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

TAVANT TECHNOLOGIES

About Tavant

Tavant Warranty

Tavant Manufacturing Analytics Platform

Customers
150,000 users in 150 + countries

ROI Driven
2-5% reduction in warranty costs

Warranty 4.0
Integrated Smart Improved

Silicon Valley based Company

'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

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Warranty 4.0

ROI / Business Goals

Minimize Inventory No Down Time Higher Customer Service Reduce Cycle Time

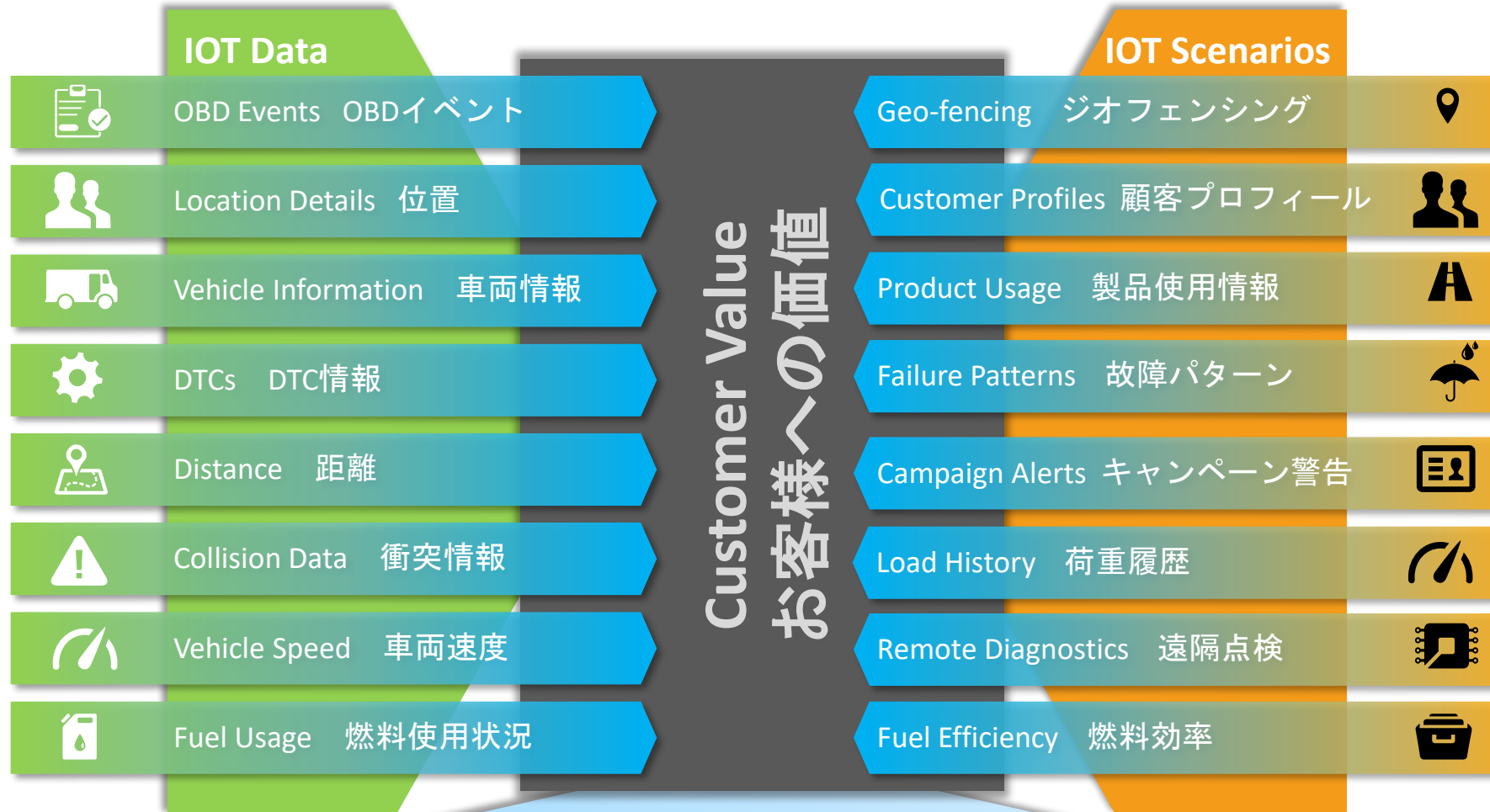EOL Predictions PaaS Ready Monetize thru SLAs Leverage TP Networks

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

IOT Events → Advanced Analytics → Notify AM Partners → Print Part

Services

Web

Schedule Site Visit

Warranty Management

Ship Part

+ 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

Complete Repair
Enter Claim ← Delivered to Technician or Customer

コネクテッドデバイスからのデータを使用することにより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。

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Connected Vehicles Data

IOT Data

	OBD Events　OBDイベント
	Location Details　位置
	Vehicle Information　車両情報
	DTCs　DTC情報
	Distance　距離
	Collision Data　衝突情報
	Vehicle Speed　車両速度
	Fuel Usage　燃料使用状況

Customer Value お客様への価値

IOT Scenarios

Geo-fencing　ジオフェンシング	
Customer Profiles　顧客プロフィール	
Product Usage　製品使用情報	
Failure Patterns　故障パターン	
Campaign Alerts　キャンペーン警告	
Load History　荷重履歴	
Remote Diagnostics　遠隔点検	
Fuel Efficiency　燃料効率	

Sales (aftermarket), Service, BOM, Quality, Campaigns
セールス (アフタマーケット)、サービス、BOM、品質、キャンペーン

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User Story: Global Insights from Local Data

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

- Global quality insights
- Industry usage statistics
- End of life analysis
- ROI data

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

Ex: Equipment
Failure Rate

All customer profiles

X

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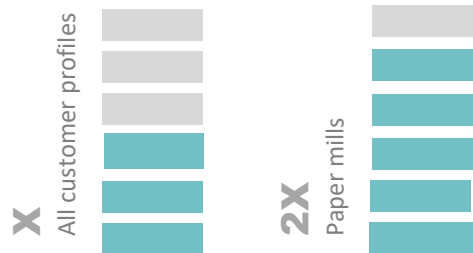
Results (applied globally):
1. Pricing of extended warranty contracts by customer's expected industry globally
2. Forecast parts inventory based on expected failures (based on unit usage, age and failure rate analysis)
3. Launch data backed aftermarket products in other markets

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。

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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。

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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

"ブログ、ウィキ、ニュースサイト、マイクロブログであるツイッター、SNS、動画・写真共有サイト、フォーラム、掲示板及びユーザ生成コンテンツ（UGC）などのソーシャルメディアコンテンツを監視することなど、有益な情報を目的に各種ソーシャルメディアチャネルの能動的監視。"
XXX

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

Business Drivers

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

Key Future Changes

- ❑ 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

Business Drivers	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

| Service/Maintenance Contracts | Warranties | Aftermarket Parts | Customer Service |

今後、新型のメンテナンス契約、ワランティ及びサービスプロシージャのニーズが見込まれます。
例えば：日々の使用状況をベースにしたメンテナンス契約など。

Tavant Warranty

Be Future Ready with Tavant Warranty Management Products

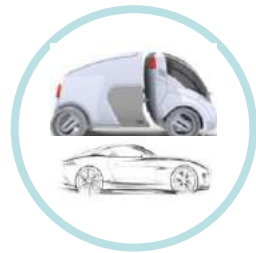Inventory Insights

Proactive Service

Higher Customer Service

Reduce Cycle Time

EOL Predictions

PaaS Ready
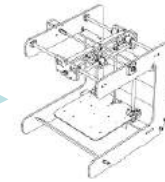
Monetize thru SLAs

Integrate with TP Networks

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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。

Thank You!

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PEOPLE. PASSION. EXCELLENCE.

We're on a mission to drive customer success, with the unparalleled passion and commitment of our people.