**Use case list for DTALite's new release.**

**F - Fundamental Use Cases:**

1. UE as Fundamental: Calculate link, route, OD, and system performance using default demand for a given network.

2. 2-corridor User Equilibrium: Determine route, link, and OD with a demand volume of 7000.

3. Braess Paradox: Perform network design with multiple scenarios. Outputs include link performance summary, OD summary, and system summary.

4. Standard Sioux Falls: Use node and zone id inputs with reference volume for 24 zones. Evaluate link performance against a benchmark.

5. Chicago Sketch: With nodes and zone ids for 300+ zones, assess link performance and provide visualization using QGIS.

**O - OD Demand Use Cases:**

6. ODME (Origin Destination Matrix Estimation): Use two corridors to estimate OD. Outputs include link performance, with ODME results before and after, as well as their difference.

7. ODME with Sioux Falls: Estimate OD using standard benchmarks, loaded with 90% demand.

8. OD Demand from Route: Estimate OD using two corridors with route input.

9. OD Demand from Activity Chain: Estimate OD using two corridors with activity patterns.

**C - Multimodal Use Cases Beyond Cars**

10. Multimodal, Multiscenario 2-corridor: Consider bike demand. Mode type, link, and meu inputs are required.

11. Multimodal, Multiscenario Braess Paradox: Evaluate system performance with green options, considering bike, walk demand, HOV, and truck demand.

12. Osm2gmns, Multimodal ASU Network: Generate OD demand from Grid2Demand for nodes and zone IDs.

13. Osm2gmns, Gilbert Network: Implement turn restriction, EE, EI, external demand, bike demand generation.

**U - Dynamic Management and User Equilibrium Use Cases:**

14. Dynamic Traffic Management: Implement real-time information and dynamic lane closure for a 3 corridor dynamic traffic management.

15. I10 Corridor, QVDF, Analytical DTA: Evaluate system performance with emissions for link type with emissions configuration.

16. Chicago Sketch: Consider toll for the network.

17. Dynamic Traffic Management with Emission: Implement dynamic traffic management considering emission for a 3-corridor network.

**S - Subarea-Based Focusing Approach:**

18. Subarea from 2 Corridor: Consider district id for a subarea from 2 corridors.

19. Subarea from SF: Perform subareas ODME.

20. Subarea from Chicago: Conduct a focusing OD volume test.

21. Subarea from 101 Corridor: Determine the focusing path flow along the corridor.

22. Subarea from PHX and Atlanta Networks: Run tests on PHX and Atlanta networks.

**I - Transit Network Use Cases:**

23. DC Transit Network: Assess transit OD demand and accessibility using link type.

24. 14\_GTFS\_Amtrak: Focus on the rail network.

**N - MRM Network Use Cases:**

25. Multi-Resolution Network from Osm2gmns: Handle multi-resolution networks.

26. Multi-Resolution Network from UtDF2gmns Mapping: Use UtDF2gmns mapping for multi-resolution networks.

**S - Simulation Use Cases:**

27. Macro Simulation: Conduct simulation for a 3-corridor network.

28. Micro Simulation: Run simulation with signal control for corridor 101.

29. Meso Simulation: Perform real-time control simulation using CAMLite.

B - Beyond the Standard Use Cases:

30. TNP and GMNS Networks: Test networks that go beyond the standard.