Proprietary Wireless Network for the Digital Bus

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Digital Bus Overview

• Community Service Mission
• Mobile Lab
• Educational Outreach
• Wireless technology
• Re-establish network
Wireless Cloud

- Access Points
  - Kula, MCC, Akimeka
- KarlNet System board
- TurboCell technology
- “Gray Box”
- Power over Ethernet Solution?
Karlnet System Board

- Outdoor Wireless Networking
- Fast performance
- Turbo Cell Software
- Supports both nominal DC power supply and PoE
TurboCell

- Alternate Protocol
- Enhances 802.11b capability
- Security Measures
- Large Area Networks
- Base Station (Kula) and Satellites (MCC, Akimeka)
The Gray Box

- Houses Wireless Card, system board and power supply for the antenna
- Placed on rooftop
- Power to box on roof?
Power over Ethernet Implementation

Wireless Internet Cloud

24" Parabolic Antenna

Omni Directional Antenna

Output
Input

Wireless Card 1

Ethernet Port 1

Ethernet Port 2

Wireless Card 2

Output
Input

Power to Karinet System Board

KN-200

Power to Injector

Power to Karinet

Power to Injector

PoE

Data/Power In

Power Out

Data/Power Out

PoE Hub

Data

Data/Power

Internet

Digital Bus Switch

Ac Output
Alternate Power Solution

Wireless Internet Cloud

24" Parabolic Antenna

Omni Directional Antenna

Hyperlink Amplifier

Input

Output

Wireless Card 1

Ethernet Port 1

Ethernet Port 2

KarNet System Board

KN-200

Hyperlink Amplifier

Input

Output

Wireless Card 2

Fan

Power to KarNet

DC Power to Injector

Terminal Strip

12V DC Power Supply

12 V Amp

12V DC Power to Injector

Digital Bus Switch

Internet

Ac Output
Configuration

• Input IP Addresses

• General Setup

• Interface Setup

• IP Setup

• Problems
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