Warranty 4.0 - Smarter and Faster Decisions with Connected Data

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AGENDA

01. Leverage Connected Vehicles Data
   - Global insights from local data

02. Proactive Approach to Campaign Management
   - Social listening

03. Transport As A Service
   - Impact on warranty, service and other aftermarket processes
About Tavant

Customers
150,000 users in 150+ countries

ROI Driven
2-5% reduction in warranty costs

Warranty 4.0
Integrated Smart Improved

‘Best Place to Work’
in digital space by The CEO Magazine
> 2500
Global employee strength

Partnerships
Salesforce, Microsoft, Cloud Craze, AWS

Global presence
Santa Clara, Dallas, New York, Sydney, Tokyo, Bangalore, Hyderabad

Silicon Valley based Company

Tavant Warranty

Tavant Manufacturing Analytics Platform

TAVANT TECHNOLOGIES

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Warranty 4.0

ROI / Business Goals

- Minimize Inventory
- No Down Time
- Higher Customer Service
- Reduce Cycle Time
- EOL Predictions
- PaaS Ready
- Monetize thru SLAs
- Leverage TP Networks

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Warranty Management

IOT Events

Services

Web

Advanced Analytics

Notify AM Partners

Print Part

Schedule Site Visit

Delivered to Technician or Customer

Complete Repair
Enter Claim

Notify Service tech
Notify customer
Order consumable item
Predict Failure/EOL
Identify Repair Components

Auto process claims
Initiate dealer payments
Account for FOC parts
Third party Aftermarket (AM) partners
Send customer satisfaction survey
Cross sell/up sell services/products

AIベースのアルゴリズムは、顧客満足度の向上を促進し、在庫削減及びサービスの収益性向上を可能にします。
Connected Vehicles Data

- **IOT Data**
  - OBD Events
  - Location Details
  - Vehicle Information
  - DTCs
  - Distance
  - Collision Data
  - Vehicle Speed
  - Fuel Usage

- **IOT Scenarios**
  - Geo-fencing
  - Customer Profiles
  - Product Usage
  - Failure Patterns
  - Campaign Alerts
  - Load History
  - Remote Diagnostics
  - Fuel Efficiency

- **Customer Value**
  - お客様への価値
  - Location Details
  - Vehicle Information
  - DTCs
  - Distance
  - Collision Data
  - Vehicle Speed
  - Fuel Usage

- **Sales (aftermarket), Service, BOM, Quality, Campaigns**
  - セールス (アフターマーケット)、サービス、BOM、品質、キャンペーン
User Story: Global Insights from Local Data

- IOT enabled equipment launched in North America
- Data collected and analyzed for product usage

TMAP Platform: Telemetry/Connected Device data, along with sales and service data

Results (applied globally):
1. Pricing of extended warranty contracts by customer’s expected industry globally
2. Forecast parts inventory based on expected failures (based on unit usage, age and failure rate analysis)
3. Launch data backed aftermarket products in other markets

インタネットに接続された機器からのデータを使用することにより、お客様は延長保証及びサービスプログラムに係る価格の最適化を実現でき、早期警告分析に基づき部品在庫の予測を改善できました。
Proactive Campaign Management

Best Practices

- Early warning based on data from connected devices
- Social listening for emerging quality issues
- Direct communication with end consumer (multiple mediums)
- Vehicle alerts
- Supplier collaboration (real time)

Key Benefits

- Detect issues faster
- Monitor customer perception
- Improve customer satisfaction

最新のテクノロジーとコネクテッドデータを使用することで、問題を迅速に特定し、お客様のブランド認知度がリアルタイムで把握できるようになり、キャンペーン及びリコールのプロセス改善が可能になります。そして、全体の顧客満足度が向上されます。
Social Listening

“Active monitoring of social media channels for information, usually tracking of various social media content such as blogs, wikis, news sites, micro-blogs such as Twitter, social networking sites, video/photo sharing websites, forums, message boards and user-generated content.”

Source: https://en.wikipedia.org/wiki/Social_media_measurement

Implementation Steps

1. Identify sources of information (relevant for your products and brands)
2. Identify tools based on sources and amount of data to be analyzed, pre-process data (if needed)
3. Start with Sentiment analysis – using combination of brand, products, models and key component groups
4. Perform data clustering and classification on negative sentiment comments/feedback
5. Generate quality issue tickets using information extraction techniques
Transport As A Service

- **Connected Vehicles**
- **Social business models**
- **Autonomous Vehicles**
- **Environmental Factors**
- **Technology (AI, ML, Mobile)**

### Business Drivers
- AI driven routing and fulfillment of transportation needs
- High utilization of vehicles (ride sharing, car sharing)
- Smaller dealer network (online sales, reduced consumer sales)
- Optimize inventory in dealer lot (reduce), increase in size of rental fleets
- Stringent SLAs for fleet uptime
- Electric/low emission vehicles
- Autonomous cars/trucks
- Dealerships/OEMs becoming mobility service providers
- High demand for 24*7, mobile vehicle repair and service
- Remote diagnostic capabilities (software features)
- Early warning for failures
- Self-service/automatic repairs

### Key Future Changes
Impact on Aftermarket Products

- New fleet management programs
- Month-to-month contracts
- Preventive maintenance contracts (covering expected failures)
- Usage based service/maintenance contracts (per day/per month/per year limits)
- Personalized warranty plans (fleet, autonomous vehicles)
- Longer warranty terms (beyond 100K miles/kms)
- Parts only warranty for DIY/third party service providers
- Software related warranty liability (against hacking)
- Online aftermarket part sales
- Fulfillment through third party service aggregators
- On demand part availability for 3D fabrication centers (globally)
- Validation of authentic/certified parts (pre/post install)
- Omni-channel customer service
- Knowledge management for customers/technicians
- OEM managed remote diagnostic centers
- Proactive support based on connected vehicle data
- Contract monitoring and billing
Be Future Ready with Tavant Warranty Management Products

- Inventory Insights
- Proactive Service
- Higher Customer Service
- Reduce Cycle Time
- EOL Predictions
- PaaS Ready
- Monetize thru SLAs
- Integrate with TP Networks

- Auto process claims
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IOT Events → Notify AM Partners → Print Part

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- Identify Repair Components
- Notify Service tech
- Notify customer
- Order consumable item

Web Services

Schedule Site Visit → Complete Repair

Enter Claim → Delivered to Technician or Customer

TAVANTは、機械学習やモビリティ対応に注目するなど、未来志向のワランティ管理システムを構築するよう常に投資しています。
We’re on a mission to drive customer success, with the unparalleled passion and commitment of our people.