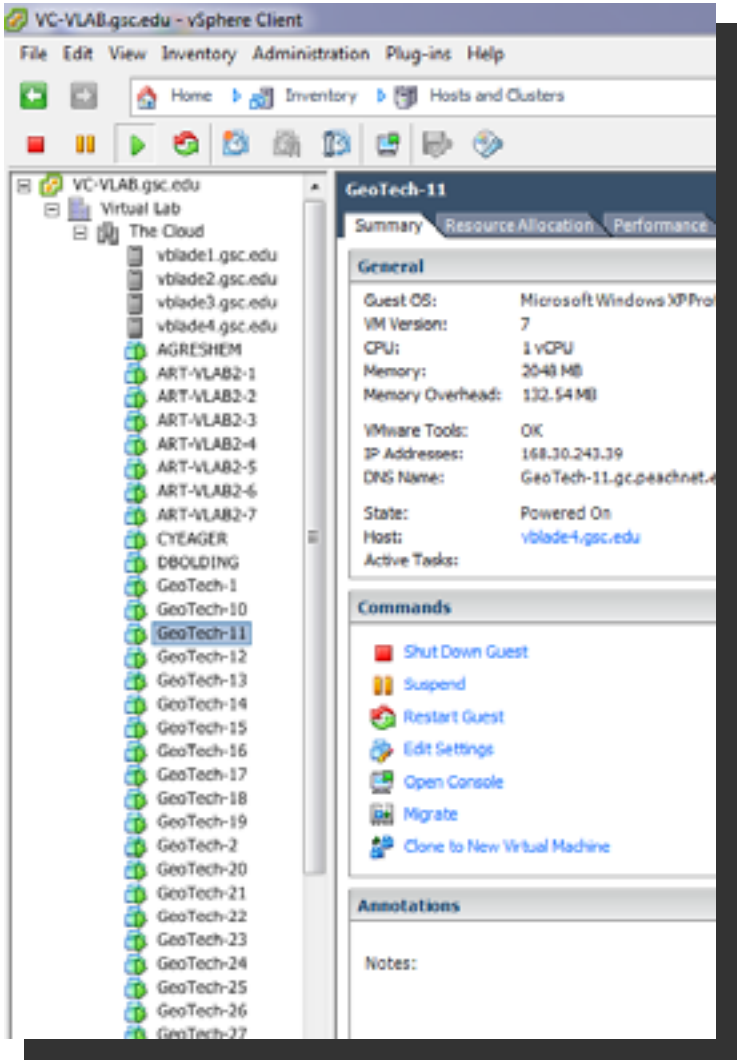
"Access anywhere and anytime computing"



"This[Virtual Lab] helps wonderfully since my computer doesn't have many of the programs I need for classes. Being at school isn't always an option for me since I have a family and work a 40 hour/week job" – GSC Student

What is Virtualization?

VIRTUALIZATION can be thought of as simulating many computers on one physical box



Leveraging Virtualization

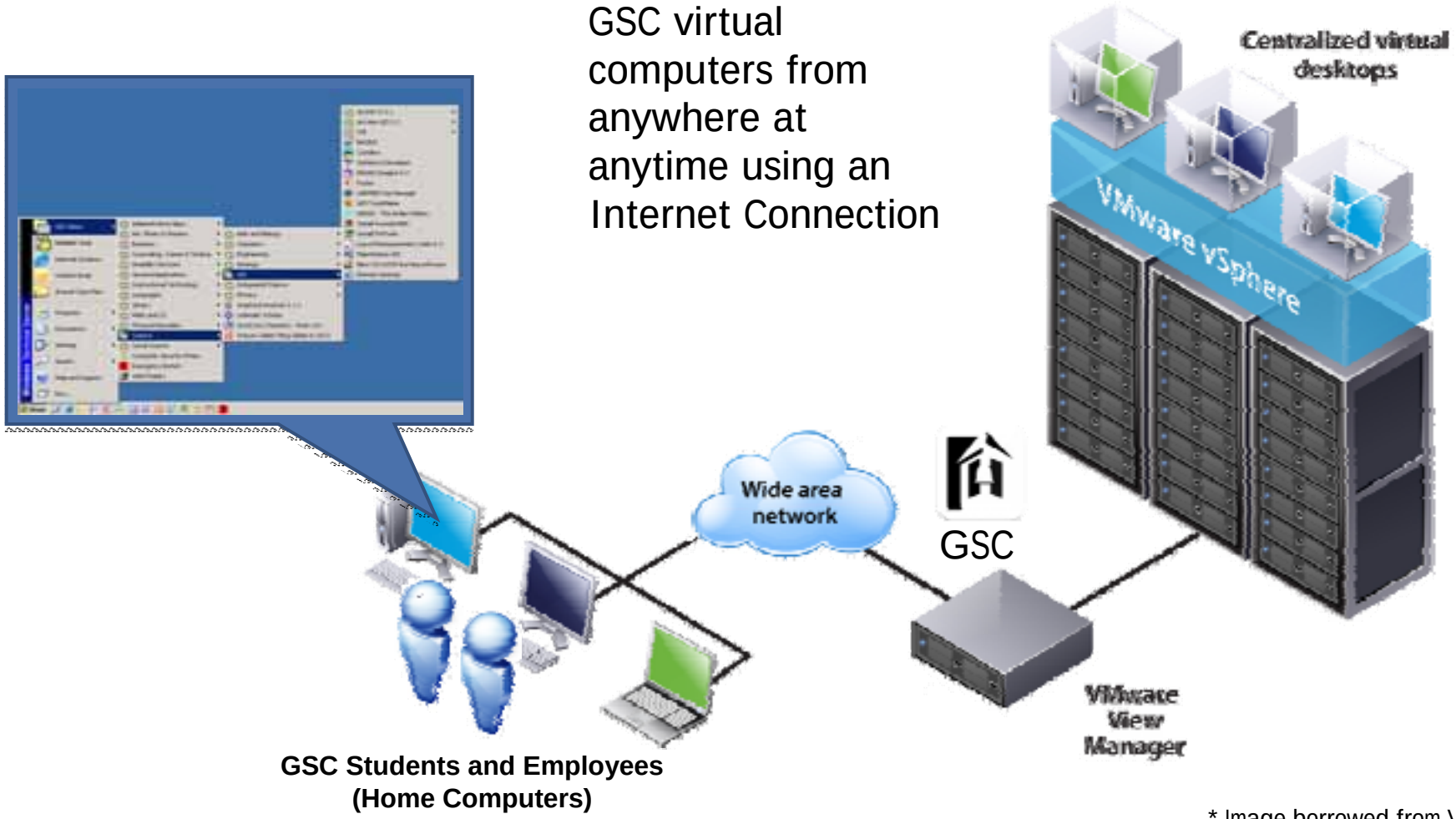
Dell M600 Blade Server

Benefits
✓ Fewer Physical Servers
✓ Reduced Space
✓ Power Efficiency
✓ Central Management

25+ Virtual Desktops on 1 physical server

Virtual Lab Topology

Students connect to GSC virtual computers from anywhere at anytime using an Internet Connection



* Image borrowed from VMware

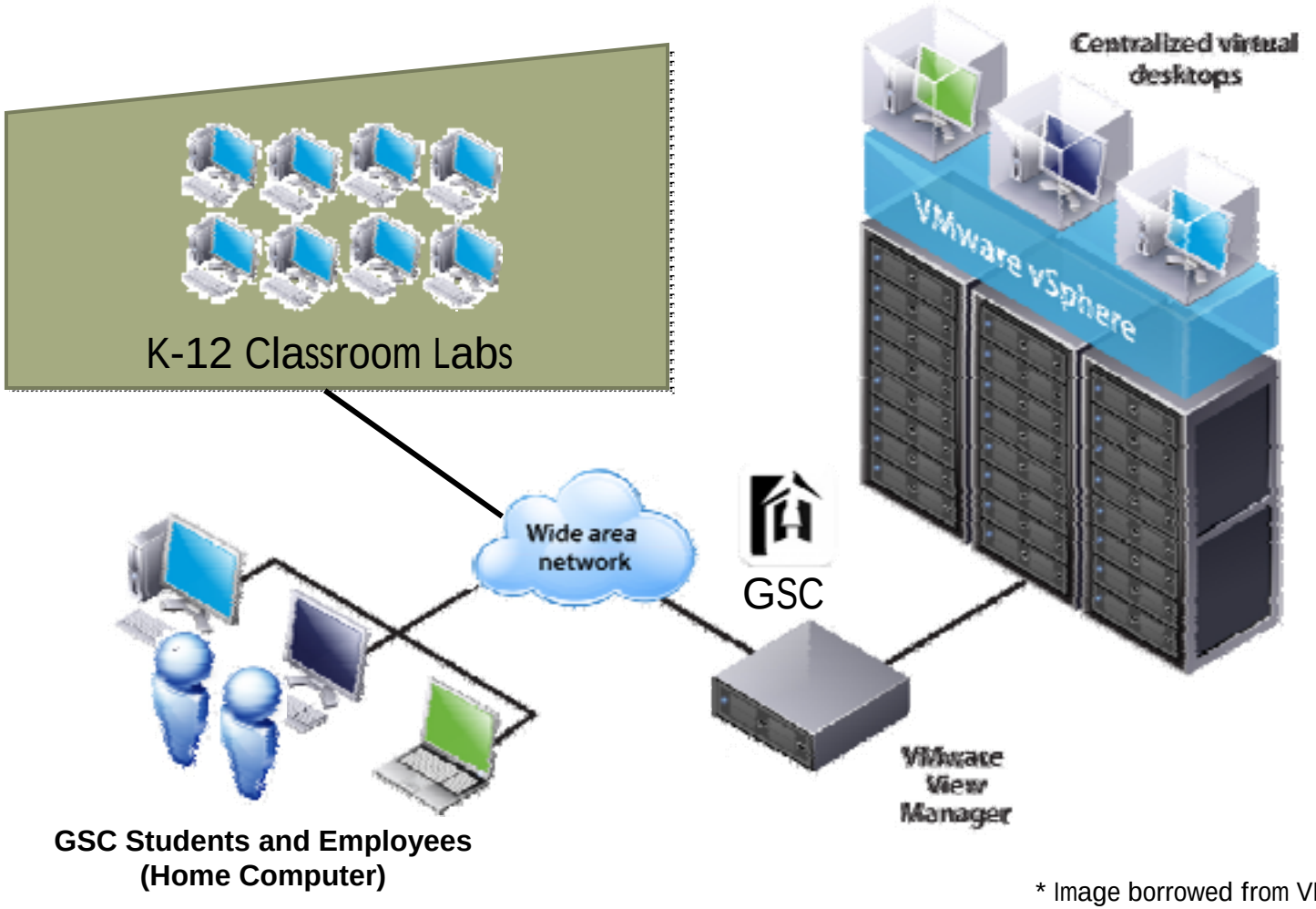
Extending Virtual Lab to K-12

North Hall Middle

DaVinci Academy

Other surrounding K-12 schools

Virtual Lab Topology with K-12

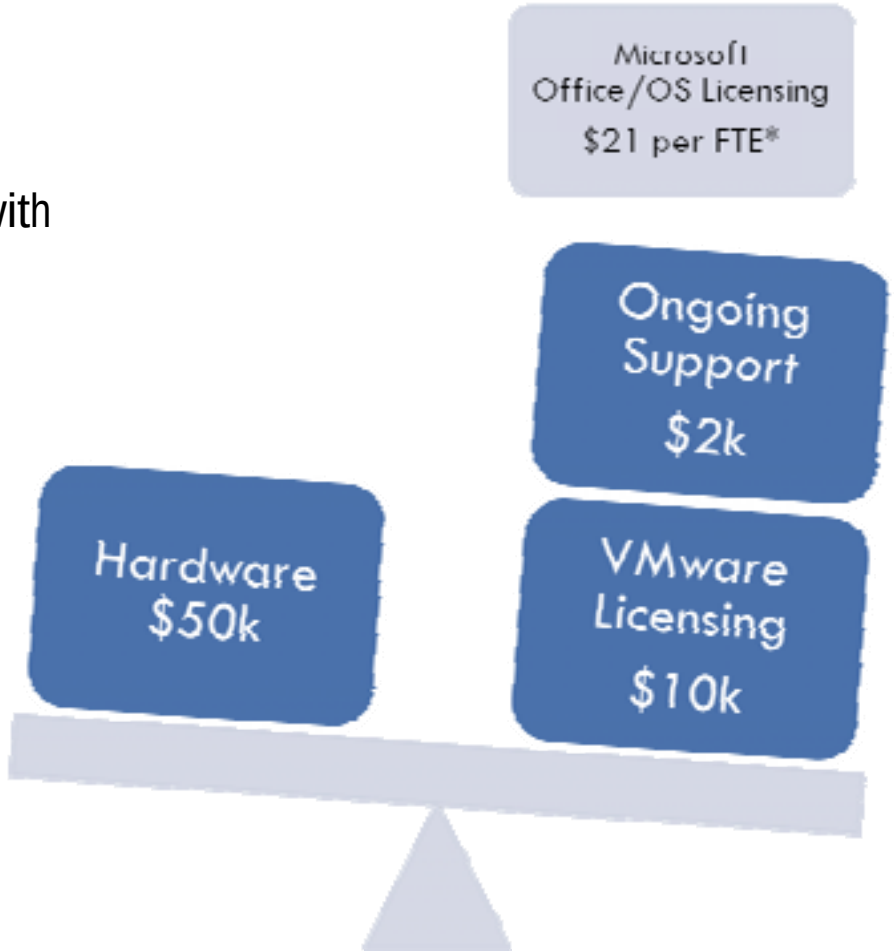


* Image borrowed from VMware

Demo Time

Costs

Pricing for 100 virtual desktops with 8,000+ users!

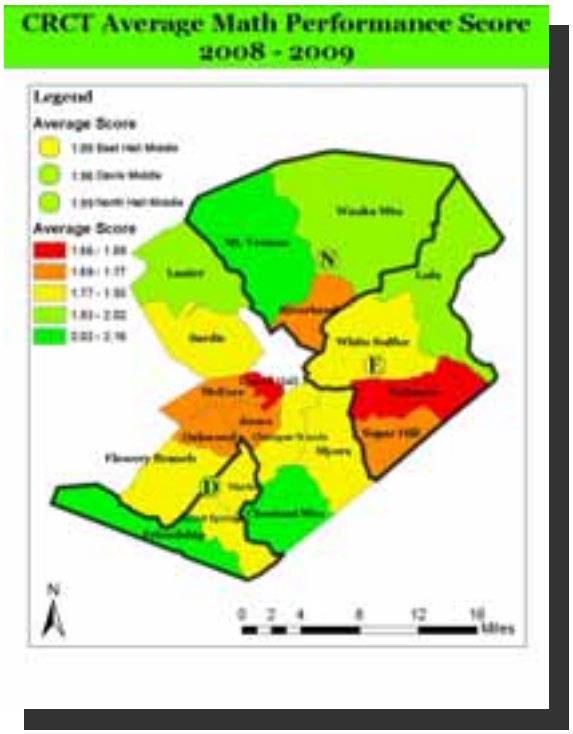


Advantages/Disadvantages

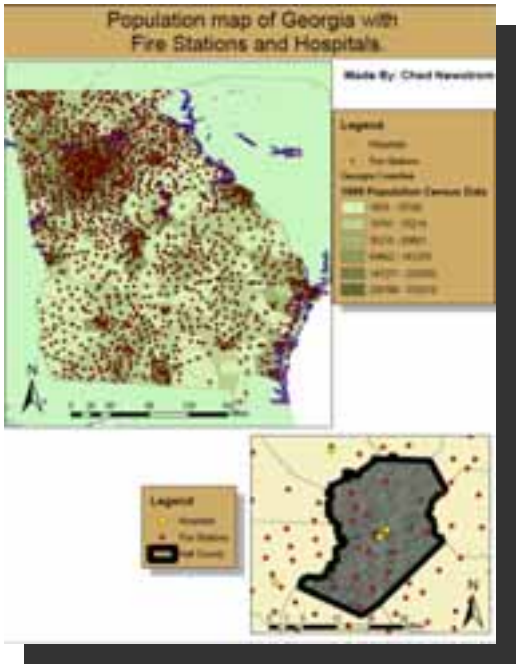
Advantages	Disadvantages
Availability	Bandwidth Considerations
Manageability	Initial Cost
Efficient	Microsoft Software Licensing
User Simplicity	3D Rendering/Graphics
Rapid Deployment	Complexity
Scalability	

End Result

Thomas Mettille Student Achievement Awards from Georgia URISA



1st place – Logan Allen
(DaVinci Academy)

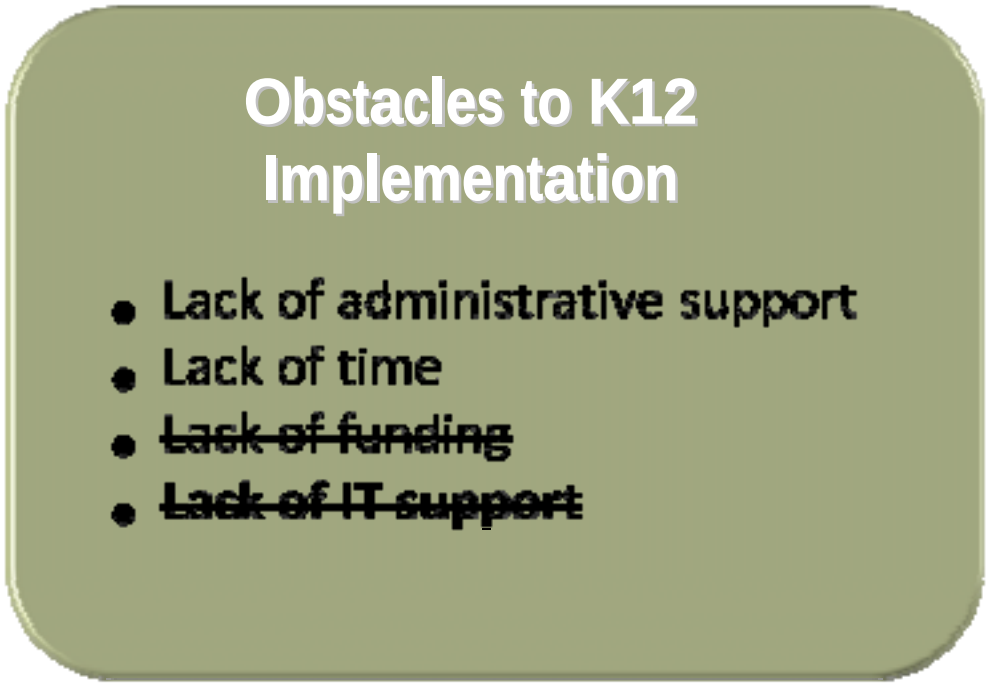


2nd place – Chad Newstrom
(DaVinci Academy)

Notable Maps from K12 Students
Mapping the location of recent celebrity deaths.
Mapping the location of fire stations vs. factories in Hall County, Georgia.
The distribution of sex offenders in Georgia.
Distribution of fire stations and hospitals compared to population.
Extracting teen pregnancy data from CDC data on all pregnancies and mapping it by state

Sidestepping Obstacles

- Once the largest obstacles were removed things began to take off.



The Future

- Hall County Schools is working through the state Department of Education to implement a three course Geospatial Technology career pathway for Georgia High Schools.
- Interest in Geospatial Technology and GIS is high, applications for the 2010 summer workshop have greatly increased.
- Other schools and groups are working to implement Geospatial Technology in their programs in Hall County.

Thanks for coming!

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