Integrating Planning and Scheduling via Technology

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Agenda

- 1. The Planner Brain vs. The Scheduler Brain
- 2. Communication Struggles
- 3. How Technology Can Help



Transit Planners are...

- → Big picture thinkers
- → Concerned with public needs, both current and future
- \rightarrow Good at spatial visualization

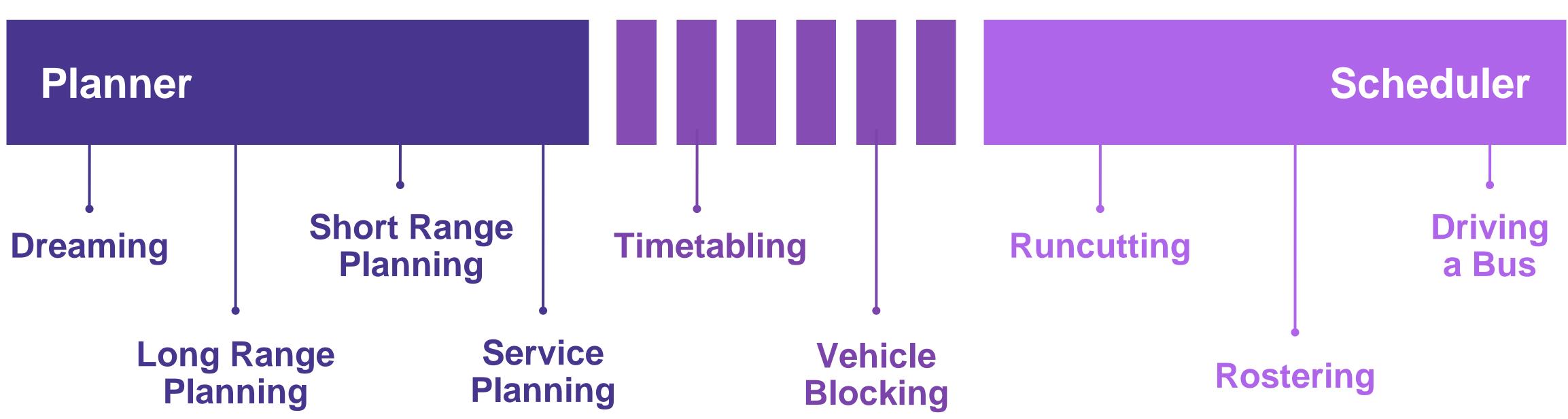


Transit Schedulers are...

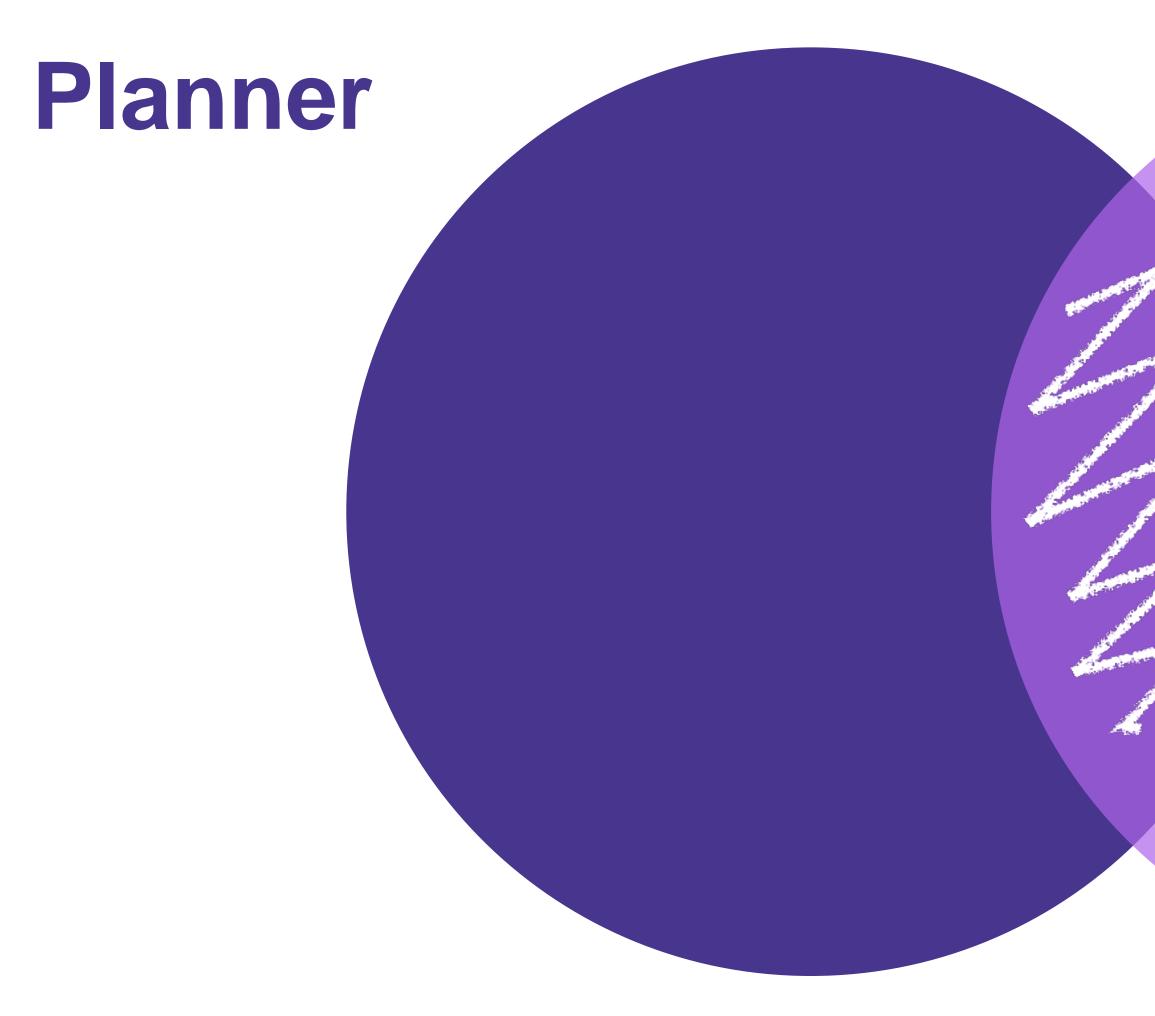
- → Detail oriented
- → Concerned with public needs, and also the needs of their operators
- → Good at doing simple math quickly

THE PLANNER BRAIN VS. THE SCHEDULER BRAIN

The "What's My Job?" Spectrum













Example Statement Tim Horton's is better than Dunkin Donuts



Statement #1 I identify more as a transit planner than as a transit scheduler



Statement #2 A transit scheduler should have been an operator at some point



Statement #3 Operator happiness is at least as important as customer happiness



Statement #4 I think of bus service in terms of peak hour frequency rather than peak hour bus counts



Statement #5

Operators should be allowed to drive a 13/3 schedule (13 hours per day / 3 days per week) if they want



Planning terms are...

→ Generally universal and easy to understand



Scheduling terms are...

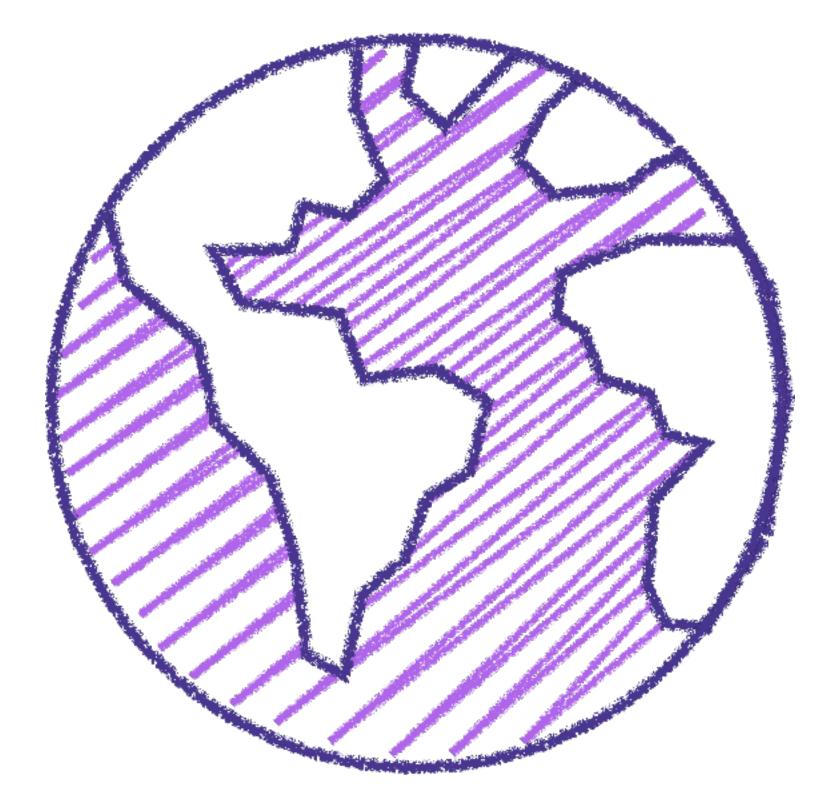
- → Not easy to understand and can be agency-specific:
- \rightarrow Runs vs. Duties
- \rightarrow Bid vs. Pick
- → Interlining vs. Interlacing
- → Pre-trip Time vs. Sign-On Time vs. Check Bus Time vs. Clock-in Time vs...

HOW TECHNOLOGY CAN HELP

Terminology Standpoint

Makes the world smaller





Communication Standpoint

Ease of use can bring planners and schedulers together

- \rightarrow Is the technology easy to **understand?**
- \rightarrow Is the technology easy to **share?**
- → Is the technology easy to access?



HOW TECHNOLOGY CAN HELP

Recent Successes

AVTA Lancaster, CA

NCRTD Española, NM



Mountain Line Morgantown, WV



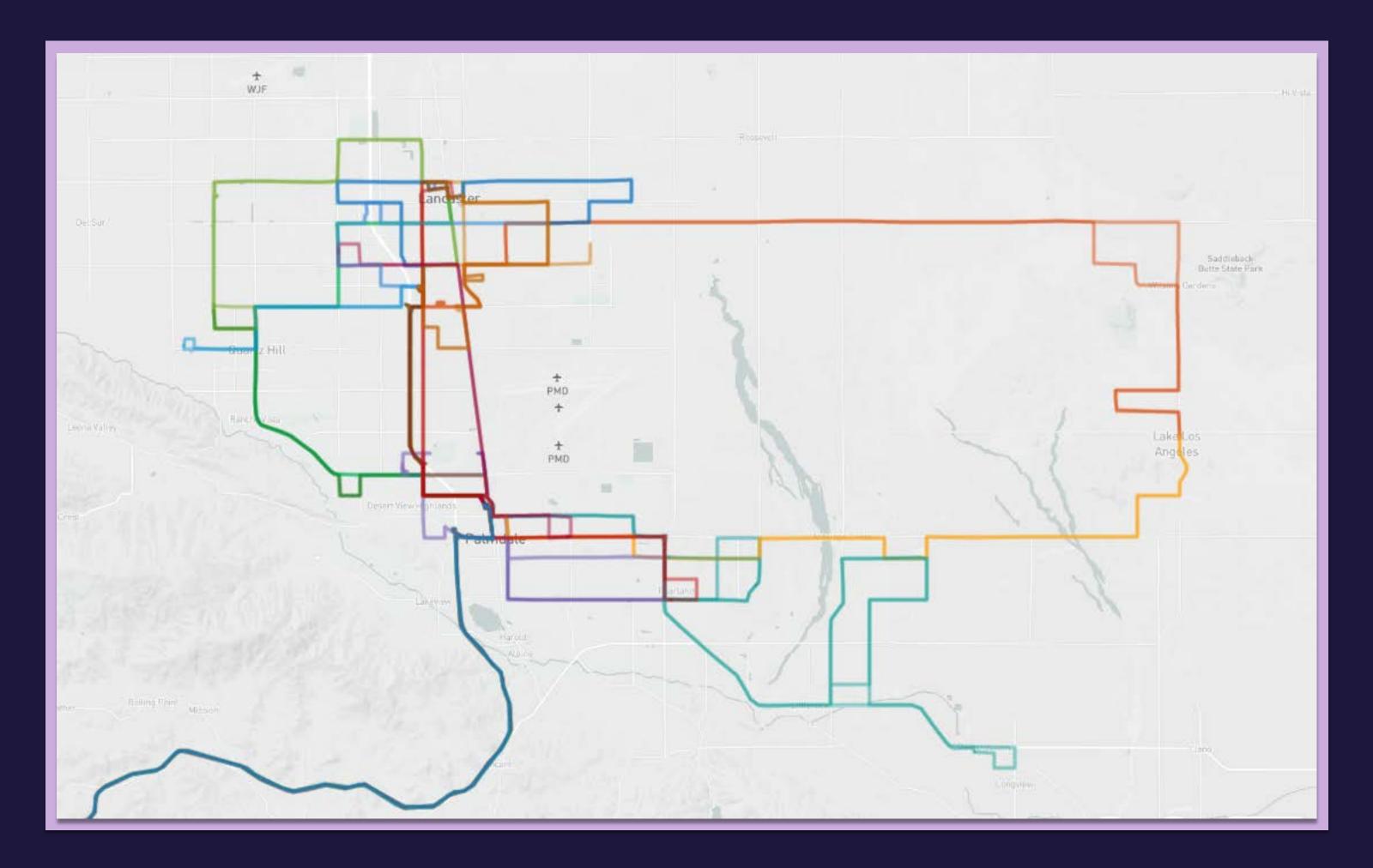
Lancaster, CA (AVTA)

Challenges:

Scheduling was contracted to separate operations company

Siloed communications between planner and scheduler

Transitioning to all-electric fleet





HOW TECHNOLOGY CAN HELP

Española, NM (NCRTD)

Challenges:

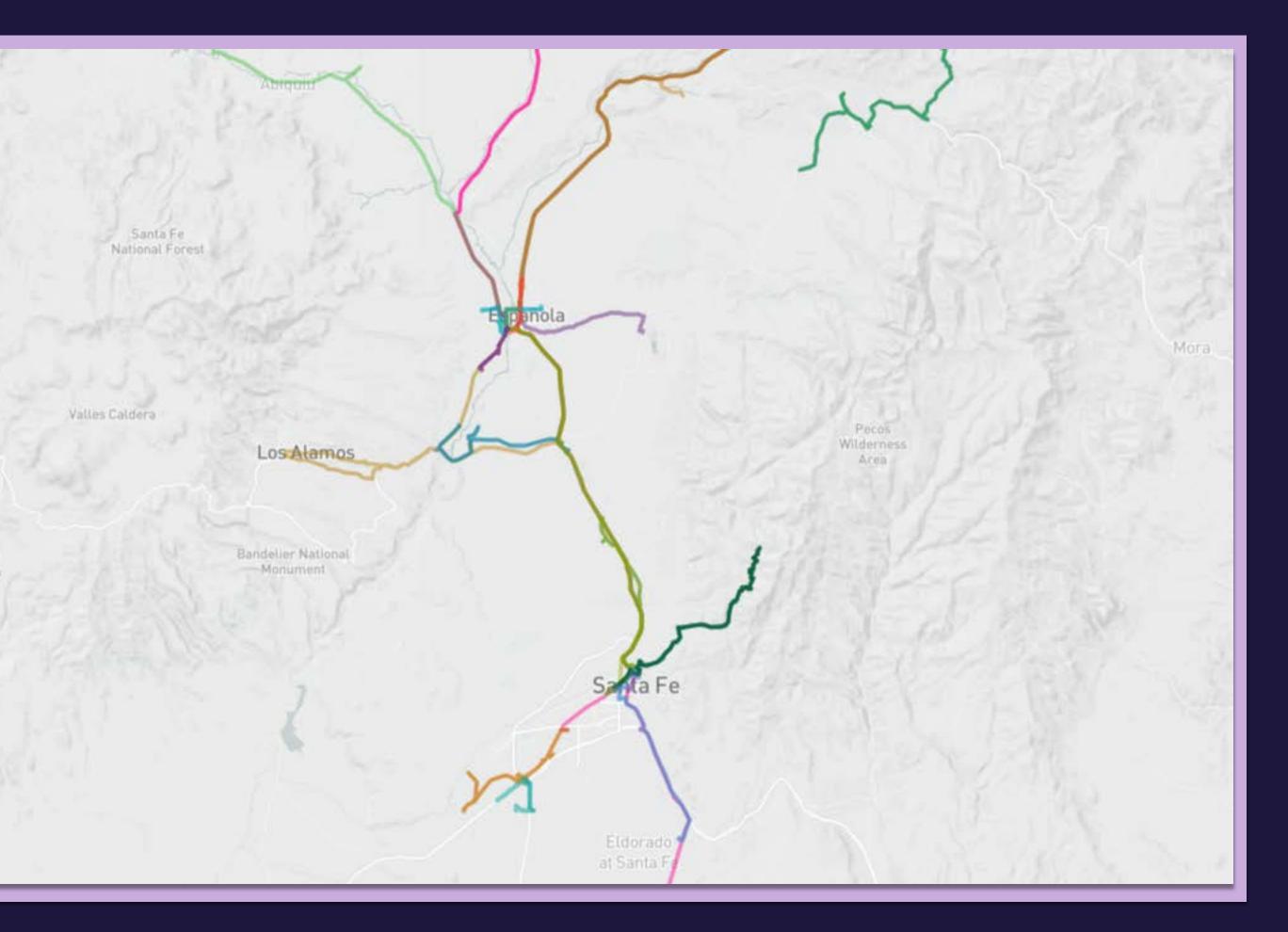
Agency had never scheduled before

Eight different "garages"

Operators unhappy with runs

Jemez National Recreation Area





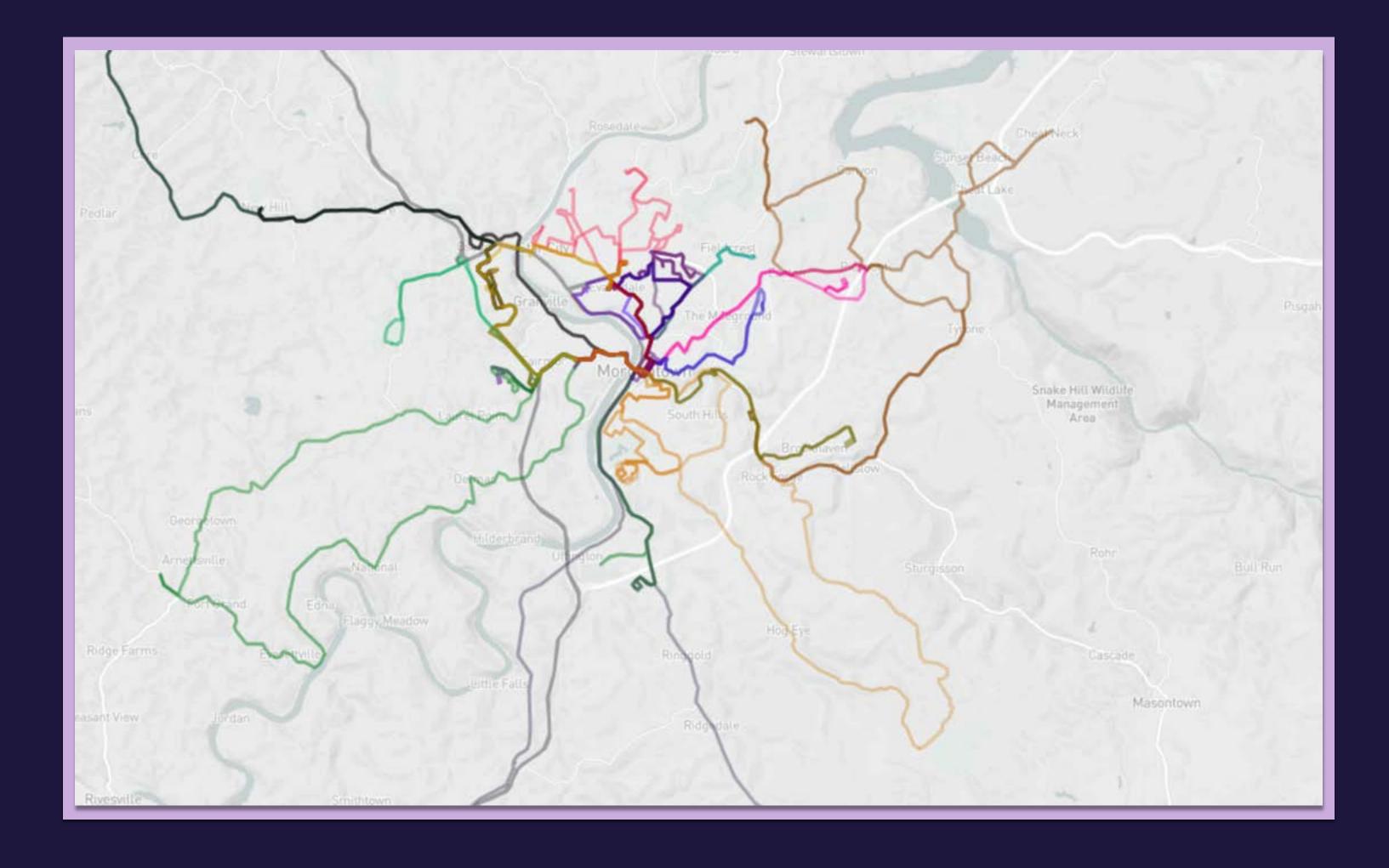
Morgantown, WV (Mountain Line)

Challenges:

Transit Center moved from downtown Morgantown to Westover

All routes changing!

Costing on the fly





GOAL

Planner







Thank you!



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