NTS Update
IS Lunch and Learn

April 27, 2011
NTS Scope

- Telephone System
- Data Network
- 2-way Radio System
- Clocks (Primex)
- Coordinate cell towers and future distributed antenna system
- Special projects
- Support Construction activities
Telephone System

• Avaya phone system
• Mix of traditional PBX and Voice over IP handsets
• Approximately 9000 phones
• Will be removing phones lines from residence halls this summer
Data Network

• We monitor 2467 network devices (as of 11AM today)
  – 1197 Network Switches
  – 775 Wireless Access Points
  – 53 Firewalls
  – 63 Routers
Data Network Functions

- Network supports access to the Internet, Banner, email, etc.
- Also, support network for other systems
  - Voice over IP
  - Building Controls
  - Access Control
  - Electrical Monitoring
  - Other monitoring (steam, chilled water, Solar Arrays, etc)
Data Network Complexity

• Two basic networks
  – Public: service to servers, workstations, and other devices (even if firewalled)
  – Private: separate network that supports building controls, electrical controls, security systems, etc.
Public Networking

• This is the bulk of our network
• Includes wireless
• Includes Firewalled segments
  – Old model was discrete firewall appliances
  – New model is central firewall service
• All this increases complexity
  – Typical network switch has 3 VLANs
  – More complex setups has many more
2-way Radio

• Provide and support radios for all campus units, including
  – Athletics
  – Public Safety
  – Facilities Services
  – Media Services
  – Network and Telecom Services
Campus Clocks

• Designed and built a custom clock synchronization system.
• Built around a commercial product by Primex
• System we built has been now adopted by Primex as a product for campus environments
Cell Towers and Coverage

• Manage three cell sites on campus
  – T-Mobile on the top of PLC
  – Sprint and AT&T at Hayward Field
  – AT&T at Autzen Stadium

• Working with a consortium of carriers to improved cell coverage throughout campus
  – Hope to have initial coverage going by end of year in at least Matt Knight Arena
Special Projects

• NTS gets involved in a variety of projects
  – Currently working on a wireless system to support the irrigation controllers on campus
  – Working on bringing Vyvx broadcast transport services to campus for athletics events and for use by Public Relations
Construction Projects

• Amazing amount of activity
  – From Power and Steam plant to Ford Alumni Center
  – Not an option to say no or delay projects
  – These projects consume a large portion of our time and energy
  – Also need to deal with fallout of construction – moves of people and temporary trailers
Construction Projects

• Projects with NTS involvement this year
  – Matt Knight Arena, North Site Parking Lot, Gilbert/Anstett Hall, Ford Alumni Center, Power and Steam Plant, Computing Center machine room, East Campus Residence Hall, Lewis Integrative Science Building, Allen Hall, Football Building, Soccer and Lacrosse Fields, Football Practice Fields, upgrades in Agate Hall, CMER, Physicians and Surgeons Building, and 10th and Mill
Campus Cabling Infrastructure

- Includes many miles of fiber optic and telephone cabling.
  - From Autzen Stadium to Spencer View, ODOT to the Public Service Building
  - Must provide locate services
  - Have to relocate utilities out of the way of construction
Thank You