

Realisation of Computing Continuum

Atos Vision for Future Cloud

Enric Pages

Atos, Research & Innovation, Next Generation Cloud Lab



AtoS Computing Continuum

Cloud Service Integration – Multi-Cloud

intermediation and aggregation across diverse private and public clouds

very few actors are able to capture a **comprehensive holistic vision** embracing all the **opportunities** offered by this **cloud continuum** and even **fewer companies** are able to **provide solutions** able to make use of the **full technology spectrum**





CLOUD CONTINUUM, AN ENABLER FOR SWARM COMPUTING

Swarm computing combines **network** and **cloud principles** in order to **create an on-demand, autonomic and decentralised computing and storage management layer** that **transparently interoperates** among **diverse and disperse Edge and cloud models** and **typologies**.

ascent

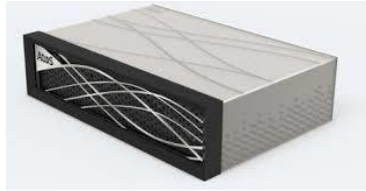
atos thought leadership

-  Cloud Service Integration
-  Edge Computing
-  Cognitive Computing
-  Internet of Everything
-  Smart Machines
-  Swarm Computing



Cloud & Edge computing @ Atos

Atos
Canopy



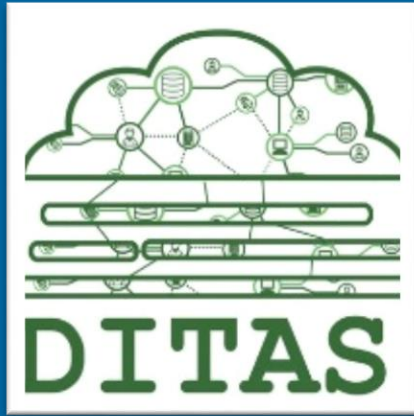
Atos Bull Sequana Edge
Computing Box
(prototype)

Atos
Codex

Atos Codex offerings, is already a significant player in the IoT marketplace.



Research Projects & Outcomes



DITAS Industry 4.0

acquisition

persistence & treatment

visualization

1. data acquisition process. Fog/cloud.



production

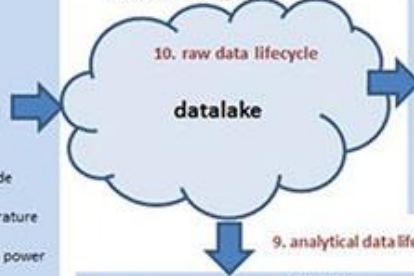
state
override
temperature
engine power
speed
revolutions
advance
vibrations

process

condition

data volume
acquisition frequency
edge node processing

2. data storage process



9. analytical data lifecycle



machine
programme
tool
engine
axis
spindle



6. visual analytics
(production, process, condition)

8. predictive model lifecycle



machine learning

7. predictive maintenance
(process + condition)

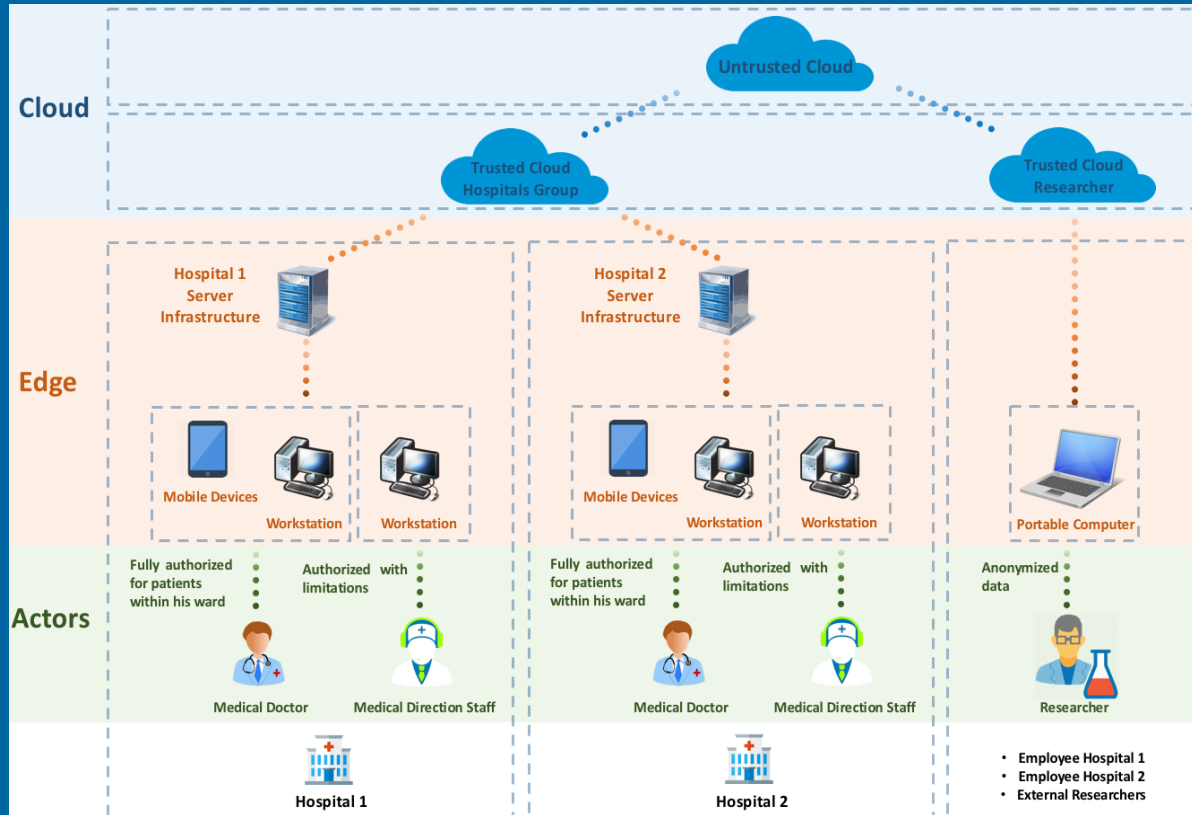


3. production monitoring
4. process monitoring
5. condition monitoring

Industry 4.0 case study:

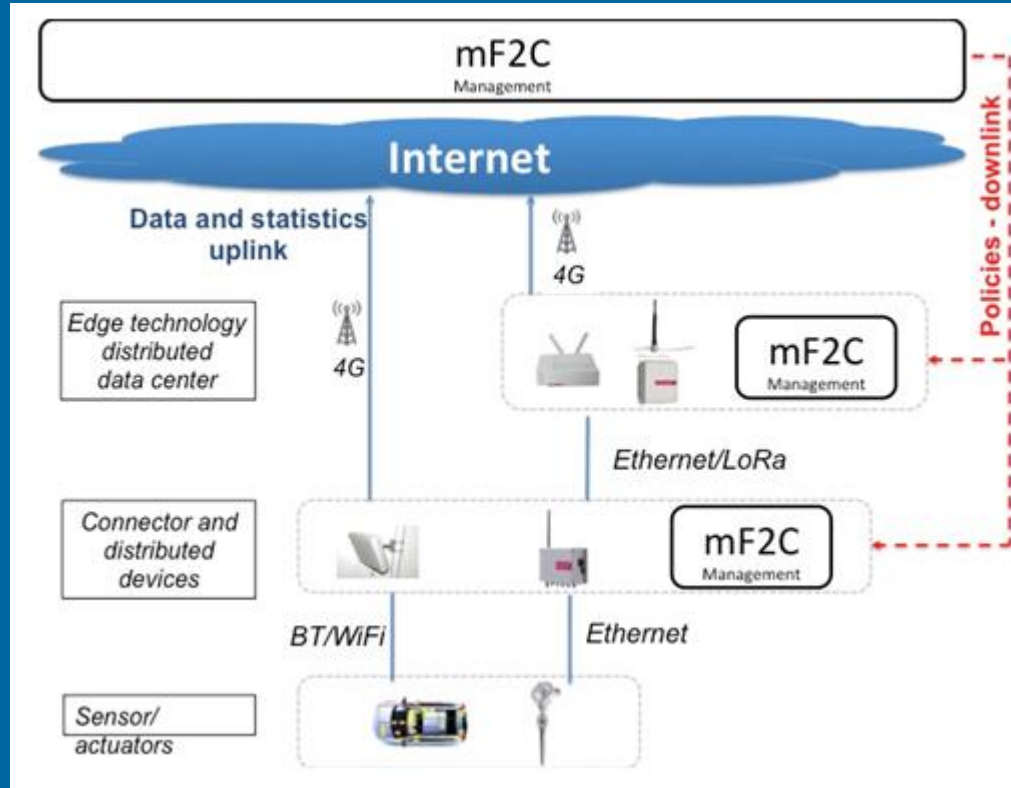
managing and analyzing
sensor based
manufacturing plant

DITAS e-Health



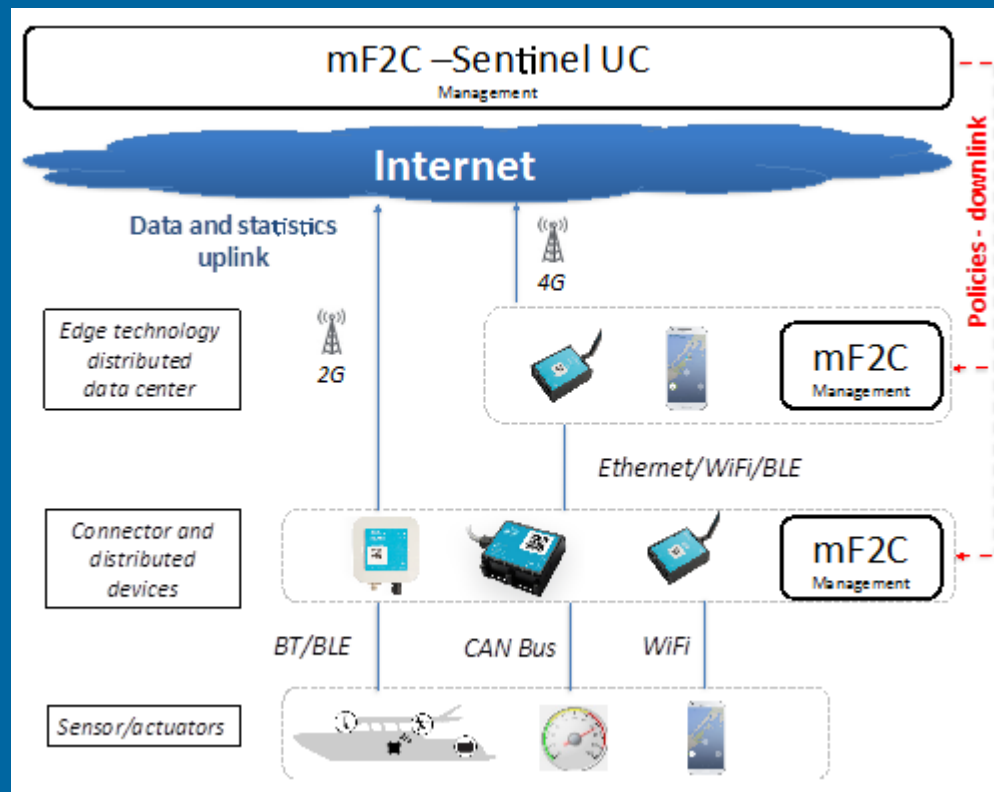
e-Health case study:
sharing the clinical
information heritage
on the cloud

mF2C Case Studies



Use Case 1:
Emergency Situation
Management in Smart Cities
(ESM)

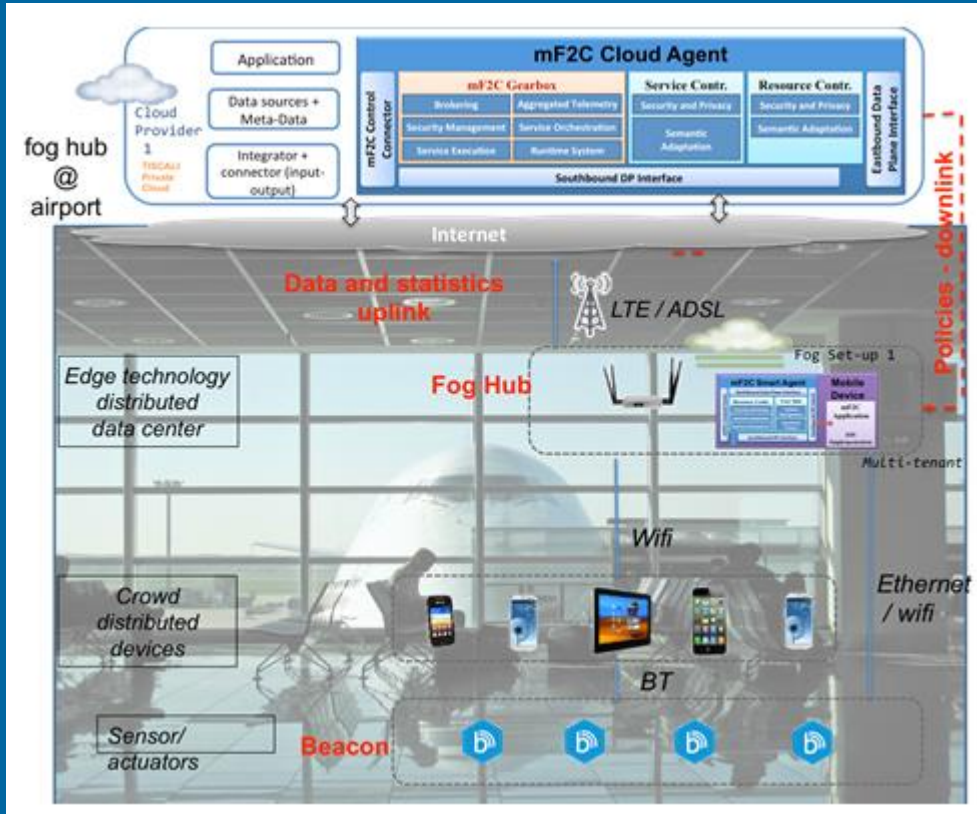
mF2C Case Studies



Use Case 2:

Enriched Navigation Service (ENS)

mF2C Case Studies



Use Case 3:

Smart Fog-Hub Service (SFHS)

Other Resources and Materials

- ▶ Atos Lookout

<https://atos.net/content/mini-sites/look-out-2020/>



- ▶ Atos Scientific Community

- Journey 2022

<https://atos.net/content/mini-sites/journey-2022/>



- Swarm Computing Whitepaper

<https://atos.net/wp-content/uploads/2018/12/atos-swarm-computing-white-paper.pdf>



Thanks

For more information please contact:
enric.pages@atos.net

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<http://ascent.atos.net/look-out-2016/tech-trends>



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