

Lean Transportation

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The Lean Process

- Step 1 – Determine Problem & Leadership Team*
- Step 2 – Create Problem Statement, SMART Goals(should relate to Problem Statement)*
- Step 3 – Value Stream Mapping/Process Mapping**
- Step 4 – Develop Action Plan/Report Out**
- Step 5 – Report Out**

*Leadership Team

**All Key Stakeholders

Problem Statement

- SARTA began Contract Services in January 2014. The daily demand of these specialized services, 50 isolated rides from Proline and 40 integrated rides with Proline, has resulted in an increase in **overtime** by 30 hours per day, non-revenue hours, reduced **on-time performance** by 4%, and a reduction of net margin. This situation has increased customer complaints, **complexity of billing process** (average of 10 hours a day), and decreased **employee morale**. With service projected to increase 20%, SARTA, in its present state, will not be able to maintain current or future demand.

Goals

1: On time performance

Return on-time performance of non-fixed route services to pre-contract service levels (4% increase) by December 31, 2014.

2: Overtime

Reduce average daily overtime by 50% by December 31, 2014.

3: Streamline Billing Process

Decrease the billing and reporting process by 50% by December 31, 2014.

4: Complaints & Morale

Decrease employee and customer complaints related to the addition of contracted services, overtime, and on time-performance.

Value Stream Map

- Swim Lanes – Functional areas
- Yellow squares – Steps
- Green Diamonds – Decision Points
- Pink Squares – Delays
- Orange Squares – Ideas in “Current State”
- Blue Squares – Action Items in “Future State”

Value Stream Map

- Value Stream Current State

- Value Stream Future State

Develop an Action Plan

- Combine idea & suggestion sticky notes into actions
- Determine ease of implementation
- Determine impact of implementation
- $\text{Ease} \times \text{impact} = \text{score}$
- Choose low hanging fruit to kick start change

Results

Metric	Current Process	Future Process	% of Change
# of Steps	70	23	67%
# of Decisions	15	3	80%
# of Handoffs	13	5	54%
# of Loopbacks	16	6	63%
First Time Quality	.0687%	Goal > 95%	
# of Delays	48	11	77%

Results

✓ **On time performance**

On-time performance increased 7% percent since September 2014.

✓ **Overtime** - Reduced average daily overtime from last year, not reached 50% yet

Month	Jan- May 2014	Jan- May 2015	% of Change
Forced To Call	223	213	↓ 4.8%
Forced to Work	88	33	↓ 62.5%

Month	2014	2015	% of Change
April	389 Hours	265 Hours	↓ 31.9%
May	687 Hours	569 Hours	↓ 17.2%

Results

✓ **Streamline Billing Process**

Decreased the billing and reporting process by 65% by December 31, 2014.

✓ **Complaints & Morale**

- Decreased customer complaints related to the addition of contracted services, overtime, and on time-performance.
- Employee morale will be measured by survey later this year.



CURRENT STATE
36-DECISIONS
108-STEPS
54-DELAYS



#	ACT	DATE
1D	OK PROJ	
1D	OK PROJ	
1D	OK PROJ	
Schedule	Met	
S DRIVE	Planned	
Requirement	20/10/17	
Evaluate	10/10/17	

FUTURE	
16	-D
15	-S
10	-D

Challenges

- Change is hard, all change is personal
- People resist change because they are human
(Dilbert: Change is good, you go first)
- Realize that not all goals/action items are attainable
- Keep momentum (this is a culture, not a project)

“Change is exciting when it is done by us, threatening when it is done to us.”

Success Factors

- Organizational buy-in, engagement is key
- Solicit input at every stage
- Commitment
- Ownership of tasks among the team
- Unvested facilitator trained in Lean/Six Sigma

What points or topics
can we clarify?