

A network diagram with a central node emitting wireless signals, connected to several other nodes. The nodes are represented by small squares, and the connections are thick purple lines. The background is a light blue gradient with a faint grid pattern.

RAW use cases

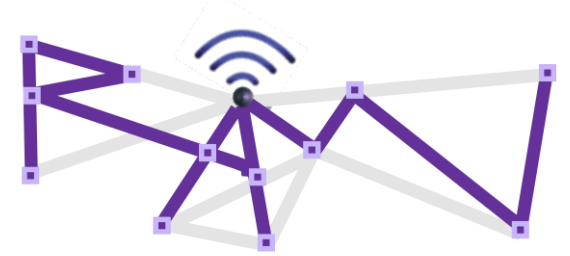
Presenter: Carlos J. Bernardos

Authors: G. Papadopoulos, P. Thubert, F. Theoleyre, CJ. Bernardos

RAW - IETF 106 - Singapore

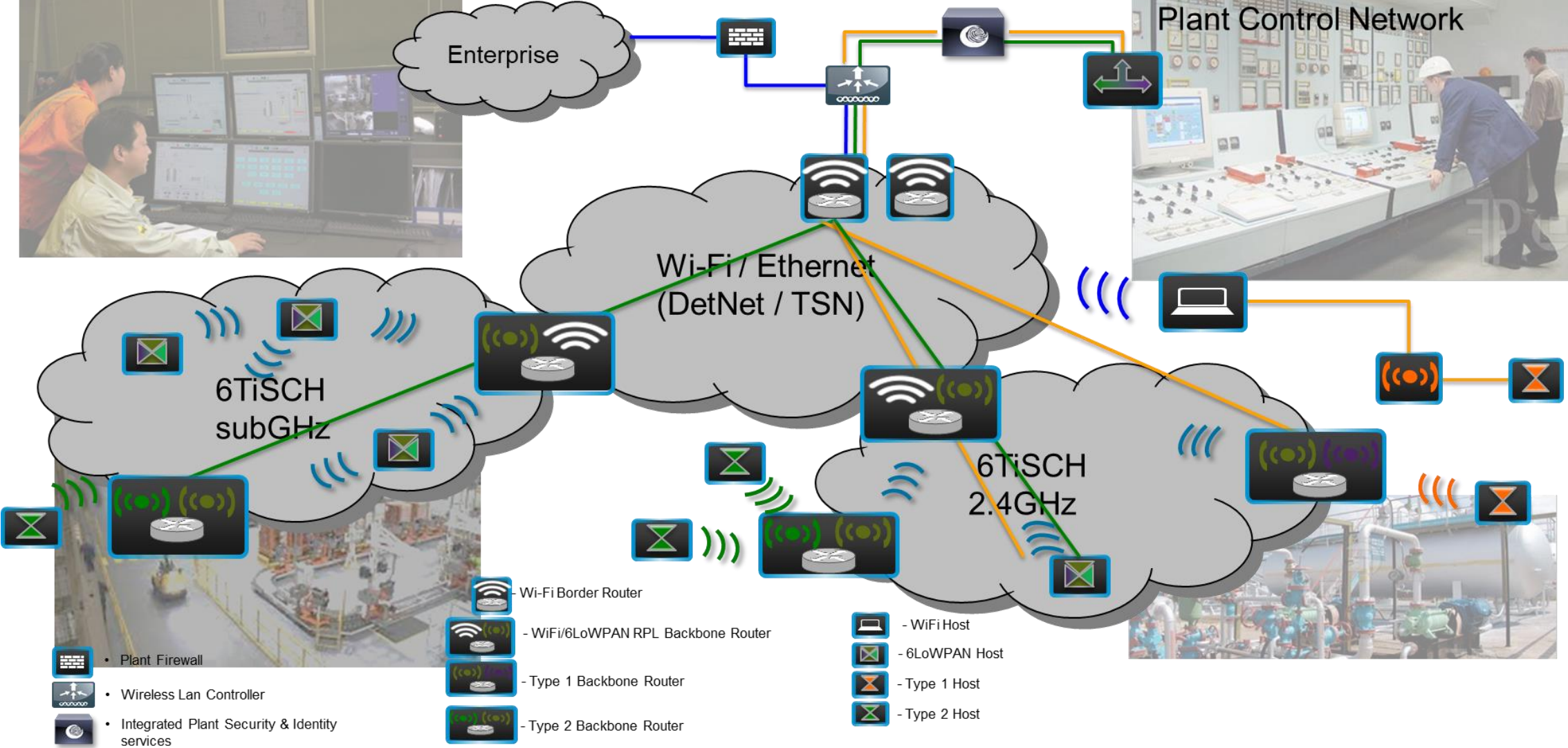
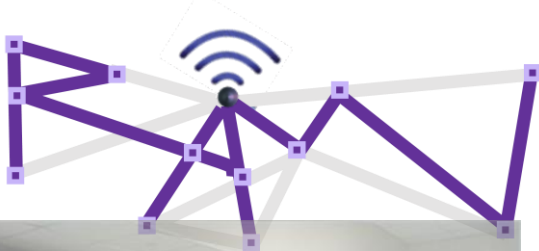
Use cases in the draft

- Amusement Parks
- **Wireless for Industrial Applications**
- Pro Audio and Video
- Wireless gaming
- UAV platooning and control
- Edge Robotics control



Focus of this presentation
(due to time constraints)

Wireless for Industrial Apps.: Use Case Description

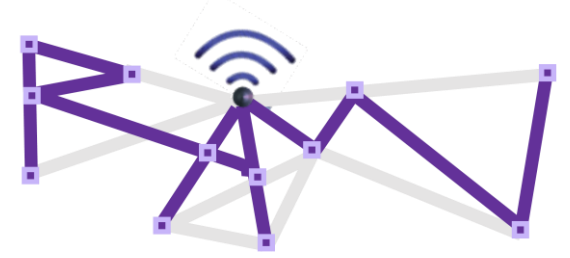


- Plant Firewall
- Wireless Lan Controller
- Integrated Plant Security & Identity services

- Wi-Fi Border Router
- WiFi/6LoWPAN RPL Backbone Router
- Type 1 Backbone Router
- Type 2 Backbone Router

- WiFi Host
- 6LoWPAN Host
- Type 1 Host
- Type 2 Host

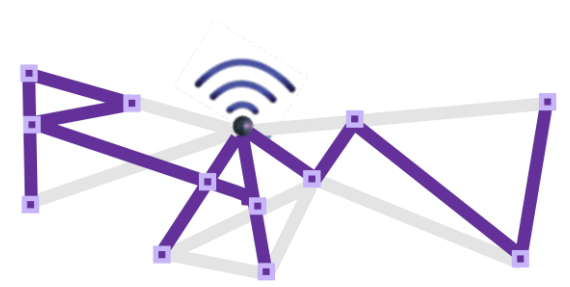
Wireless for Industrial Apps.: Specifics



- **Heterogeneous** technologies (mostly wireless)
- **Multiple** simultaneous links
- **Variable** link conditions (even with low mobility)
- **Different** needs/traffic types, e.g.:
 - Control loops: reliability is key
 - Monitoring and diagnostics: should not be mixed with previous

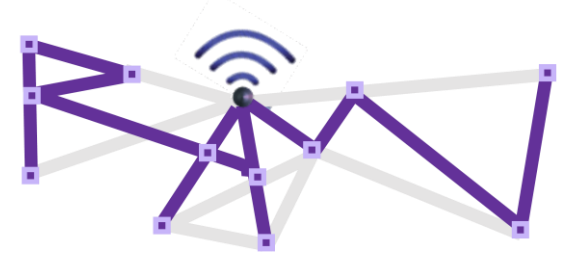
Wireless for Industrial Apps.:

Requirements for RAW



- Solutions should be backwards compatible
 - Capable of transporting both regular (multiplexed) flows and flows requiring predictable behavior
- Solutions should be able to work over multiple wireless access technologies
 - E.g., segment such as TSCH and a backbone segment such as Ethernet or WI-Fi

Summary and next steps



- Different **use cases** do need wireless connectivity for various purposes **demanding reliable and available wireless** behavior
 - 6 use cases already included in the draft
 - Others: digital aeronautical communications, smart grid...
- Next steps:
 - Document additional use cases
 - Continue with the characterization of use cases in terms of requirements