AN OLD IDEA BECOMING NEW: ICN FOR IOT

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THE EVOLVING IOT LANDSCAPE

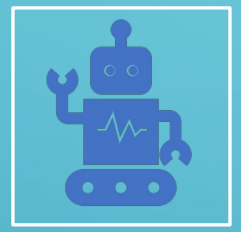
IOT is not cloud anymore but cloud-edge

Data driven with AI

Discovery, distribution and orchestration

Des-intermediation, functional decomposition, security

Embracing the power of **and and where.**



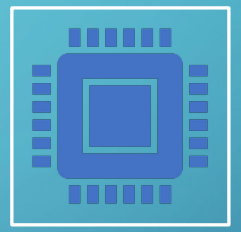
New applications

Industry and agriculture 5.0

Health care and education

Robotics/haptics

Big data applications



Emergence of 6G

Computing and caches distributed in the network to save bandwidth

New satellite networks

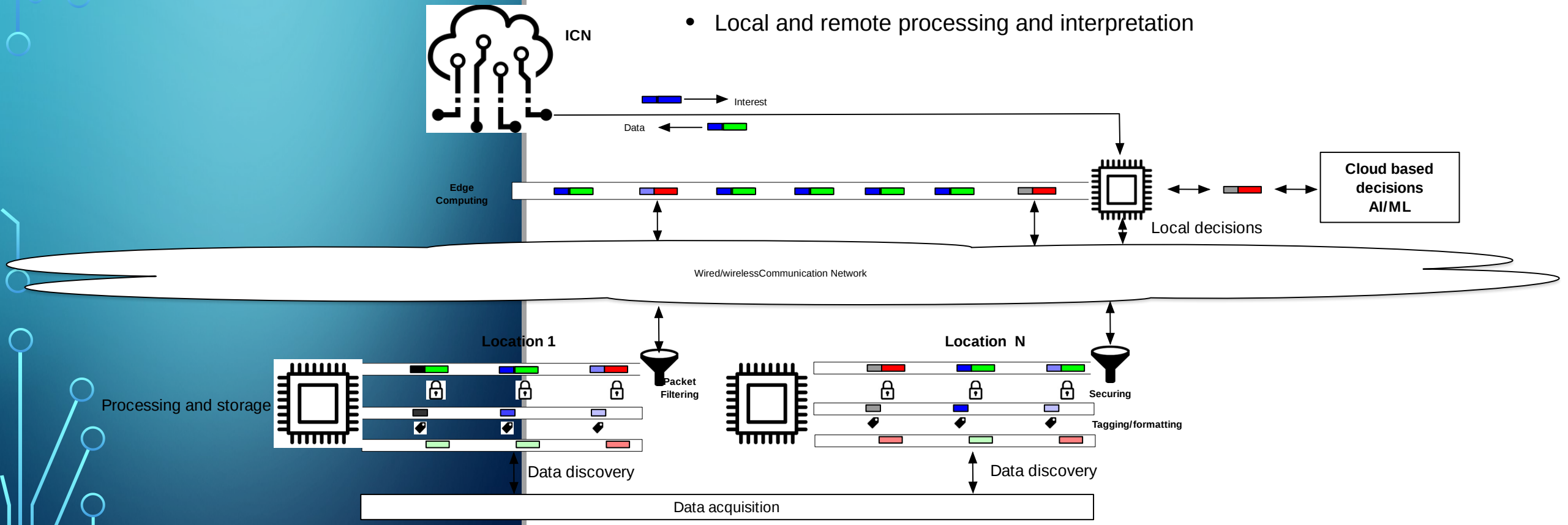
TARGET

- Reality soon:
  - A better “edge” will emerge
  - Distributed computation at the edge with decentralized orchestration and security models to support new apps
  - A more integrated edge, network and cloud (computer board model not telephony)
  - Edge-cloud continuum with edge supported network and cloud and cloud and network supported edge

EXAMPLE ARCHITECTURE

Features

- Intelligent controller
- Information based queries
- Data filtering on meta-data
- Orchestration and computation
- Local and remote processing and interpretation



WHY ICN?

- Needs improvement?
  - Interoperability between edge devices: should not always rely on distant cloud for interaction; horizontal integration not just vertical silos
- Needed a better pub-sub and data discovery in IoT
  - The devices can now support much more functionalities
  - More CPU, memory and connectivity