Massachusetts Bay Transportation Authority

Innovation Proposals – Late Night

FMCB

October 2016
BRIDJ Late-Night Service Proposal: On-Demand service model

- BRIDJ optimizes pickups and drop-offs based on customer demand
- When users submit requests, they are matched to a computer generated pickup point, where they’ll meet up with 8-10 other passengers going to a similar destination (stops guaranteed less than 8 min. from end destination)
- Flexible pickup and drop-off points result in a **40-60% more efficient trip (on average)** than traditional transit, at a $2 to $6 price point
**BRIDJ Late-Night Service Proposal: Accessibility approach (Kansas City)**

- **BRIDJ** is the first and only transportation technology service to be **fully accessible for non-ambulatory passengers in all markets that they serve**

- Accommodates passengers with special needs (e.g., service dogs, travel companions) and fully accessible for passengers with mobility devices

**Kansas City Area Transit Authority (KCATA):**

- BRIDJ’s **RideKC** service deploys a mix of vehicles, including wheelchair accessible vehicles, that provide accessibility options for passengers who need them

- Drivers meet same regulatory standards as most traditional bus drivers – CTAA Passenger Service and Safety online training program, proprietary safe driver training, etc.
**BRIDJ Late-Night Service Proposal:** Business model for proposed pilot

<table>
<thead>
<tr>
<th>Estimated Cost</th>
<th>Overview</th>
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<tbody>
<tr>
<td><strong>Estimated Annual Cost of Proposal:</strong></td>
<td>• BRIDJ has expressed interest in <strong>public utility</strong> model</td>
</tr>
<tr>
<td>Cost per Hour:</td>
<td>&gt; MBTA sets fares for service</td>
</tr>
<tr>
<td>$85</td>
<td>&gt; Customers register with BRIDJ app</td>
</tr>
<tr>
<td>Hours per Night:</td>
<td>&gt; MBTA pays BRIDJ on a per vehicle hour basis ($85/hr.)</td>
</tr>
<tr>
<td>5</td>
<td>&gt; BRIDJ passes through fare revenue to MBTA, less credit card processing fees</td>
</tr>
<tr>
<td>Days per Year:</td>
<td>• BRIDJ expects to reduce cost per trip by 40% compared to traditional models and to decrease average trip times by ~55% (when compared with traditional “night owl” service)</td>
</tr>
<tr>
<td>365</td>
<td>• BRIDJ anticipates 3-year contract length</td>
</tr>
<tr>
<td># of Buses:</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
</tr>
<tr>
<td><strong>Estimated Annual Cost:</strong></td>
<td><strong>TBD</strong></td>
</tr>
<tr>
<td><strong>Fare Recovery:</strong></td>
<td><strong>TBD</strong></td>
</tr>
<tr>
<td><strong>Total Net Subsidy:</strong></td>
<td><strong>TBD</strong></td>
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</table>
BRIDJ proposal is comparable to current contract bus costs and 35% below MBTA internal costs

Note: MBTA internal cost per hour reflects pure cost only, and includes the cost of Everett heavy repair facility ($19M per year) and excludes the cost of non-revenue shops ($6M per year); cost per hour for private bus carrier includes vendor profit margin and depreciation

Source: MBTA Internal Data; Transit Profiles: Top 50 Agencies; National Transit Database; U.S. DOT; Office of Budget and Policy, Oct. 2014

BRIDJ: “Leveraging our technology, we’re able to provide transit service at a cost per revenue hour that’s 70-80% less than a traditional fixed route bus, while cutting transit times for users in half”
MBTA bus operations cost (internally provisioned) in FY16 was $132 per revenue hour and does not include vehicle depreciation

**FY16 Actual MBTA Bus Costs:**
- Operations: $200M
- Maintenance, incl. Fuel and Everett: $125M
- Total: $325M
- Revenue Hours: 2.45M

Note: MBTA internal cost per hour reflects pure cost only, and includes the cost of Everett heavy repair facility ($19M per year) and excludes the cost of non-revenue shops ($6M per year).

Source: MBTA Internal Data
Current MBTA contract bus services, which also employ union drivers, are 35% less expensive the internally-provisioned bus service.

Total Cost per Revenue Hour

<table>
<thead>
<tr>
<th>Operator Affiliation</th>
<th>Current MBTA Private Carrier Cost for Contracted Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carmen’s Union L589</td>
<td>$132/hr (Not including vehicle depreciation)</td>
</tr>
<tr>
<td>Teamsters Local 25</td>
<td>$83/hr (Including vehicle depreciation)</td>
</tr>
</tbody>
</table>

Note: MBTA internal cost per hour reflects pure cost only, and includes the cost of Everett heavy repair facility ($19M per year) and excludes the cost of non-revenue shops ($6M per year); cost per hour for private bus carrier includes vendor profit margin and vehicle costs. Source: MBTA Internal Data; Transit Profiles: Top 50 Agencies; National Transit Database; U.S. DOT; Office of Budget and Policy, Oct. 2014.
BRIDJ Late-Night Service Proposal: Key Considerations

Are people using it?

- Ridership
- Rider demographics

Is it financially sustainable?

- Fare strategy (new, premium service – charge current fare through credit card – no interoperability with current Charlie Cards/tickets)
- Subsidy partnerships (cities, MRA, labor unions, etc.)
- Cost per passenger and net subsidy per trip

Pilot Program

- 12 month pilot with 6 month check-in
- Possibility of pilot extension in partnership with FTA

Other considerations

- Parallel paratransit
Next Steps

1. Discuss with FMCB

2. Decide whether to request a Detailed Proposal

3. Engage with Stakeholders, Potential Customers and Municipal Partners
## Vehicle Hours Summary – MBTA Bus Maintenance and Operations

### FY16 MBTA System-Wide Bus Statistics

<table>
<thead>
<tr>
<th>Vehicle Hours Statistic</th>
<th>Definition</th>
<th>Total Hours</th>
<th>Cost / Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Vehicle Hours*</td>
<td>Includes revenue hours, plus deadhead and pull-in / pull-out hours</td>
<td>2.70M</td>
<td>$121</td>
</tr>
<tr>
<td>Total Vehicle Revenue Hours</td>
<td>All hours that a bus is in revenue service (excludes deadhead and pull-in / pull-out hours but includes layovers and recovery time built into routes)</td>
<td>2.45M</td>
<td>$132</td>
</tr>
<tr>
<td>Total Vehicle In-Service Hours</td>
<td>Hours that a bus is travelling in service (excludes layovers and recovery time)</td>
<td>1.92M</td>
<td>$169</td>
</tr>
</tbody>
</table>

*Does not include time spent training operators or performing other functions not related to direct operation of service

Note: MBTA internal cost per hour reflects pure cost only, and includes the cost of Everett heavy repair facility ($19M per year) and excludes the cost of non-revenue shops ($6M per year)

Source: MBTA Internal Data

### Explanation of Terms

**FY16 Actual MBTA Bus Costs:**

- Operations: $200M
- Maintenance, incl. Fuel + Everett: $125M
- Total Cost: $325M
- Revenue Hours: 2.45M
- Cost per Revenue Hour: $132