# 智慧网络论坛 Al in Network Seminar – Powered by Beta Labs

#### #MWC19

### Keynote 主题演讲



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# Overall it is estimated that AI will add \$16tr to the global economy by 2030...





### Operators are exploring on AI in different areas. The roundtable we will focus on network operations

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	Security	i						
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	Customer care							

Services	Platforms
	Micro-services
Smart Devices & Robotics	Incubator
Marketing & Sales	Strategic Investment
Advertising	Al as a Service

Operators propositions tend to be discreet services

#### NOT EXHAUSTUVE



### Al in the networks: status of deployment of applications

Operations
Planning & Deployment
Security





### Al in networks: from automation to zero touch

#### **Automation Era**

#### Today

- Automation is pervasive
- Execution of repeatable instructions based on well defined rules
- ML capabilities are introduced, focus on discrete applications

Closed feedback loop

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- Realise the promise of selfhealing, self-optimising
- ML orchestrates and input from different models to close the loop
- Execution still left to rule based policies





Long term

- Networks adapt continuously learning from experience
- Al systems take over decision making and execution
- Human supervision, event based



## Al in networks: from automation to zero touch examples





# However companies need to overcome business challenges...





## ... and technical limitations of the technology





## Network operations: examples of holistic approach



In-house development



TANGO AI-powered OSS

To improve network performance and network monitoring In-house & open source



Jiutian platform

CM Network Brain



Network services

**Open source framework** 



Network Clouds

DANOS

Virtual machine boxes

Edge computing systems and apps



AI marketplace



## Network operations: example of applications





### **Network planning and deployment**





# Planning & Design



Network deployment

**RAN planning and design** 

SoftBank

Predict best route for Fiber roll-out





## Security: Fraud and advanced threat protection

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# How GSMA is helping operator to tackle these challenges





The move to 5G will further push these developments and increase complexities that will need to be solved



Intent driven networks & slicing



Billions of IoT devices connected



New products and services



### ...with integration of AI & 5G across multiple verticals









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#### Blogs & Interviews



Case studies