

Transit Strategies

Family of Services



A family of services approach can help ensure that the most appropriate services are provided to different markets.

Transit can be like a puzzle, in which the key to developing a great transit system is determining which types of services will work best in a multitude of different markets. At one end of the market spectrum, commuter rail is effective at carrying large volumes of passengers over long distances, and rapid transit and light rail are effective at carrying even larger volumes over shorter distances. At the other end, local circulators and flex bus services provide important first and last mile connections to far lower volumes of passengers. In between is an array of service types that meet the needs of the markets in between.



Many transit systems have a de-facto family of services, while others provide similar services to all markets. A more formal family of services approach can help a transit agency provide the most effective service to each of the different markets that it serves.

Family of Services Benefits

The major benefits of a family of services approach are that the approach provides a structure around which service can be designed as well as the ability to better tailor services to the needs of different markets and communicate them to the public. Overall, the benefits of a family of services approach are to:

- **Ensure that services are best matched to markets**
- **Make services easier for passengers to understand**
- **Make service types and benefits easier to market**

Most large cities have rail services that form the backbone of their systems, and, to a large extent, other services are designed around the rail lines. In cities without a rail backbone, high quality bus services—for example, bus rapid transit (BRT), Rapid Bus, and “key corridor routes”—can be used to create a similar backbone. Then other services, such as local bus routes and lifeline services, can extend, provide connections with, and fill in gaps in the backbone network.

Family of Services Characteristics

A formal family of services categorizes transit types based on their frequency, speed, and capacity. This approach allows transit service to be tailored to the areas that they serve. All families of services include a high frequency “backbone” or Rapid Service Network composed of premium services. Other services fill gaps and provide connections to the backbone network and extend service coverage to lower demand areas. Common “members” of a transit family of services are described in the graphic below:



Large City Family of Services and Associated Transit Types

<p>RAPID SERVICE NETWORK</p>	<p>Fast and frequent rail, BRT, and Rapid Bus service around which the rest of the system is built</p>	<p>Rapid Transit LRT BRT Rapid Bus</p>
<p>KEY CORRIDOR NETWORK</p>	<p>Frequent high quality bus service in high ridership corridors that are not served by the Rapid Service Network</p>	<p>Radial Crosstown</p>
<p>LOCAL SERVICE NETWORK</p>	<p>A variety of local services in areas between and beyond the Rapid Service and Key Corridor networks</p>	<p>Radial Crosstown Feeder</p>
<p>COMMUTER SERVICES</p>	<p>Peak period services designed primarily to serve work trips</p>	<p>Commuter Rail Express Bus Job Access</p>
<p>LIFELINE SERVICES</p>	<p>Low frequency and flexible routes in areas where there are demonstrably high levels of special need</p>	<p>Shuttles Flex Paratransit</p>

Family of Services Examples

A significant number of transit systems have begun to develop formal families of service, either for their entire range of services or simply within their bus services. Three examples of systems that have developed a formal family of services for their entire systems are presented below.

Capital Metro, Austin, TX

Capital Metro launched a redesigned transit network—the “Cap Remap”—in June 2018, characterized by a new and expanded network based on a core high frequency service of MetroRapid Bus and frequent local bus routes. The family of services is comprised of five different types of service:

- **High Frequency Network:** 2 MetroRapid and 12 frequent Metrobus Local services connects Central Austin to dense central neighborhoods

Capital Metro’s (Austin, TX) Family of Services

<p>MetroBus</p> <p>Routes 1-499 and 600-699: Frequent-stop service with routes all over town and service to the University of Texas</p> <p>Get a route</p> <p>SINGLE RIDE \$1.25 DAY PASS \$2.50</p>	<p>MetroRapid</p> <p>Routes 801 and 803 - High-frequency service with a limited number of stops, 15-minute until your next bus, 7 days a week</p> <p>801 803</p> <p>SINGLE RIDE \$1.25 DAY PASS \$2.50</p>	<p>MetroRail</p> <p>Route 550 - Commuter rail service to and from downtown, designed to bring outlying residents into Central Austin</p> <p>Catch the Rail</p> <p>SINGLE RIDE \$3.50 DAY PASS \$7.00</p>	<p>MetroExpress</p> <p>Routes 900-999: Commuter bus service to and from downtown, designed to bring outlying residents into Central Austin</p> <p>935 980 981 982 985 987 990</p> <p>SINGLE RIDE \$3.50 DAY PASS \$7.00</p>
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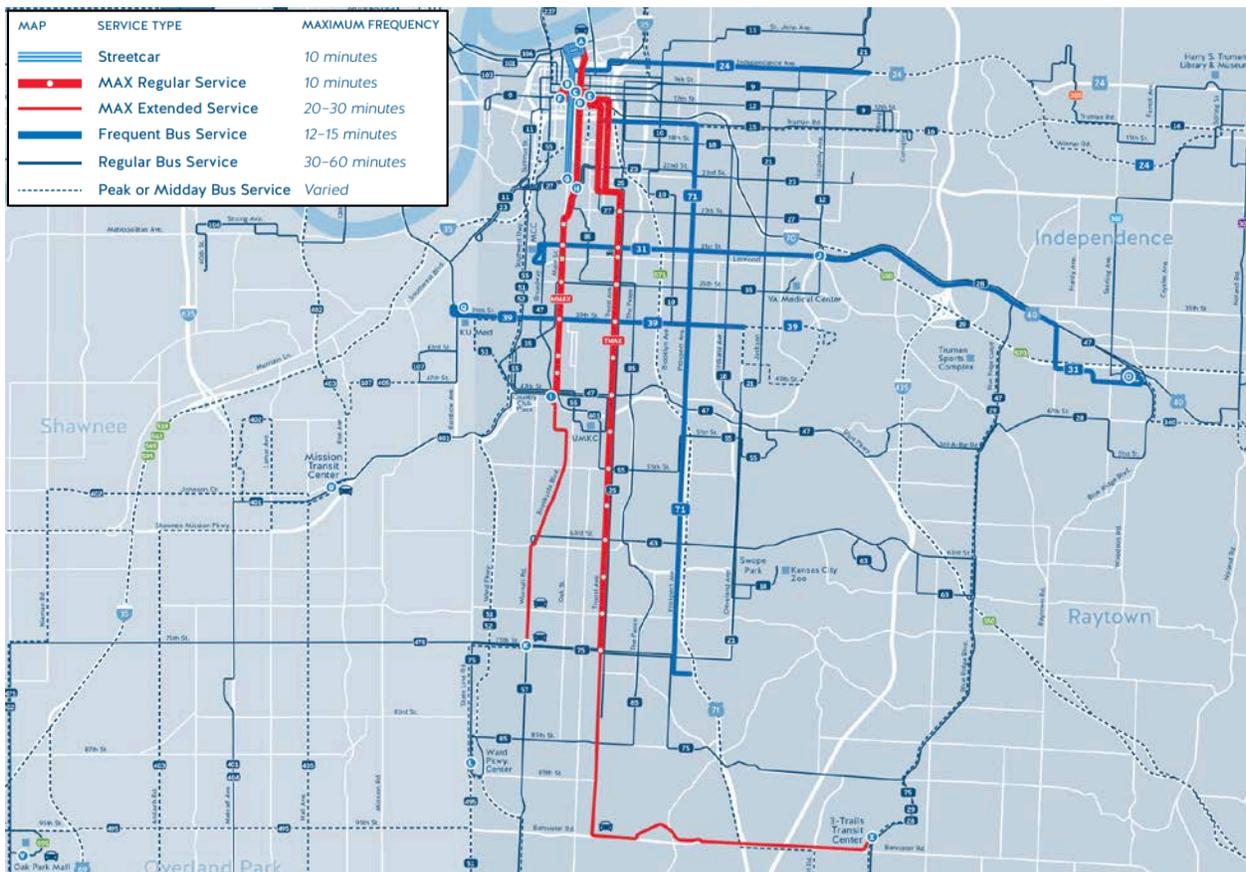
- **MetroBus:** Frequent stop service with routes all over town and service to the University of Texas, operating less frequently
- **MetroExpress:** Commuter bus service to and from downtown, designed to bring outlying residents into Central Austin
- **MetroRail:** Commuter rail service to and from downtown, designed to bring outlying residents into Central Austin
- **Shuttles:** Shuttle service linking University of Texas main campus to outlying residential areas and shuttle service linking MetroRail stations to nearby activity centers

RideKC, Kansas City, MO

As part of the implementation of service changes following RideKC's Comprehensive Service Analysis, the implementation of streetcar service, and a system rebranding, RideKC classifies its services in six ways:

- **Streetcar**, which at present consists of a single line that operates between the River District north of downtown through downtown to Crown Center.
- **MAX**, which is its brand for Rapid Bus service (although it is marketed as BRT)
- **MAX Extended Service**, which consists of extensions of MAX service that operate beyond the ends of MAX corridors but as local bus service (without Rapid Bus stations or transit priority)
- **Frequent Bus Service**, which consists of local routes that operate every 12 to 15 minutes
- **Regular Bus Service**, which consists of local bus routes that operate every 30 to 60 minutes
- **Commuter Network**, which consists of express routes and peak-only local routes
- **Peak and Midday Bus Service**, which are a combination of peak period commuter express routes and midday lifeline routes

Family of Service Route Types Displayed on RideKC's System Map

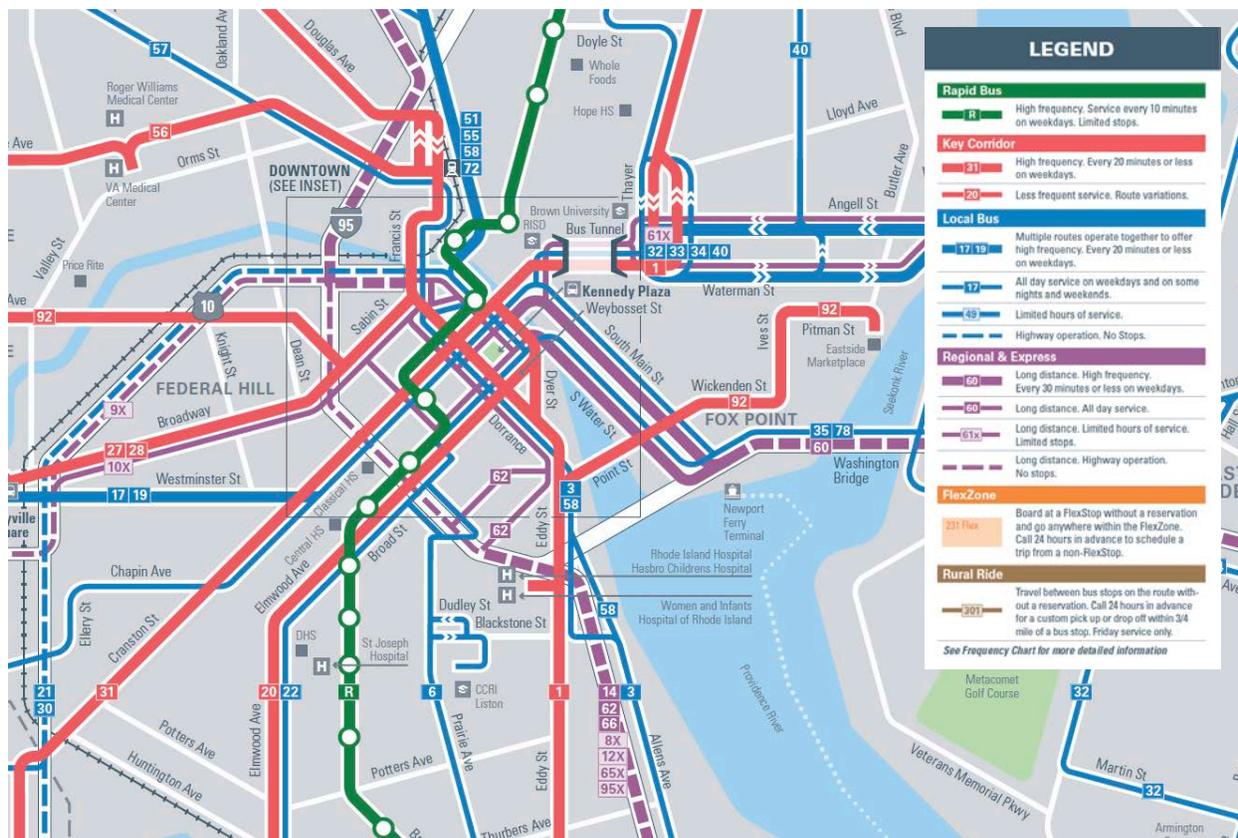


RIPTA, Providence, RI

RIPTA, which serves the entire state of Rhode Island, is a bus-only system that recently redesigned its services according to eight service types:

- **Rapid Bus:** R-Line Rapid Bus service
- **Key Corridor:** High ridership arterial routes
- **Local Bus:** Local bus services
- **Non-Urban/Crosstown:** Other local bus routes
- **Regional:** Major routes between regional centers
- **Express/Commuter:** Express routes and local routes that only operate during commute times
- **FlexZone:** Anchored flex routes that provide connections to fixed-route services
- **Rural Ride:** Services to rural areas

Family of Service Route Types Displayed on RIPTA's System Map



Potential Fort Worth Family of Service

At present, Trinity Metro advertises five different service types: Rail, 10-15 minute local bus service, 30 minute local bus service, 60 minute local bus service, and Xpress bus services. Frequency is the differentiator among the local bus services, and all local bus service in Fort Worth has frequent stops.

A more robust family of services could assist the transit agency with better matching service to demand, as well as better advertise to riders what kind of service to expect. As described above, there are many ways to implement and classify a family of services. With service improvements and new types of service, one potential approach would be:



- **Frequent Transit Network:** Service that operates every 15 minutes or better for long hours. These routes could include premium services such as BRT and Rapid Bus, as well as frequent “regular” bus services.
- **Regional Rail:** Existing TRE and TEXRail service, plus future extension and potential new lines
- **Local Bus Service:** Local routes that operate less frequently than every 15 minutes
- **Feeder Service:** First- and last-mile shuttles and van service to connect activity centers to the Frequent Transit Network and Rail Network. This network could comprise TMA vans, seasonal shuttles, downtown circulators, and circulator-like routes like Route 30 and Route 111. First- and last-mile transportation solutions like bikeshare and scootershare can be considered as feeder services that connect into the frequent transit network and rail network, however these transportation options are difficult to show on a transit map.
- **Commuter Service:** Xpress and Limited stop service.
- **Lifeline Services:** Shuttles (like Route 18X Safari Xpress), TNC partnership zones and Paratransit.