

# DP Presentation — Evaluation Ideas

6.033 2018

For your presentations, we've asked you to give a brief discussion of how you intend to evaluate your design. The feedback you got from your instructor on your DPPR likely points out a few items that your team will need to evaluate. To round out that discussion, below are some others that you should be considering.

**Your presentation does not need to include an actual evaluation.** This document, and the presentation itself, are meant to aid you in planning your evaluation (among other things). You'll execute that evaluation on your final report.

- **What is the communication overhead of your system?**

Typically this will be a measure of the amount of traffic sent between smart devices and the FCS.

- **On average, how long does it take between when a smart device comes online and when it is capable of sending data to the FCS?**

That is, how long does it take for a smart device to be discovered and for there to be a route between it and the FCS?

- **On average, how long does it take data collected by a smart device to be transmitted to the FCS?**

- **How much data are you storing on the FCS? How long will it take before the FCS can't store any additional data?**

- **What parts of your system limit scale, and what are those limits?**

Could your system handle the addition of 5000 new thermostats and motion detectors? Could it handle 500 new cameras? Could it handle additional buildings that MIT might construct? Etc.

- **How long does it take your system to respond to a gateway failure? To a BLE+ Repeater failure (if you used such repeaters)?**

- **How long does it take for a software update to be delivered to all smart devices of a certain type?**

This will likely be a function of the size of the update.

You might also think about how your system could be extended to do *more* than what we've required. For example, could your system handle the following upgrades?

- Facilities decides to support two additional types of smart devices.

- Facilities increases their minimum requirement for video cameras from delivering one frame per second to delivering three frames per second.
- At the start of crisis mode for a particular camera, Facilities wants to have access to the last minute of data from that camera in addition to the current data.