

The Power of AI and Intent Transforming Telecom

人工智能的应用与意图驱动带来的 电信转型

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爱立信 Imagine Possible | 无限畅想, 无尽可能

The power of AI and Intent

人工智能与意图驱动极具应用价值



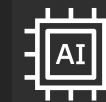
AI everywhere

- How AI and Intent Drive the Evolution Toward L4 Autonomous Networks



LLM and Gen-AI

- Reshaping the AI Paradigm
- Sharing Ericsson Practice

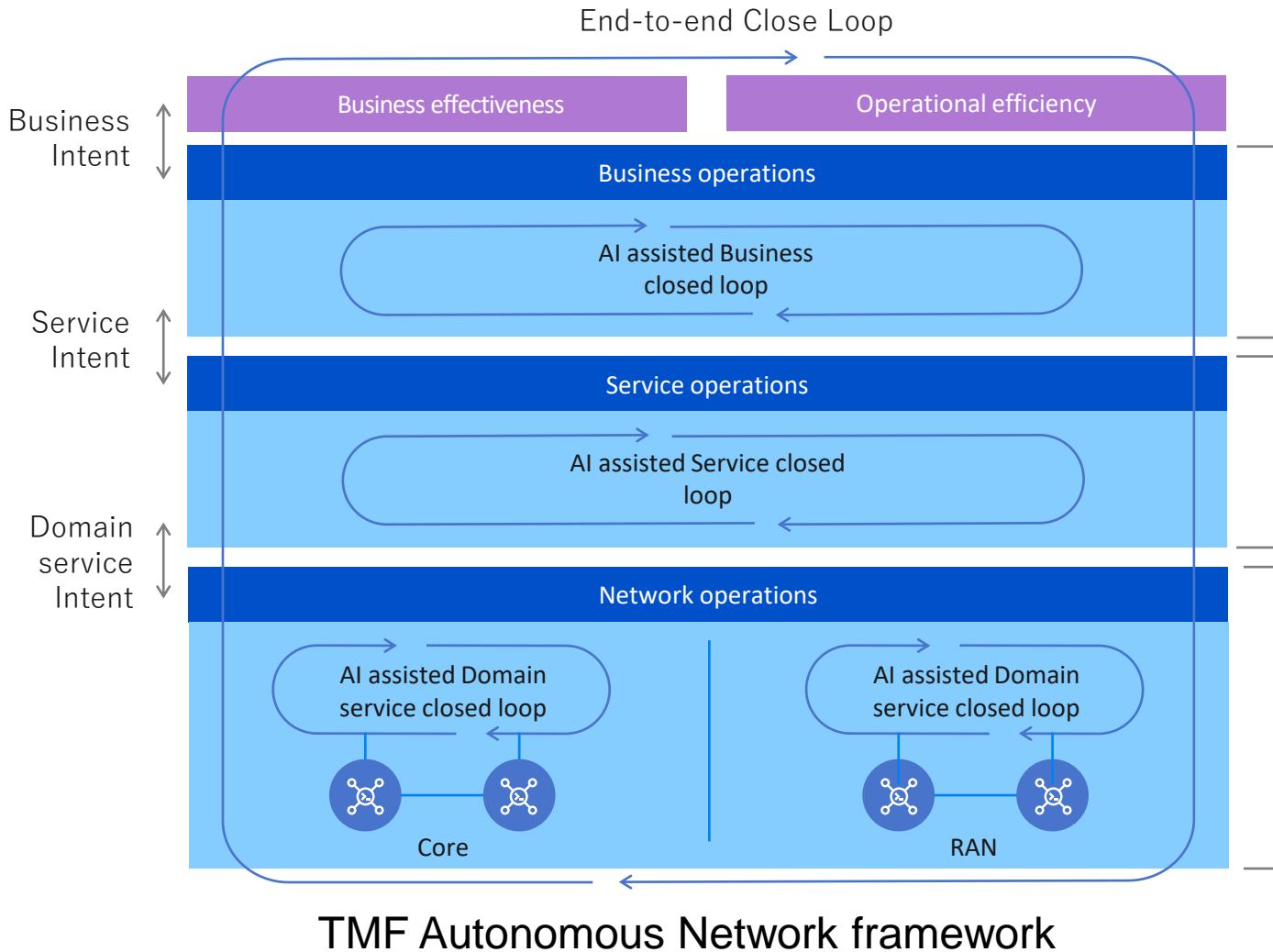


Technology Evolution

- AI Native and AI as a Service

AI and Intent 人工智能与意图驱动

- The Synergy of AI and Intent, empowering Autonomous Networks
人工智能与意图驱动协同，可赋能智治网络



AI/ML enables end-to-end closed loop

+

Intent to express and distribute requirements

Intent-driven RAN Automation

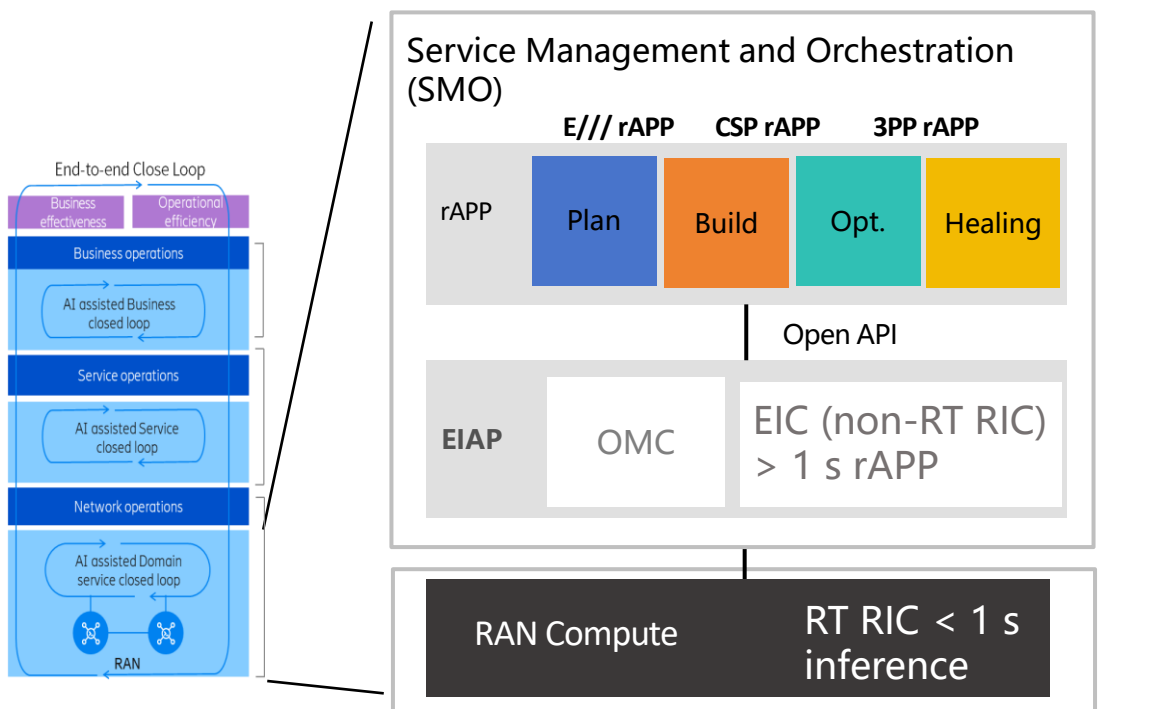
基于意图驱动的无线接入网智能化

- Intent-driven (IBN) is key to achieving AN L4 with AI-driven decision making
 意图驱动 (IBN) 是人工智能决策实现 AN L4 的关键
- More CSP pursue SMO system as RAN automation solution
- Open ecosystem to boost innovation in rAPP development

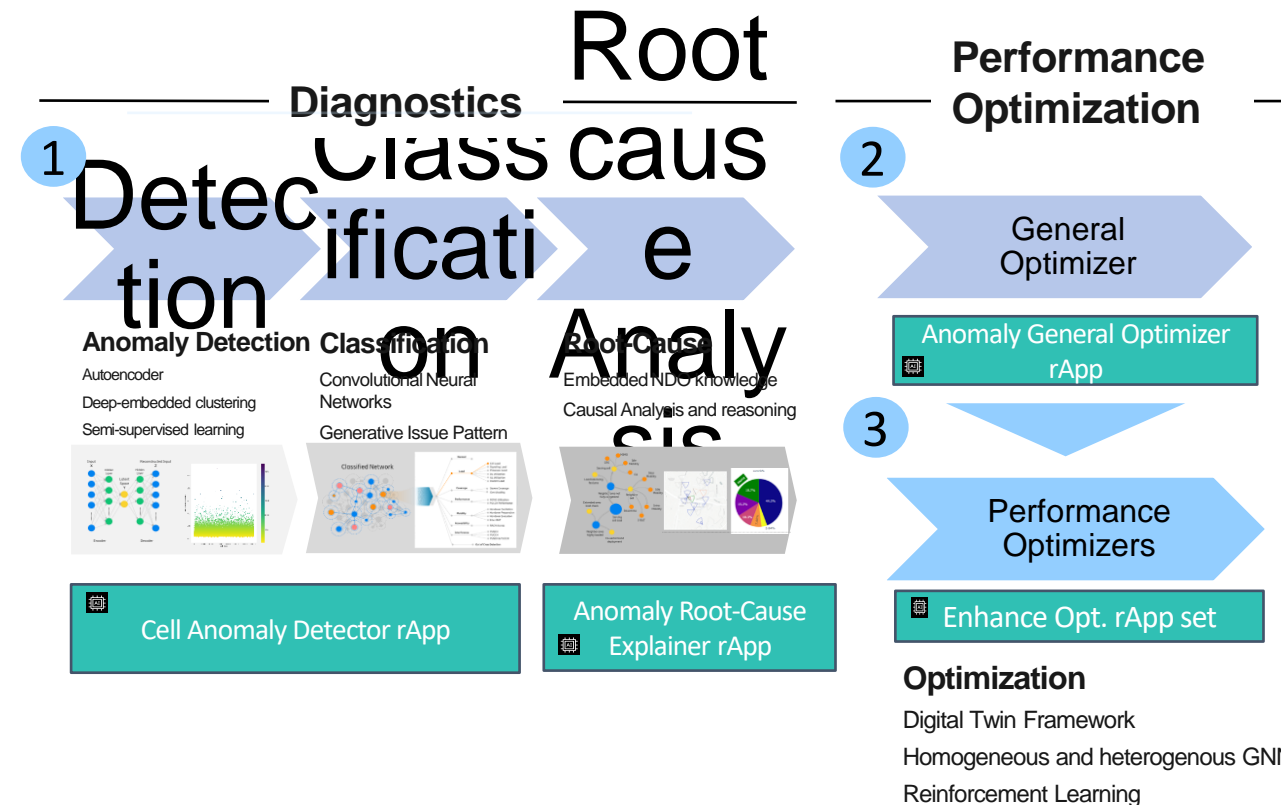
Example:

- End to end flow from cell issue detection to resolution cross multiple rAPPs

*Source: Analysys Mason



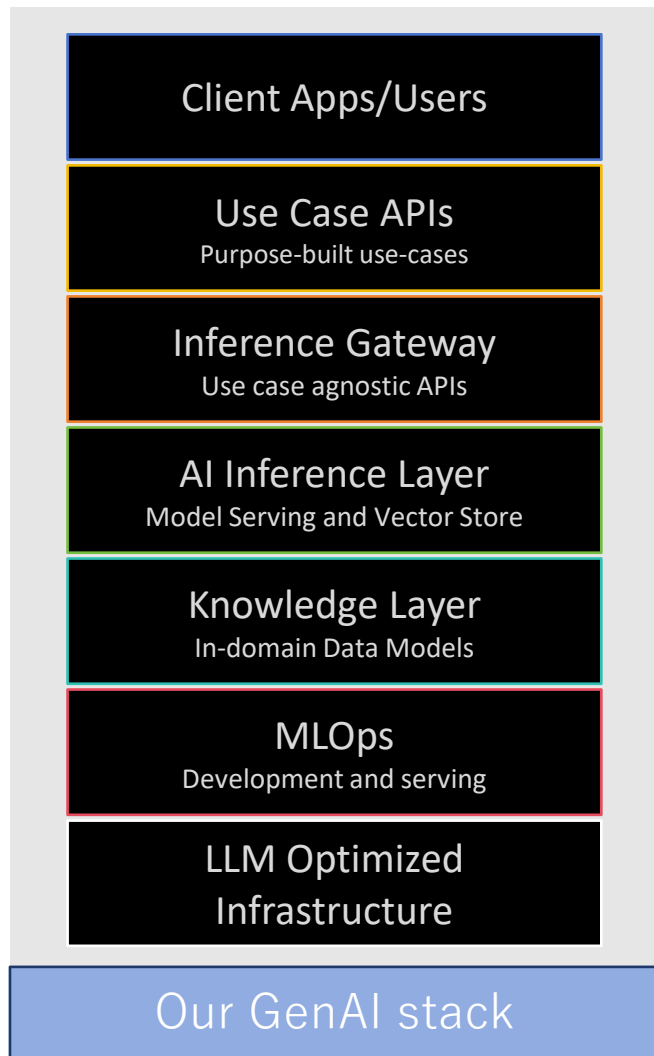
RAN Automation



RAN Domain Close-Loops

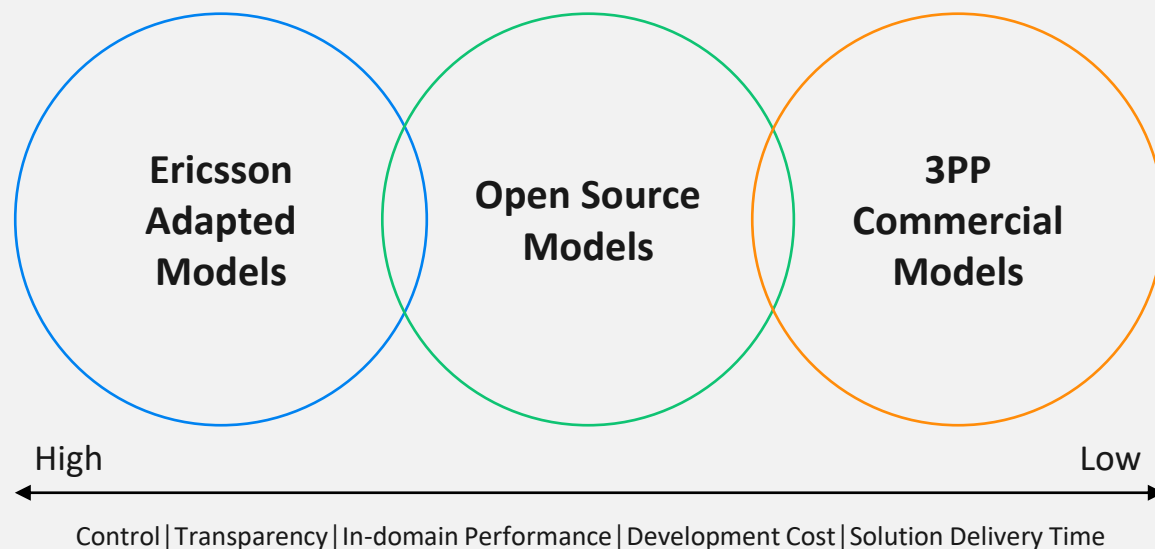
Ericsson approach to GenAI and LLMs

爱立信生成式人工智能和大型语言模型探索



Adapt models for the Telecom domain

- Adapt models for the telecom domain
- Re-training on telecom data and knowledge to ensure accuracy, traceability, risk control, and cost efficiency
- Generative AI stack supports full LLM operations (training, planning, deployment, and inference)

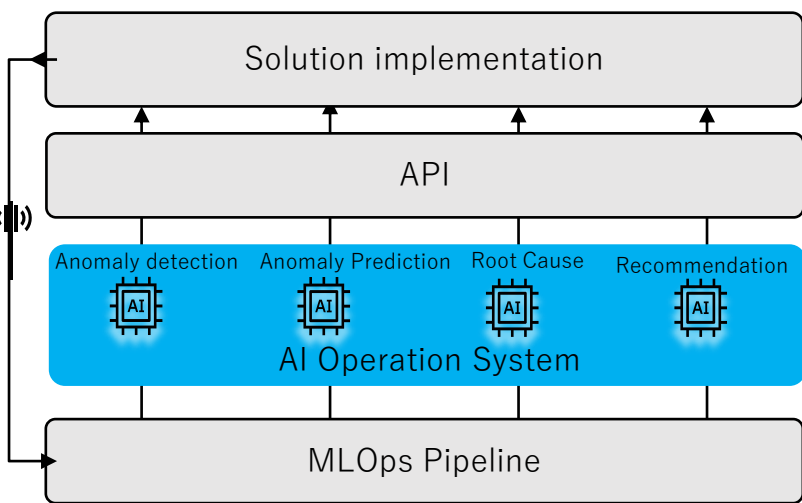


Analytical AI complemented by Gen AI

生成式人工智能辅助分析式人工智能

- Real scenario reference :

2019-2024 RAN fully automated optimization system

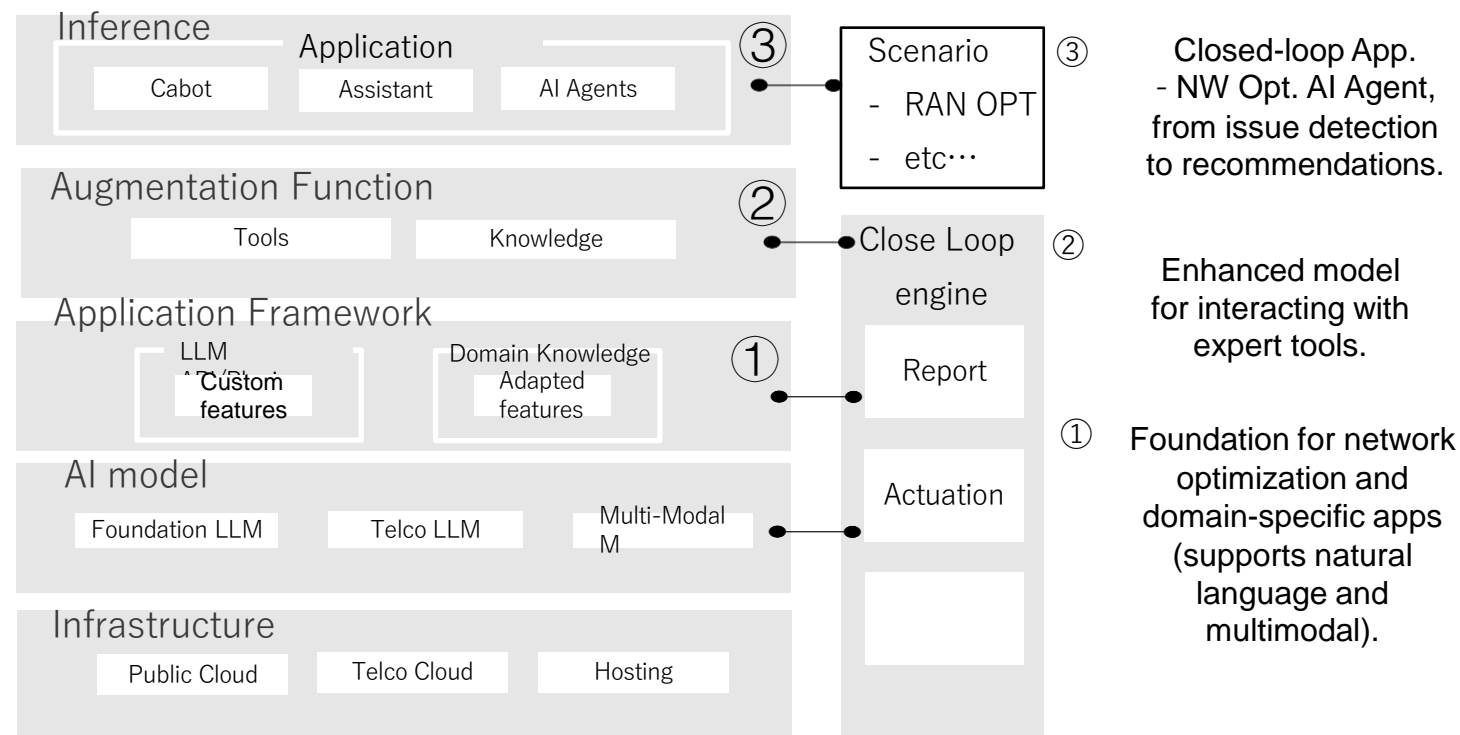


- Proven AI solution, cloud-deployed, stable for years.
- MLOps based Automatic AI model retraining pipeline
- Daily processes 600K cells across 4G network 10,000–20,000 cells weekly parameter recommendation weekly
- 27% increase in downlink throughput

2024+ Exploring LLM capability

1. Planning
2. Reasoning

3. Reflection



③ Closed-loop App.
 - NW Opt. AI Agent,
 from issue detection
 to recommendations.

② Enhanced model
 for interacting with
 expert tools.

① Foundation for network
 optimization and
 domain-specific apps
 (supports natural
 language and
 multimodal).

Challenges ahead

- Hallucination
- Handling ambiguity
- Task Understanding
- Explainability

AI Native - A key enabler for advanced intelligent telecom networks

AI内生 - 高级智能电信网络的关键推动者

Intelligence everywhere

AI training and execution everywhere

Distributed data infrastructure

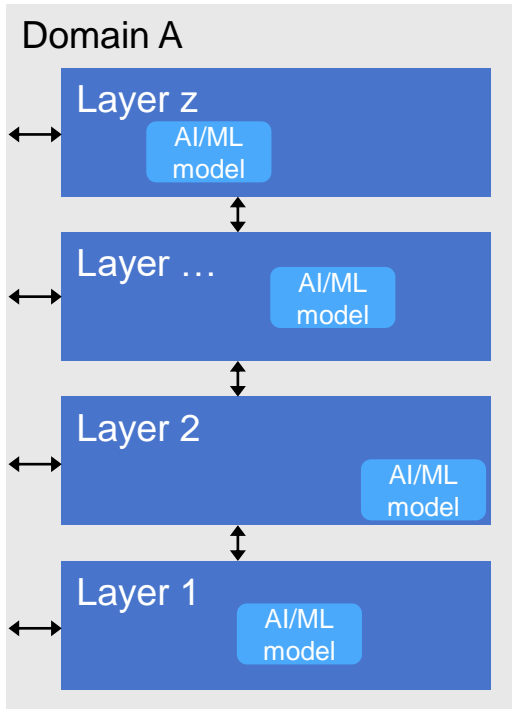
Data and compute (GPU) everywhere

Zero-touch

Fully automated AI and data management

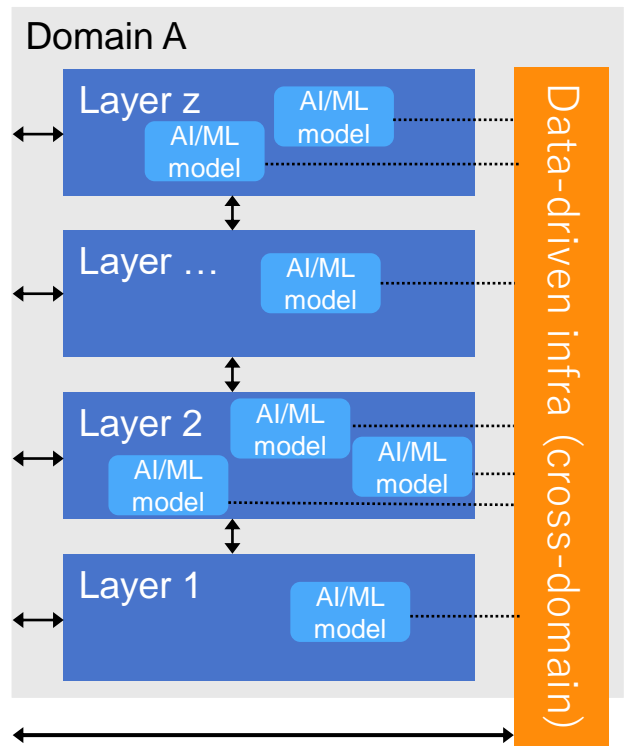
AlaaS

Make CSP network as platform for innovation

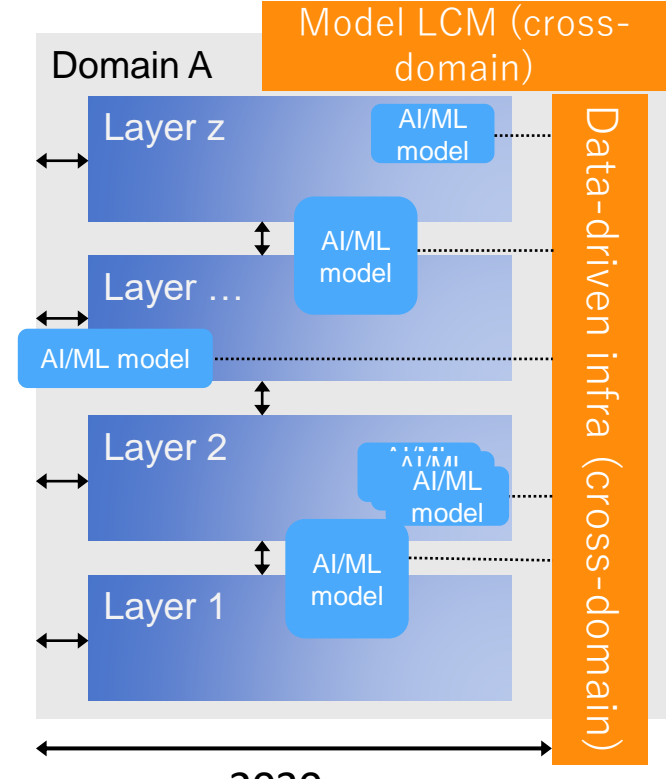


Today

Evolution



Evolution



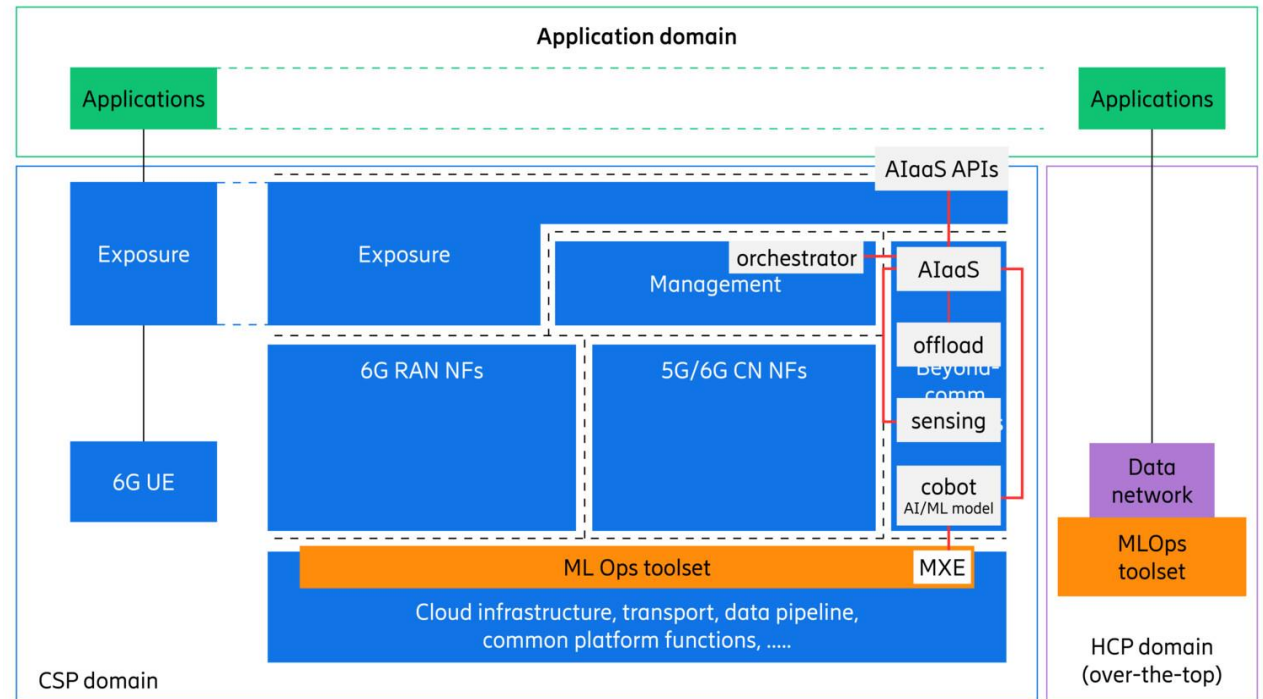
2030

From Robots to Cobots

Network AI exposed via user-friendly APIs

提供用户友好的网络AI应用程序接口

- Provides network QoS, location, and sensing data.
提供网络服务质量、位置和传感数据。
- Execution environment for training and inference
训练和推理的执行环境
- MLOps-aaS offers tools for AI models LCM
MLOps-aaS 为人工智能模型 LCM 提供工具
- Model for predicting Cobot positions (Inputs: Cobot data + Network data)
预测 Cobot 位置的模型 (输入: 机器人数据 + 网络数据)
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THANKS

