

# Superhighways of the Future

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## Agenda

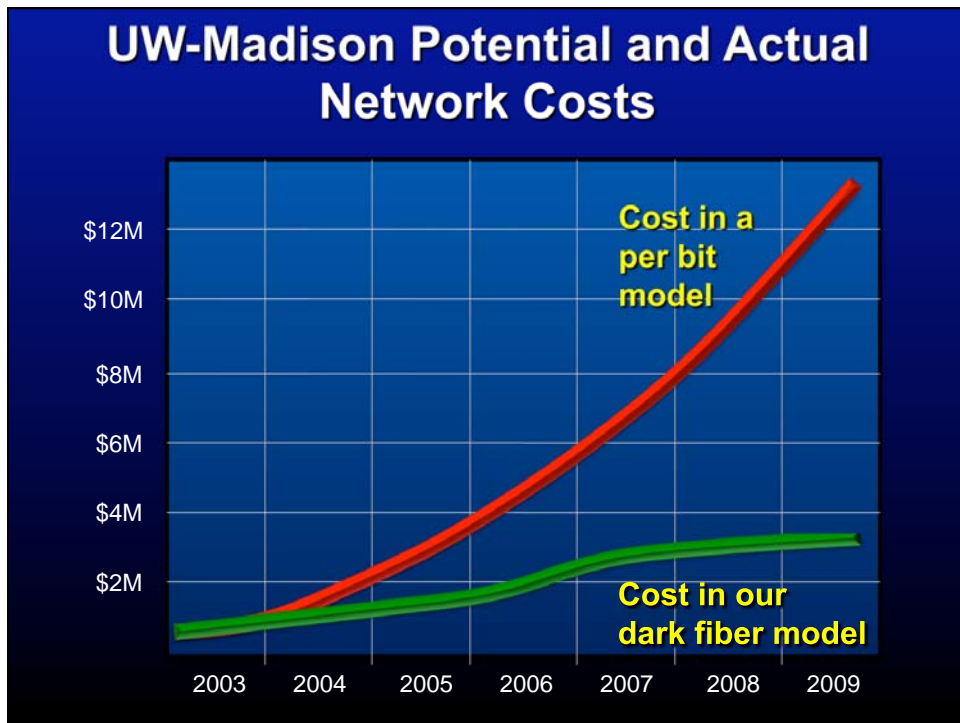
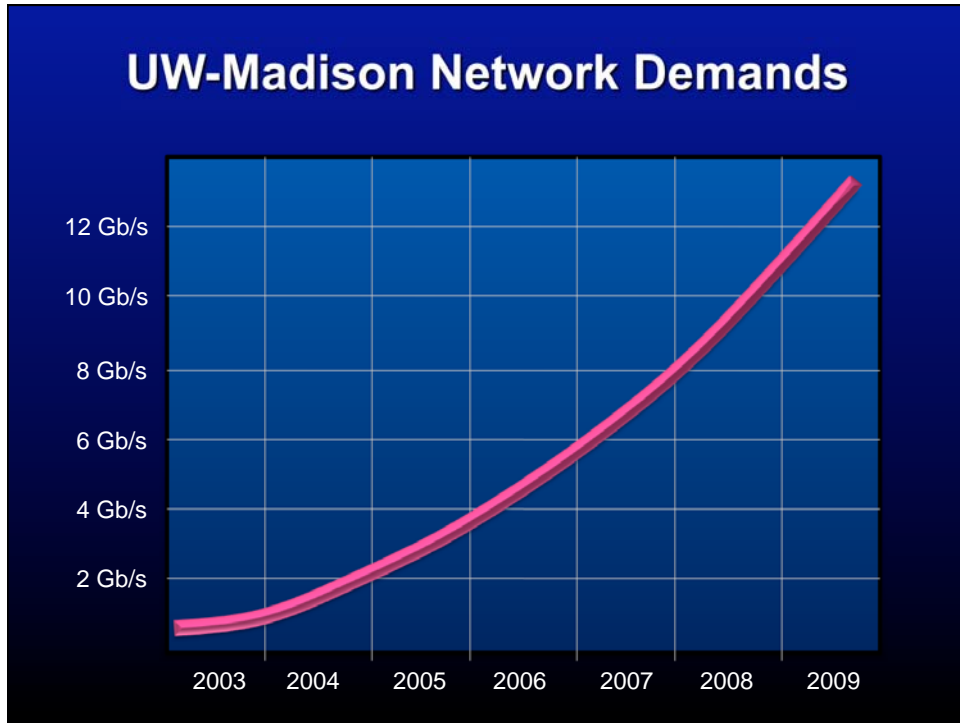
- Cost and capability
- The research challenge
- Creating value through networks
- The national network and recent work
- Positioning for the future

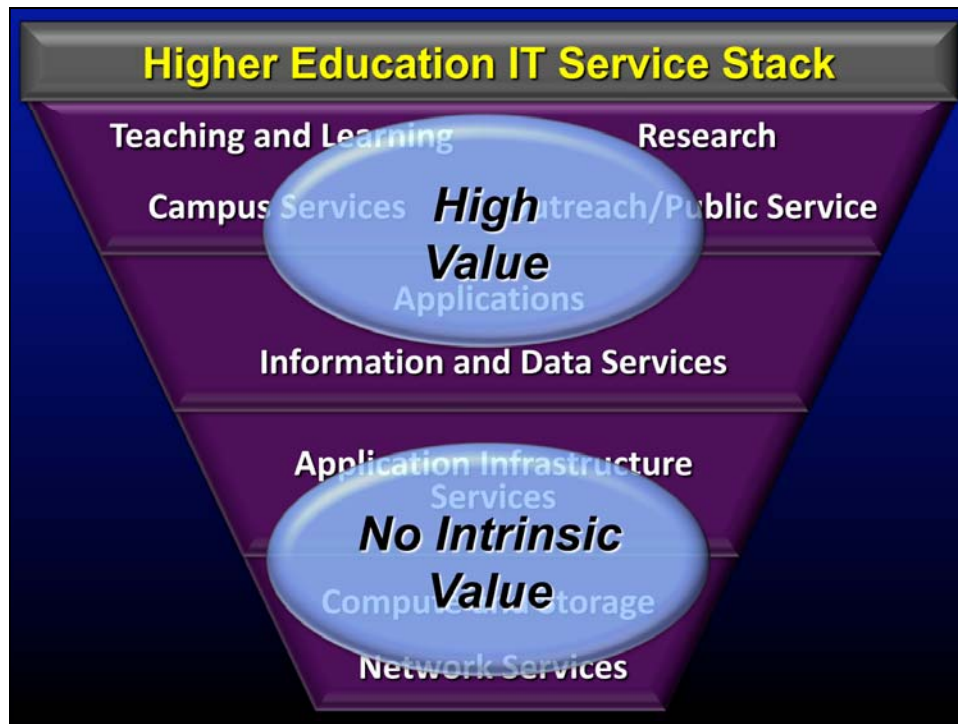
## Our Goal

Work with partners to create a  
“Wisconsin Network Superhighway”  
that positions Wisconsin to excel in  
a global economy

## Technology Timeline








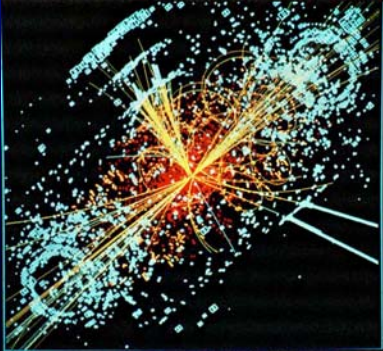

***Coupling  
&  
Decoupling***

## Awash in Data

“Although UW-Madison professors Wesley Smith and David Schwartz operate in completely different scientific spheres - one seeking to explore the fundamental properties of matter and the other trying to wrest free the secrets of the human genome - both have the same dilemma: They are awash in a sea of data.”



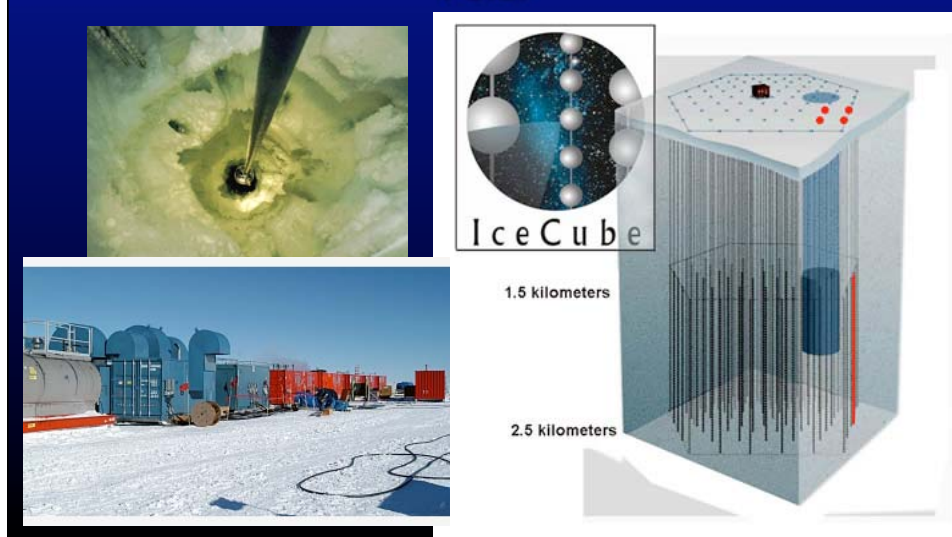
UW-Madison physics researchers frequently acquire enormous datasets from the Hadron Collider project



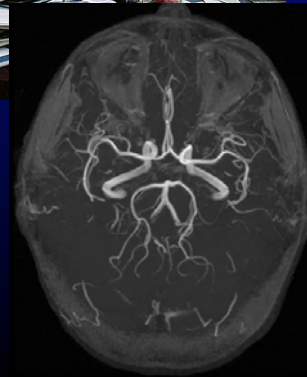
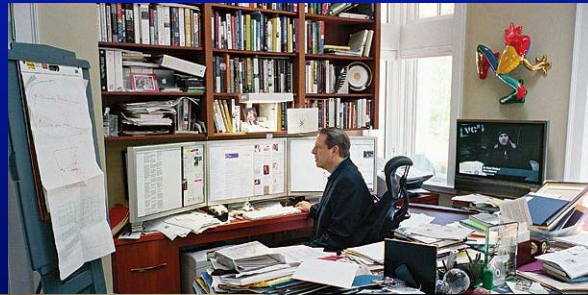
The Human Genome Project will map and sequence the entire human genome--that is, to locate every gene on every human chromosome.



IceCube is an international collaborative effort to build a neutrino telescope deep in the ice at the South Pole.



Work and  
study  
anywhere/  
anytime

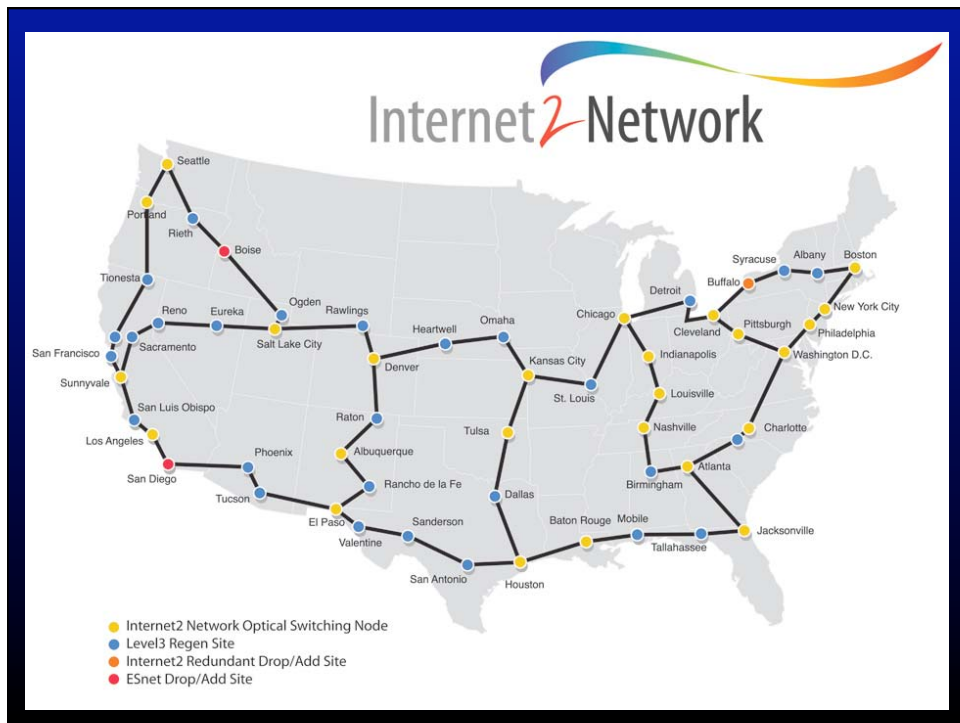
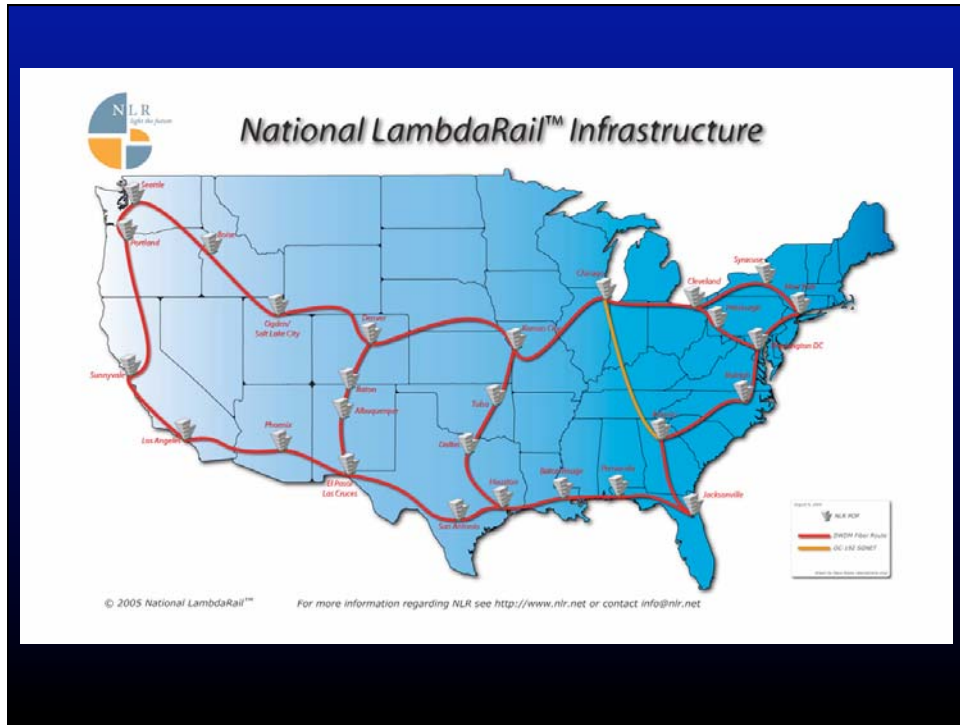


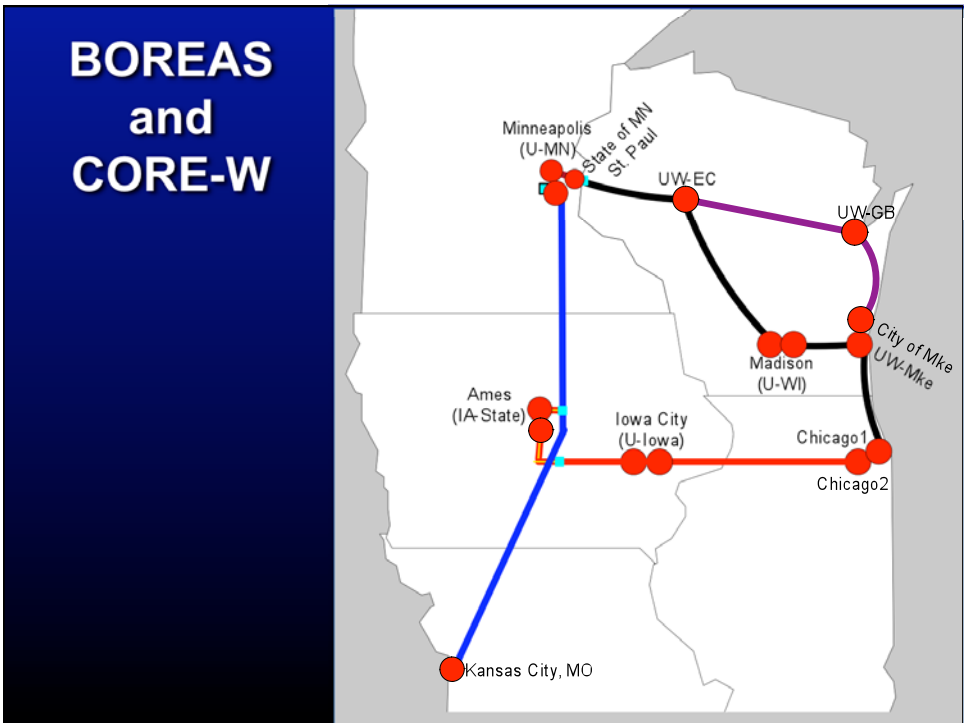
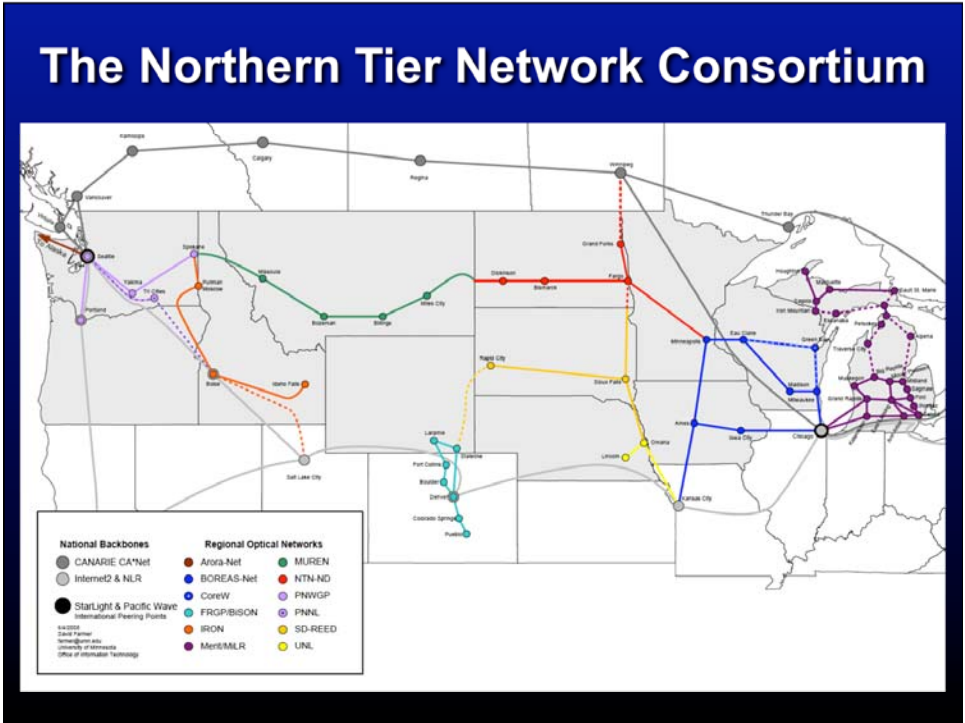
Each state's core network is  
becoming basic infrastructure,  
just like its highways

**Virtually all network infrastructure investments in Wisconsin result in private sector product and service sales**

### **Examples of Private Sector Work**

- The services that use the network (VOIP, teleconferencing, etc.)
- Field services (remote hands and eyes)
- Network equipment
- Network operations center equipment
- Local loops
- Bandwidth to the commercial Internet
- Fiber trenching
- Fiber leases
- Hut maintenance





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## Can we think differently?

