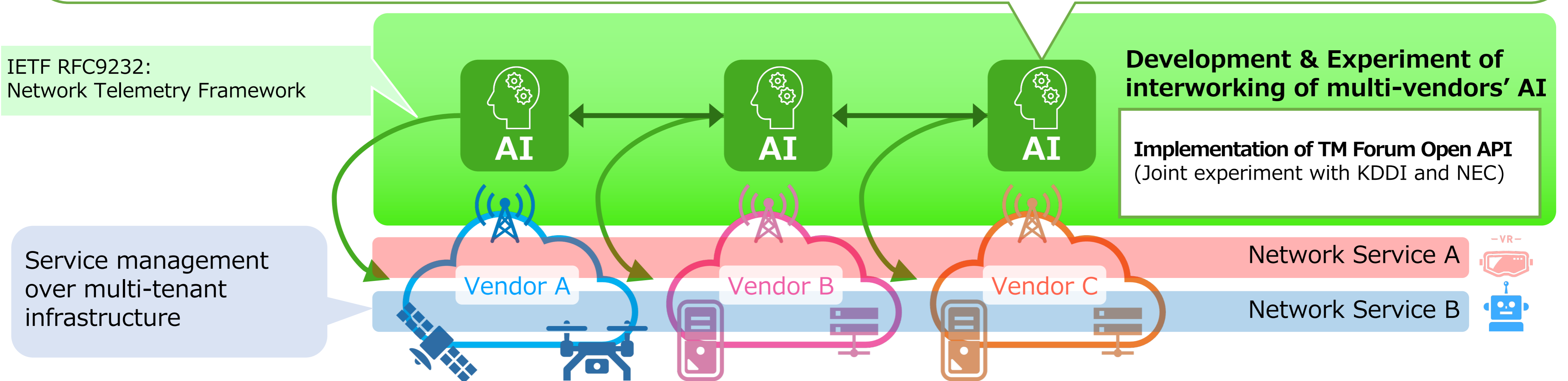
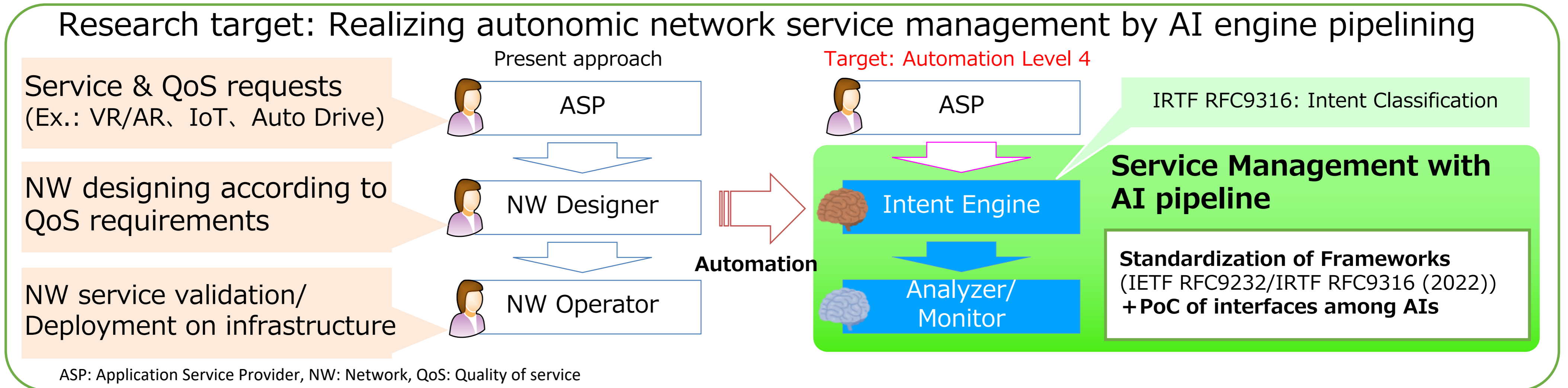


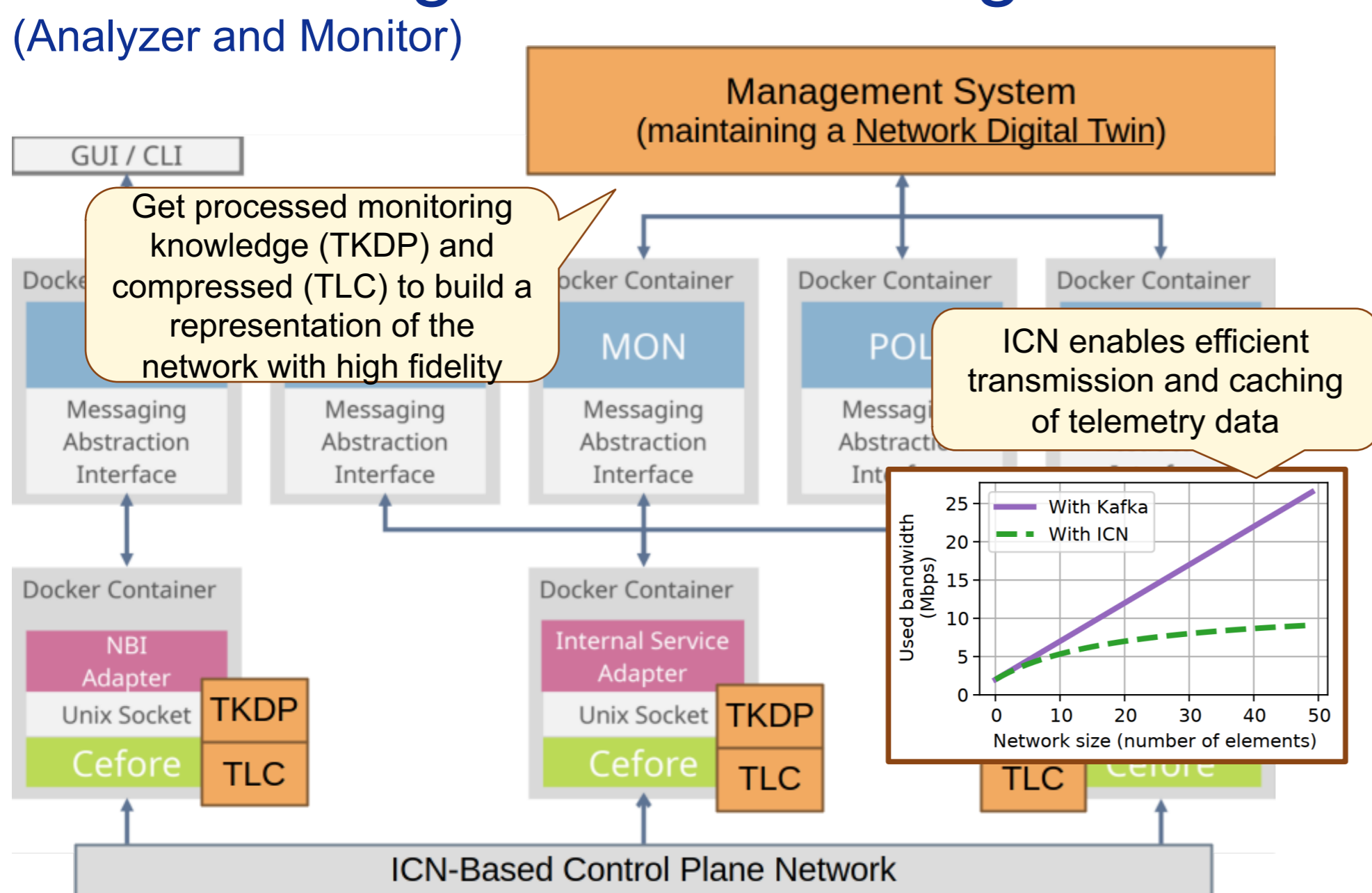
# Autonomic Service Management

National Institute of Information and Communications Technology (NICT), Japan

## Autonomic Service Management toward Beyond 5G



### Network Digital Twin Management (Analyzer and Monitor)



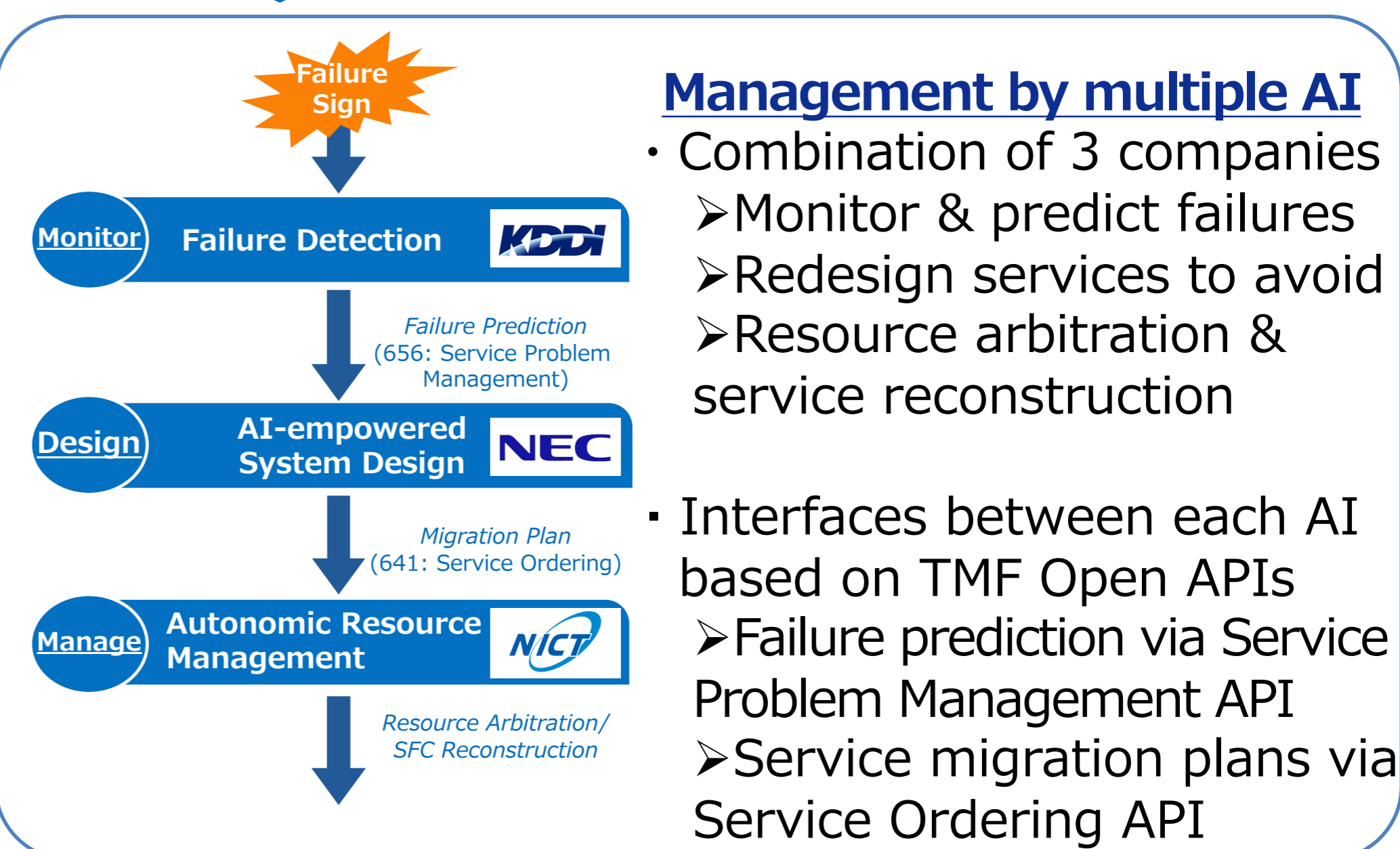
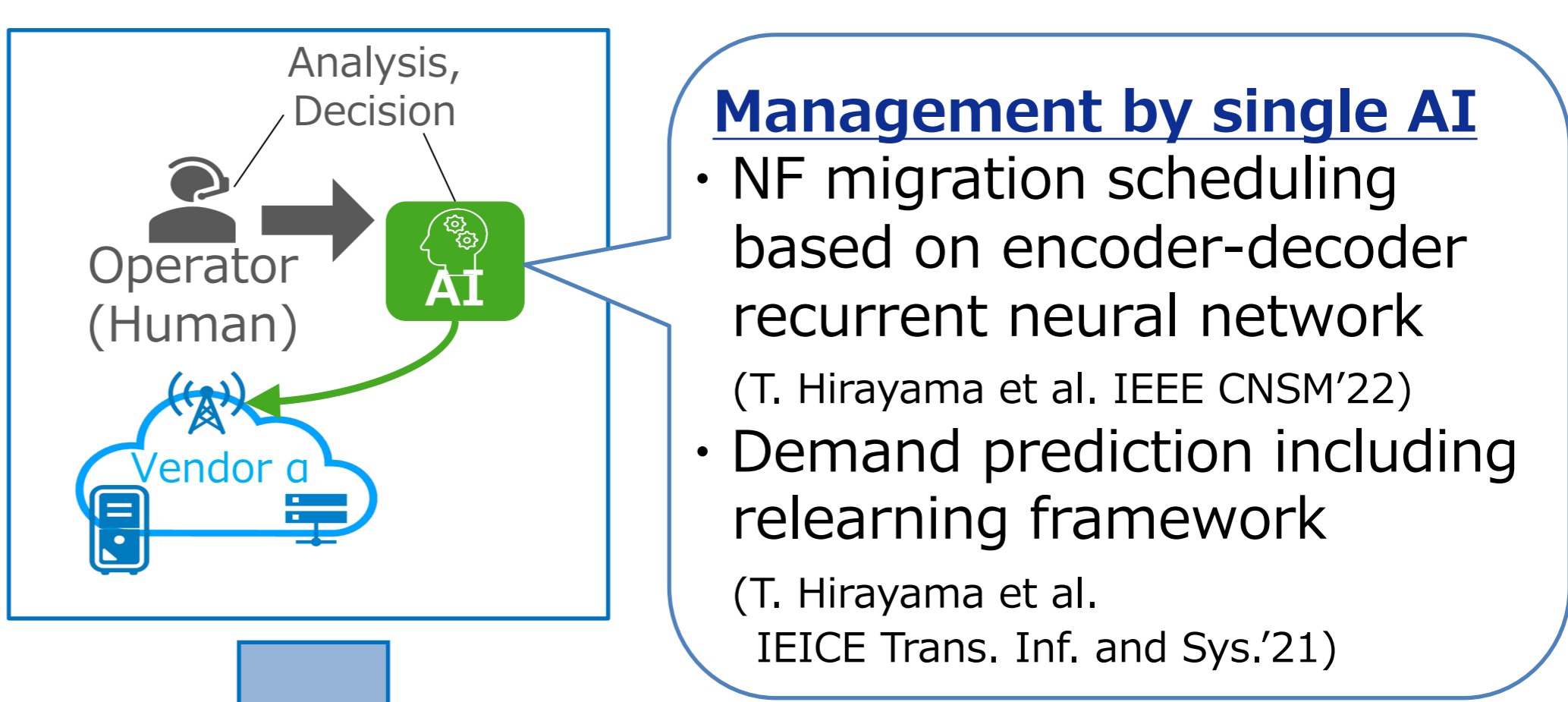
**ARCA (Autonomic Resource Control Architecture)**  
[P. Martinez-Julia et al., "Exploiting External Events for Resource Adaptation in Virtual Computer and Network Systems", IEEE TNSM, 2018]

**NDT-Based Network Management** [work-in-progress]

**Telemetry Lossy/Lossless Compression (TLC)**  
[P. Martinez-Julia et al., "A Novel Telemetry Compression Method for Enhancing Network Resilience", IEEE ICIN 2023]

**Telemetry Knowledge Distributed Processing (TKDP)**  
[P. Martinez-Julia et al., "Telemetry Knowledge Distributed Processing for Network Digital Twins and Network Resilience", IEEE NOMS 2023]

### From single AI to multiple AI



Supported by the Ministry of Internal Affairs and Communications, Japan, in 2022