# Completing the automotive connectivity fabric









## Data volume in and out of the vehicle in 2025







#### Phase 1

- Satellite backhaul directly interfaced with vehicle infotainment network
- Provides failover connection when LTE is not available



#### Phase 2

- LTE and 5G from vehicle chipset
- LTE, 5G, and Satellite backhaul is controlled via cognitive router
- Router selects best cost routing option given the environment
- Infotainment and C&V networks take advantage of hybrid backhaul
- Layer-2+ security isolates C&V network from infotainment network



#### Phase 3

- 5G over Terrestrial or SATCOM
- Routing becomes fully software defined and is integrated in Kymeta terminal
- Kymeta terminal contains 5G and LTE chipset
- Vehicle Backhaul System becomes satellite-enabled relay UE
- C&V network takes advantage of 5G uMTC, V2X, mMTC
- Infotainment network relays 5G or provides connectivity on BT or Wi-Fi



### Phase 1 (Fall 2017):

Switch between Terrestrial and Geosynchronous Satellite with JSAT in Japan





## Seamless switching between satellite and cellular







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## Phase 2: LTE, satellite integration for public safety





## Phase 2: LTE, satellite integration for platform APIs







## Rapidly deployable and always connected







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