



# CREATING BUSINESS VALUE. WITH IoT.



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## CUMULOCITY IoT



**GETTING STARTED WITH IoT  
CAN FEEL LIKE AN UPHILL STRUGGLE**





## GETTING STARTED WITH IoT THREE GUIDING PRINCIPLES



Start Small  
& Scale Fast



Failing Fast  
Is Not Failure



Deliver Value  
Very, Very Quickly

A photograph of a city skyline with several skyscrapers under a clear blue sky. The image is used as a background for the top half of the slide.

## VICROADS, AUSTRALIA MANAGED MOTORWAYS



7 million people by 2030  
13 million trips every day  
By 2020 50% of road trips on freeways

## VICROADS, AUSTRALIA MANAGED MOTORWAYS



### Targeted business outcomes

- Better information to road users
- Clear incidents more efficiently
- Improve road safety for workers
- Guide to alternative routes
- Reduce congestion

# VICROADS, AUSTRALIA MANAGED MOTORWAYS



## Technology & Vendor Agnostic

Variety of Technologies  
No lock-in

## Highly Scalable & Robust

1.000s devices  
1.000.000s messages

## Rapid Development & Testing

Short time-to-value  
Stakeholders attention



## TRANSPORT FOR LONDON PUBLIC BUS EMISSION REDUCTION

**HJS**  
Emission Technology

**SW**

9,000 deaths a year linked to air pollution  
Nitrogen Oxides (NO<sub>x</sub>) is the key contributor  
6,800 buses carry 6 million people daily





## TRANSPORT FOR LONDON PUBLIC BUS EMISSION REDUCTION



### Targeted business outcomes

- Euro VI emissions target
- 5,800 buses retro-fitted
- Real-time performance and location tracking
- Fully auditability



# TRANSPORT FOR LONDON PUBLIC BUS EMISSION REDUCTION



## Very Fast Time to Market

Meet customer  
requirements asap

## Open & Extendable

Telemetry solutions  
can be very different

## Secure, Robust & Reliable

Contract is based on  
actual reduction performance



## THREE KEY TECHNOLOGY CONSIDERATIONS



### **RAPID DEPLOYMENT**

Quickly get to a  
Minimum Viable Product



### **OPEN & INDEPENDENT**

Seamlessly integrate with your  
IT/OT/HW/Comms choices



### **SECURE PLATFORM**

Robust, proven, carrier grade  
and highly scalable

# THREE KEY MARKET LEADING PLAYERS TO GET STARTED WITH IoT

## IoT VALUE PROPOSITION BY *DESIGN THINKING*

The logo for Software AG, featuring a stylized blue 'S' icon followed by the text 'software' in blue and 'AG' in a smaller, lighter blue font.

software<sup>AG</sup>





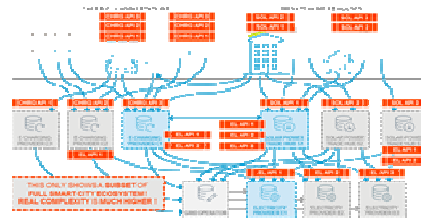
# IoT VALUE PROPOSITION

EXAMPLE

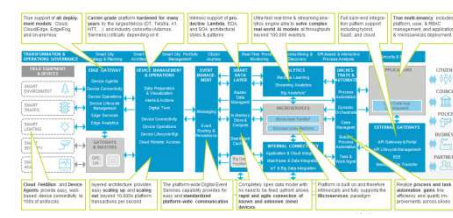
## 1 BUSINESS INITIATIVES

- ▶ Smart City
  - City Ecosystems
  - Happiest Citizens
  - ...

## 2 CURRENT STATE



## 4 FUTURE STATE



## 6 STRAWMAN BIZCASE

- 5% Emission reduction by Smart Parking
- 10% cost reduction by Smart Lighting
- Cost reduction social services by happier citizens (less sickness e.g.)
- Better digitized education at schools

## 3 OBSTACLES

- Deployment of logic restricted by IT capabilities, not based on use case req's
- Break-down of siloes needs process & data integration irrespective where stored
- Lack of **scalability** and too **low time-to-value**

## 5 ENABLERS

- **Deploy anywhere** from device, edge, fog, cloud and on-premise
- **Open back-end integration** pattern support including hybrid, SaaS & cloud.
- **Multi-tenancy, agnostic** device management, start small and scale up.







**CUMULOCITY IoT**

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Come see us at our stand for IoT demo's:

- Connected Buildings
- Connected Manufacturing
- Smart Logistics
- Smart Energy

And register for the IoT Design Thinking workshop!