

Evaluation Ideas for DP Presentation

6.033 2017

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 buses and the MBTA servers.

- **On average, how long will it take a bus that wants to use the radio network to be assigned a frequency?**

For some designs, it may be instantaneous. But consider whether there is any scenario where more than ten buses might need to use the radio at once.

- **On average, how long does it take data collected on a bus to be transmitted to the MBTA warehouse?**

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

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

Could your system handle the MBTA adding 100 new routes and 500 new buses? Could it handle an influx of new passengers? What about if the MBTA added new buses to your pool, but required that stops be served every fifteen minutes instead of every twenty?

- **How accurate is the data you collect?**

Is your passenger-count data always 100% accurate? What about your system's estimates for reliability data (whether the bus arrives at its origin, midpoint, or destination timepoint within three minutes of schedule)?

- **How long does it take your system to respond to a failure?**

Among other things, this might include the time it takes for a new bus to get to the failed route.

- **Under what scenarios do you expect your system to *not* meet the MBTA's target requirements?**