Preparing Toll Organizations for the Future

Legacy and Challenges of Toll Collection in the United States

- Earliest intercity canals and roads were tolled facilities - 18th and 19th centuries
- Cash-based toll collection has survived more than two centuries -- despite advent of alternatives
- Cash-based toll collection remains the most expensive and user-unfriendly way to fund highway infrastructure

Legacy and Challenges of Toll Collection in the United States - continued

- Technology offers the best way to eliminate the drawbacks of cash-based toll collection
- But technology is costly and requires change
- Machine-based toll collection augmented manual toll collection in 1960s
- Electronic toll collection augmented machine-based toll collection in 1980s
- How long will electronic toll collection (ETC) last before it is replaced with better technologies?

Legacy and Challenges of Toll Collection in the United States - continued

- Open road tolling began to replace other forms of toll collection in 1990s
  - Will open road tolling accelerate or bypass ETC?
  - What form will ORT ultimately take?
- Increasing speed of obsolescence and interoperability issues challenge the economics of ETC deployment and upgrading
- What happens when toll agencies lose their primary defining characteristic -- the toll booth?

Evolution of Tolling Technology

<table>
<thead>
<tr>
<th>Tolling Approach</th>
<th>Characteristics</th>
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<tbody>
<tr>
<td>River Chains</td>
<td>Effective but not automatic</td>
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<tr>
<td>Turn Pikes</td>
<td>Easier to deploy</td>
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<tr>
<td>Toll Gates</td>
<td>Variation on a theme</td>
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<td>Toll Treadles</td>
<td>Automation era begins</td>
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<tr>
<td>Coin Machines</td>
<td>Automatic toll collection</td>
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<td>Electronic Toll Booth</td>
<td>Limited speed lanes</td>
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<td>Electronic Toll Lane</td>
<td>Express lanes</td>
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<td>Open Road Tolling</td>
<td>Barrier free lanes</td>
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Legacy and Challenges of US Toll Agencies

- Early toll agencies were quasi-public entities, established by governments run more like business enterprises.
- In the 20th Century, state and federal governments adopted fuel taxes as an efficient means of paying for roads and bridges.
- Toll agencies served narrow purposes and were largely left alone by their public counterparts.
- Immediate post World War II era saw rebirth of toll roads in many states in the Northeast.
Legacy and Challenges of US Toll Agencies - continued

- Interstate system and dedicated
  Transportation Trust Fund propelled federal
  involvement in highway development across US
- In the 1980s and early 1990s, there was a strong
  push to:
  - Eliminate tolling from highways in the US
  - Eliminate independent toll agencies or consolidate
    them into state transportation agencies
- International response was opposite as
  privatized toll-based concession arrangements
  replaced public ownership/operation of highways

Legacy and Challenges of US Toll Agencies - continued

- Shocks created by energy crises and
  public tax revolts undermined viability of
  federal Transportation Trust Fund
- National debate over ways to finance highway
  infrastructure resurrected toll-based financing
  approaches
- State transportation agencies have begun to
  develop their own tolling "subsidiaries"
- Debate continues - how will the toll industry
  respond?
- Key question - which model will emerge and
  which is the takeover target? (hint - follow the money)

Contrasting State DOTs and Toll Agencies

<table>
<thead>
<tr>
<th>State DOTs</th>
<th>Toll Agencies</th>
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<tr>
<td>- Pay-as-you-go funding through fuel excise taxes</td>
<td>- Front-end financing through tax-exempt revenue bonds</td>
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<td>- Short-term orientation</td>
<td>- Long-term orientation</td>
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<tr>
<td>- Focus on local general contractors</td>
<td>- Focus on customers and bondholders</td>
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<tr>
<td>- Project-based accountability</td>
<td>- Service-oriented accountability</td>
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<tr>
<td>- Risk adverse</td>
<td>- Managed risks</td>
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<tr>
<td>- Process driven</td>
<td>- Product outcome driven</td>
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<tr>
<td>- Sink costs</td>
<td>- Investments</td>
</tr>
<tr>
<td>- Standardization</td>
<td>- Innovation</td>
</tr>
<tr>
<td>- Restrictive management style</td>
<td>- Performance-based management style</td>
</tr>
<tr>
<td>- Managerial style</td>
<td>- Empowered staff</td>
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Key Threats to State DOTs –
or who moved my cheese?

- Unwillingness of political leadership to continue to
  support excise taxes for transportation capital
  investment
- Development of alternative fuels
  and more fuel-efficient vehicles
- Competition for general fund revenues and
  diversion/erosion of trust fund revenues to other
  uses/political agendas (ethanol exemption)
- Deferred maintenance of transportation facilities –
  day of reckoning approaches

Key Threats to Toll Agencies –
or who wants my cheese?

- Political opposition to needed toll increases
- Efforts to eliminate tolls or sell off "mature" facilities
- Take over efforts by state DOTs
- Opposition to waiting in line to pay tolls
- Temptation for fiscal and program
  mismanagement by agency leaders or
  political boards – decays public trust
- Political diversions of toll agency funds to
  other purposes - cookie jar syndrome
- Lack of interoperability of toll systems
- Isolationism

Key Opportunities Facing Highway Transportation Agencies

- Public love affair with the automobile - continues
- Public demand for system capacity - increases
- Public willingness to support local transportation
  programs that promote mobility, accessibility,
  safety, and economic development - apparent
- Development of alternative approaches to
  develop, finance, and preserve transportation
  infrastructure - continues
- Increased visibility and accountability
  of transportation infrastructure through
  public financial reporting – GASB 34
10 Key Advantages of Toll Agencies
(why I believe toll agencies will emerge stronger)

1. Dedicated funding sources – tolls, concessions, other
2. Focus on paying user – customer service orientation
3. Long term focus – based on duration of bonds and assets
4. Commitment to life-cycle asset management – based on priorities of bond covenants
5. Front-end revenue bond financing to build facilities faster – gain economic benefits earlier

10 Key Advantages of Toll Agencies
(why I believe toll agencies will emerge stronger - continued)

6. Fiscal discipline of bond covenants – keep the sharks away (but beware of the internal sharks and ‘in-laws’) 
7. Ability to leverage financial resources once first generation facilities become stable – cash cows
8. Easier to apply business best practices – efficiency counts
9. Greater internal flexibility and resiliency to change
10. Political priorities balanced by fiscal/service principles

Likely Trends and How to Capitalize on Them

- Decaying financial viability of fuel-based excise taxes – keeps interest in the toll concept
- Greater emphasis on alternative finance methods – to replace or augment excise tax revenues
- Increased cooperation among private and public entities – through public-private and public-public agreements (innovative contracting)
- Greater flexibility for state/local governments to decide how to fund/manage highway facilities

Cross Section of Highway Funding Mechanisms

| Ease of Payment Mechanism | Equity of Financial Responsibility |

Likely Trends and How to Capitalize on Them - continued

- Greater private sector interest in participating in highway infrastructure financing – particularly from non-US sources
- Evolution of open road tolling/charging for road use (ETC, photo-recognition, GPS tracking systems)
- Multimodal considerations (auto-truck-transit)
- Advent of asset stewardship linked to new financial reporting requirements of GASB 34

Relate Economic Benefits to Funding Responsibility

Create an economic nexus between user/stakeholder benefits and cost of facility
The Enemy Within – Complacency
- Toll agencies largely fell asleep in the 1960/70s
  - Pay off bonds, stay out of the public eye, and remain isolated
  - Facilities became deteriorated – despite bi-annual engineering inspections
  - Toll agencies increasingly became the target of public complaints, claims of political chicanery, fiscal and fiduciary abuses, and takeover threats
- Wake up call came in 1980s and 1990s when bonds were approaching retirement and efforts arose to eliminate tolls or sell off the assets

The Wake Up Call
- Early 1990s – toll agencies faced greatest threats to their continued existence as FHWA sought to eliminate tolls by offering federal Transportation Trust Funds to rehabilitate aging toll facilities
- Toll agencies were saved by their inherent strengths:
  - Dedicated funding (golden goose)
  - Refocus on customer/service
  - Refocus on infrastructure
  - Commitment to the long-term
- Where does the toll industry go from here?

Facing Future – Creating Future
- Toll agencies will become multimodal in nature
  - Facilities - Operations - Services
  - State DOTs will begin to look more like toll agencies of today as they seek other funding sources and learn the lessons of accountability
- Strong political pressure will be exerted on toll agencies to act like state DOTs, in terms of:
  - Project selection and packaging
  - Project programming and management
  - Contract allocation among traditional industry stakeholders

Facing Future – Creating Future
- Funding sources will become more diversified, as investors recognize the value of investments in US-based highway infrastructure
- New alignment will increasingly tap the economic benefits of adjacent property owners as part of the funding package
- Toll agencies will have many public and private partners to leverage their capabilities/resources
- Vehicle-distance, GPS-based tolling will emerge as predominant form of toll collection:
  - First overseas and then in the US
  - For all portions of National Highway System

Key Words to Remember
- Customer service focusing
- Innovative financing
- Partnering
- Managing assets
- Managing change
- Resiliency
- Flexibility
- Forward thinking

Presenter
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