Design
the Difference
with
Digital twin

Altair Technology Conference 2017

Altair's IoT Vision

Satish.K
Director – Enterprise Computing – APAC & GCC Markets
15th September 2017

ATC 2017

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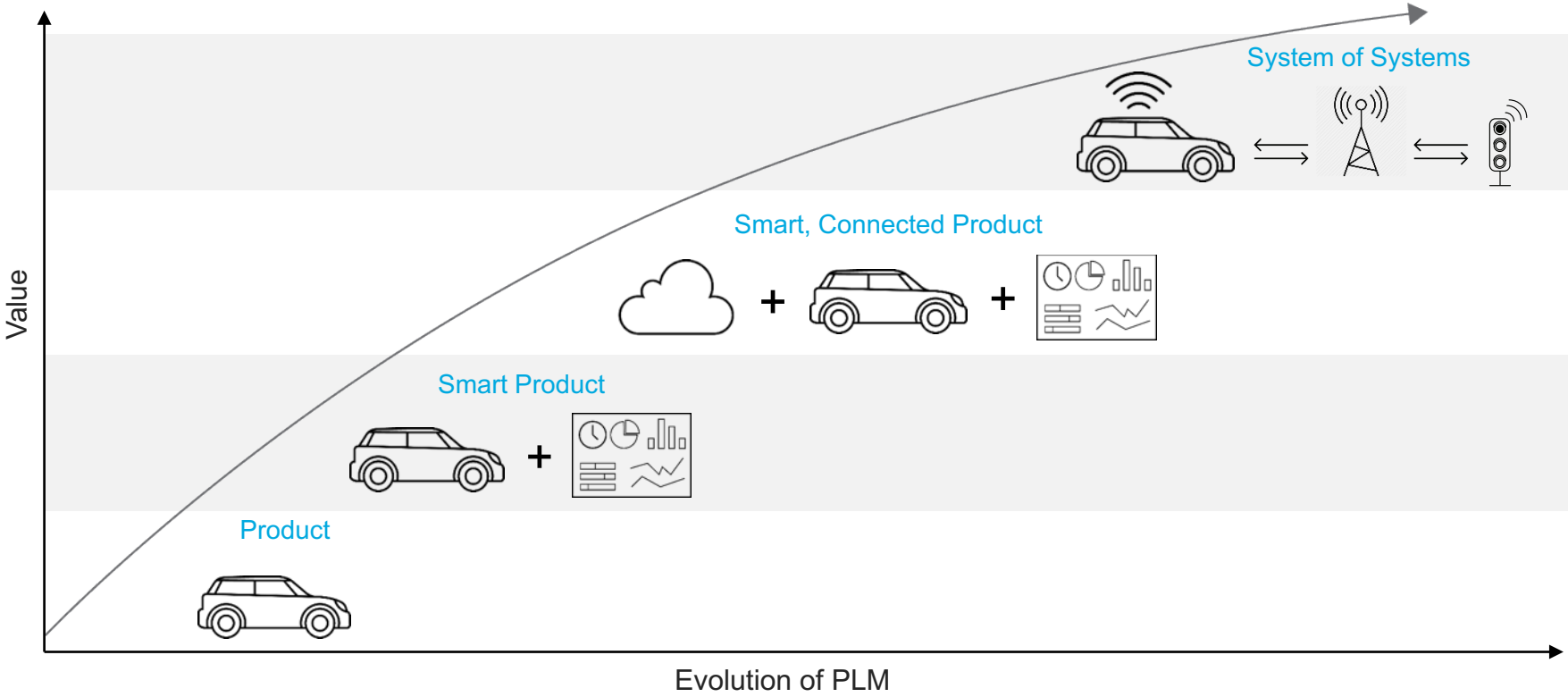
CONNECTIVITY



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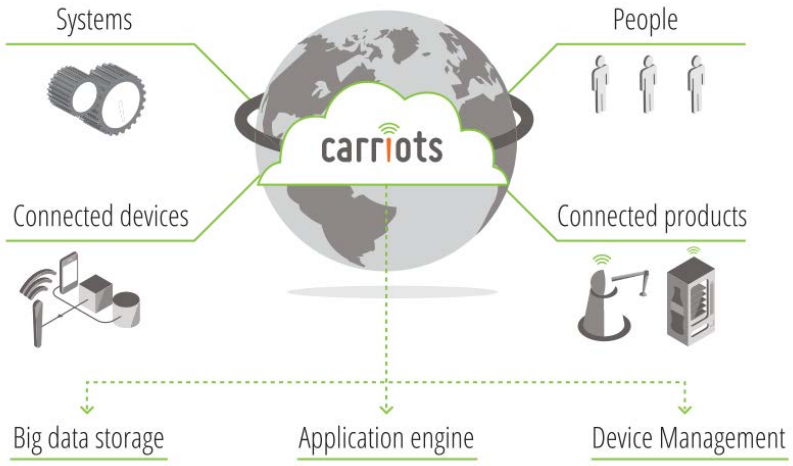
CARRIOTS

With Carriots you can:

Collect and store any kind of data from your devices
Build powerful solutions with our application engine
Deploy and scale from proof of concept to millions of devices and users



Platform as a Service for IoT & M2M projects

App dev environment, robust APIs and hands-free hosting

Provides the Backbone to Altair's "Digital Twin" Strategy

Collect / store data from devices
Build powerful apps with SDK engine
Scales to millions of devices / users

A powerful platform for developing Industrial IoT applications

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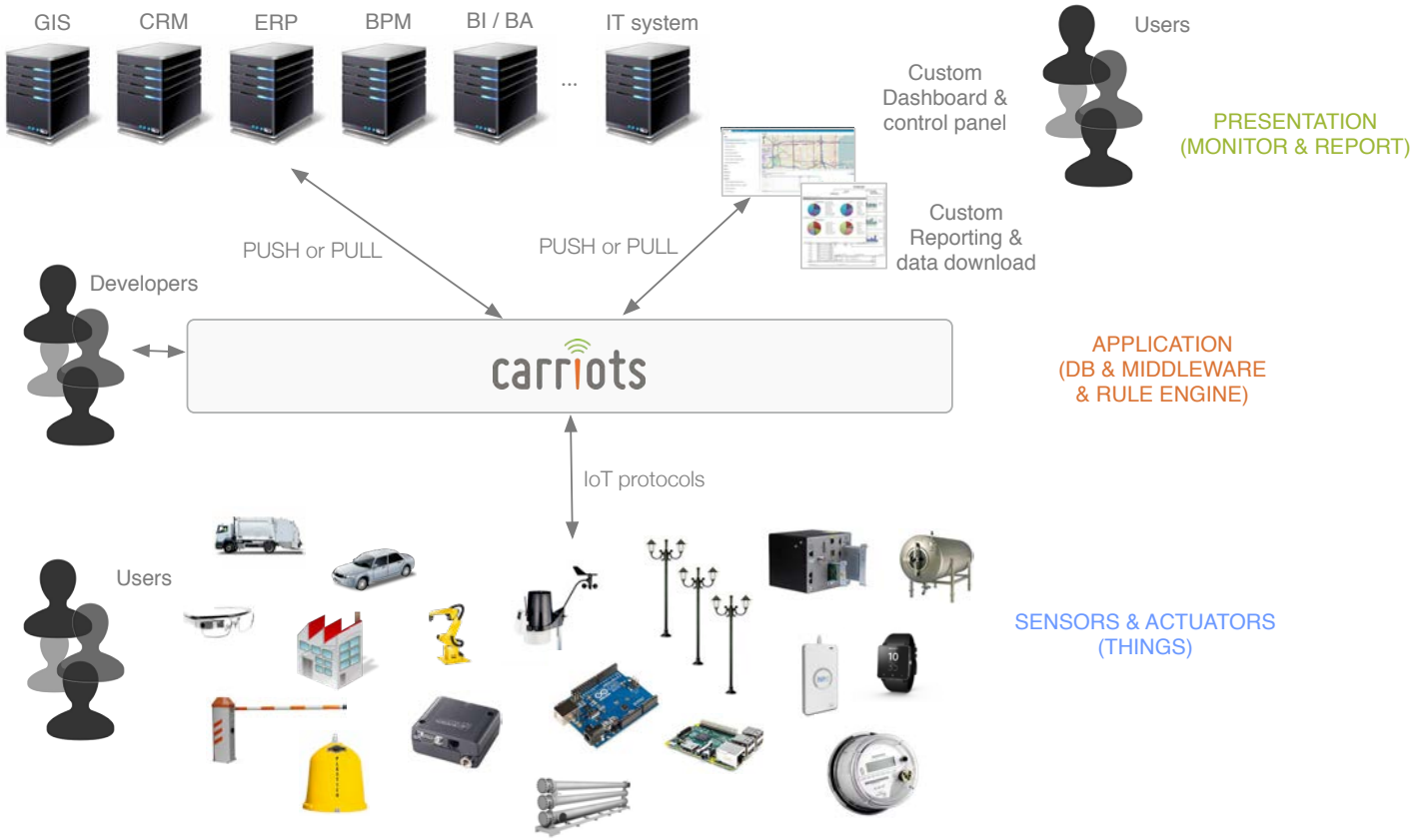
IOT Projects Architecture



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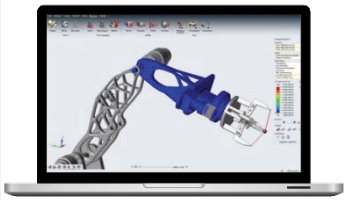
ALTAIR DIGITAL PLATFORM

Engineering the Device



Connecting the Device

Managing the Device, Data and Analytics Lifecycle

Consumer & Industrial IoT Applications

Digital Twin

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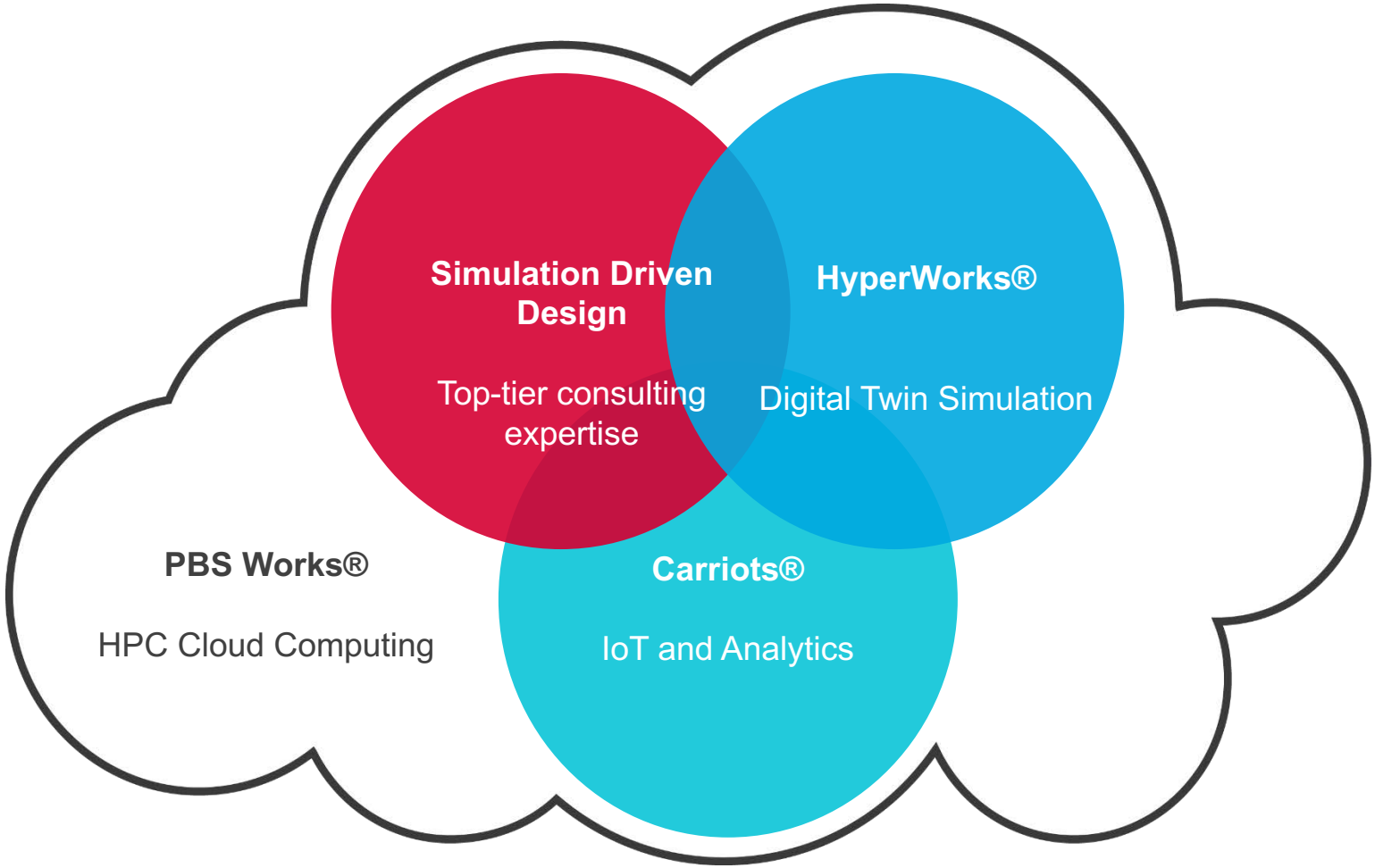
Altair's IOT Value Chain



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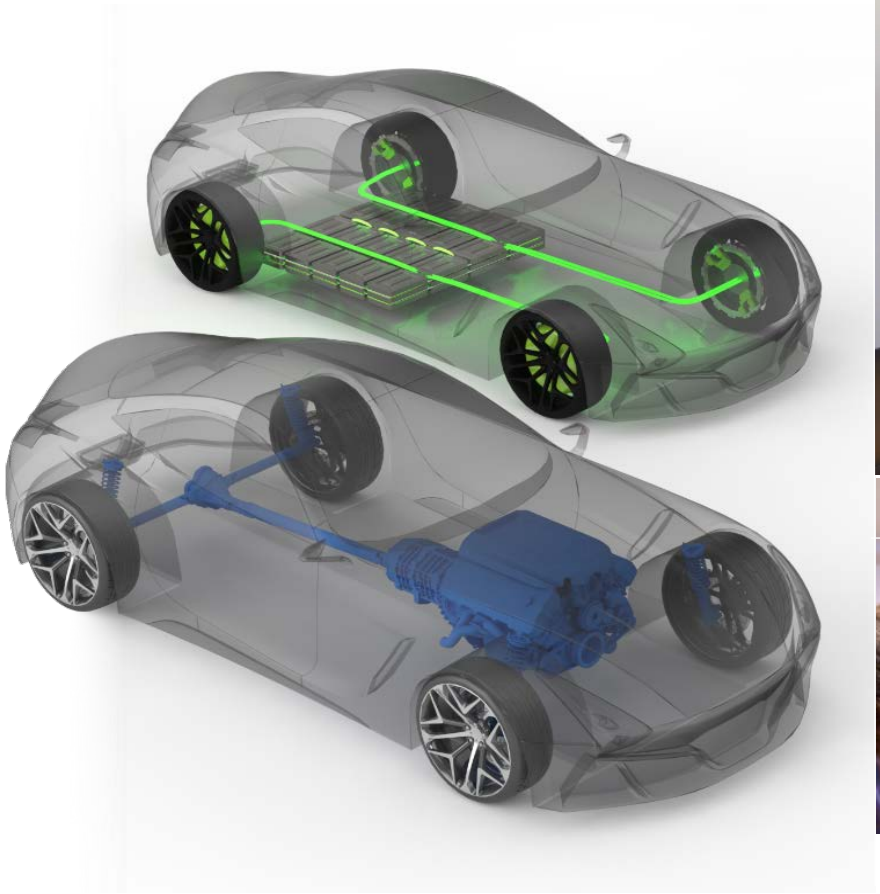
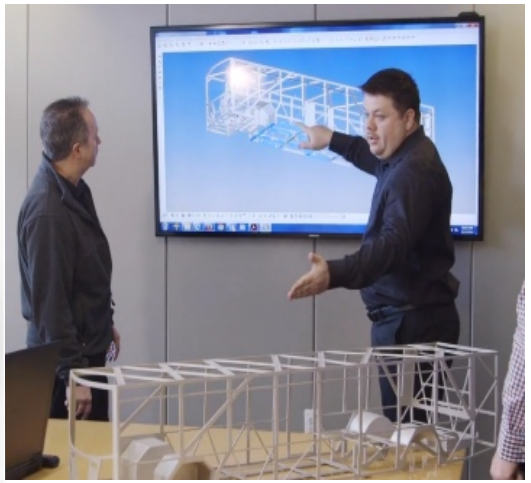
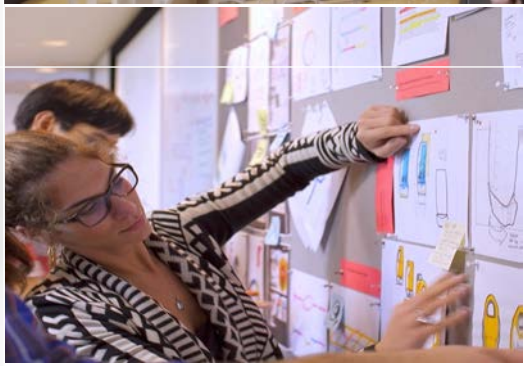
SIMULATION DRIVEN DESIGN

MULTI-DISCIPLINARY DESIGN CONSULTANCY, FROM CONCEPT TO IN-SERVICE OPERATION







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HYPERWORKS

AN END-TO-END AND OPEN ARCHITECTURE DIGITAL TWIN PLATFORM

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PBS WORKS

MARKET LEADING HIGH PERFORMANCE CLOUD COMPUTING

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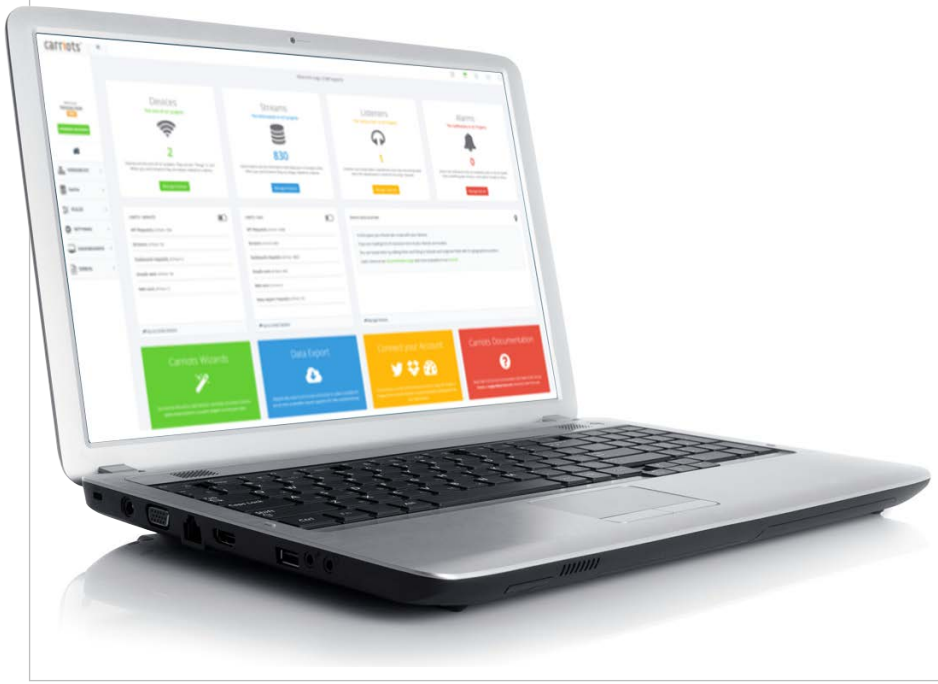
CARRIOTS
AN END-TO-END AND OPEN ARCHITECTURE INTERNET-OF-THINGS PLATFORM



carriots®

Network Planning / Protocols / Communications

salesforce · SAP · Microsoft Azure · sigfox

Device and Data Management

thingworx · ThingSpeak · carriots®

Edge/ Cloud Analytics & Apps

Qlik · tableau SOFTWARE · carriots®

Digital Twin Gateway

ANSYS · MathWorks · HyperWorks

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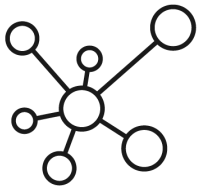
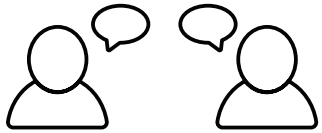
DIFFERENTIATORS



Open

MODULAR
INTEROPERABILITY

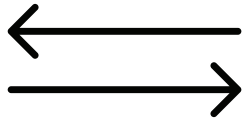


Expertise

CONSULTANCY /
BEST PRACTICES

Cloud Native

SCALABILITY/SECURITY



End-to-End

FROM CRADLE TO GRAVE

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ALTAIR IOT SOLUTION DELIVERY MODELS

Turn-key
Platform-as-a-Service

On-premises and
Specified Cloud
Infrastructure

Physical and Virtual
Appliances

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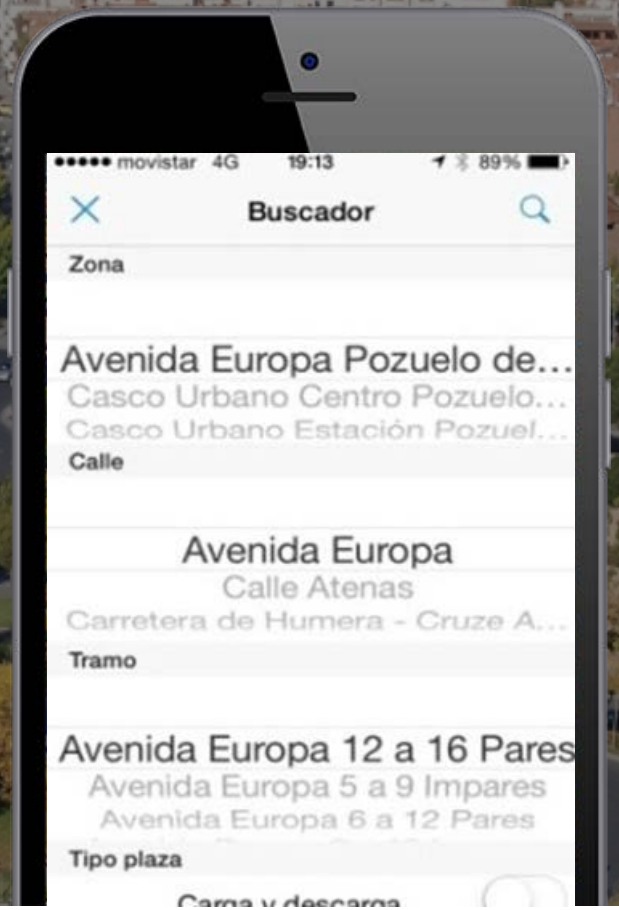
POZUELO SMART CITY

The citizens of Pozuelo de Alarcón in Spain wanted a cleaner and more efficient city. The goals were to protect the environment, decrease energy consumption, reduce CO2 emissions, and control expenses. The city council used Carriots City Life and our partner Orange España as connectivity provider.



PozuelodeAlarcón

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BEER FLOWMETER

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Flowmeter is installed between the beer barrel and the tap. Each time a beer is served the information is sent to Carriots. Beer consumption data is stored and pushed to external information systems to improve business performance.

FLOWMETER

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toggled®

Smart LED lighting products and controls

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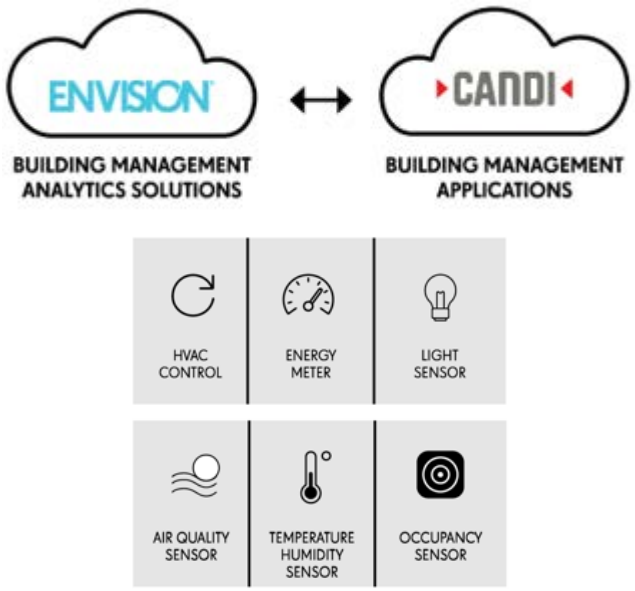
Connect Candi Controls as a Data Source for BM Analytics

- Enables Building Management Analytics
- CANDI Data Connector
- Templated analytics dashboards prepared



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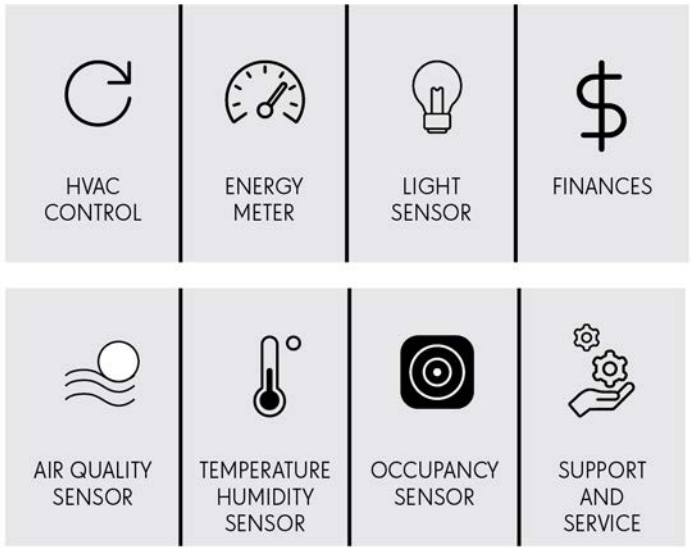
CANDI and Carriots Analytics Data Flow



Device Data

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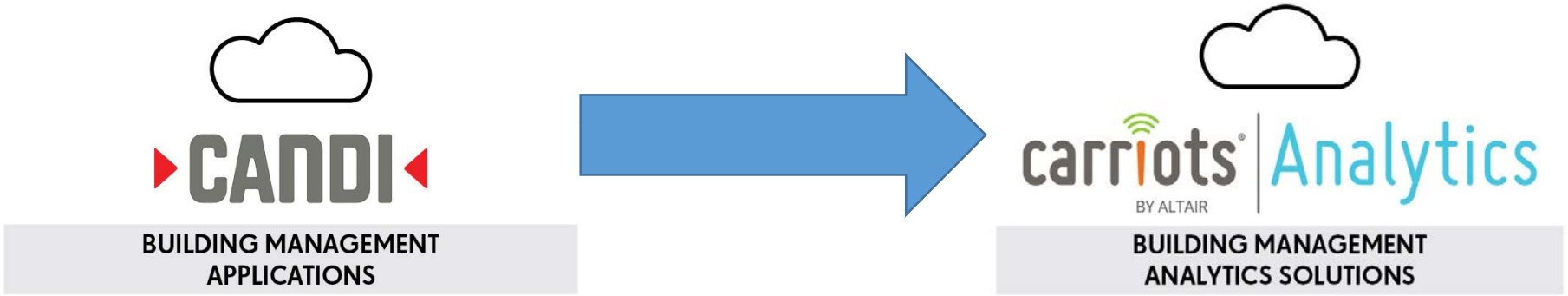
CANDI and Carriots Analytics Data Flow

Altair



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Altair

CANDI Data Connector & Dashboard Templates

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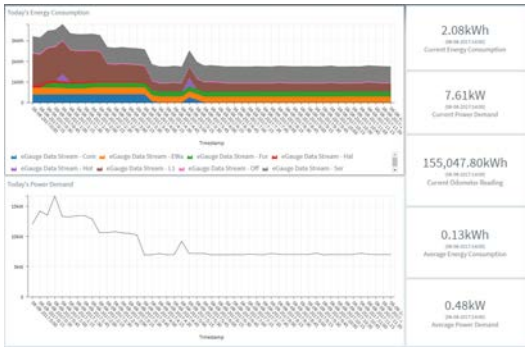
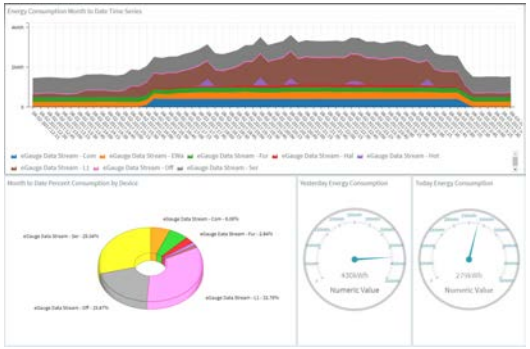
CANDI and Carriots Analytics Data Flow





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ALTAIR'S VISION FOR IOT

Engineering

Sensor Design & Placement

Model-Based Product Development

Digital Twin Simulation

Business & Operations

Customer Engagement

Condition Monitoring

Predictive Maintenance

Performance Optimization

Prescriptive Analytics