

# FT HOTWHEELS

Shanghai,  
Feb, 2019

**BMW  
GROUP**

THE NEXT  
100 YEARS 



Rolls-Royce  
Motor Cars Limited



VISION





# HotWheels The Name

## Source

The name HotWheels came from a famous brand of toy cars.

## Vision

We believe that our works and missions are as fun as the HotWheels toys.

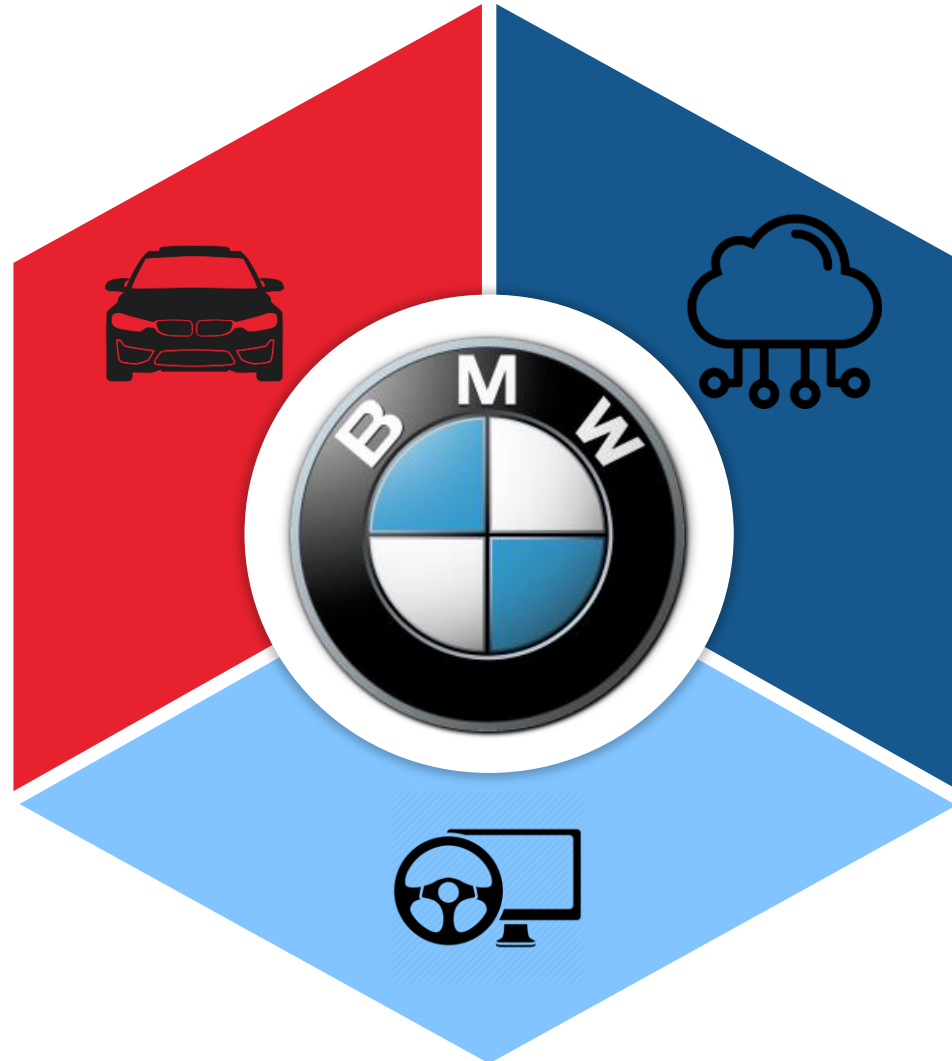
# VISION

## Area A

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*Adapt it to your needs and  
capture your audience's  
attention.*

## Area G

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capture your audience's  
attention.*



## Area H

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attention.*



# ACHIEVEMENTS



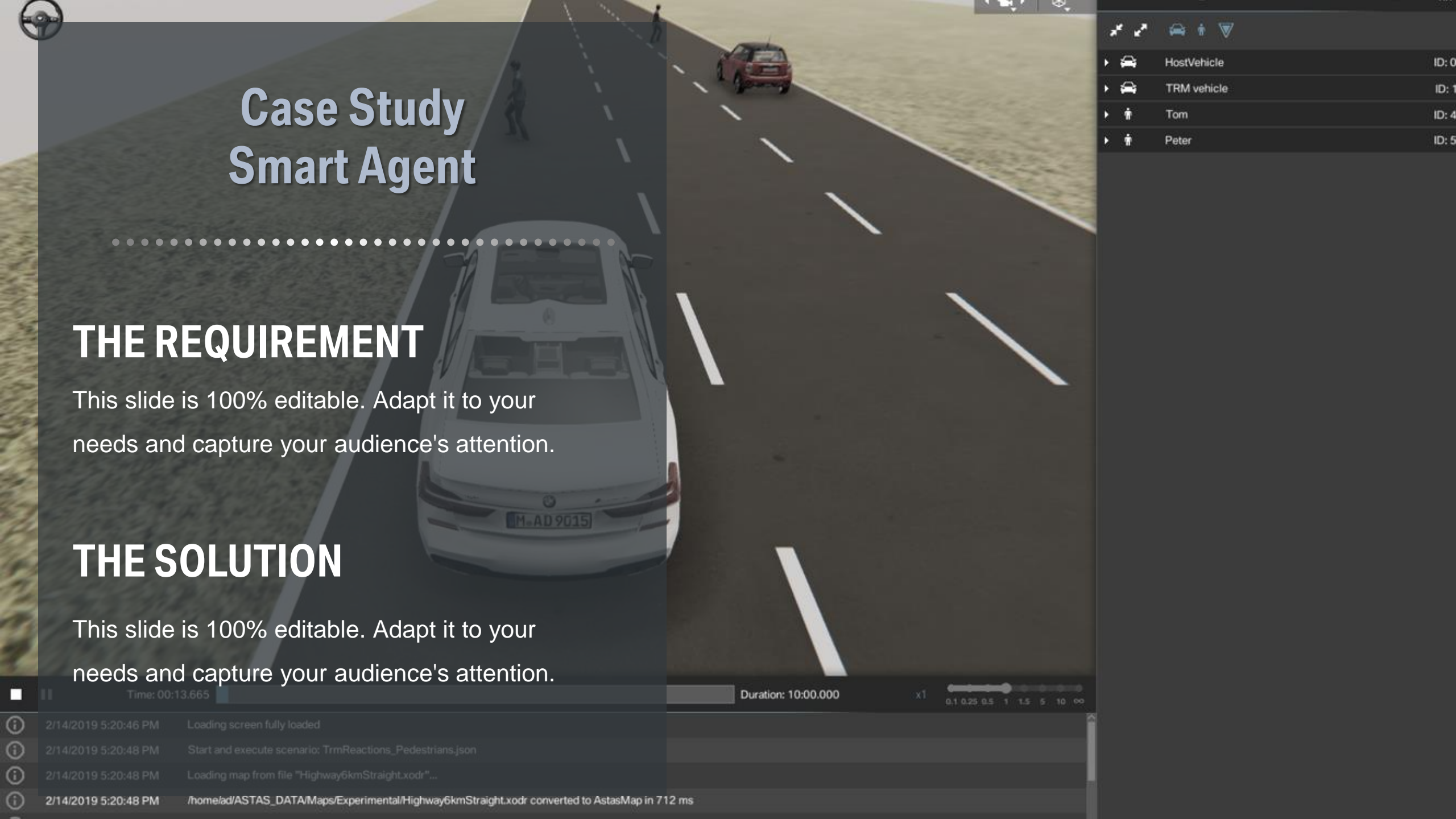
# Case Study Smart Agent

## THE REQUIREMENT

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## THE SOLUTION

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▶		HostVehicle	ID: 0
▶		TRM vehicle	ID: 1
▶		Tom	ID: 4
▶		Peter	ID: 5

■ || Time: 00:13.665 Duration: 10:00.000 x1 0.1 0.25 0.5 1 1.5 5 10 ∞

2/14/2019 5:20:46 PM	Loading screen fully loaded
2/14/2019 5:20:48 PM	Start and execute scenario: TrmReactions_Pedestrians.json
2/14/2019 5:20:48 PM	Loading map from file "Highway6kmStraight.xodr"...
2/14/2019 5:20:48 PM	/home/ad/ASTAS_DATA/Maps/Experimental/Highway6kmStraight.xodr converted to AstasMap in 712 ms



# Data Analysis Area Network Topology Case Study Smart Agent

ViGEM Copy Station

GPU Server  
DGX

## THE REQUIREMENT

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## THE SOLUTION

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BMW Network  
Traffic Broker

CPU Server  
Dell



NAS

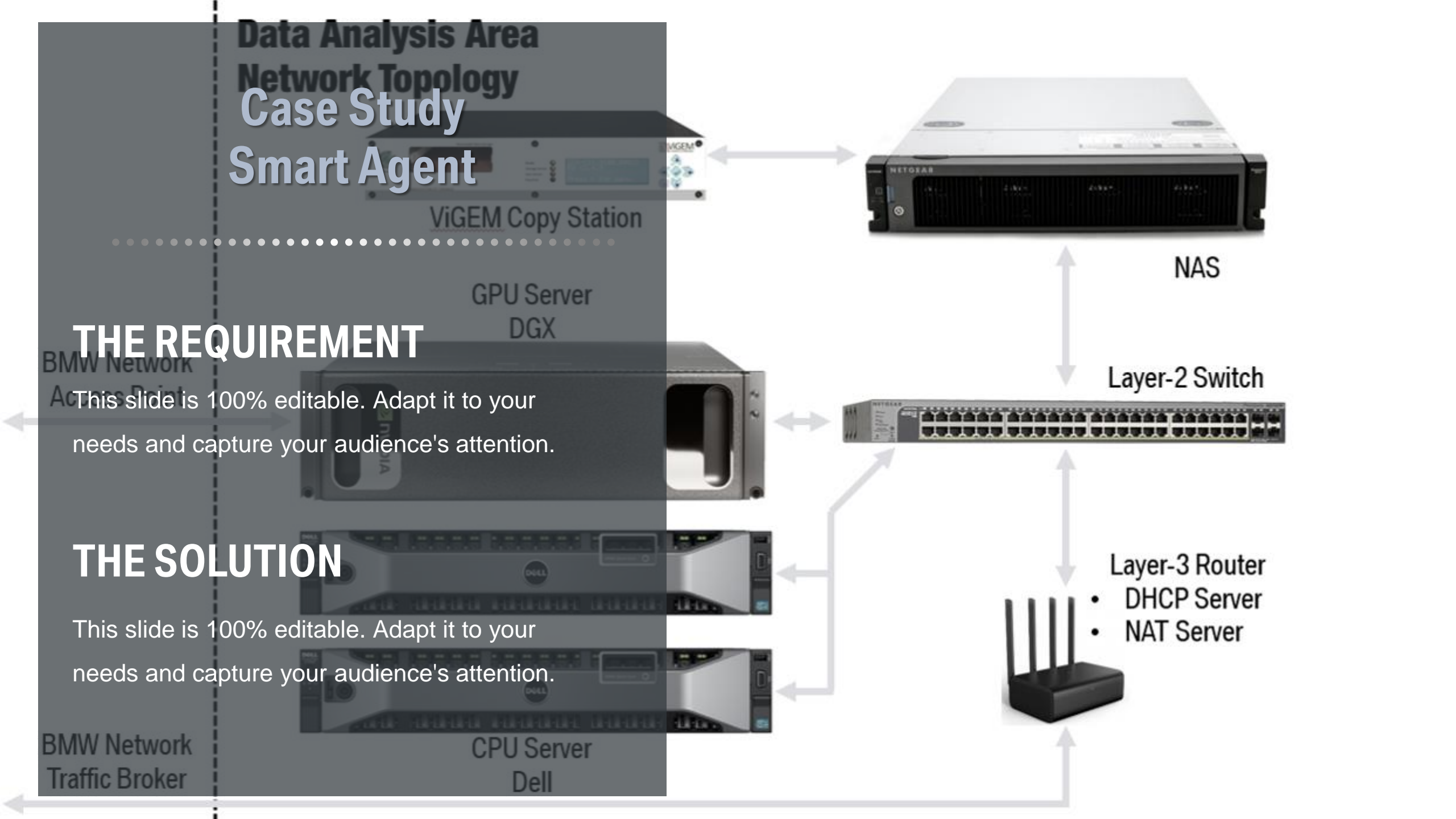


Layer-2 Switch



Layer-3 Router

- DHCP Server
- NAT Server



# DATA CENTER/DATA EXCHANGE/SIMULATION: HIGHLIGHTS

DC/sharing  
Simulations

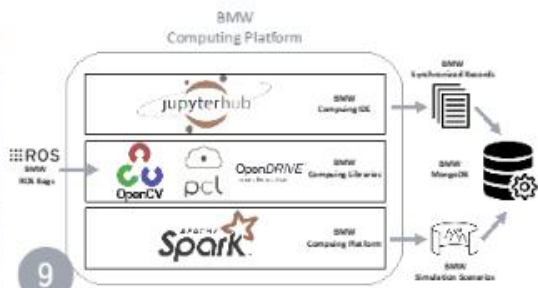
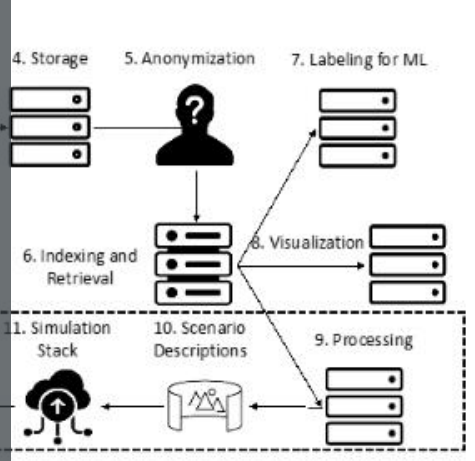
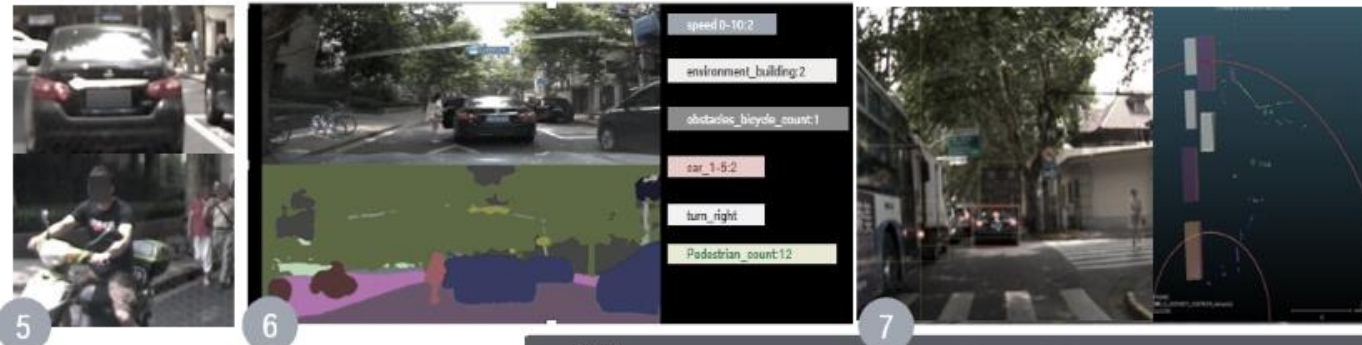
## Case Study Smart Agent

### THE REQUIREMENT

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### THE SOLUTION

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# Case Study Smart Agent

## THE REQUIREMENT

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## THE SOLUTION

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**MEMBERS**



# MEMBERS OVERVIEW

**Bill Lv**  
Simulation  
4+ Years in BMW



**Chang-Chun Hao**  
Data Management  
1+ Years in BMW



**Alex Ge**  
Data Management  
1+ Years in BMW



**Hao-Yang Hou**  
Simulation  
1+ Years in BMW



**Zheng Wu**  
Map Management  
1+ Years in BMW



**Mr. Next**  
Welcome to Join US!



## Passion

Tech Lovers & Life-Long Learners



## Team Work

Teamwork & Intelligence Win Championships



## Excellence

Under Promise & Over Deliver

# MEMBERS

## ALEX GE



### **Background**

- M.S. Internet of Things,  
UMass Amherst
- M.S. Computer Science,  
Georgia Tech.
- 5+ years' industry experience



### **Expertise**

- Distributed Systems
- Data Analytics
- Robotics
- Computer Architecture



### **AD Focus**

- Data Management
- Data Analytics
- System Integration



**Ad. Sp. of AI & Robotics**  
1+ years in BMW



# MEMBERS BILL LV



## **Background**

- B.S. Robotics & Mechatronics,  
University of New South Wales
- 7+ years' industry experience



## **Expertise**

- Real-Time Simulation
- Data Analytics
- Robotics
- Vehicle System



## **AD Focus**

- Simulation Platform
- Scenario Management
- System Integration



**Ad. Sp. of AI & Robotics**  
4+ years in BMW

# MEMBERS

## CHANG-CHUN HAO



### **Background**

- M.S. Computer Science,  
National Tsing Hua University
- 5+ years' industry experience



### **Expertise**

- Machine Learning
- Deep Learning
- Text Mining
- Computer Vision



### **AD Focus**

- Data Management
- Data Analytics
- System Integration



**Expert of AI & Robotics**  
1+ years in BMW



# MEMBERS

## HAO-YANG HOU



### **Background**

- M.S. Artificial Intelligence,  
University of Southampton
- 5+ years' industry experience



### **Expertise**

- Parallel Computing
- Computer Graphics
- Real-Time Simulation
- Artificial Intelligence



### **AD Focus**

- Simulation Platform
- Scenario Management
- System Integration



**Ad. Sp. of AI & Robotics**  
1+ years in BMW

# MEMBERS

## ZHENG WU



### **Background**

- M.S. Computer Science,  
University of Erlangen-Nuremberg
- 6+ years' industry experience



### **Expertise**

- Computer Vision
- Navigation & Mapping
- Software Engineering



### **AD Focus**

- HD Map Management
- Driving Strategy
- System Integration



**Ad. Sp. of AI & Robotics**  
1+ years in BMW