DePaul University Wireless

Technology, Status, Challenges and Plans
As of Today

### Clients

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<tbody>
<tr>
<td>14.6 K</td>
<td>12.2 K</td>
<td>9.77 K</td>
<td>7.32 K</td>
<td>4.88 K</td>
<td>2.44 K</td>
<td>0</td>
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</tbody>
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- **Total Clients**

### Usage

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<tbody>
<tr>
<td>2.33 G</td>
<td>1.86 G</td>
<td>1.4 G</td>
<td>0</td>
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- **Total In**
- **Total Out**
- **VPN Total Out**

**Sources**

- **Max**
- **Avg**
Survey

• Sent to thousands of students last spring
• Over 1000 write-in comments
• Significant amount of negative feedback, e.g.
  • Extremely dissatisfied: > 1/3
• Various problems include key metrics:
  • Coverage area
  • Reliability
  • Performance
Components Overview

Access Point (AP) -> LAN switch -> Router

- AP controller
- RADIUS server
- Active Directory

network management
Hardware

• Access Point(s)
• Wiring
• LAN switch(es)
• Wireless controller(s)
• Router(s)
• RADIUS server(s)
• Windows AD domain controller(s)
• Network management system(s)
Airspace

MUNROE HALL
SECOND FLOOR
2312 N. CLIFTON
Wireless networks (BSSIDs)

- depaulsecure
- eduroam
- legacy devices: depaulwireless
- other: e.g. guests
- other: 3rd party networks
Wireless Metrics

• Traffic rates, utilization, latency and performance
• Availability
• End user OS and hardware diversity
• Address assignment, allocation and management
• Security and protection, man-in-the-middle/rogue
• AP / airspace management
Support and Help

• https://wireless.depaul.edu
• Technology Support Center x28765
• Genius Squad
• We are currently monitoring social media
Future Plans

• Tuning
• Measurement and monitoring
• Upgrades
• Equipment refresh
• Documentation and usage improvements
• Ubiquitous coverage