PTC® **Live** Global

PTC 234 - PTC Connected Service Execution
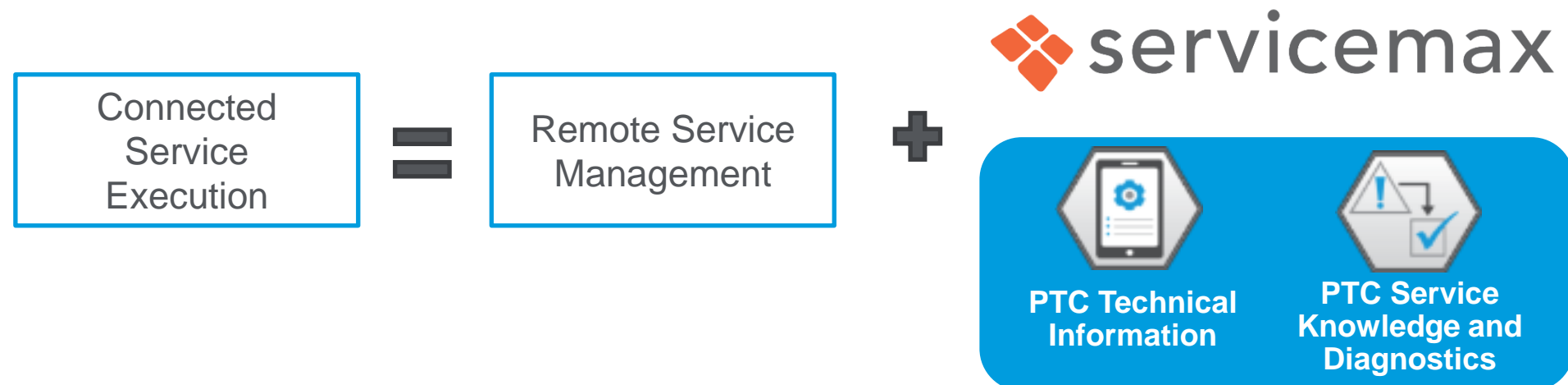
Michael Anderson and Randy Reynolds

Agenda

- What is Connected Service Execution?

- What opportunities does Connected Service Execution address?

- How does Connected Service Execution work?
    - Machine Initiated Service Requests
    - Remote Access
    - Connected Diagnostics
    - Connected Repair Procedures

What is Connected Service Execution?

Connected Service Execution

- Service Execution is performed by a Field Service Management Solution
  - Service Orders are received, scheduled and dispatched to a technician
  - Field Service Technician arrives onsite to perform the required service and debriefs the work that was performed

- Connected Service Execution enhances Service Execution by connecting the products
  - Service Orders can be automatically created based on error or warning conditions
  - Diagnostics can be automatically run to provide the solution to the Service Execution system
  - Products can be remotely accessed to potentially correct the problem remotely
  - Repair procedures for the product are displayed in the proper context
  - Service can be predictively and proactively scheduled based on actual product usage

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| Connected Service Execution | = | Remote Service Management | + | PTC Technical Information | PTC Service Knowledge and Diagnostics |

What Opportunities Does Connected Service Execution Address?

Direct Service Model

Traditional Reactive Service Model
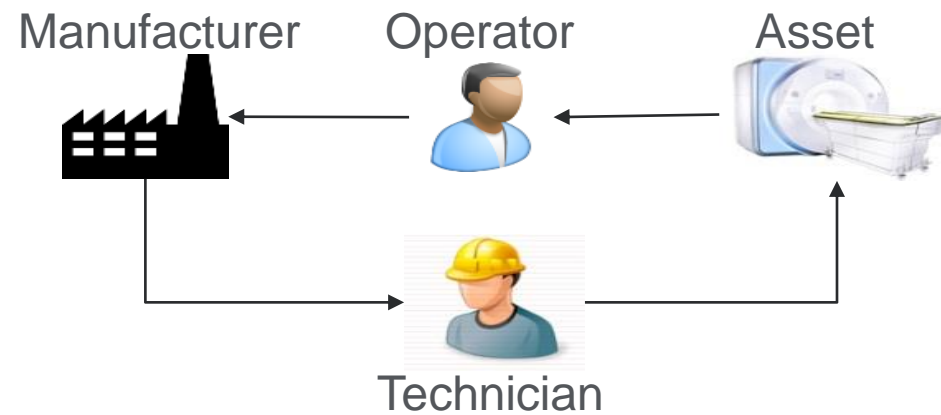
Manufacturer   Operator   Asset

Technician

- Service process initiated based on asset issue occurring
- Customer is the 1st to know and reports issue
- Expensive "dispatch & diagnose" service response by Manufacture

IoT Proactive Service Model

Operator

Asset

Manufacturer

Remote & Onsite Technicians
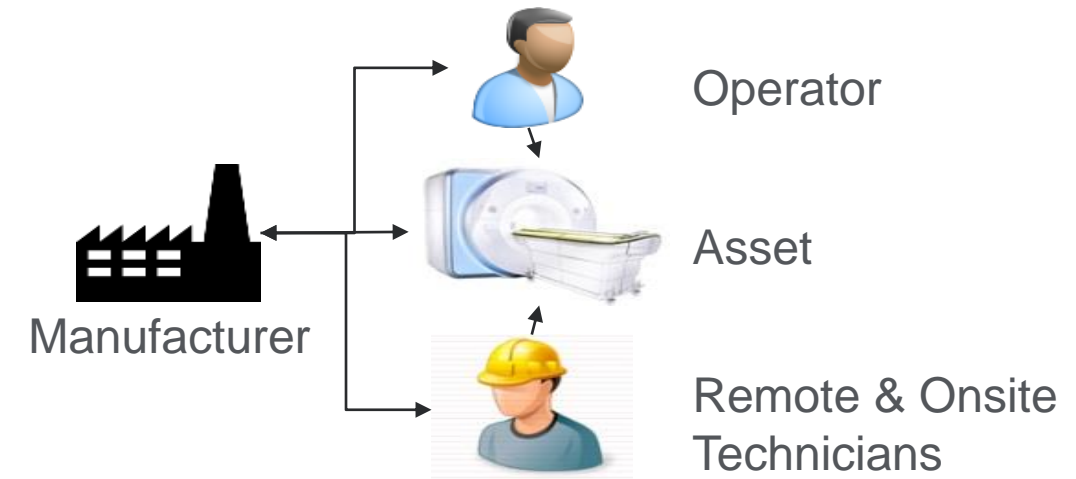
- Service process initiated based on preemptive asset alert
- Economical "diagnose & limited dispatch" service response
- Customer is the last to know a potential issue occurred

Dealer/Distributor Model

Traditional Customer Driven Service Model
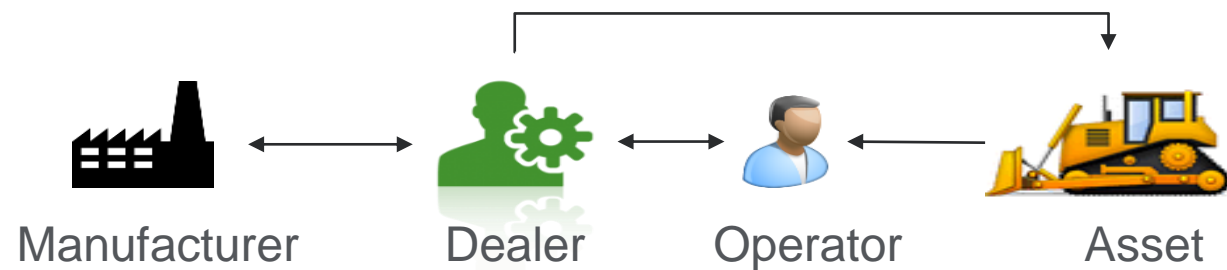
Manufacturer   Dealer   Operator   Asset

- Service process initiated based on asset issue occurring
- Customer is the 1st to know and reports issue to Dealer or 3rd party service provider
  - Manufacturer has limited visibility to or control of where customer has asset serviced
- Dealer performs and records service in their business system

IoT Manufacturer Initiated Service

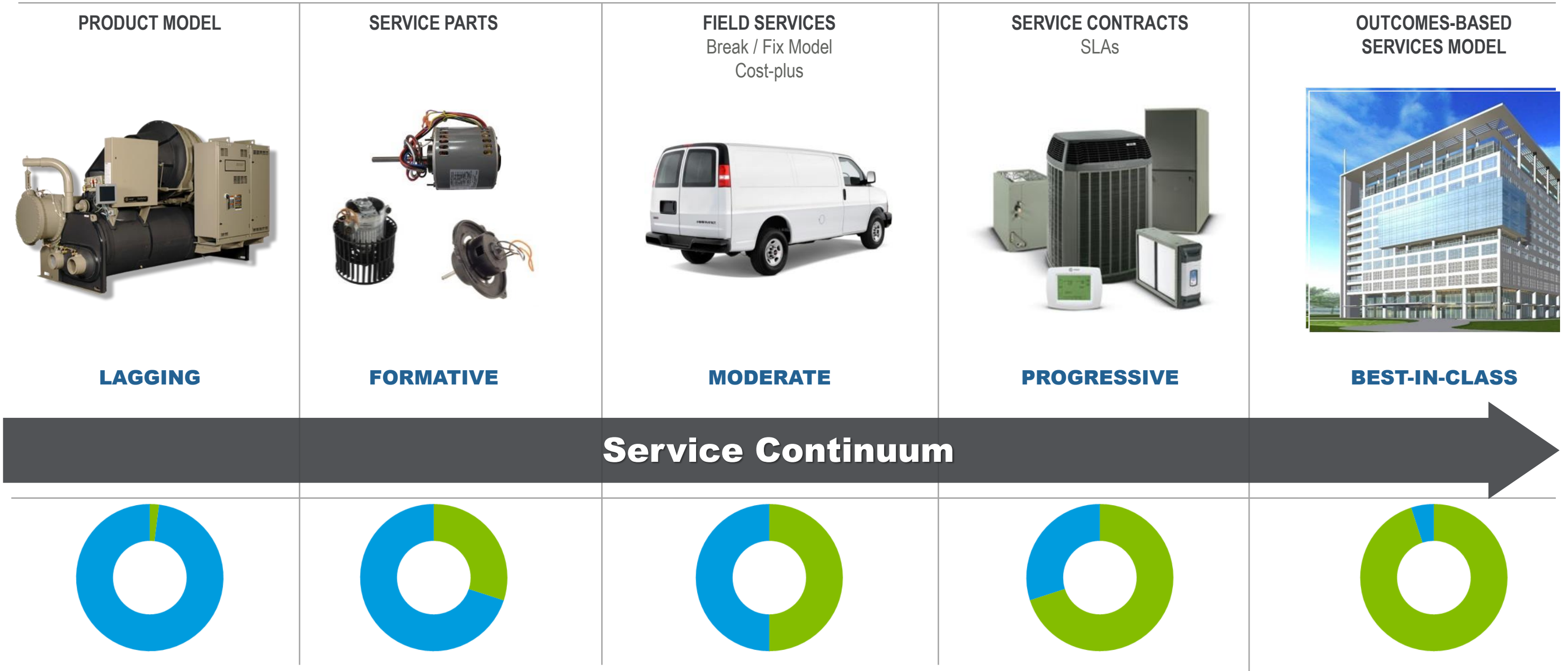Manufacturer   Asset

Dealer   Operator

- Manufacturer remotely monitors assets
- Service process initiated based on preemptive asset alert
- Manufacturer directs service response through Operator's preferred Dealer, including DIY parts

How Does Connected Service Execution Work?

Service Transformation and Trends

Leading Manufacturers Understand Lifetime Service Value

PRODUCT MODEL	SERVICE PARTS	FIELD SERVICES Break / Fix Model Cost-plus	SERVICE CONTRACTS SLAs	OUTCOMES-BASED SERVICES MODEL
LAGGING	FORMATIVE	MODERATE	PROGRESSIVE	BEST-IN-CLASS

Service Continuum

Sale of Products   Sale of Outcomes

servicemax + PTC®

Smart, Connected Service for
Smart, Connected Products

Service Execution with

servicemax

Gartner Leader

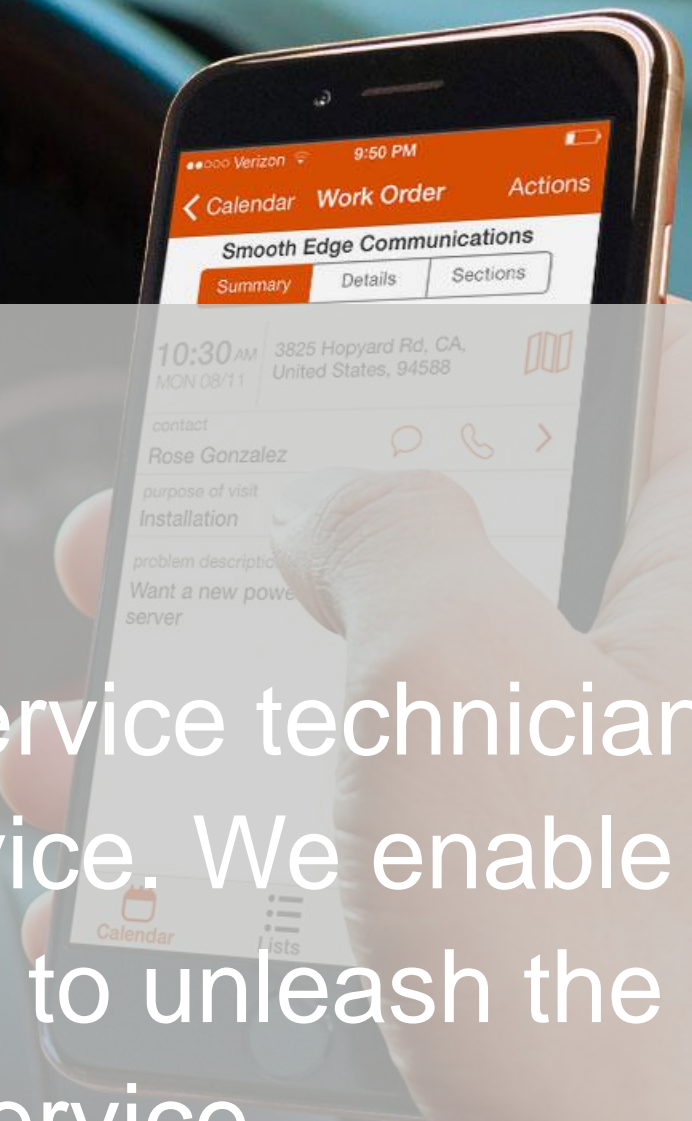Complete Field Service Product Suite

100% Cloud, Built on Salesforce1 Platform

Field Ready Mobile Solutions

Extensive Partner Network

Our mission is to empower every field service technician in the world to deliver flawless field service. We enable organizations of all sizes and industries to unleash the untapped growth potential of service.

Flawless Field Service

PERFECT DELIVERY

MAXIMIZE GROWTH & REVENUE

DELIGHT CUSTOMERS

Our Vision

OPERATING SYSTEM OF THE NEW SERVICE ECONOMY

Mobile

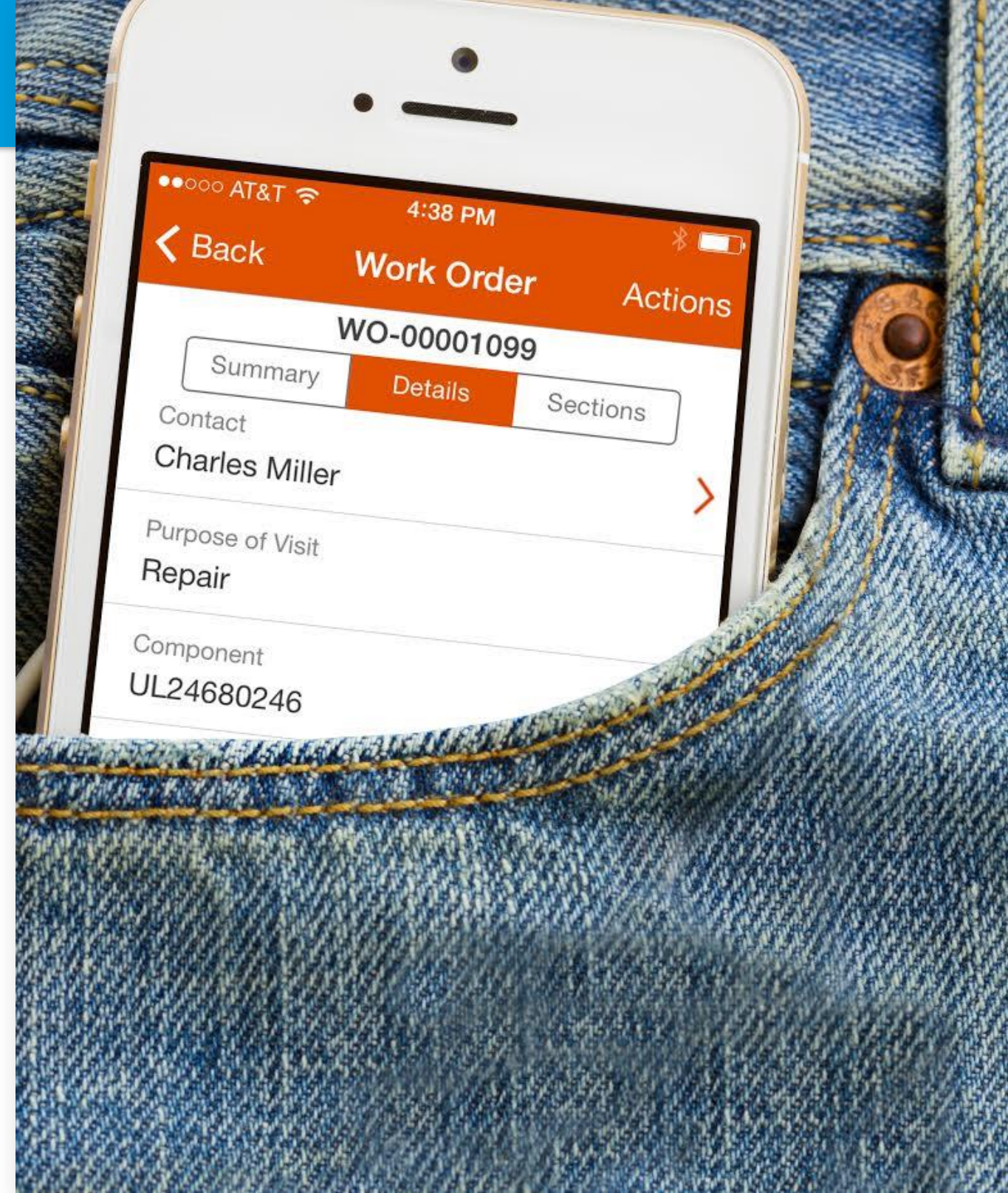PROCESSES

PEOPLE

PRODUCTS

PROMISES

Internet of Things

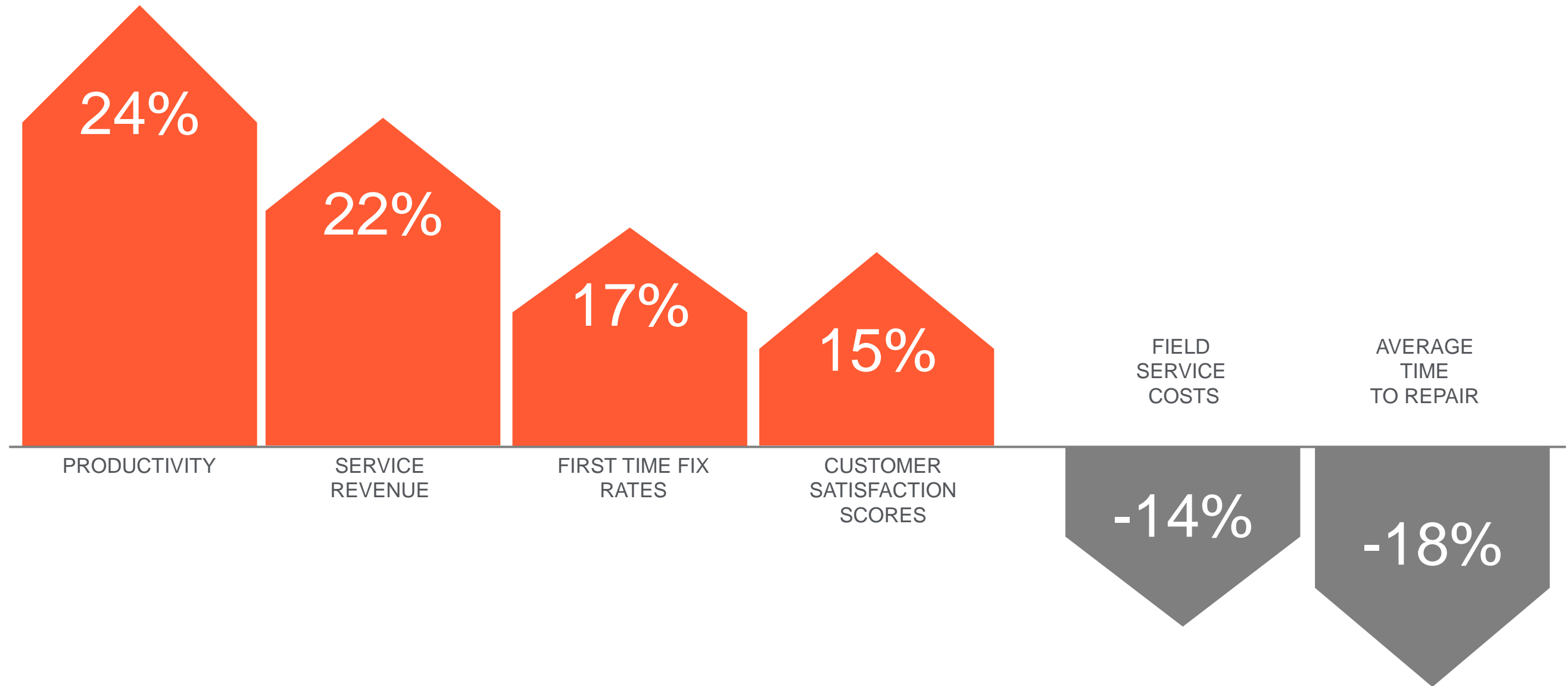Connected Products | Predictive Service | Outcome Business Model

ServiceMax Field-Ready Mobile

- Supports the 'Disconnected Day'

- Designed for Field Service

- Consistent Business Process & Workflow

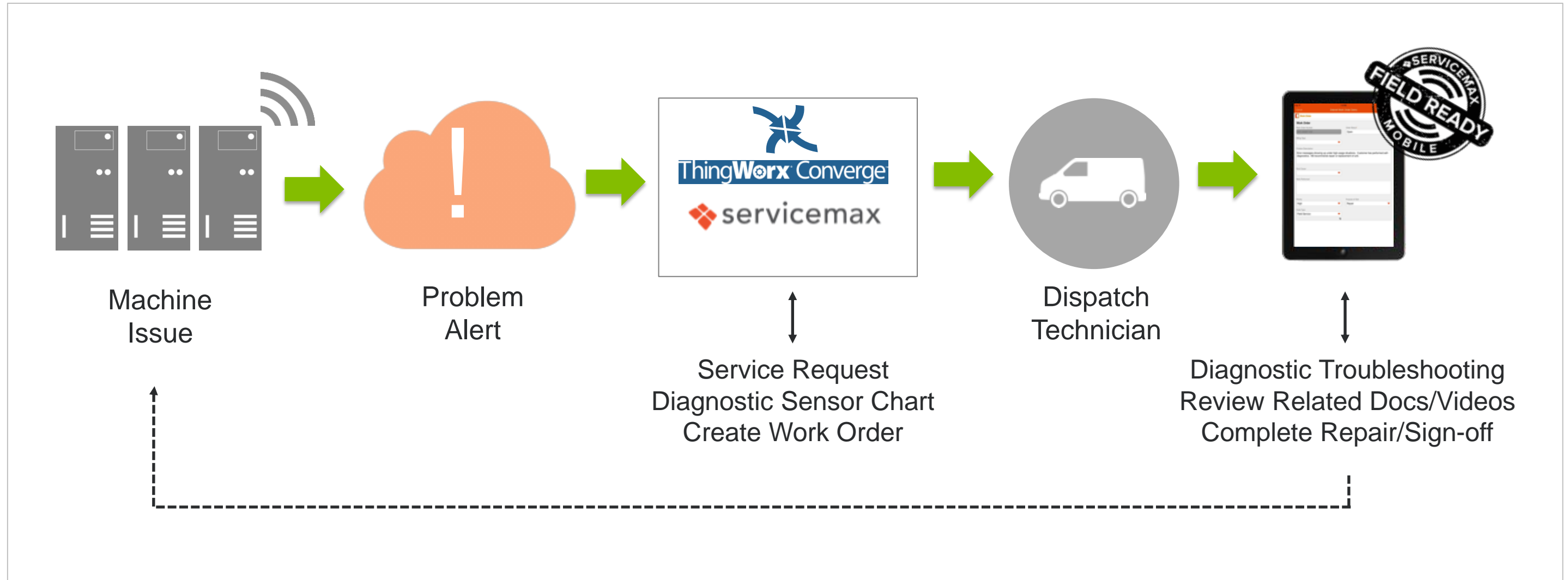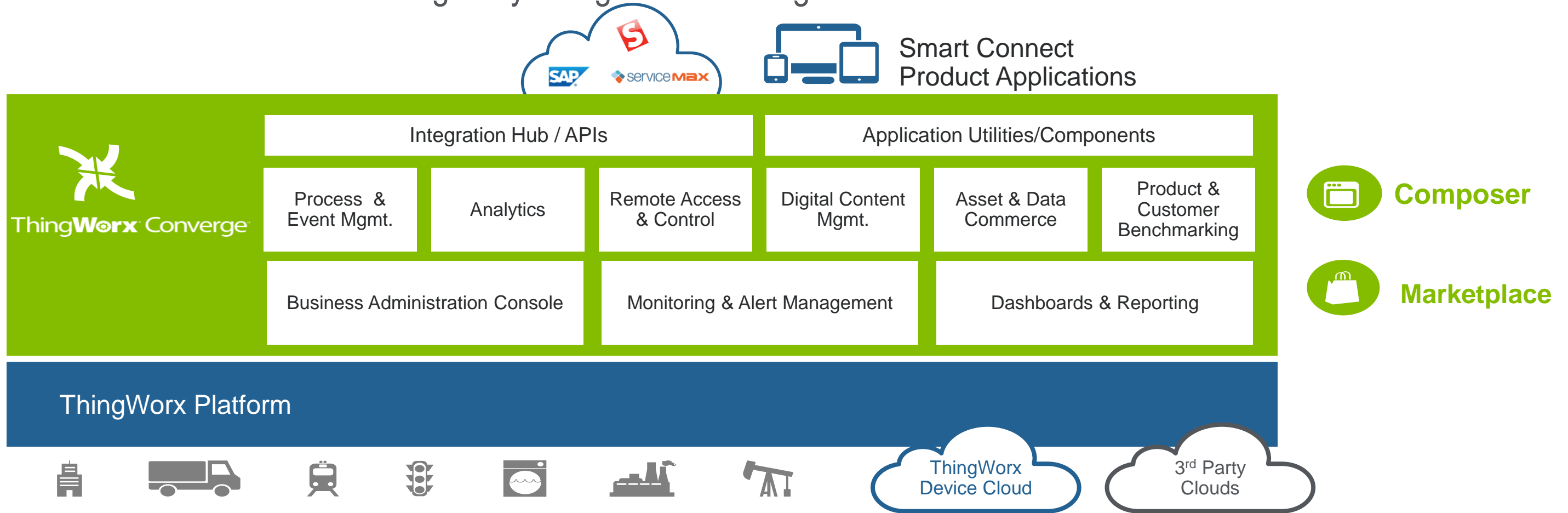- Device Appropriate Functionality

- Configure, Not Code

The Impact of ServiceMax

Customer Survey Results

24% PRODUCTIVITY

22% SERVICE REVENUE

17% FIRST TIME FIX RATES

15% CUSTOMER SATISFACTION SCORES

FIELD SERVICE COSTS -14%

AVERAGE TIME TO REPAIR -18%

ServiceMax Customer Success Survey, 2014

Connected Devices

Devices are Connected and Managed by ThingWorx Converge

Smart Connect
Product Applications

ThingWorx Converge

Integration Hub / APIs	Application Utilities/Components

Process & Event Mgmt.	Analytics	Remote Access & Control	Digital Content Mgmt.	Asset & Data Commerce	Product & Customer Benchmarking

Business Administration Console	Monitoring & Alert Management	Dashboards & Reporting

Composer

Marketplace

ThingWorx Platform

ThingWorx Device Cloud

3rd Party Clouds

1. Centralized Hub for Real Time Product Data

2. Best Practices-Based Data Model

3. Enhanced Out-of-the-Box Capabilities

4. A Synergistic Marketplace Of Applications And Integrations

Machine Initiated Service Requests

- Problem Alert
- Initiate Service Request
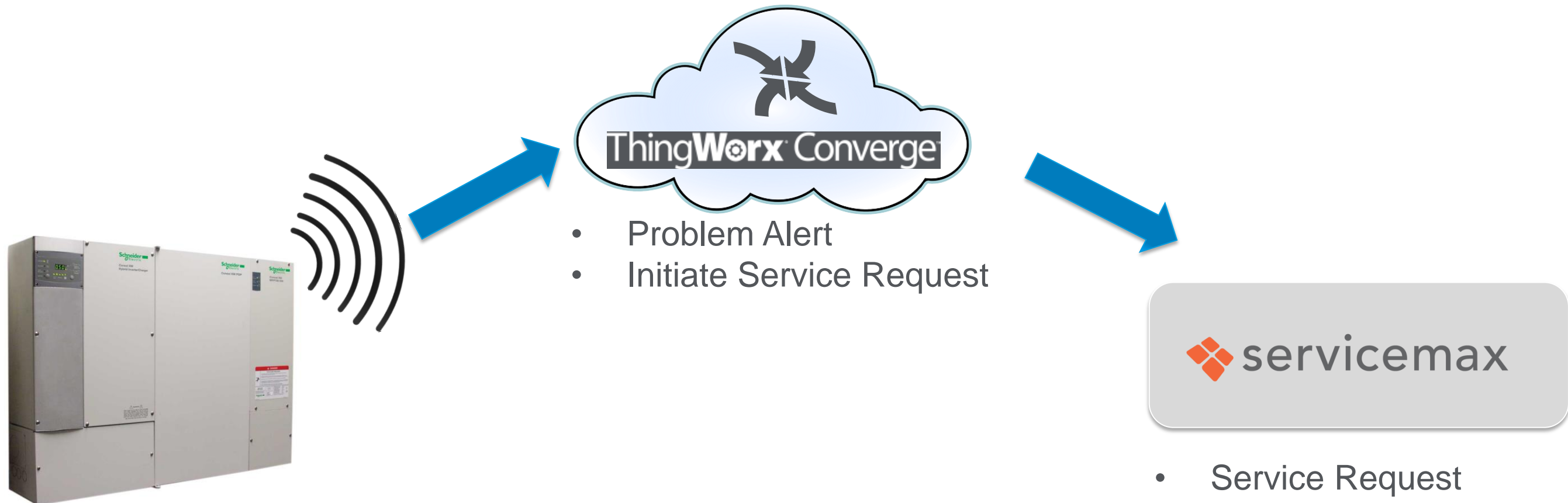
- Service Request

- Devices are connected to the Device Cloud

- ThingWorx Converge monitors Connected Devices and produces alerts upon easily defined exception conditions

- These exceptions are interpreted and can result in the creation of a Service Request in ServiceMax, the Service Execution System.

- Problem Alert
- Initiate Service Request

- Service Request
- Remote Access
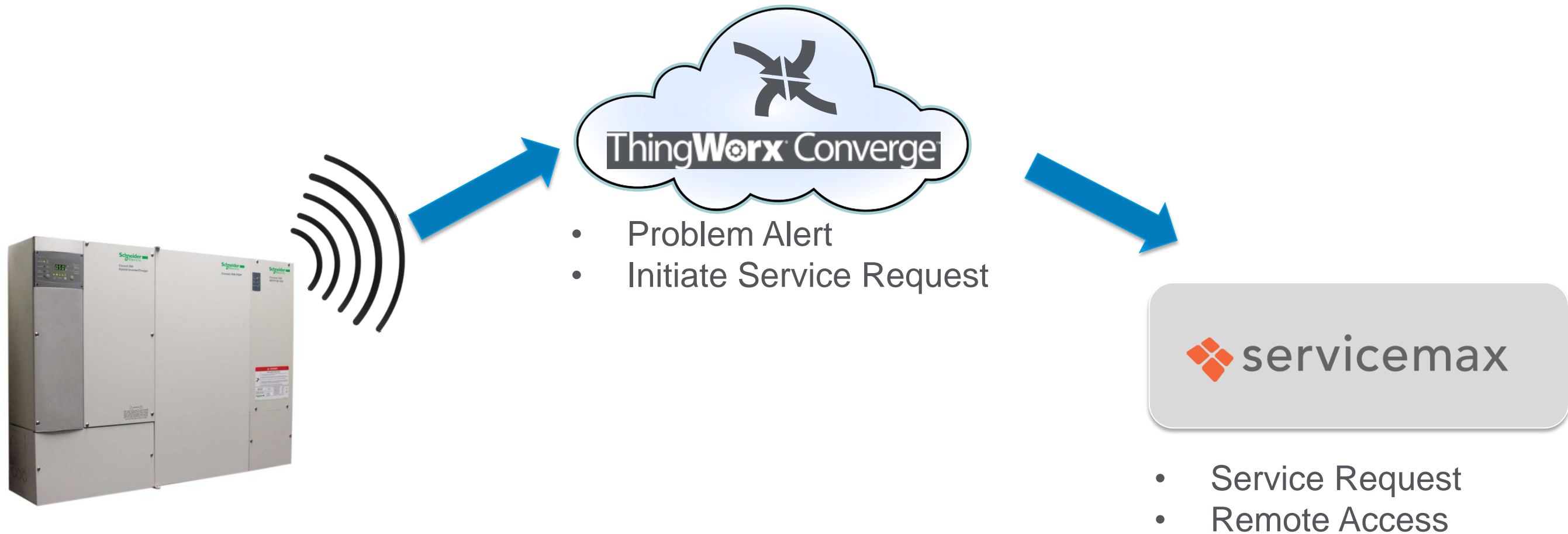
- Technicians (remote or field) can remotely access the connected devices and take actions such as file transfers and managing software upgrades

Connected Diagnostics

- Problem Alert
- Initiate Service Request

servicemax

- Service Request
- Remote Access
- Connected Diagnostics

Automate issue diagnosis and response

Enable self-service, customer center, field service, and depots

Create structured, visual content

Improve content reuse and localization

Manage product-centric content and change

Deliver up-to-date, configuration-specific content

**PTC Service
Knowledge and
Diagnostics**

Connected Diagnostics for the Field Technician

- Problem Alert
- Initiate Service Request

- Service Request
- Connected Diagnostics
- Remote Access
- Create Work Order

- Dispatch Technician

- Diagnostic Troubleshooting

PTC Service Knowledge and Diagnostics

Contextual Repair Procedures

- Problem Alert
- Initiate Service Request

- Service Request
- Connected Diagnostics
- Remote Access
- Create Work Order

- Diagnostic Troubleshooting
- Review Related Docs/Videos
- Complete Repair/Sign-off

Dispatch Technician

PTC Technical Information

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