



The Connected Enterprise

互联企业

Accelerating High Performance Operations
助力中国制造2025

Rockwell
Automation

Rockwell Automation 概览

\$6.2B

FISCAL 2017 SALES
2017 财年营业收入

22,000

员工



80+

国家

WORLD'S LARGEST COMPANY DEDICATED TO INDUSTRIAL
AUTOMATION AND INFORMATION
世界最大的专注于自动化和信息化的公司

AUTOMATION SOLUTIONS

for a *broad range of industries*

提供众多行业自动化解决方案



SERVING

CUSTOMERS FOR

服务客户

115 YRS

- Innovation 创新
- Domain expertise 专业
- Culture of integrity & corporate responsibility 社会责任与商业道德



致力于帮助客户实现

ABOVE-MARKET GROWTH | PRODUCTIVITY | INTELLECTUAL CAPITAL
高于市场增长 生产力 知识资产

VALUE CREATION 创造价值

**Rockwell
Automation**

THE CONNECTED ENTERPRISE

互联企业

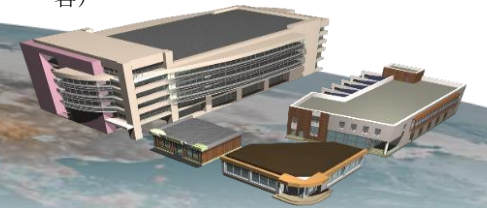
Optimized for Rapid Value Creation
优化企业运营 快速创造价值

Headquarters
总部

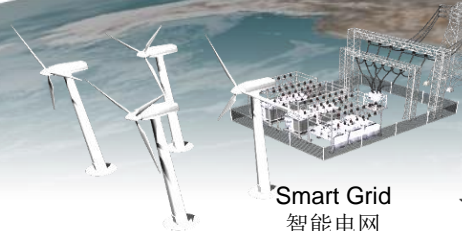


Production
生产

Customers
客户



Smart Grid
智能电网



Supply Chain
供应链



Field-Based Assets
现场资产



Distribution Center
配送中心



Business Systems – Transactional 业务系统 – 数据交互

ERP -

MRP

FINANCIALS
财务

HR
人力

LOGISTICS
物流

QUALITY
质量

CRM

...

IT

CONVERGENCE

融合

OT

Operations - Real-time
运营 - 实时

SENSORS, ACTUATORS
传感器、执行器

CONTROLLERS
控制器

MATERIALS &
TRANSPORT
物料与运输

MACHINES &
EQUIPMENT
机器与设备

...

设计软件
Design Software



Studio 5000® | CCW | Arena®

集散控制系统
Distributed Control System



PlantPAx®

可视化和信息化软件
Visualization & Information Software



FactoryTalk® | ThinManager®

可编程控制器
Programmable Automation Controllers

可编程控制器
Programmable Automation Controllers



CompactLogix™ | ControlLogix® | GuardLogix® | Armor™ GuardLogix®

工业网络基础设施
Industrial Network Infrastructure & Media

工业网络基础设施
Industrial Network Infrastructure & Media



Stratix®

操作员接口和工业计算机
Operator Interfaces & Industrial Computers

操作员接口和工业计算机
Operator Interfaces & Industrial Computers



PanelView™ | MobileView™

智能传感器
Smart Sensing Devices

智能传感器
Smart Sensing Devices



RightSight™ VisiSight™ RFID Pressure

I/O设备
Input / Output Devices

I/O设备
Input / Output Devices



Compact I/O™ | FLEX™ I/O | POINT I/O™ | ArmorBlock® | ArmorPOINT®

马达控制设备
Motor Control Devices

马达控制设备
Motor Control Devices



PowerFlex® | IntelliCENTER®

运动控制
Motion Control

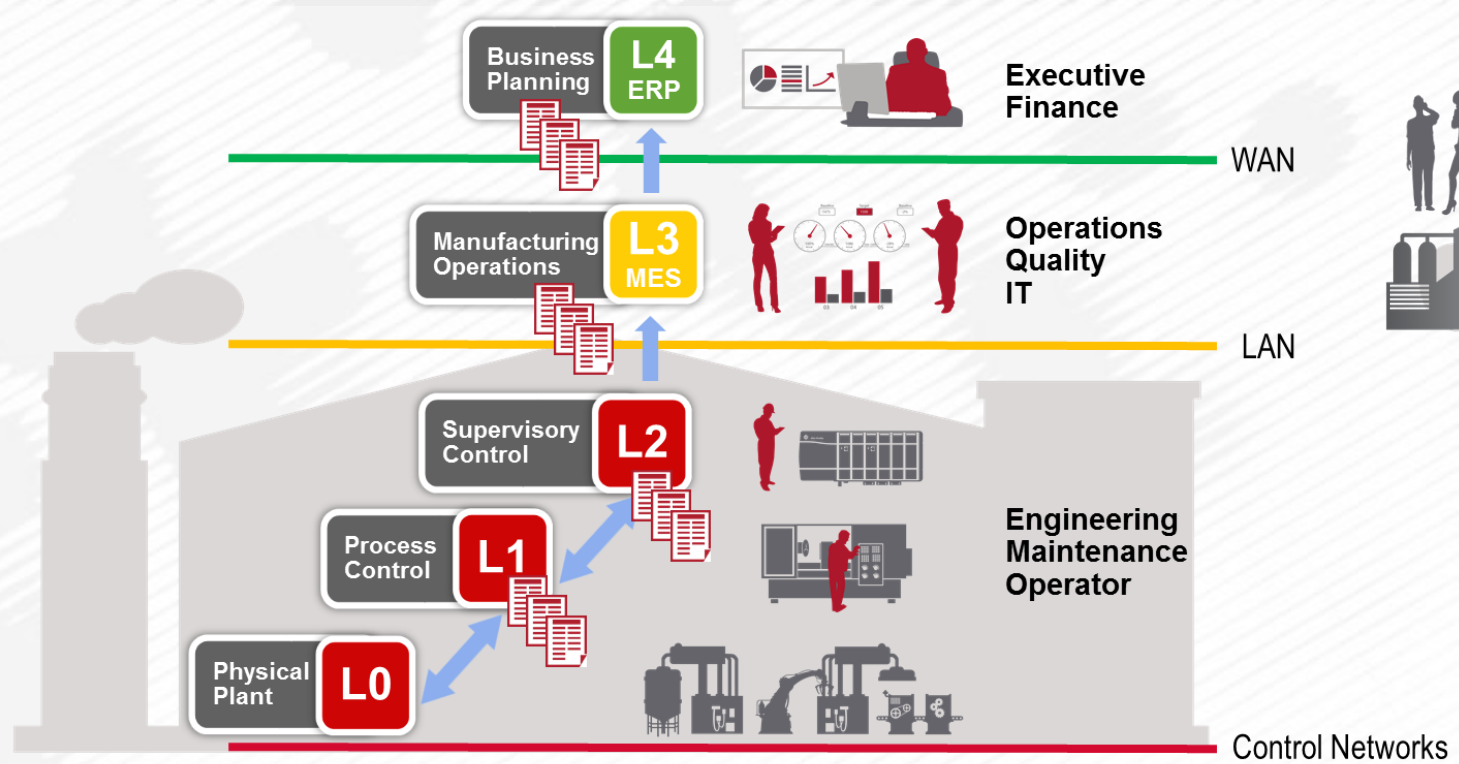
运动控制
Motion Control



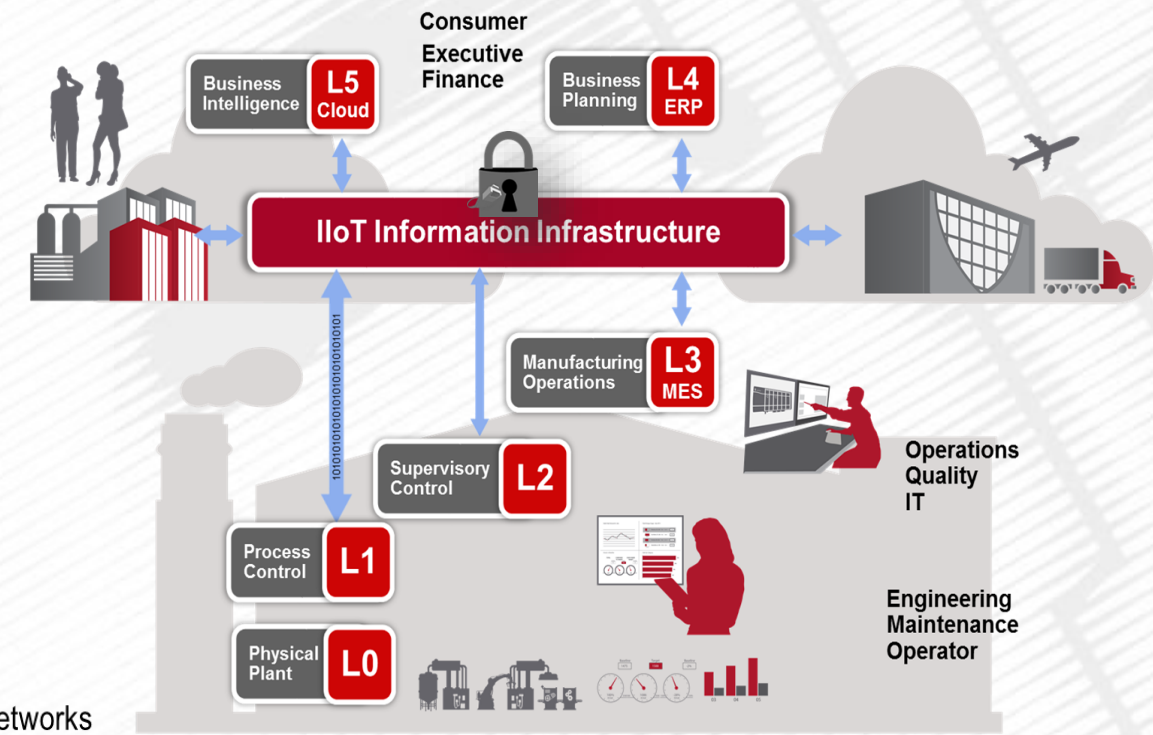
Kinetix® | iTRAK® | MagneMotion®

Digital Transformation 数字化转型

IIoT Impact on Information Infrastructure 工业物联网改变信息基础架构



Hierarchical - Historical data
分层结构 - 历史数据



Transparent - Live Data
透明化 - 实时数据

IoT统一网络平台

标准的未经更改的以太网

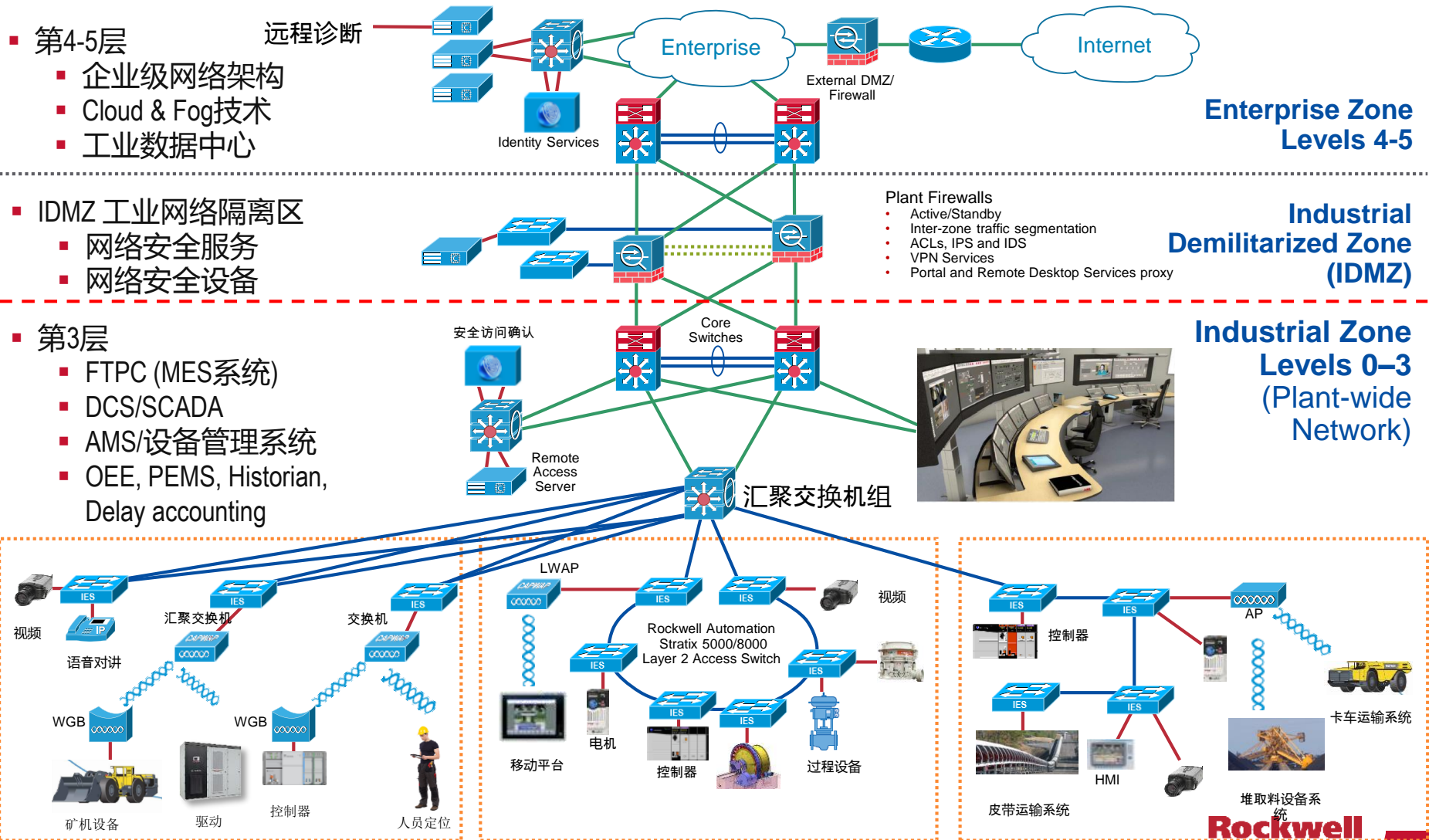
- IEEE802.3
- IoT
- 提升设备连接性

网络安全

- 保证网络基础设施安全
- Logix源代码保护
- 篡改预防及检测
- 身份管理及访问控制

面向今天，适应未来的网络

- 安全控制、同步和运动控制、
- 语音信息
- 视频信息



无线通讯在工业自动化的考量

安全

可靠

距离

频段

带宽

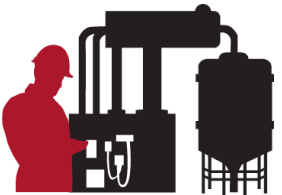
防干扰

穿透性

网络堵塞

工厂移动性考量

Who are your users? 谁是你的用户



ENGINEER
工程师

OPERATOR / LINE SUPERVISOR
操作工/线长

MAINTENANCE ENGINEER
维护工程师

PLANT ENGINEER
装置工程师

PLANT IT
装置IT

MANAGEMENT / EXECUTIVES
管理/执行层

Creates or maintains content
创建或维护内容

Control room or operator station控制室或者外站
Access mobile information when away from fixed HMI
离开固定HMI时移动获取信息

Access information when troubleshooting or repairing equipment
检修维护设备时获取信息

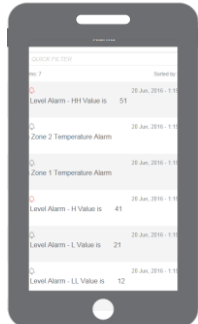
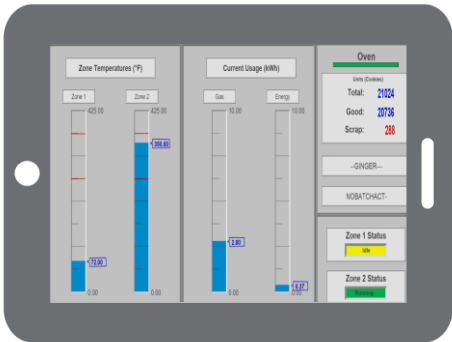
Needs to achieve production goals
达到生产目标的需求

Designs the network infrastructure and computer maintenance
设计网络架构和维护计算机

Monitoring of production levels, system status or uptime / downtime info
监控生产，设备状态
生产/停机时间信息

工厂移动性考量

What devices and client applications will be used?



Standard Clients 标准客户端
Tablet / PC
平板/PC

Thin Clients 瘦客户端
with ThinManager®

Web Clients
网页客户端

Mobile App
手机App

工厂移动性考量

What devices and client applications will be used?



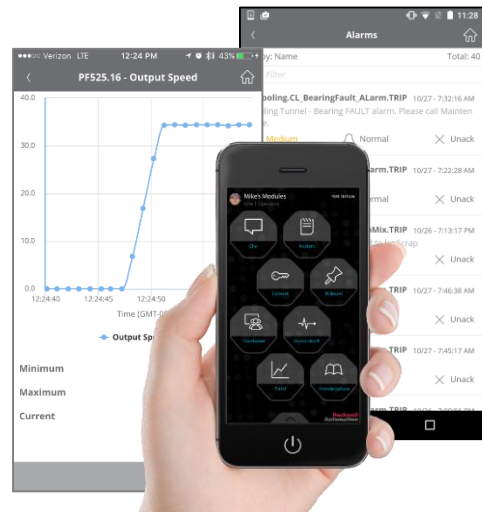
FactoryTalk

Mobile HMI 移动人机接口
Manufacturing Intelligence 制造信息
Analytics 数据分析

RELEVANCE
FOR MOBILITY



THINMANAGER
A Rockwell Automation Technology

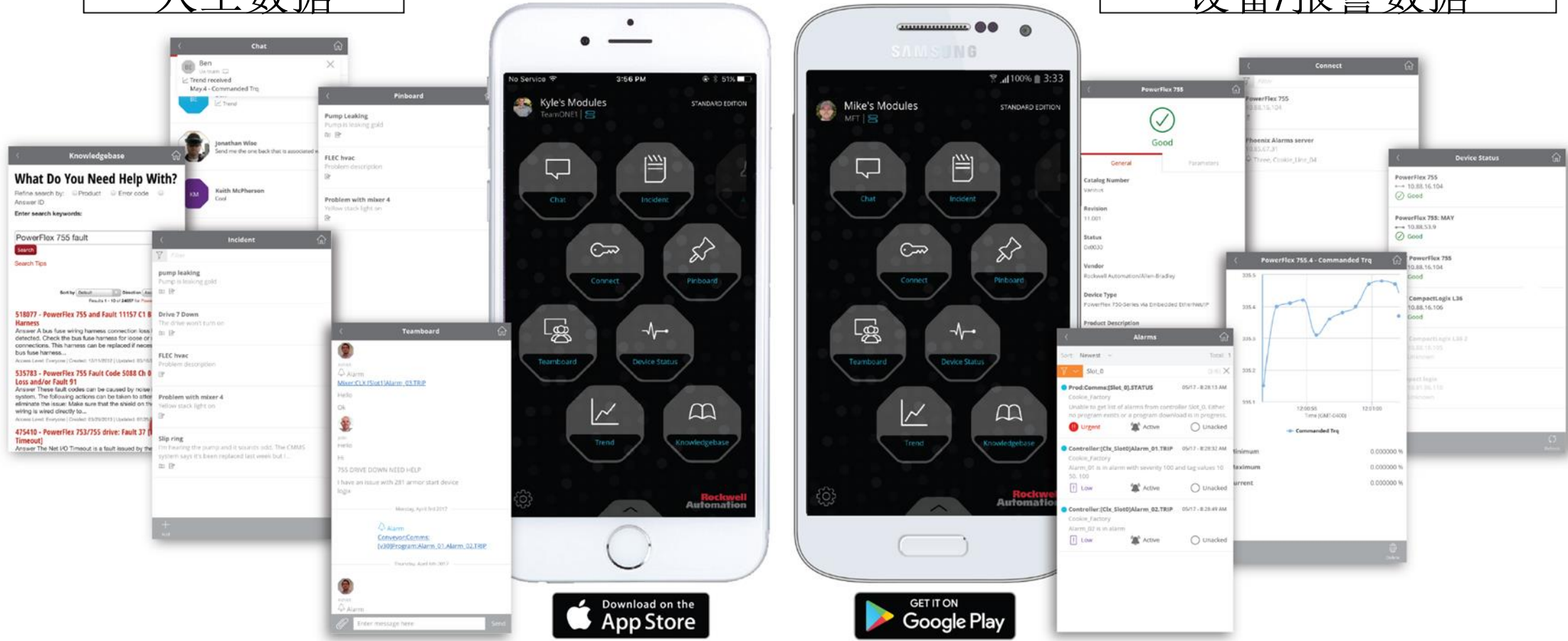


FactoryTalk TeamONE™

FactoryTalk® TeamONE™

Human Data
人工数据

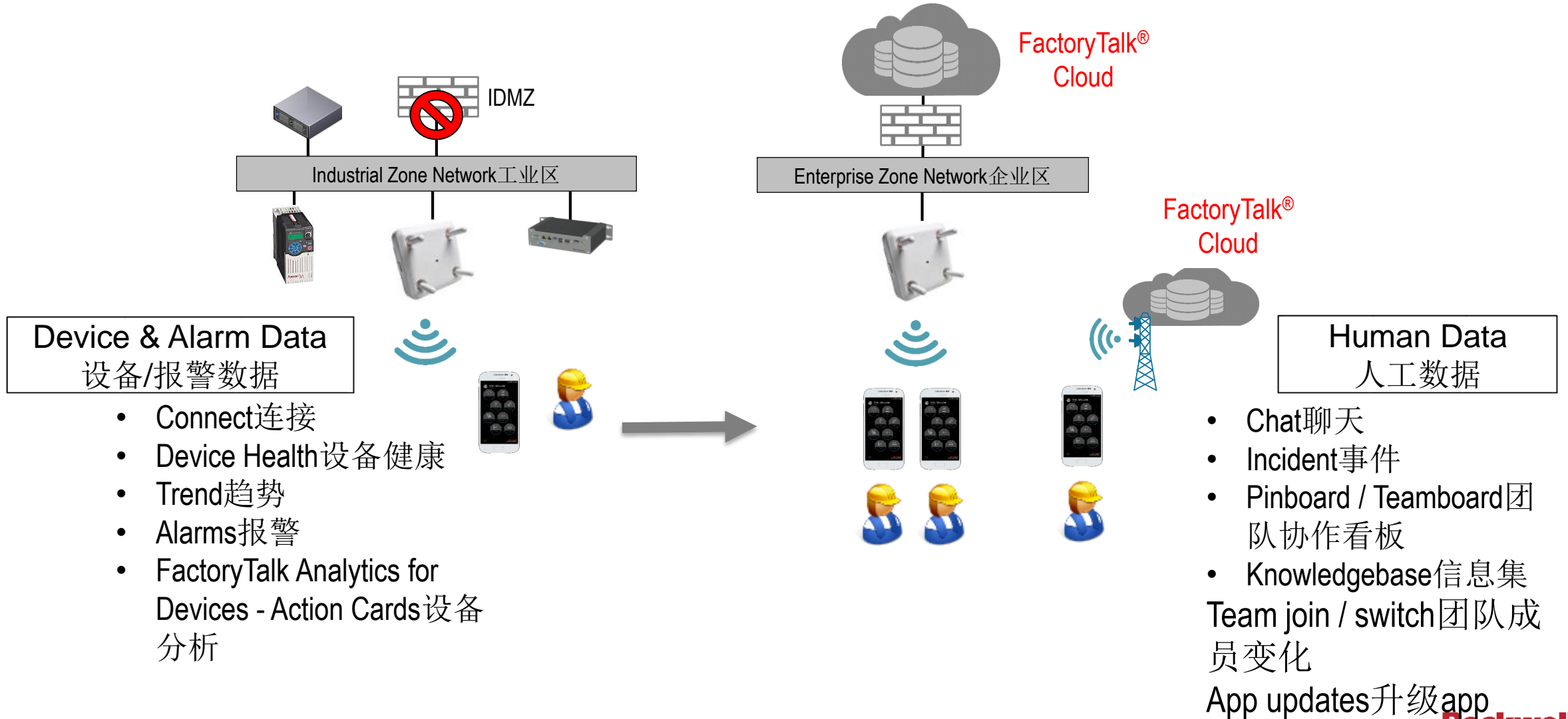
Device & Alarm Data
设备/报警数据



Download on the App Store

GET IT ON Google Play

FactoryTalk® TeamONE™ – Isolated IACS Network



Device & Alarm Data
设备/报警数据

- Connect 连接
- Device Health 设备健康
- Trend 趋势
- Alarms 报警
- FactoryTalk Analytics for Devices - Action Cards 设备分析

Human Data
人工数据

- Chat 聊天
- Incident 事件
- Pinboard / Teamboard 团队协作看板
- Knowledgebase 信息集
- Team join / switch 团队成员变化
- App updates 升级app

Smarter

Plants & Operations

更智能的

工厂和运营

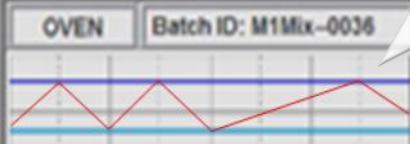
TANK 1	TANK 2	TANK 3
SALT	EGG_POWDER	BAKING_SODA
998.4 kg	993.7 kg	994.6 kg

Yield will meet today's production needs
产量可以满足今天的生产需求

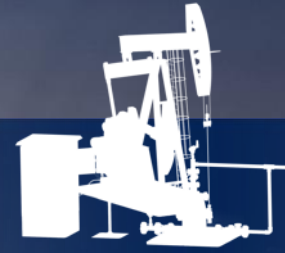
7100KWh of energy used today
今日能耗为 7100 KWh

ALERT
Maintenance
Line #1
警告
维护 1 号生产线

Time to reach temperature is longer than normal
达到额定温度的时间比正常时间长



vMONITOR[®] WIRELESS SOLUTION



Battery-powered, long-range micro-wireless sensor range has a reach
Over 5 km – a first in the industry



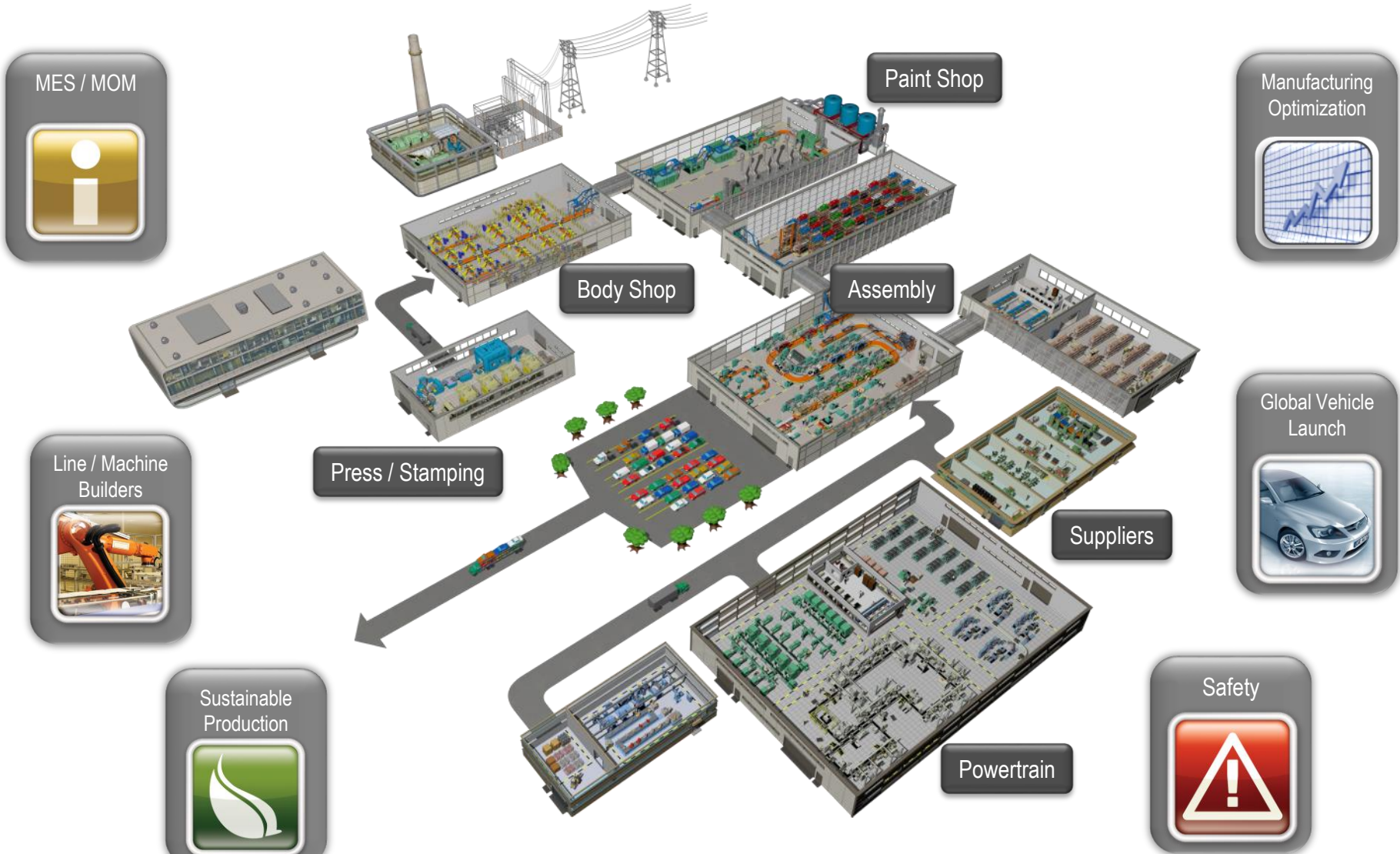
ELIMINATED
Solar Equipment

REDUCED Annual Production
Deferment 3-5%

ENABLED
Remote Monitoring

DECREASED Maintenance
Costs & Well Visits 50%

罗克韦尔汽车全厂方案



罗克韦尔轮胎全厂方案

