Overview

- UNM WiFi
  - The need for coverage
  - Who benefits from the coverage
  - SSIDs that you will see
- Outdoor wireless coverage
  - Existing
  - Planned and completed
- Planning and design
  - Factors that affect signal strength
  - Onsite testing
The need for coverage

• Social distancing recommendations
  • Allows students to access learning resources and submit assignments online.
  • Allows the general public to access online resources limited to web traffic

• Convenient access from within or just outside of your vehicle
  • Signal will be better outside of vehicle
Who benefits from the coverage

- UNM students, faculty, staff have a UNM NetID
  - Lobo-WiFi
- Those affiliated with institutions that participate in eduroam
  - eduroam
- UNM visitors and the general public
  - Lobo-Guest
SSIDs that you will see

• Lobo-WiFi
  • Encrypted
  • Requires UNM NetID
  • More services supported

• Lobo-Guest
  • Open
  • Agree to terms and conditions
  • Services limited to web traffic on ports 80 and 443

• Eduroam
  • Encrypted
  • Requires full email address from eduroam participating institution
  • More services supported
Existing Outdoor Wireless Coverage

- Duck Pond-11
- Zimmerman-4
- Smith Plaza-13
- Masely Hall-1
- Yale Mall-5
- Mitchell Hall-2
- PAIS-1
- Castetter-1
- Student Union Building-2
Planned Wireless Access Point Locations

- SRS building
- UNM IT building
- Pit building
- SSSC building
- Football Stadium
SRS Parking Lot

- Three Aruba model 274 access points.
- Installation complete.
- Testing complete.
UNM IT Parking Lot

- One Aruba model 277 access point.
- Installation complete.
- Testing complete.
SSSC Parking Lot

- Two Aruba model 377 access points.
- Installation complete.
- Testing complete.
PIT Parking Lot

- Two Aruba model 377 access point.
- Proposed.
Football Stadium Parking Lot

• One Aruba 377 access point.

• Proposed.
Planning and Design: Step 1

- Google Earth
  - Locate region
  - Zoom in and adjust view directly overhead
  - Measure distance
  - Take a screen shot
Planning and Design: Step 2

• Ekahau Site Survey Tool
  • Add map
  • Set scale
  • Define attenuation areas
Planning and Design: Step 3

- Place wireless access points
  - Model
  - Mount
  - Height
  - Tilt
  - Power
  - Direction
Factors that Affect Signal and Speed

• Physical obstacles
• Distance and position relative to the access point.
• Utilization
• Other wireless networks
• Encryption vs. no encryption
Onsite Testing and Making Adjustments

- WiFi Analyzer
  - Speed Test
  - Signal Strength
- Distance and location
- Make adjustments to power in the Ekahau site survey tool to reflect actual signal strength
SSSC North Access Point-Lobo-WiFi

• Speed Tests
  • speed.googlefiber.net
  • speedof.me
  • Speedtest.net

• Distance
  • 132 feet

• Location
  • Line of sight
SSSC North Access Point-eduroam

- Speed Tests
  - speed.googlefiber.net
  - speedof.me
  - Speedtest.net
- Distance
  - 132 feet
- Location
  - Line of sight
SSSC North Access Point-Lobo-Guest

- Speed Tests
  - speedof.me
- Distance
  - 132 feet
- Location
  - Line of sight
SSSC North Access Point-Lobo-WiFi

- Speed Tests
  - speed.googlefiber.net
  - speedof.me
  - Speedtest.net

- Distance
  - 244 feet

- Location
  - Line of sight
SSSC North Access Point - eduroam

- Speed Tests
  - speed.googlefiber.net
  - speedof.me
  - Speedtest.net

- Distance
  - 244 feet

- Location
  - Line of sight
SSSC North Access Point-Lobo-Guest

- Speed Tests
  - speedof.me
- Distance
  - 244 feet
- Location
  - Line of sight
Thank You

Questions?