

Total Loss @ FNOL

Applying Real-Time Analytics for Better Claim
and Customer Outcomes

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Introductions



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Auto Claims



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Data Science

Context



Nobody has ever bought car insurance hoping that they'll have a chance to use it.

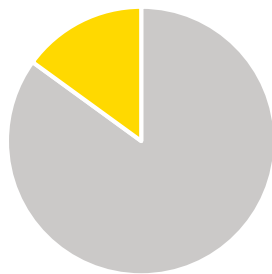
For the unfortunate 10% or so of customers who do, Auto Claims can be tremendously stressful, and the experience has historically been exacerbated by prolonged periods of uncertainty regarding the repairability of their vehicles.

The Business Challenge



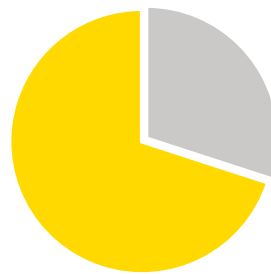
Why: Reaching a final decision on vehicle repair or total loss has traditionally been a time-consuming process, and delays in the identification of total loss vehicles from the outset of a claim lead directly to longer claim cycles and higher claim costs. Total loss claims are on the rise thanks to increasingly complex and costly repairs, and are also the leading cause of customer dissatisfaction in the Auto Claims world.

Claims Count



■ Repair ■ Total Loss

Indemnity Spend



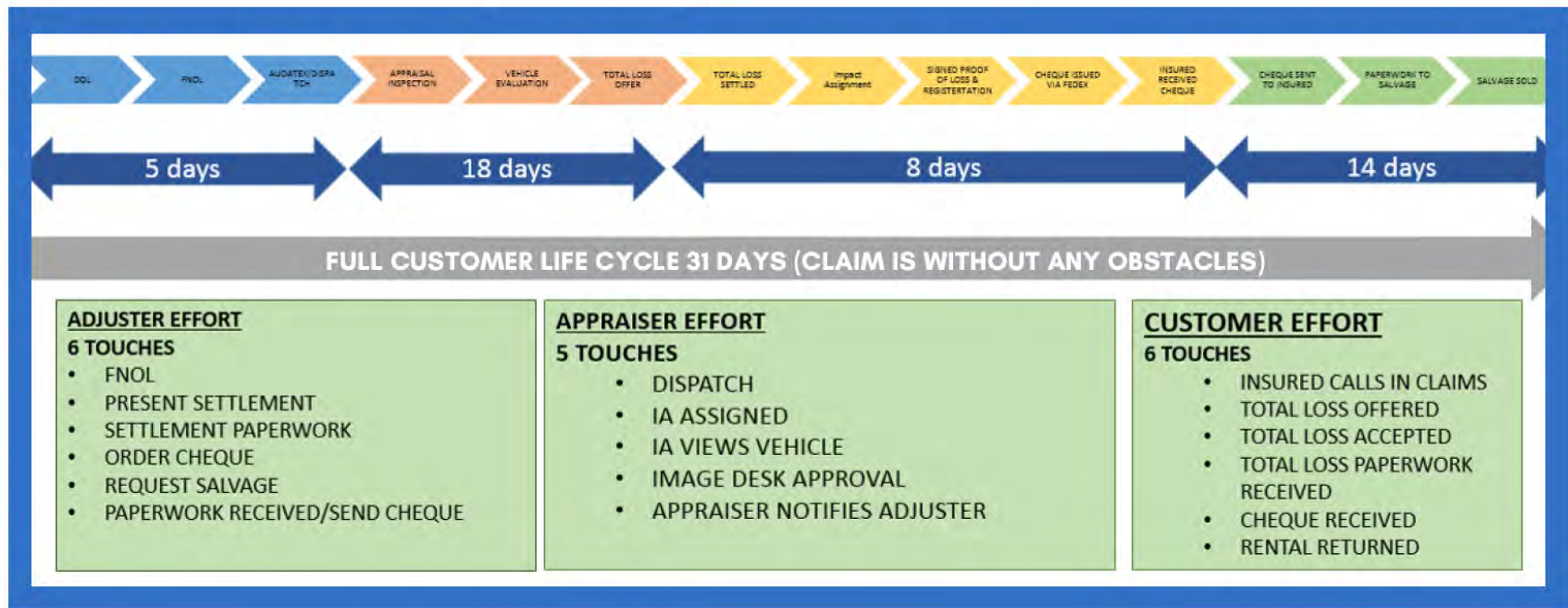
■ Repair ■ Total Loss

The Business Challenge

Life cycle drives additional effort from our staff, cost to the business, and leads to customer dissatisfaction. The timeline below represents a sample historical claim:



Historic Customer Lifecycle - 31 Days



High Level Solution Approach



Our challenge was to develop a solution that would:

- a) work seamlessly within our Guidewire ClaimCenter FNOL Wizard;
- b) deliver real time decision support to front line Auto Adjusters; and
- c) employ the power of predictive analytics and machine learning;
- d) serve to set realistic customer expectations while shortening the claim lifecycle.

The Solution

a) Guidewire ClaimCenter

- The addition of the Total Loss Prediction calculator on the Damage Description tab of the Vehicle Incident ensures all data required for the call to the analytics service is available and accurate per the conversation with the customer.

b) Real Time Decision Support

- Clicking the 'Calculate Total Loss' button invokes a real time integration call to the analytics service, which returns total loss and repair estimates as well as a clear and actionable decision recommendation.

The screenshot displays the 'Details' tab of a vehicle incident in Guidewire ClaimCenter. On the right, a vehicle diagram shows damage to the rear end. Below it, icons represent 'Under Carriage', 'No Rollover', 'Water Damage', and 'Fire'. The 'Total Loss Prediction' section features a 'Calculate Total Loss' button. Below this, two tables provide financial estimates: 'Total Loss Estimate' and 'Repair Estimate'. A red box highlights the 'Decision' field, which is set to 'Repairable'. The 'Decision Message' field is also visible.

Total Loss Prediction	
Calculate Total Loss	
Total Loss Estimate	
Salvage	\$3,725.85
ACV	\$17,095.21
Rental Cost	\$674.86
Recovery Cost	\$1,946.99
Total	\$15,991.21
Repair Estimate	
Repair Cost	\$5,590.25
Rental Cost	\$577.50
Total	\$6,167.75
Date Called	2019-06-10
Adjuster	Carmelo Ferrel
Decision	Repairable
Decision Message	

The Solution

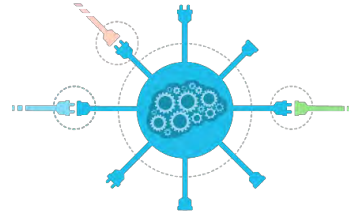
c) Machine Learning as a Service



An accident occurs and **Aviva** is notified.



Incident details including **vehicle damage details** and **unstructured data** are captured.



Machine Learning algorithms deliver a **total loss recommendation** via **API**



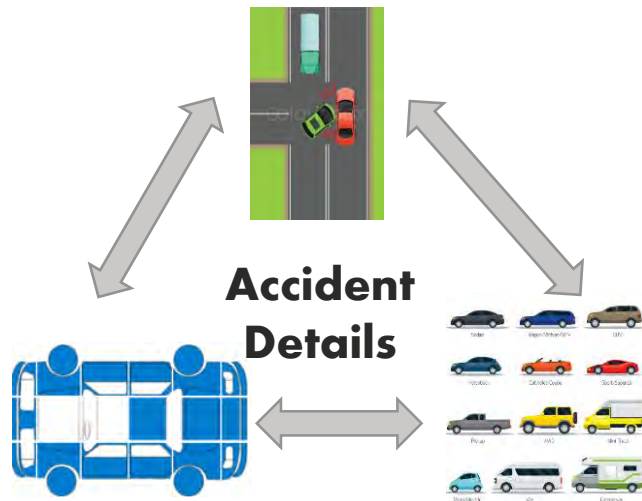
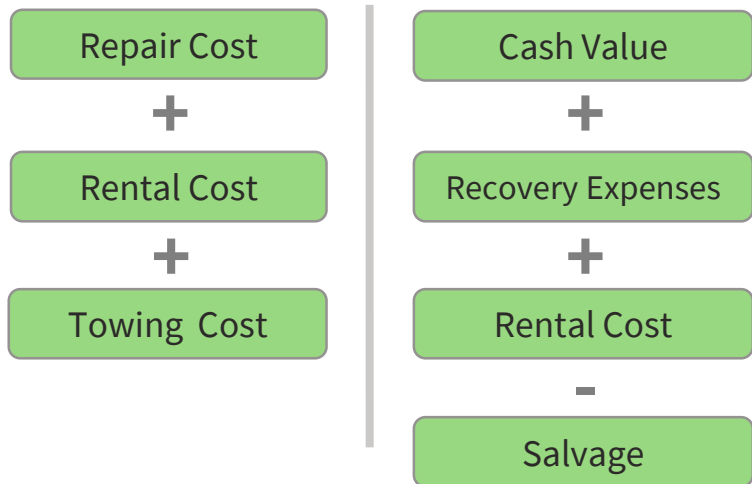
Real-time analytics decision **drives end-to-end fulfilment.**

The Solution

c) Machine Learning Models and Feature Engineering

- ✓ Know your data and your business
- ✓ Understand what you need to predict
- ✓ Limited damage data makes predicting repairs difficult
- ✓ Feature engineering adds domain knowledge to your data

Repair (\$) $> ? <$ **Total Loss (\$)**

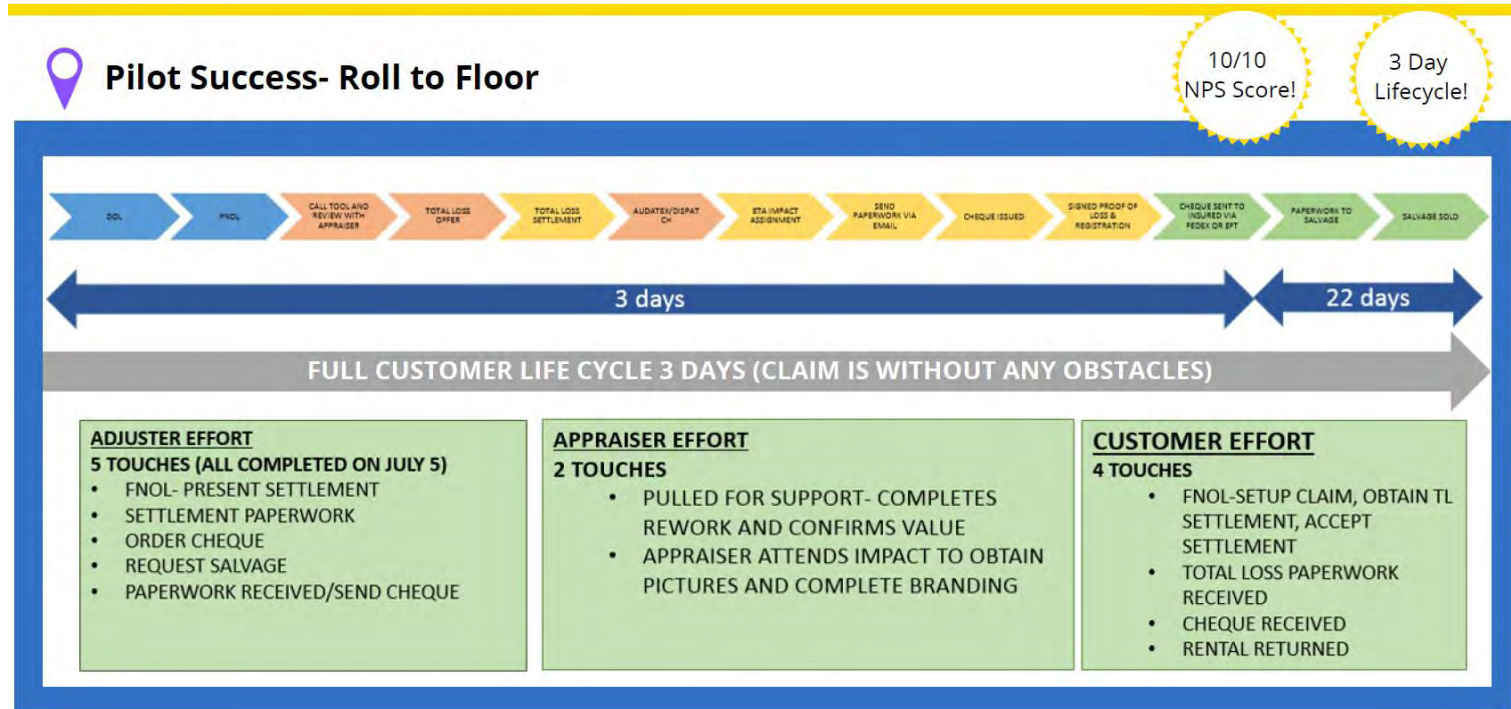


The Solution



d) Realistic Customer Expectations and Shortened Lifecycle

The timeline below represents a sample claim that went through the new process:



The Results



Positive impacts are being felt by Customers and Adjusters alike

\$266

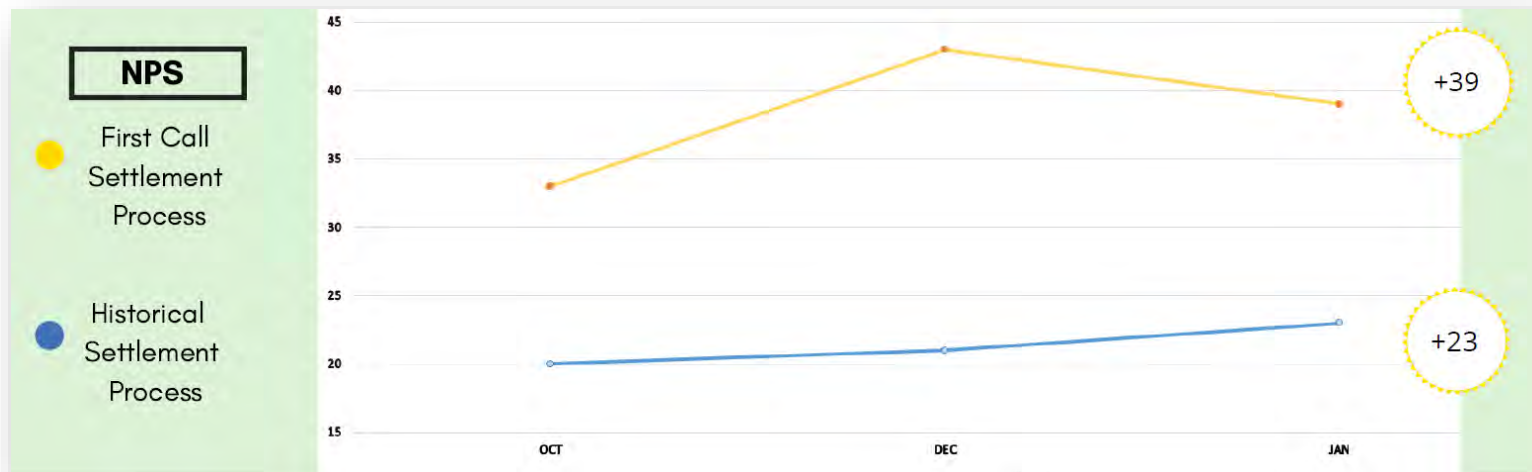
Avg Rental
Savings per Claim

\$300

Avg Storage
Savings per Claim

-15 Days

Avg Customer Life
Cycle Reduction



What's Next

Continuous Improvement



Innovation will continue to incrementally improve the Total Loss @ FNOL tool:

- Further incorporation of damage point severity data
- Extension into additional vehicle classes
- Continue the rollout to other jurisdictions across the country

Additionally, the TL@FNOL solution is one of many initiatives geared toward improvement of the Auto Claims experience for customers and adjusters alike – stay tuned for more exciting innovation from Aviva Canada!

Q&A