

Student TAB Meeting

Minutes, March 23, 2018

605 Hodges Library, 3:30-4:45

Action Items

- None

Members

Voting Members

Mark Alexander, Benjamin Bergman, Tami Bland, **Andrew Capps** (Co-Chair), **Michelle Cosby**, **Bill Dunne**, Jennifer Gramling, Rebecca Koszalinski, Logan Notestine, Divyani Rao, Jacob Rogers, Stephen Wilke (**bold** indicates present)

Ex Officio Members

Larry Jennings, **David Ratledge**, Joel Reeves (Co-Chair) (**bold** indicates present)

Welcome – Larry Jennings

Updates

Wireless Upgrade Project

- Replacing AP-225 and AP-135 with AP-335.
- AP-225 will be redeployed.
- AP-135 will be retired – End of Support in 2020.
- Improved performance:
 - AP-135 = 802.11n
 - AP-225 = 802.11ac
 - AP-335 = 802.11ac wave 2
- Planned for September 2018.
- **Alexander**: Why move 225s? **Jennings**: Need 335s in specific locations.
- **Dunne**: What do you gain? **Jennings**: Operate in a specific band and faster. Not more clients per AP, but rather not consuming the AP as much due to faster transfer.
- **Dunne**: Do the 135s support the same number of clients? **Jennings**: Yes, but slower. Not making much headway with number of devices per AP, just trying to get them on and off faster.
- **Dunne**: So the solution to more devices is more APs? **Jennings**: Yes, and getting them on and off faster. We get more than 50, usually. May be more associated, but they're not all transferring data at the same time. Run into problems in the dorms where they're streaming, not releasing the AP.

| Building | Count | Current | Future |
|------------------------|-----------------|---------|--------|
| Alumni Memorial | 64 (up from 33) | AP-225 | AP-335 |
| Art & Architecture | 59 | AP-135 | AP-335 |
| Ayres | 55 (up from 53) | AP-225 | AP-335 |
| Brehm | 74 | AP-135 | AP-335 |
| Claxton Education (CL) | 53 | AP-135 | AP-335 |
| Hesler | 52 (up from 33) | AP-225 | AP-335 |
| Min Kao | 112 | AP-135 | AP-335 |
| Music | 107 | AP-135 | AP-335 |
| Tickle | 99 | AP-135 | AP-335 |

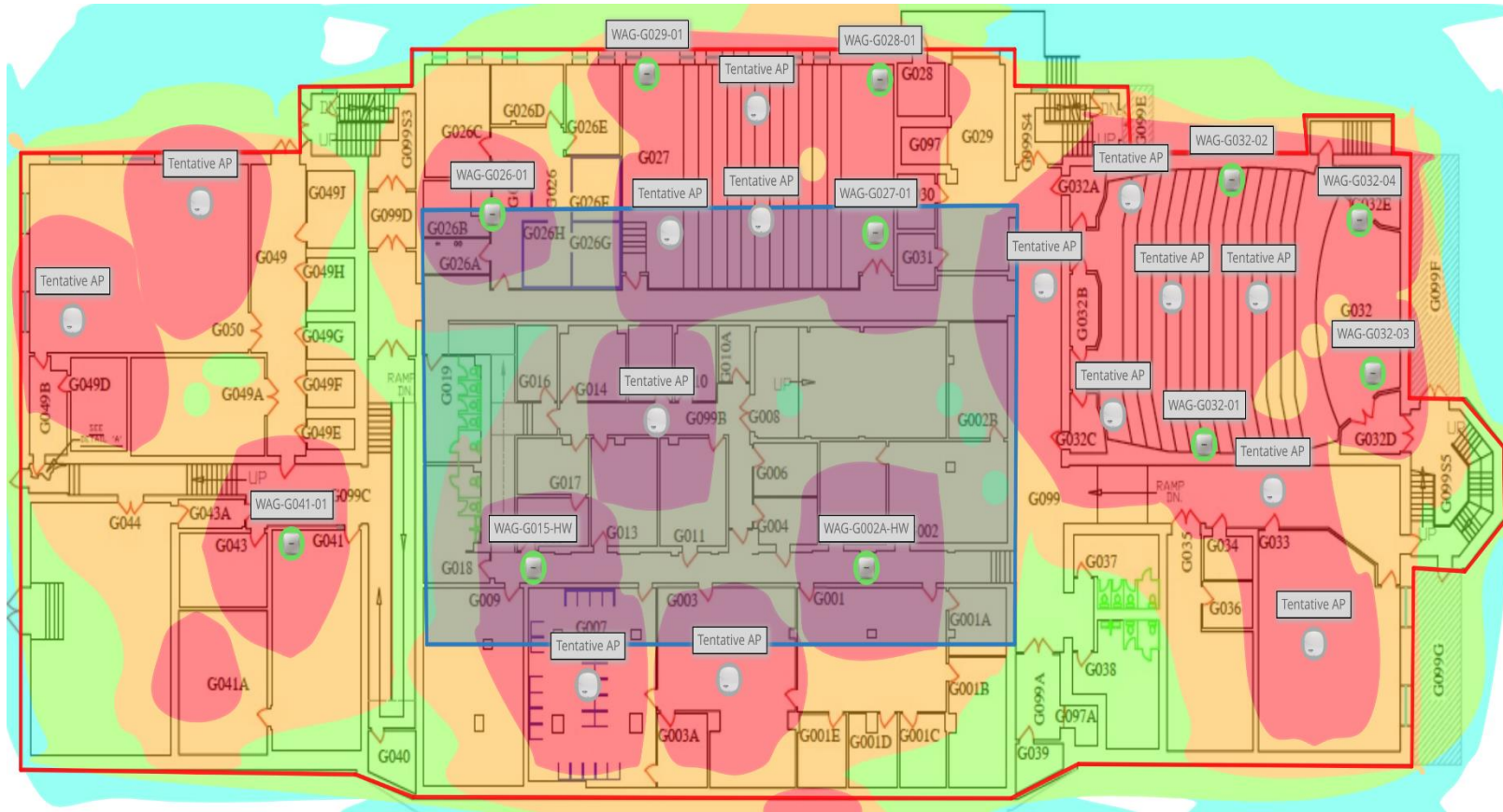
- Wi-Fi Coverage

| Signal Strength | Count | Required For |
|-----------------|---|-----------------------|
| -30 dBm | Max achievable signal strength, not necessarily desirable | |
| -67 dBm | Minimum for apps that require reliable, timely packet delivery | VOIP, streaming video |
| -70 dBm | Minimum for reliable packet delivery | Email, web |
| -80 dBm | Minimum for basic connectivity, but packet delivery may be unreliable | |
| -90 dBm | Approaching the noise floor, functionality is unlikely | |

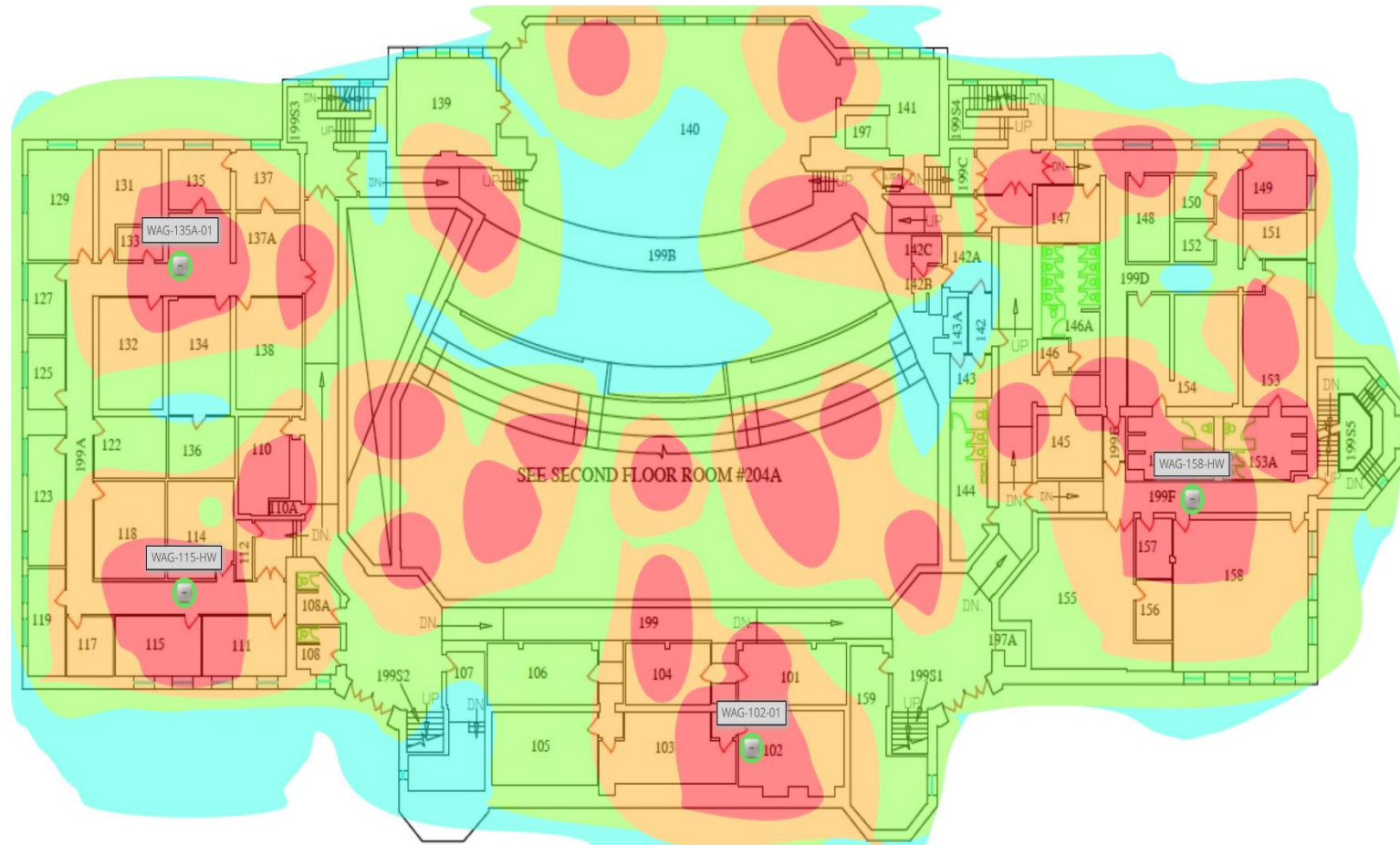
- Heat map color legend

| Color | Signal Strength |
|--------|-----------------|
| Blue | -75 to -66 dBm |
| Green | -65 to -56 dBm |
| Orange | -55 to -46 dBm |
| Red | -45 to -36 dBm |

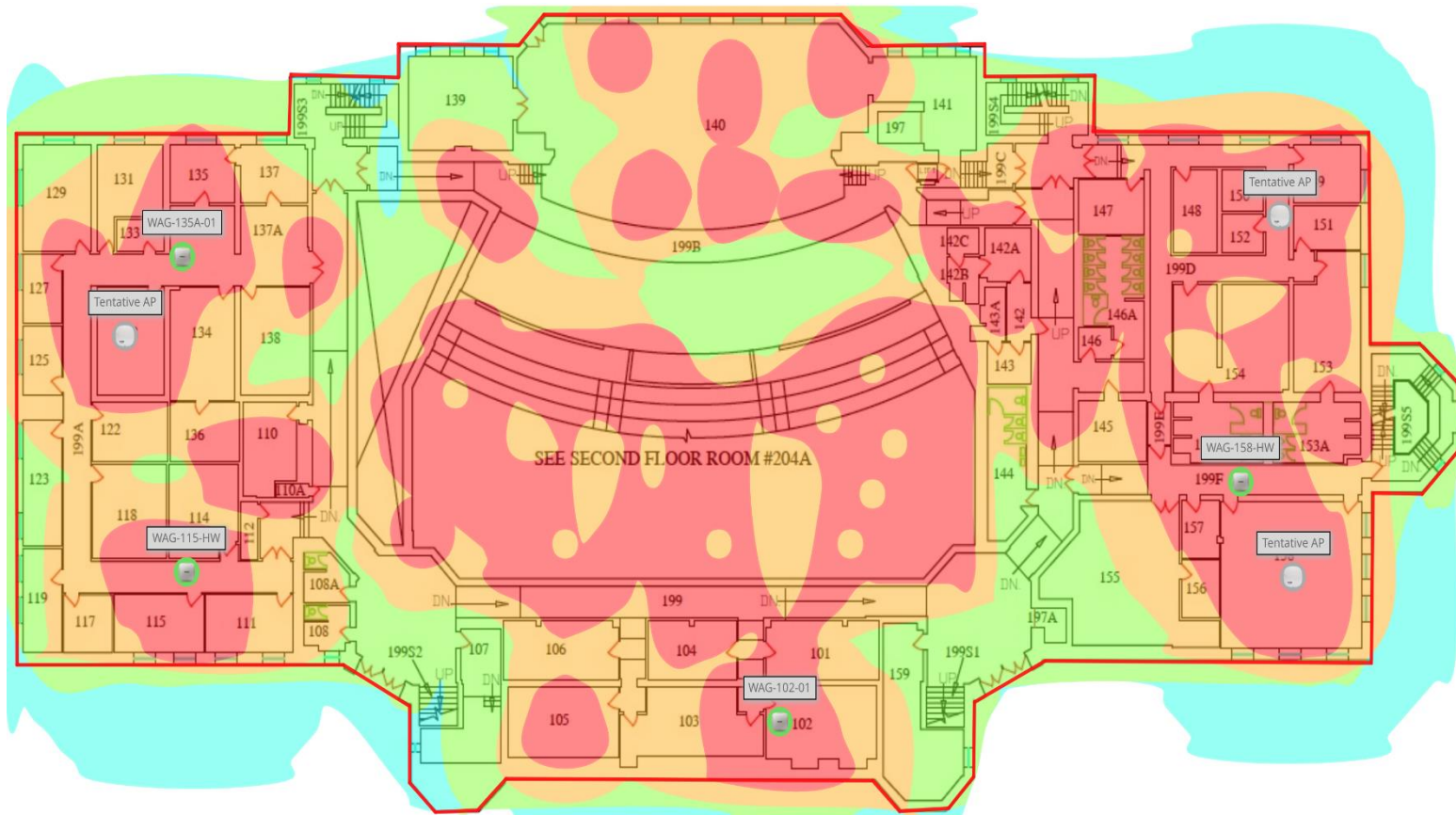
Alumni Memorial Building, Ground Floor, After Planned Upgrades
(APs marked in green are current; grey are new)



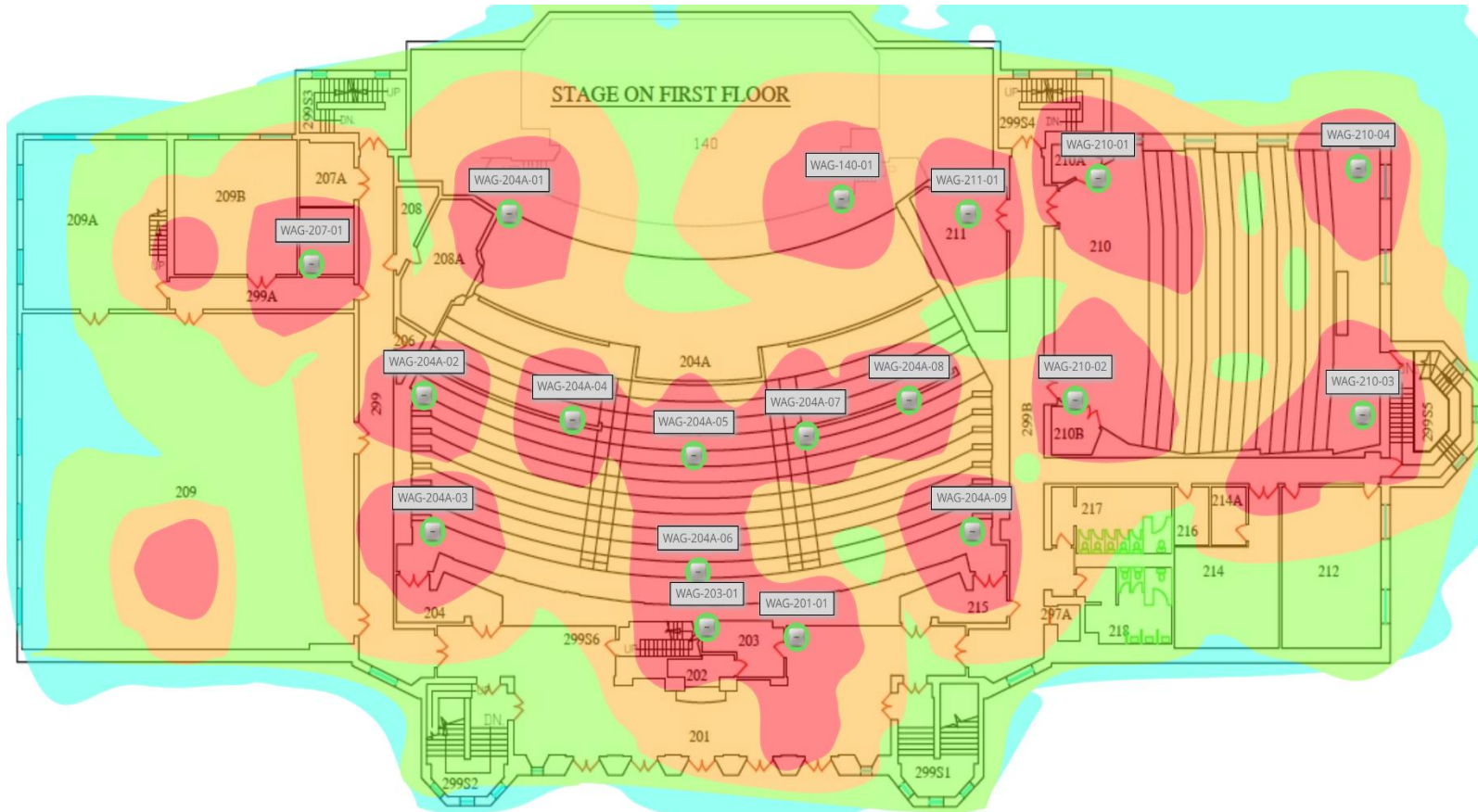
Alumni Memorial Building, First Floor, Current



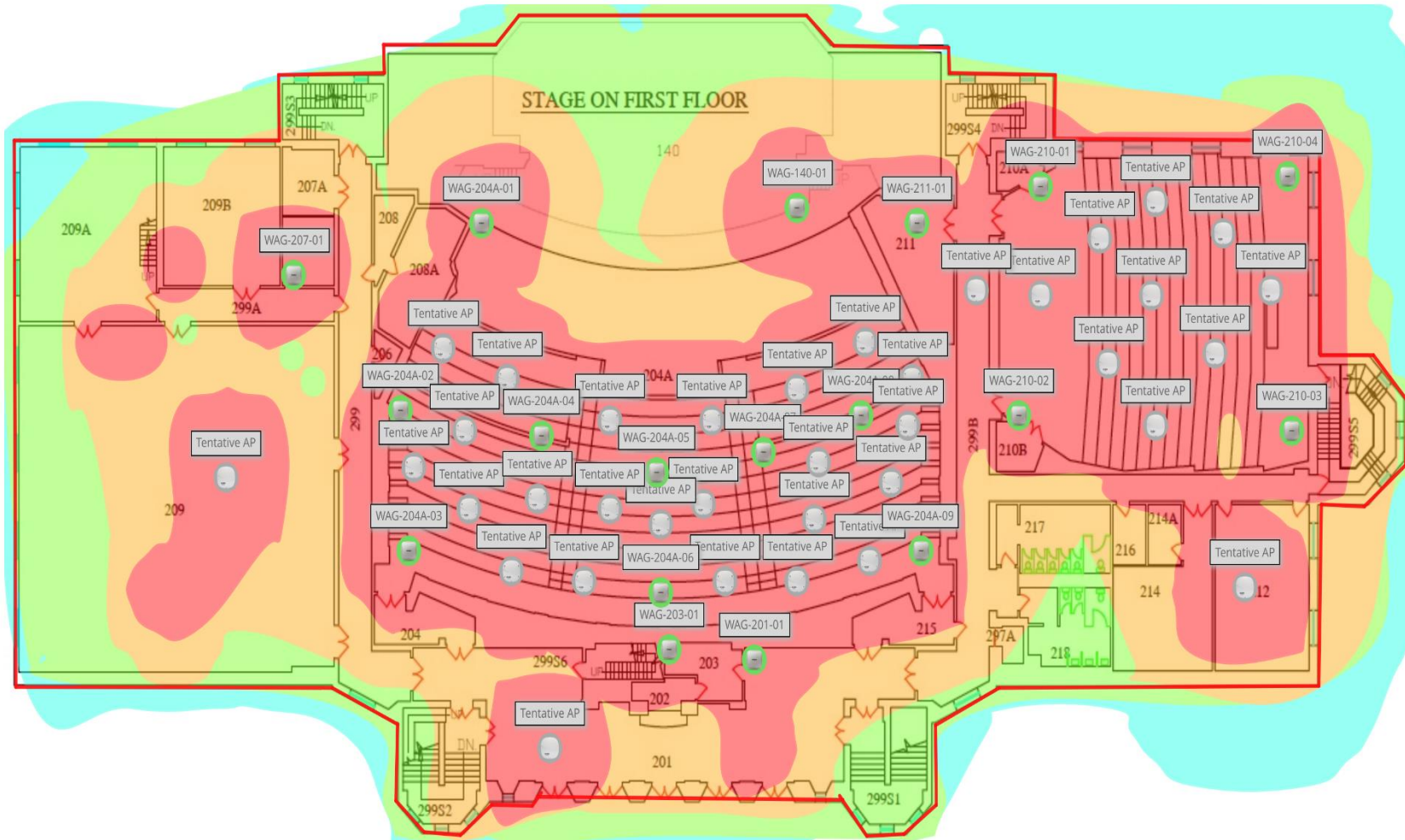
Alumni Memorial Building, First Floor, After Planned Upgrades
(APs marked in green are current; grey are new)



Alumni Memorial Building, Second Floor, Current



Alumni Memorial Building, Second Floor, After Planned Upgrades
(APs marked in green are current; grey are new)



- **Alexander:** Do they do heat maps on new buildings? **Jennings:** As soon as we can get the plans, we try to map out red and orange for as much as possible, especially classrooms. Sometimes what the software predicts and what actually happens differs; may need to go in and move some APs to tweak the coverage.
- Will be some wireless upgrades in dorms, after September.
- **Dunne:** Given the connections in the dorms, which is faster – wired or wireless? **Jennings:** Wired always faster. We are getting survey feedback that wireless isn't as good as it could be. Goes in cycles; people start noticing it about the same time we're ready to do an upgrade.
- **Dunne:** UTK has for years been a leader in wireless. Really important with so many mobile devices.

Suggestion Box

- Demoed a prototype internally; lots of suggestions for improvements. Still being worked on. Next demo around April 10.
- Hope to be able to demo to this group on April 27.

FY19 College/Department Award Process

- February 5-9, 2018 – call for Tech Fee requests
- April 3, 2018 – deadline for submissions
- April 27, 2018 – TAB review/approval
- Early May, 2018 – Colleges/Departments receive award notification

New Business

- None

Committee Meeting Dates

All meetings at 3:30 pm in 605 Hodges Conference Room

- September 15, 2017
- October 27, 2017
- January 26, 2018
- February 24, 2018
- March 23, 2018
- April 27, 2018

Wrap-Up

- Please contact Reeves with any items for next meeting.
- Students, please bring any concerns you hear.
- Faculty, your input is very welcome.

Meeting Adjourned