

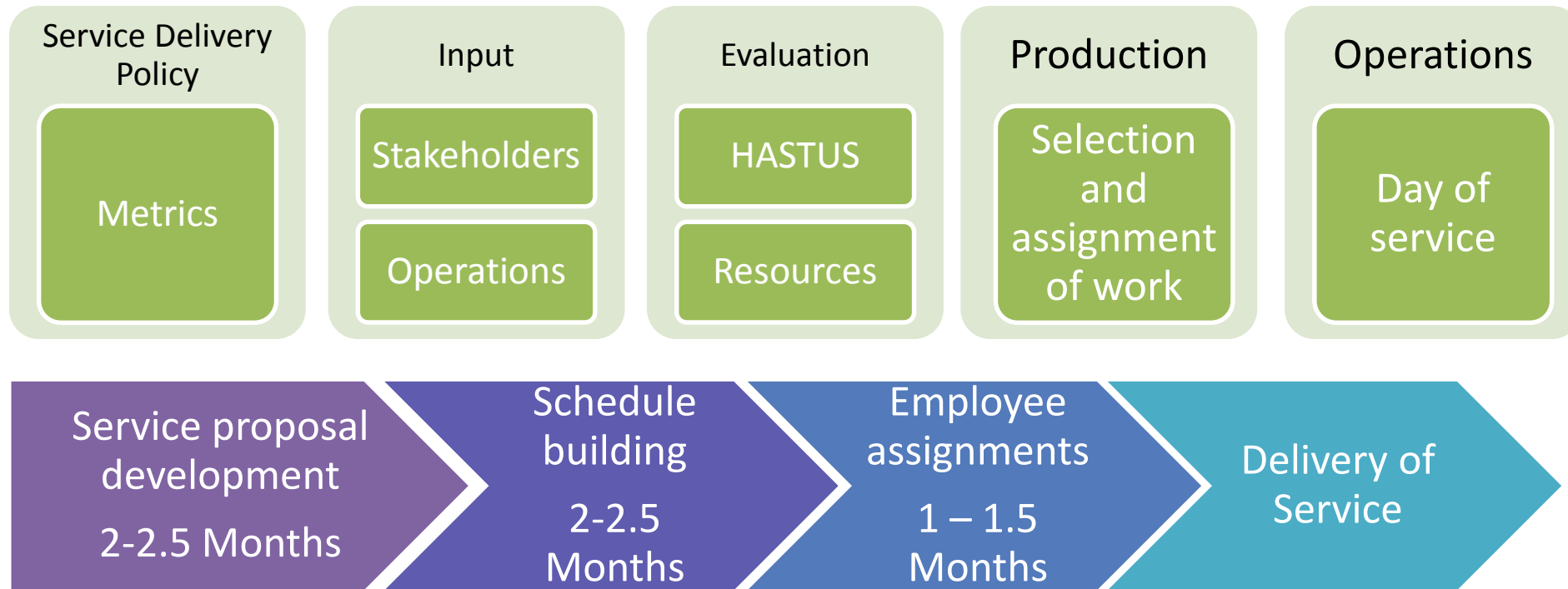


Massachusetts Bay Transportation Authority

Service Planning Scope Options

May 2, 2016

Primary focus has been route optimization within existing resources



Service Plan Scope Options

Quarterly Changes

Bus, Heavy Rail & Light Rail
*Commuter Rail Bi-annual

Public Feedback via email,
phone

Ongoing

Within existing budget

**Continuous input from
the public, elected
officials, MBTA staff**

Biennial Plan

Gap Analysis
(new)

Bus, Heavy Rail & Light Rail

Multiple Public Meetings

Fall 2017

\$400,000

**Historically has assumed
existing operating
budget and fleet**

Service Redesign Plan

Network Review

System-Wide

Major Public Process

Timing dependent on goals

\$2 million - \$5 million

**Desired outcomes
determine budget and
timing**

What drives Outcomes?

Motivations for network review and design

- Places and populations change
- Where people want to go
- What people value
- Understand travel time
- Respond to regional development goals
- Budget and infrastructure
- Tomorrow's demand
- Others



Possible network design goals

- Access to jobs
- Service equity
- Frequency
- Coverage
- Span of service
- Transfers
- Simplicity
- Others



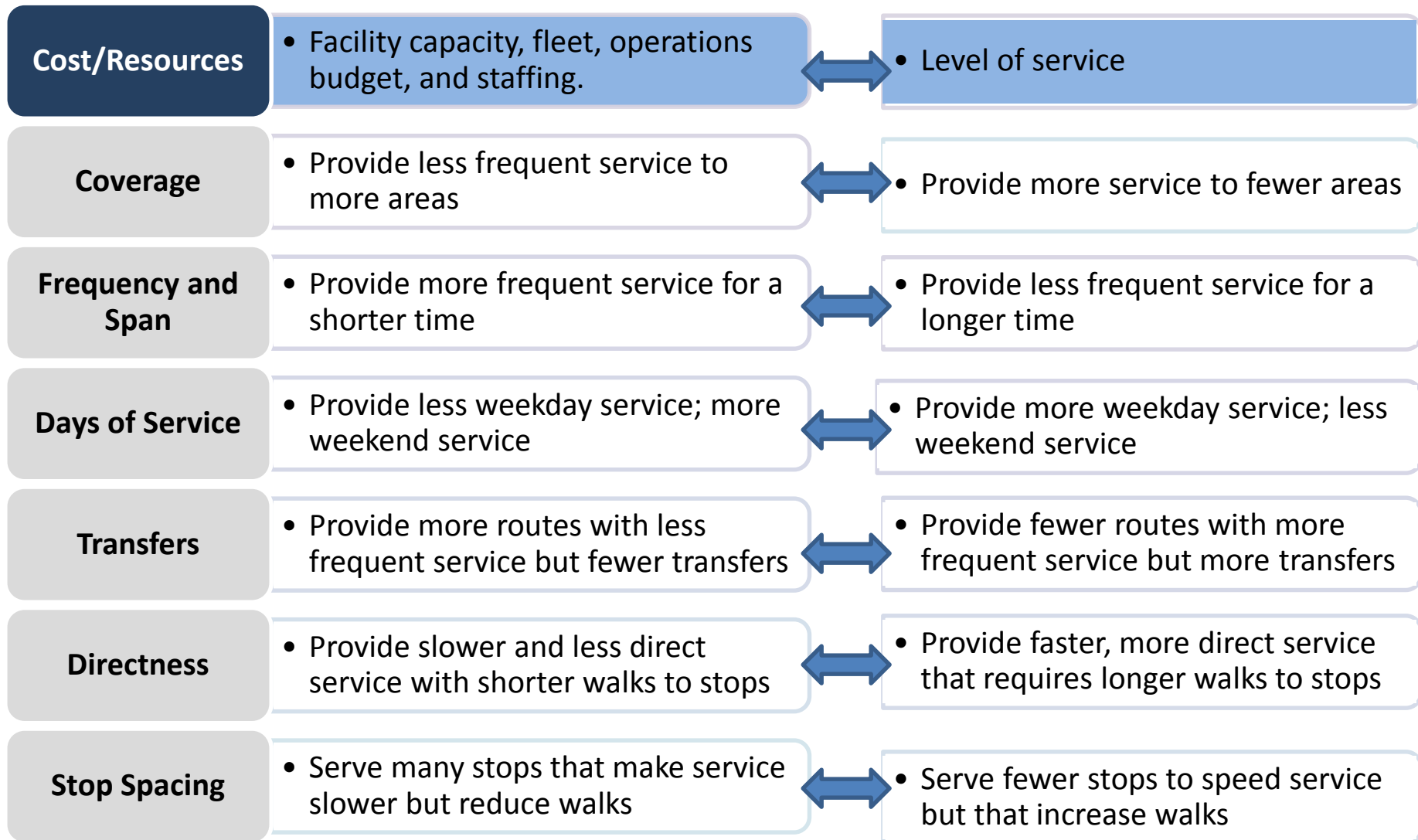
Statement of desired outcomes

Alternate service scenarios

- A
- B
- C

Designed to meet outcomes

Common Tradeoffs



Other Systems – Network Design



In 2015, Houston Metro changed nearly every bus route in its system.



King County Metro Transit's 2015 Service Guidelines Report estimated nearly 500,000 annual service hours needed to meet service quality objectives and target service levels.



The State of Maryland implemented a multi-phase plan to create a new interconnected transit system plan which will enter service in 2017.

Houston METRO implemented a new network overnight in August 2015. The major elements of the new network include:



1. Percentage of the network devoted to ridership goals shifted from 55% to around 75%
2. Vastly expanded the reach of frequent service by 217% (now 73% of bus riders have access)
3. Expanded weekend service so that service levels are almost identical to weekdays

Routes are evaluated as either Ridership routes or Coverage routes that are not held to ridership standards as long as they meet community goals.

Maryland MTA's comprehensive plan to transform and improve transit throughout the metropolitan Baltimore area. Highlighted outcomes of the plan include:

131,000 more jobs accessible
with high-frequency transit

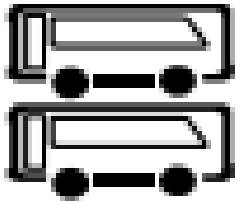
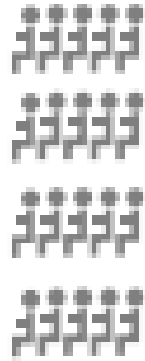
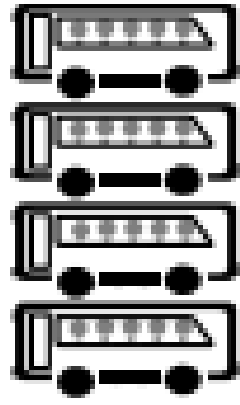
76,000 new jobs accessible
through new connections

12 high frequency bus routes
serving Downtown
Baltimore

6 new transit hubs



This 2015 Service Guidelines Report analyzed all 184 Metro’s routes and set target service levels for the corridors where we provide service and identifies where service-hour investments are needed. The report asked the following questions -

Preliminary Service level	Current Riders	Target
		

- Where do we provide service?
- How much service should we provide?
 - What is the preliminary service level and does it provide enough buses to meet productivity, social equity and geographic goals?
- How is service performing?
 - At both route and corridor level
- What should we do differently?

Relevance for the MBTA?

Many features of these approaches could be more easily pursued by the MBTA in the future:

- **Focus on outcomes** (numbers of jobs within a certain commute time, for example)
- **Use multiple metrics to evaluate each service** (Houston's different approach to evaluating Coverage and Ridership routes)
- **Identification of gaps** (King County's initial setting of targets not constrained to resources)

Some features of the MBTA make other strategies more challenging to apply:

- **Scale and utilization of existing network** (the MBTA experiences much higher utilization of its services than most other systems nationally.)
- **History of rapid transit integration** (Some MBTA bus routes oriented around the rapid transit system)

Key Milestones

- 6 Months to 9 Months- Public Input
- 10 months – Draft public presentation of major themes
- 11 months – present revised service plan to FMCB
- 13 Months – FMCB vote requested
- 18 Months – New schedules / routes in effect

Resource Needs

- Additional Service Planners
- An additional manager
- Consulting support

- While MassDOT and MBTA staff will need to figure out specifics, it can be assumed that costs will be between \$2 and \$5 million

Cost and Equity

- What are key the trade-offs between cost and equity?
- How can equity be used as a decision-making factor at the route level and at the network level?
- Should routes serving low-income areas be held to lower cost-effectiveness standards?

A Board retreat to discuss these issues

- Should we invite staff who worked on the Baltimore, Houston, and Seattle plans.