Dell Tech Data IoT & Analytics Bundles

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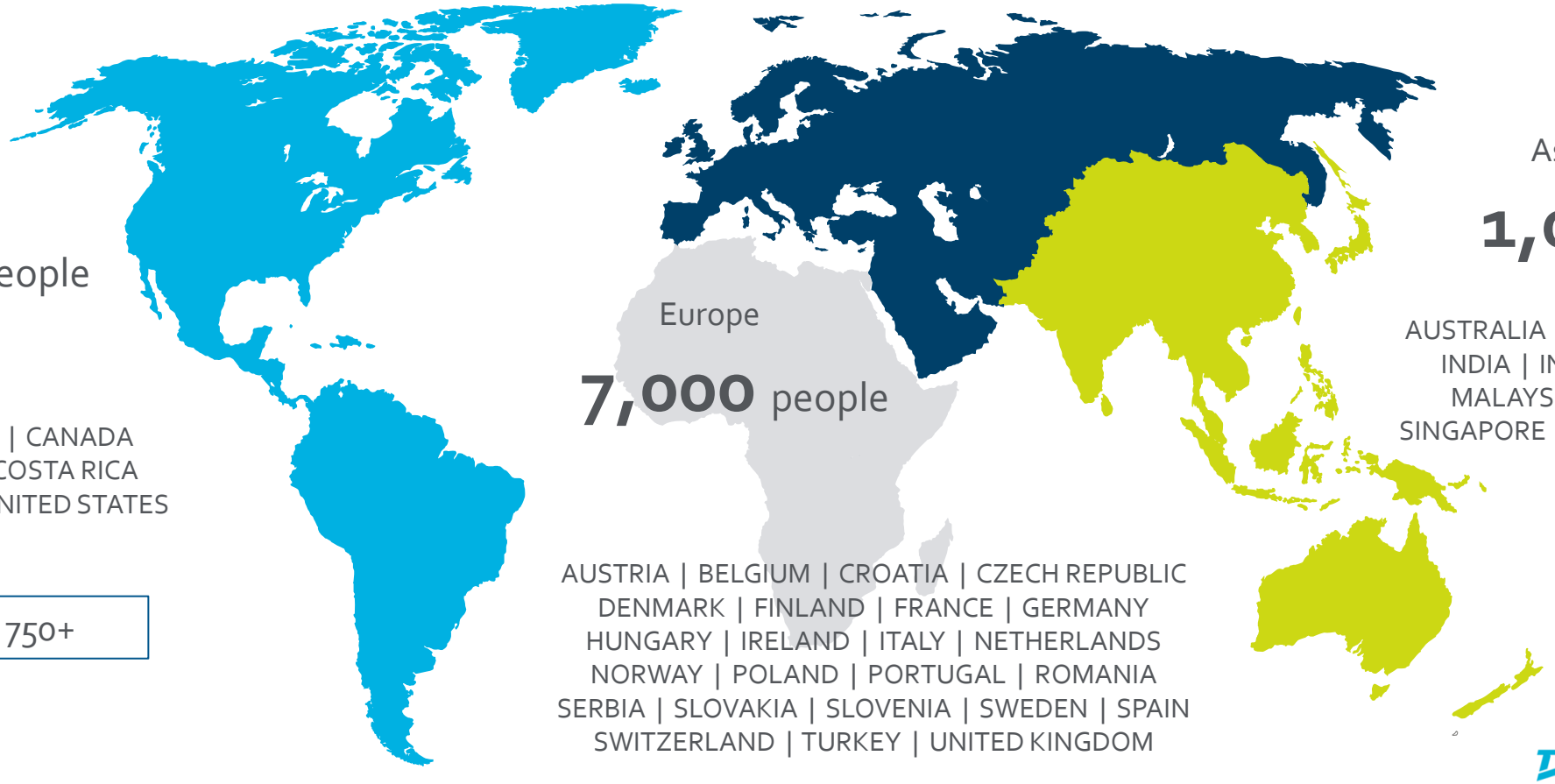
Top Challenges facing CIOs going into 2020 and beyond

- Digital Transformation and Business Strategy
- Driving Digital Culture Throughout the Organization
- Consumer Privacy and Data Security

A Global Partner

EXPERTISE & SPECIALISATION



Americas

6,000 people

ARGENTINA | BRAZIL | CANADA
CHILE | COLOMBIA | COSTA RICA
ECUADOR | MEXICO | UNITED STATES

Microsoft FTE: 750+

Europe

7,000 people

AUSTRIA | BELGIUM | CROATIA | CZECH REPUBLIC
DENMARK | FINLAND | FRANCE | GERMANY
HUNGARY | IRELAND | ITALY | NETHERLANDS
NORWAY | POLAND | PORTUGAL | ROMANIA
SERBIA | SLOVAKIA | SLOVENIA | SWEDEN | SPAIN
SWITZERLAND | TURKEY | UNITED KINGDOM

Asia Pacific

1,000 people

AUSTRALIA | CHINA | HONG KONG
INDIA | INDONESIA | MACAU
MALAYSIA | NEW ZEALAND
SINGAPORE | THAILAND | VIETNAM

TechData

The Changing Distribution Model

CURRENT BUSINESS MODEL = CLOUD MARKETPLACE

Linear, hierarchical transaction model between Supplier, Distributor, Reseller and Customer.

Often designed for 1 tier, possibly extended 2 tier.

SUPPLIER

DISTRIBUTOR

RESELLER

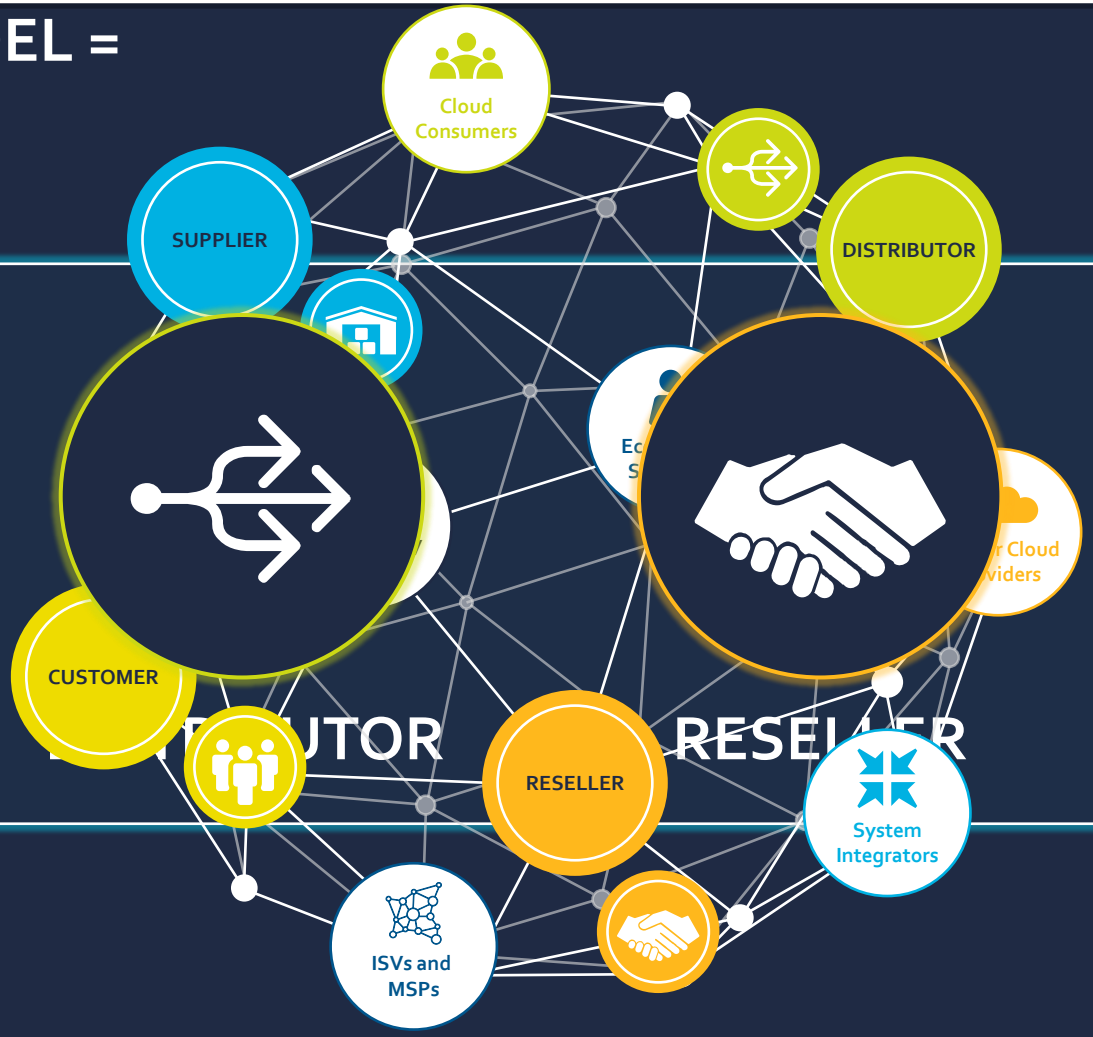
CUSTOMER

Connects vendor products with demand.

Assumes access to services managed via the platform.

The Changing Distribution Model

NEW BUSINESS MODEL = DIGITAL ECOSYSTEM



SUPPLIER

DISTRIBUTOR

RESELLER

CUSTOMER

Dynamic and co-evolving community of IT B2B actors (producers and consumers).

Members of the ecosystem can connect to any other member to transact business.

IP, Products, Software and Services are created, provided, and consumed by community members.

TD as IoT Solution Integrator

Complex Ecosystem

Enterprise, Process, System Integration

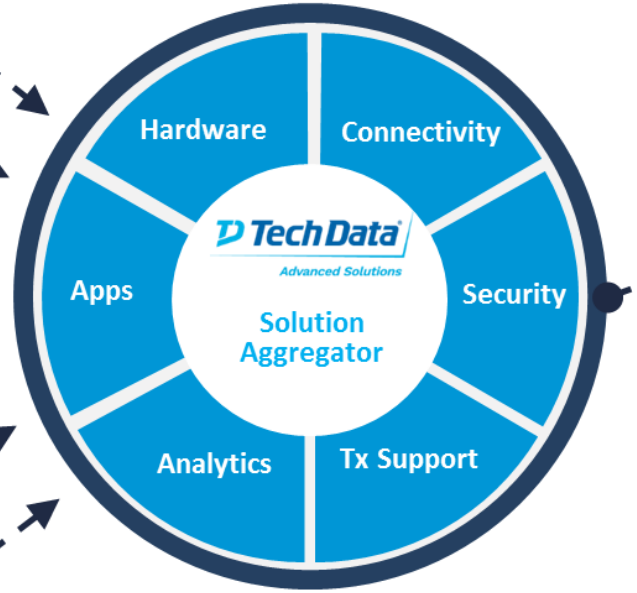
Analytics/Cognitive Dashboards/Reporting

Cloud/On Premises IoT Platform

Connectivity, Network

Gateways Edge Compute

Sensors Connected Devices



Made Simple

Start Here

Business Outcome

Partner

Creating new Innovative services

Choice, time-to-market & scalability

Single source for end-to-end IoT solution components

Industry focus

Retail

Micro Inventory Management

Intelligent Shopping Experience

Traffic-Based Product Management

Smart Spaces

Energy Optimization

Smart Parking

Building Safety & Security

Manufacturing

Remote Field Support

Safety Regulations

Predictive Maintenance

Transportation / Logistics

Intelligent Vehicle Routing

Asset Management

Fleet Usage Monitoring

Waves of Innovation

Cloud

Globally available, unlimited compute resources

IoT

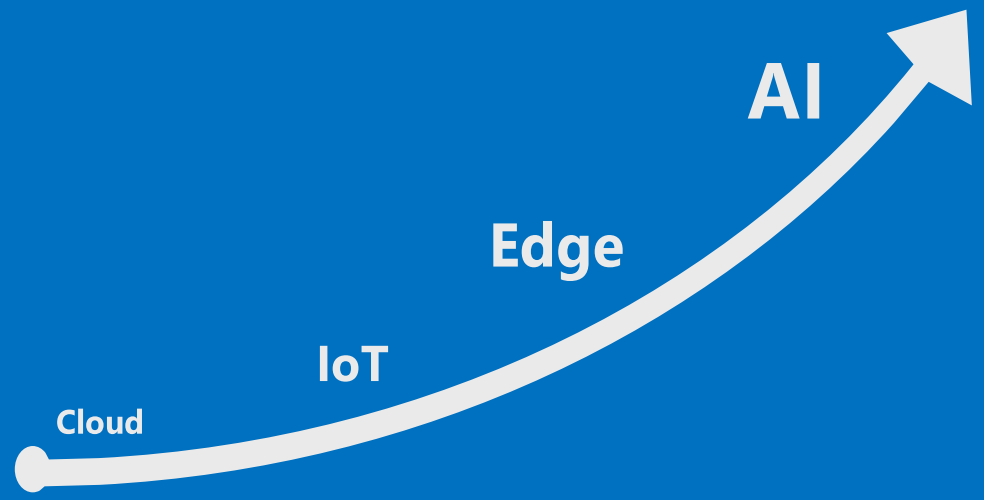
Harnessing signals from sensors and devices, managed centrally by the cloud

Edge

Intelligence offloaded from the cloud to IoT devices

AI

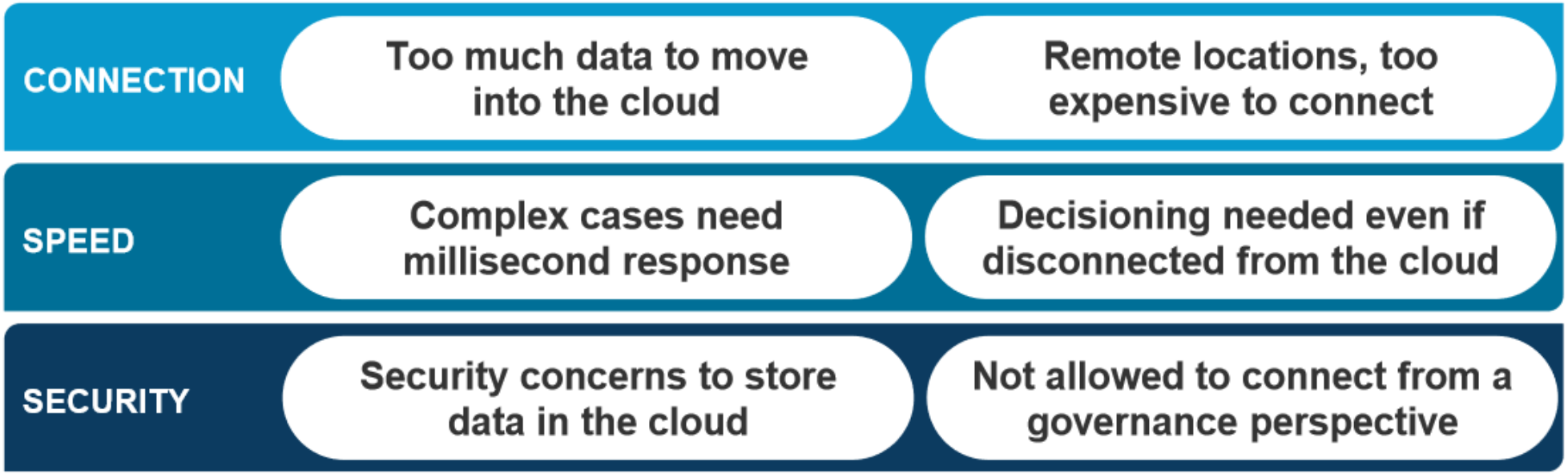
Breakthrough intelligence capabilities, in the cloud and at the edge



IoT Edge

IoT Adoption – the technical challenge

As we connect OT (Operational Technology) to the Internet in order to get the data, we are presented with some challenges



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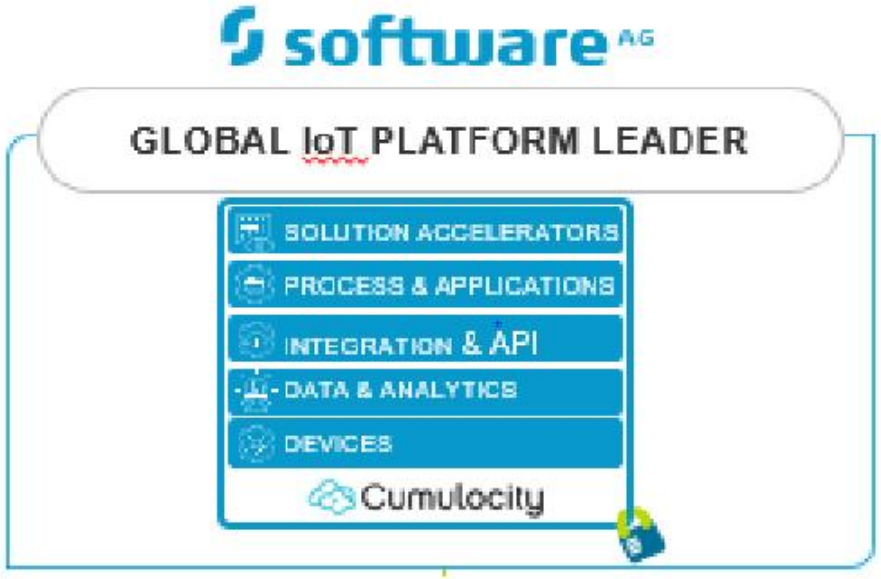
What IS the Software AG IoT Connected Bundle

A pre validated combination of right-sized Dell Technologies PowerEdge And Edge Gateway solutions in tandem with Software AG's Cumulocity IoT Edge Solution.



Bundle size	S	M 1	M2	L1	L2
Server	PowerEdge R340 Server	PowerEdge XR2 rugged Server	PowerEdge XR2 rugged Server	PowerEdge R740/R740XD Server	PowerEdge R740/R740XD Server
CPU	1x Intel Xeon E-2124 (3,3GHz, 4C/4T, 8MB Cache, 71W, Turbo) 4 Cores/ 4 Threads	2x Intel® Xeon® Gold 5122 Processor, 4 cores 3.6 GHz, 3.60 GHz, 16.5 MB Cache L3	2x Intel® Xeon® Gold 6126 Processor, 12 cores, 3.70 GHz, 2.60 GHz, 19.25 MB L3	2x Intel® Xeon® Gold 6144 Processor, 8 cores, 4.20 GHz, 3.50 GHz, 24.75 MB L3	2x Intel® Xeon® Platinum 8153 Processor, 16 cores, 2.80 GHz, 2.00 GHz, 22 MB L3
Memory	8 GB Turbo, Hyper-Threading DDR4-2666	16 GB Turbo, Hyper-Threading (125 W) DDR4-2666	32 GB Turbo, Hyper-Threading (125 W) DDR4-2666	32 GB Turbo, Hyper-Threading (140 W) DDR4-2666	64 GB Turbo, Hyper-Threading (140 W) DDR4-2666
Disks	4x 960GB Solid State Drive SATA, Read Intensive TLC 6Gbps 2.5in Hot-plug Drive, PM863a	4x 960GB SSD SATA Drive ,Read Intensive 6Gbit/s 512e 2,5Zoll Hot-Plug Drive, S4500,1 DWPD,1752 TBW	6x 960GB SSD SATA Drive, Read Intensive 6Gbit/s 512n 2,5Zoll Hot-Plug Drive, PM863a,1 DWPD,1752 TBW	4x 960GB SSD SATA Drive, Read Intensive 6Gbit/s512n 2,5Zoll Hot-Plug Drive, PM863a,1 DWPD,1752 TBW	6x 960GB SSD SATA Drive, Read Intensive, 6Gbit/s 512n 2,5Zoll Hot-Plug Drive, PM863a,1 DWPD,1752 TBW
Total number of cores	4	8	24	16	32
Number of Gateways of type E5000 Intel Atom Processor E3825 (1M Cache, 1.33 GHz)	2x	2x	4x	2x	4x
Cumulocity	Cumulocity IoT Edge incl. APAMA Analytics	Cumulocity IoT Edge incl. APAMA Analytics	Cumulocity IoT Edge incl. APAMA Analytics	Cumulocity IoT Edge incl. APAMA Analytics	Cumulocity IoT Edge incl. APAMA Analytics

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Networking Considerations

PowerEdge – Networking at the Thick Edge

Leverage 10GbE SFP+ and Ethernet built into bundles platforms to connect to the Enterprise

Dell PowerSwitch Portfolio

- Ethernet
- Wireless
- VEP

Edge Gateway 5000 – Networking at Thin Edge

Leverage Ethernet Connectivity back to the “Thick Edge” and or leverage Wifi and/or 4G/LTE technologies built into the Edge Gateway 5000

- Ethernet
- Wireless
- 4G / LTE

Edge Gateway 5000 – IoT “OT Networking” and/or Control System Interface

Connect to asset control system using Ethernet or alternate

- USB, Serial, Bluetooth
- Zigbee Mesh for Sensors
- PCIe Expanion Module
- Canbus
- GPIO

Dell Customer Communication - Confidential

High Value Asset Management – Wind Turbines

- Secure remote access and central monitoring system
- Monitoring, collection and processing of real-time data (e.g. icing protection on turbines) for controlling industrial processes
- Visualization of real-time data for better and faster decisions
- Accelerated commissioning process
- Same software architecture from edge to cloud with identical APIs, data models and analytics.
- Up and running in a few weeks

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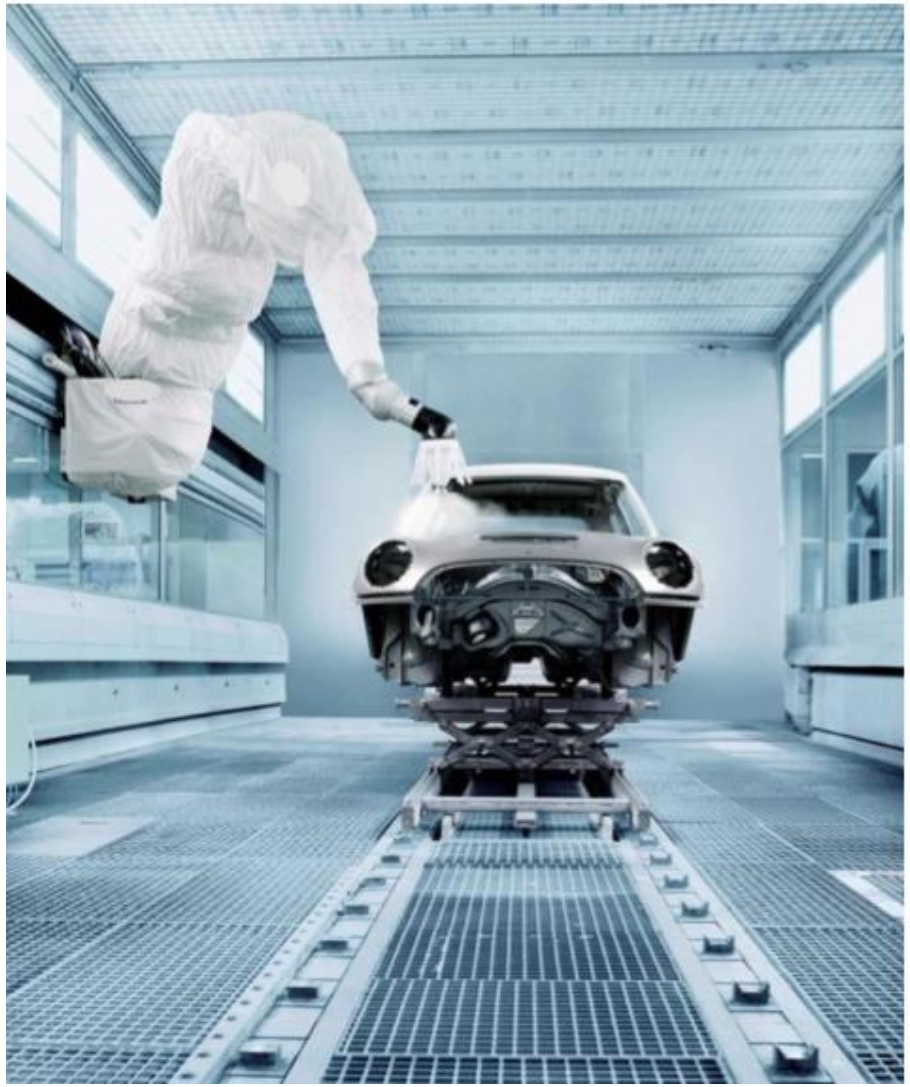
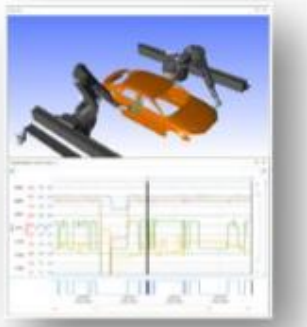
High Value Asset Management – Automotive Paint Robotics





- Real-time signals from painting robots
- Anomaly detection in real time
- Closed-loop analysis at the Edge
- Real-time execution of prediction models
- Continuous training of analysis models (ML/AI)

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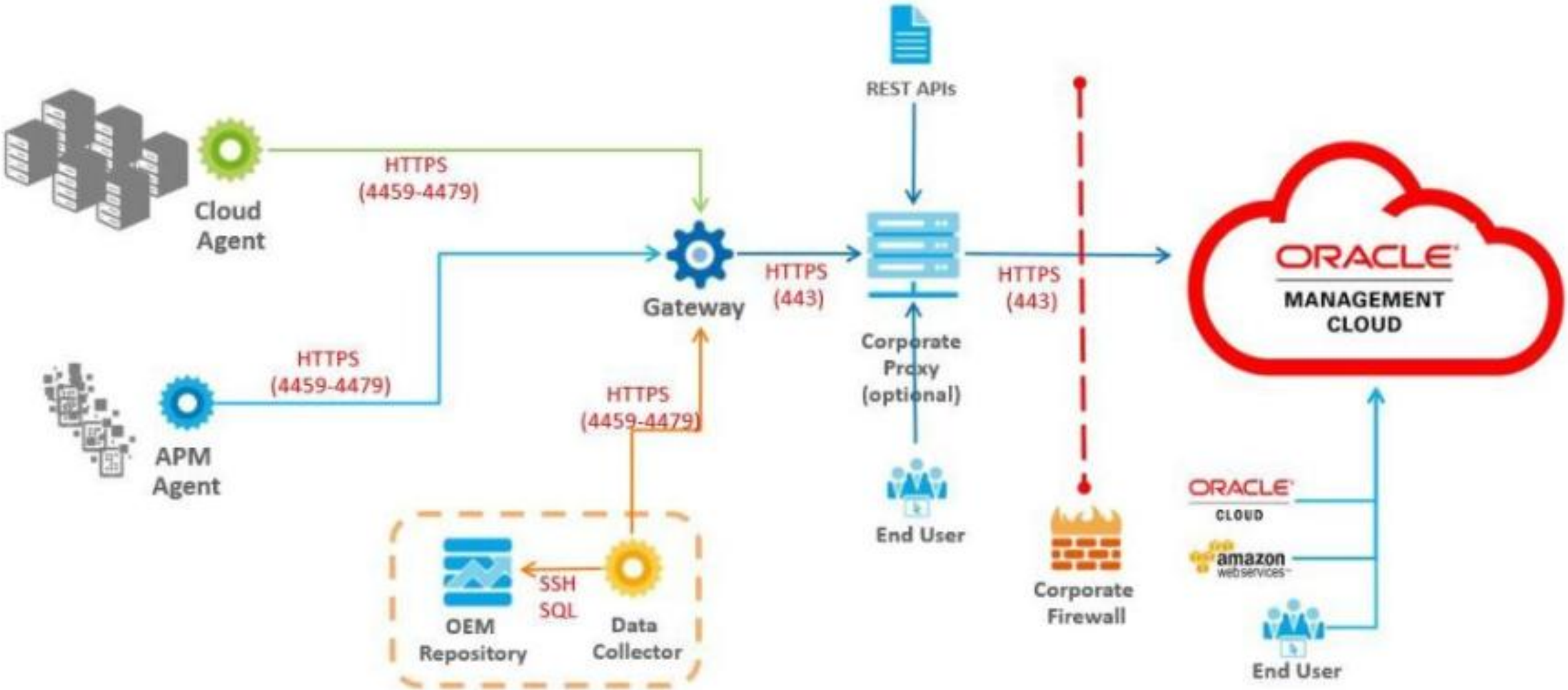
IoT Cloud



Oracle Management Cloud architecture

http://courtneyllamas.com/sending-data-to-oracle-management-cloud/

Eco-system Vendorów IoT

Remote Refrigeration Monitoring

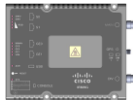
Retail

Solution Benefits

- Remotely monitor refrigerators without manual use of hand held devices.
- Ensure regulatory requirements for chilled goods are being met in real time.
- Immediate notification of loss of power to a refrigeration unit that might put chilled goods at risk.
- Leverage Predictive Analytics to detect failing units prior to an incident, reducing downtime and spoiled goods.

Solution

Maintaining an optimal temperature in your coolers and freezers is important. If the temperature falls above or below the optimal range, costly spoilage can occur. From prep coolers to walk-in freezers, this use case help customers maintain proper temperatures and will alert you in real-time if temperature go outside a safe zone or if a cooler door is left open or if there is a power failure.

Industrial Sensors	Industrial Edge Gateways	Cellular Backhaul Connectivity	Network Infrastructure	Edge Software	IoT Middleware	Cloud Infrastructure	Analytics and Visualisation
PANDUIT	 CISCO	vodafone	CISCO	CISCO	CISCO	Microsoft IBM	
	Cisco IR 800 Series		Cisco IE2000 Series	Cisco Kinetic Edge	Cisco Kinetic		

TechData Advanced Solutions

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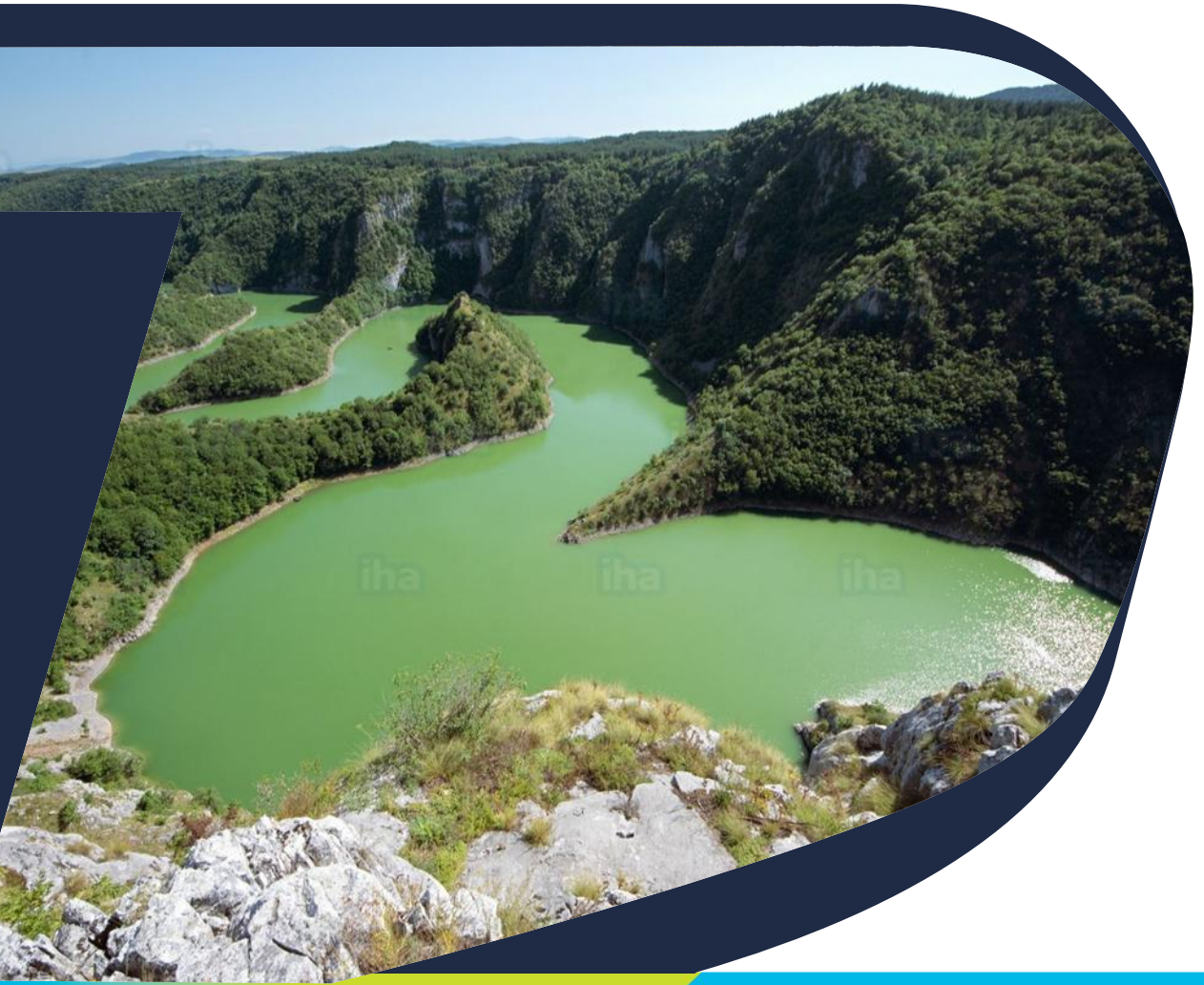
Thank you and stay in touch!



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Business Development Manager

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