More Mobility, Stronger Connections:

Data Sharing for Better Transportation

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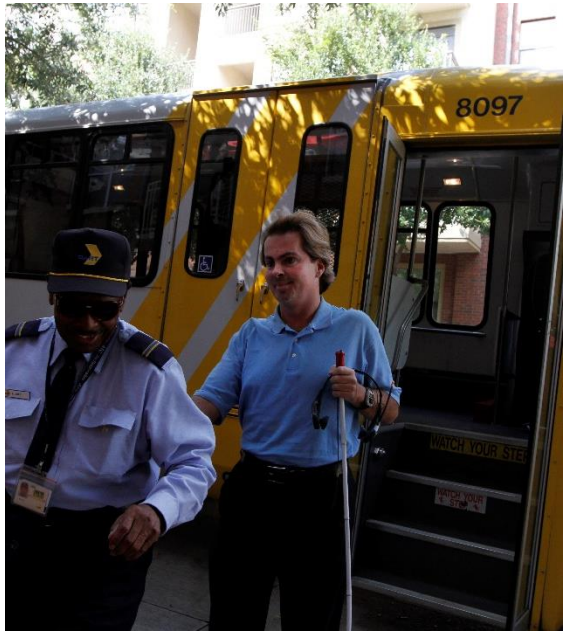


Mobility Management:

Helping communities and individuals create and manage their mobility options

Universal Mobility
as a service

- A single, integrated network of traditional and non-traditional services that together serve EVERYONE
- Universal Design

- One stop shopping
  - Easy Discovery
  - Easy Booking
  - Easy Mode Transfers
  - Easy Payment

A Typical Human Services Coordination Process

- Healthcare referral to transportation coordinator via emailed form (patient name, address, phone number, appt date/time, destination facility)
- Transportation coordinator determines whether in service area
- Transportation coordinator calls patient to confirm appt date/time and gather info about patient and transportation need
- T. coordinator enters contact info, referral info, appt. date & time => trip sheet
- Transportation coordinator emails or faxes to transportation provider

The TDS Opens a New World of Possibility

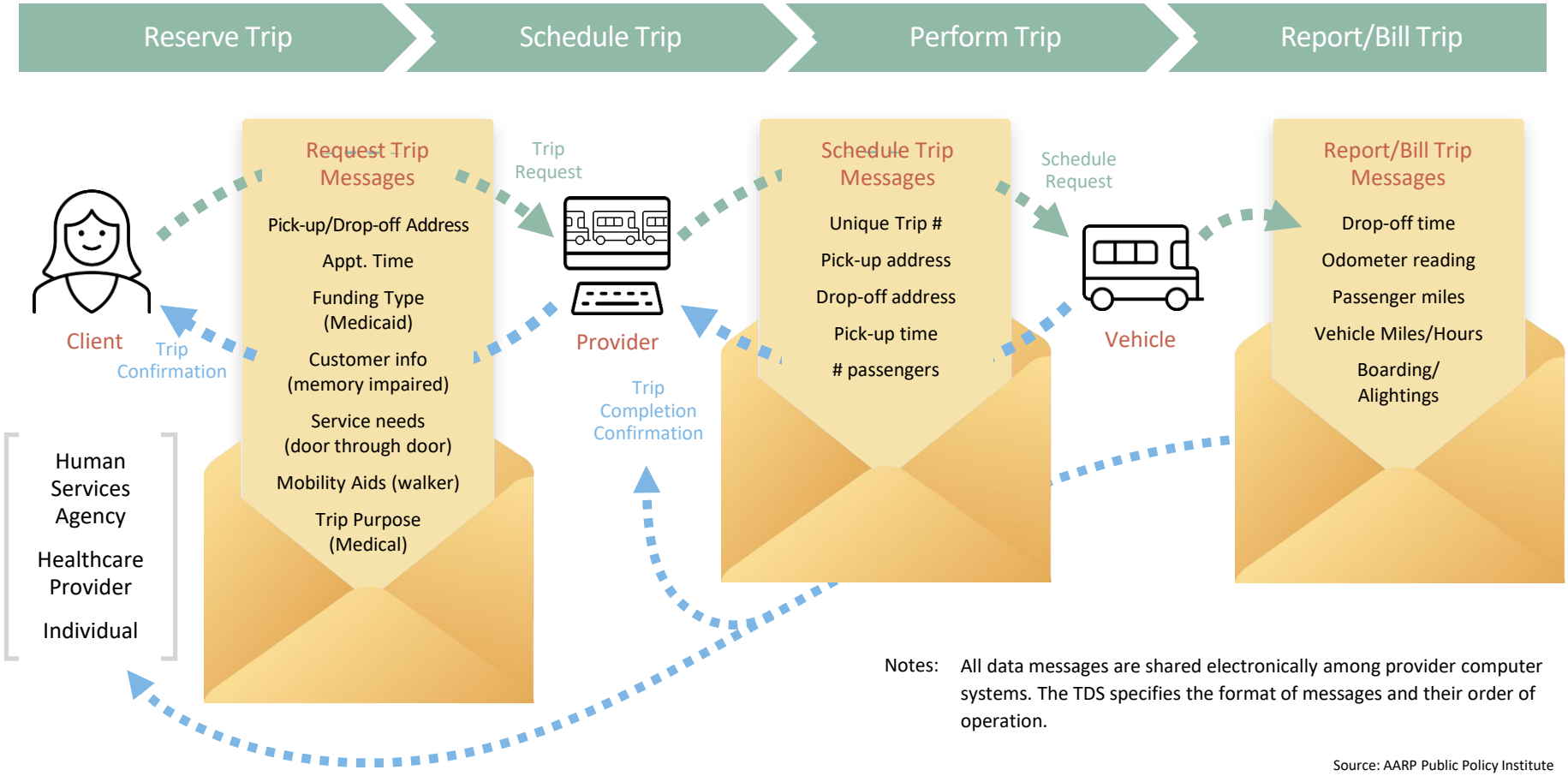
- Where there is a capacity constraint of one provider, another provider can step in and offer a seat.
- Less staff time dedicated to manually coordinating and scheduling trips among different providers
- Fewer empty seats and lower cost per passenger
- Accurate billing-related data for trips
- Financial savings arising from greater efficiency and productivity
- Better service for the customer, such as same day rides and more reliable and punctual transportation

Photo credit: Via Mobility Services

Transactional Data Spec for DRT

A common data format that allows trip data to be shared electronically

DRT Trip Cycle Supported by TDS



Notes: All data messages are shared electronically among provider computer systems. The TDS specifies the format of messages and their order of operation.

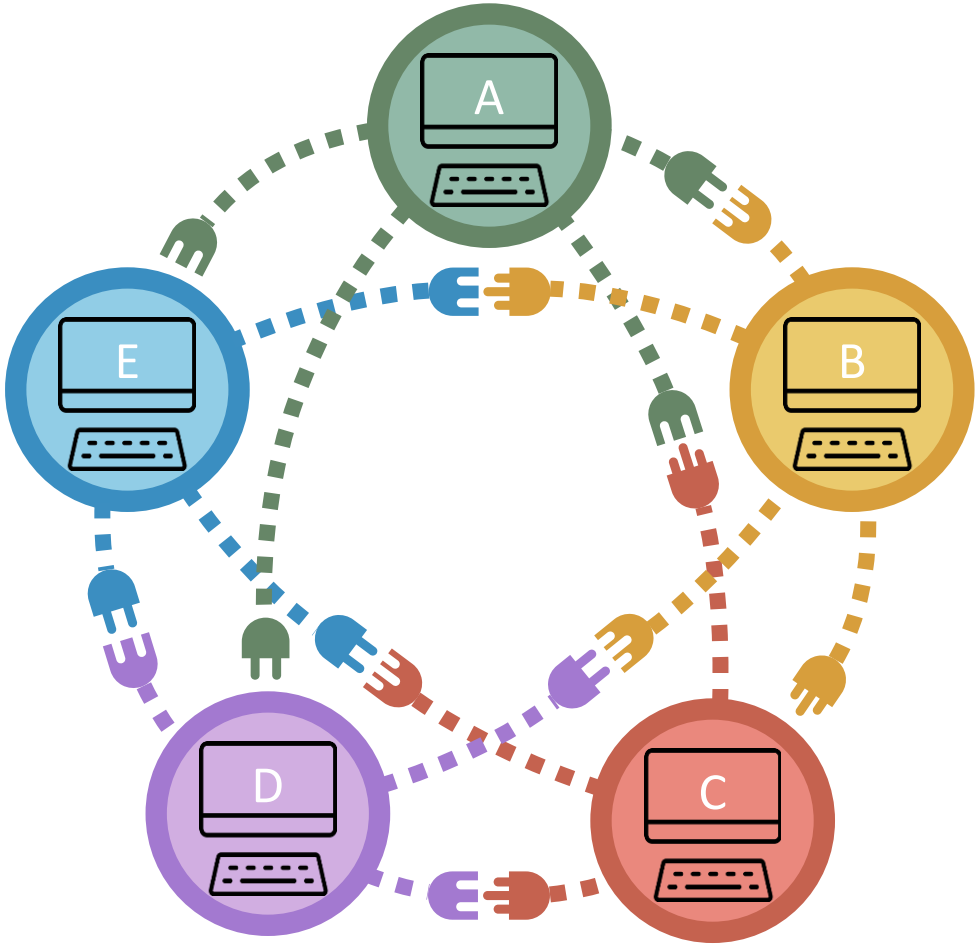
Source: AARP Public Policy Institute

Interoperability Using Proprietary APIs: The Expensive Approach

With proprietary APIs, each provider needs to program its software to be compatible with four different message formats and maintain its own API.

Whenever a software update is made, every provider needs to update its software to accommodate it.

Each plug in the network costs thousands of dollars to develop and maintain, making interoperability with proprietary APIs an expensive proposition.



KEY

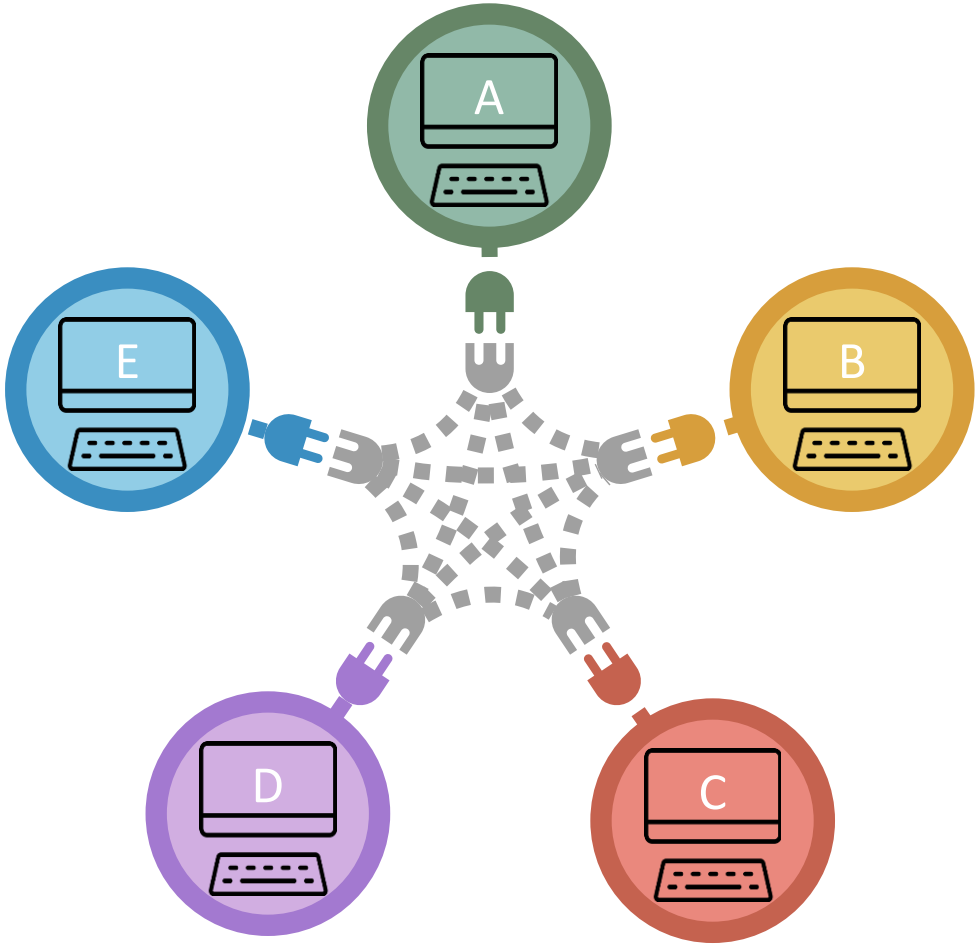
Provider software — Provider software

Source: AARP Public Policy Institute

Interoperability Using the TDS: The Cost-effective Approach

With the TDS, an open API, providers need only program their software to exchange data using one set of message formats.

If software updates are made compatible with the TDS, interoperability with all providers is maintained. Those other providers need not take any action.



KEY

Provider software — Open API

Source: AARP Public Policy Institute

FlexDanmark

- “On-demand" transportation for all citizens
- 95% on-time performance defined as 15 min window
- 5.7 million annual trips
  - 15,000 trips/day on average
  - Peak day at +24,000 trips
  - 250,000+ returning customers every year
- Portal used by hospitals, medical offices, and human service agencies to connect clients to transportation
- High level of institutional coordination
  - 5 public transit authorities
  - 1 Nationwide system
  - 550+ providers (all private sector)
- Cost allocation built into the software
- Automated interface and common data specification

Take Action

- Require your software and technology vendors to include the TDS in their applications
- Implement pilots, document lessons learned, and share these experiences
- Educate foundations and funding agencies about the TDS and include funding for it in grant applications
- Champion the benefits of the TDS to professional peers, decisionmakers, and elected officials

www.aarp.org/FutureofTransportation

Explore how emerging technologies are transforming our transportation system and the potential impact this could have on our communities and personal mobility

FlexDanmark Delivers Efficient, High Quality Transportation to Its Citizens

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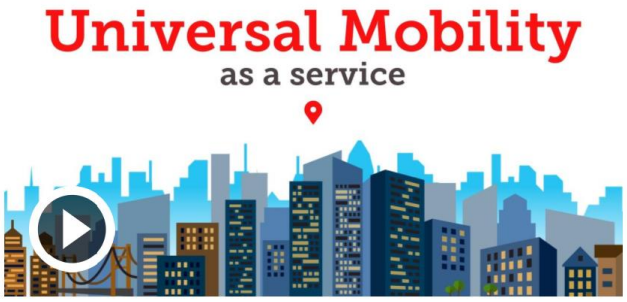
LEARN MORE

FlexDanmark: A Primer



Additional Resources

- AARP/NADTC publication: *More Mobility, Stronger Connections: It's Time to Modernize Demand-Responsive Transportation Using the Transactional Data Specification*
- AARP publication: *Modernizing Demand-Responsive Transportation for the Age of New Mobility*
- AARP: RideSheet: Rural Transportation Benefits from New Coordination Technology
- TCRP Research Report 210: Development of Transactional Data Specification for Demand Responsive Transportation
- AARP Future of Transportation www.aarp.org/futureoftransportation

Questions?

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