



Green PI - Internet of Edges

By Green Communications

Green PI Internet of Edges



EDGE NETWORK

Green PI enables nearby edge devices to communicate directly with high bandwidth connectivity.



EDGE CLOUD

Green PI federates edge devices' resources to create an edge cloud with edge-based services distributed near users.



INTERNET of EDGES

Edge Clouds operating at multiple locations connect and synchronize to create a large-scale Internet of Edges (IoE)

Benefits

FAST

Green PI provides edge devices with high-bandwidth direct communication network transferring real-time videos over multiple wireless hops. Relocating services at data source and near end-user reduces the latency and improves servers' response time.

AUTONOMOUS

Green PI connectivity & services are available anytime with not need for an existing infrastructure nor for an Internet connection. Edge services can evolve independently from a centralized cloud as well as interact with it.

SCALABLE

Green PI's patented routing software transfers instant real time service's traffic over 30 wireless hops (state-of-the-art <4). One may further extend Green PI's footprint by federating multiple edge clouds (Edges) and creating an Internet of Edges (IoE).

LOW CARBON IMPACT

Green PI saves on Internet and datacenters' energy resources by relocalizing network intelligence and services at the edge, near users and data source.

GREENSOFT

Green Communications' software (the GreenSoft) is the key enabler of Green PI. The GreenSoft is a set of programs from low-level to end-user web apps that allows hardware to:

- i) connect with nearby Green PI devices to create a dynamic and self-configuring wireless network with quality of service (QoS);
- ii) access and share a common edge cloud with edge-based services.

EDGE SERVICES

Green PI hosts programs, applications, and services at the data source and in a distributed way to ensure speed, resilience and quick server response time. Some edge services:

- Visualization
- Geo-location
- Instant messaging
- Push-to-Talk (PTT)
- File sharing

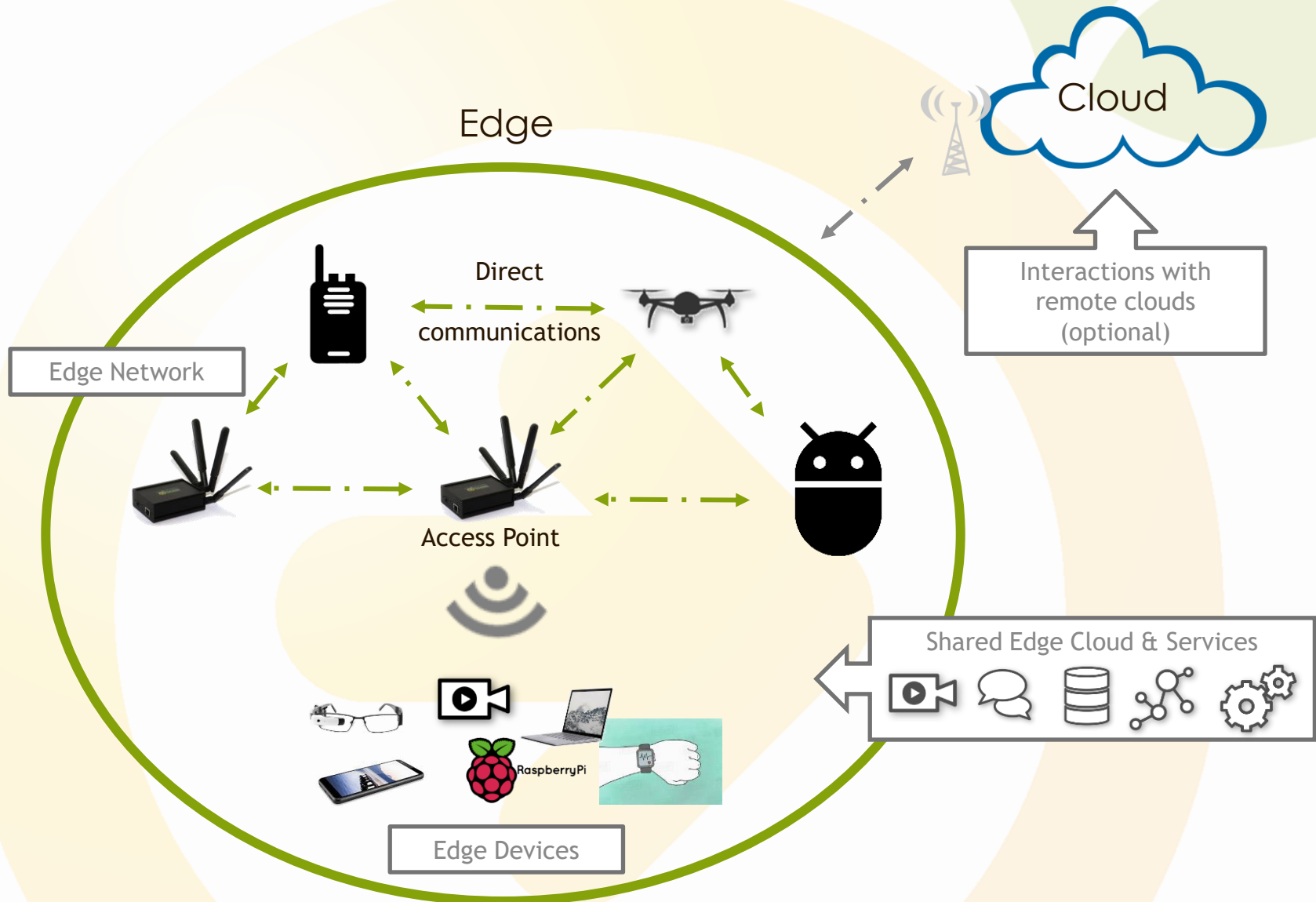


PLATFORMS

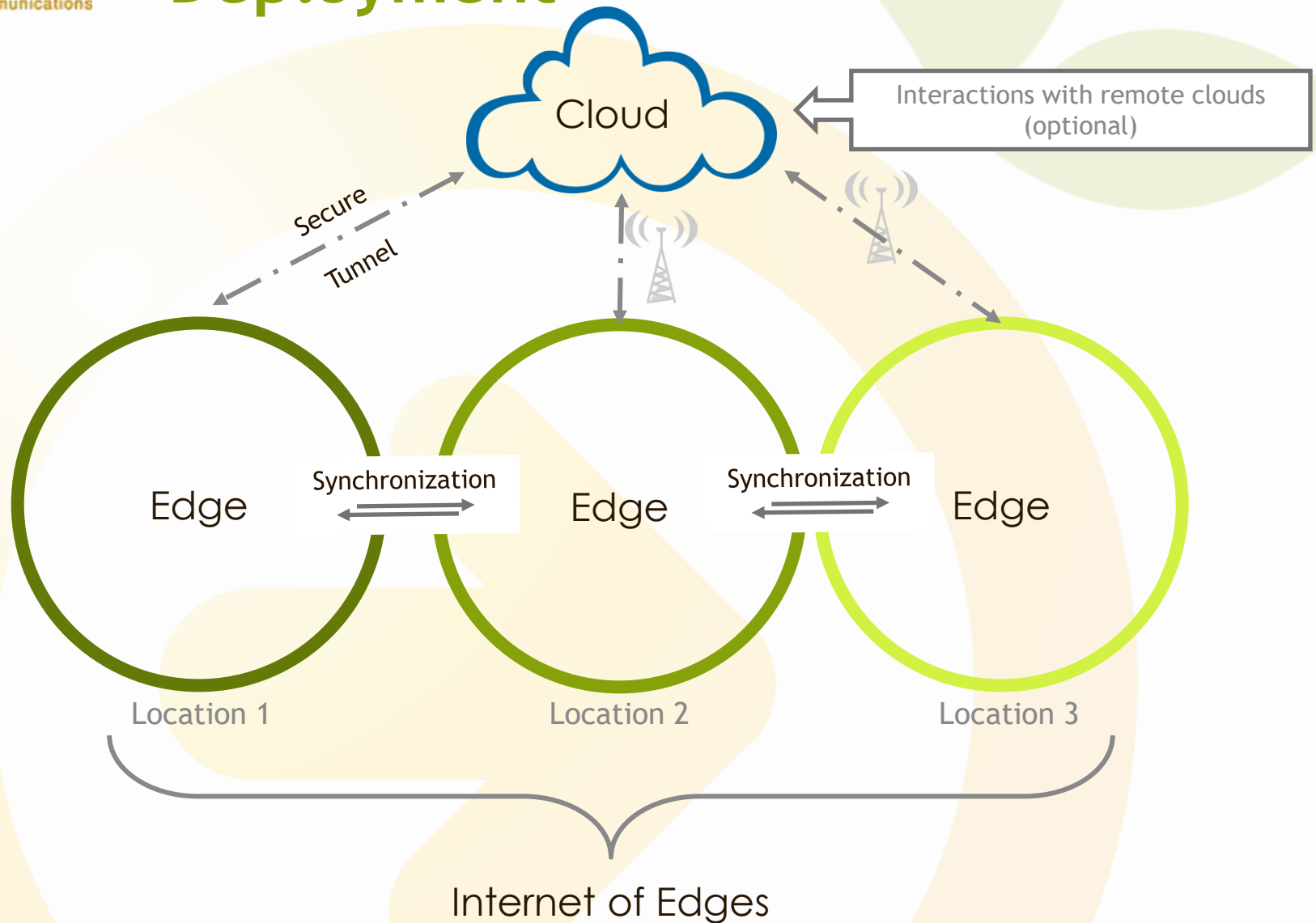
Green Communications provides ready-to-use platforms for the easy setup of an Internet of Edges. IoE platforms are tiny and low power routers (YOI) featuring 5 to 7W energy consumption. Each platform comes with a GreenSoft license and a set of edge services.

 <p>Wi-Fi</p> <p>< 6W 50 g</p> <p><i>nYOI</i></p>	 <p>Wi-Fi</p> <p>≤ 6W 280 g</p> <p><i>YOI</i></p>	 <p>Wi-Fi + 4G_{LTE}</p> <p>≤ 7W 320 g</p> <p><i>YOI with 4G/LTE</i></p>	<p>Wi-Fi 6e</p> <p>Wi-Fi 6</p> <p>Wi-Fi 4</p> <p><i>Wi-Fi Generation Available</i></p>	<p> GPS</p> <p> Bluetooth</p> <p> Battery</p> <p> Accessories</p> <p> Enclosures</p> <p><i>Optional Features</i></p>
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Deployment



Deployment



PATENTS

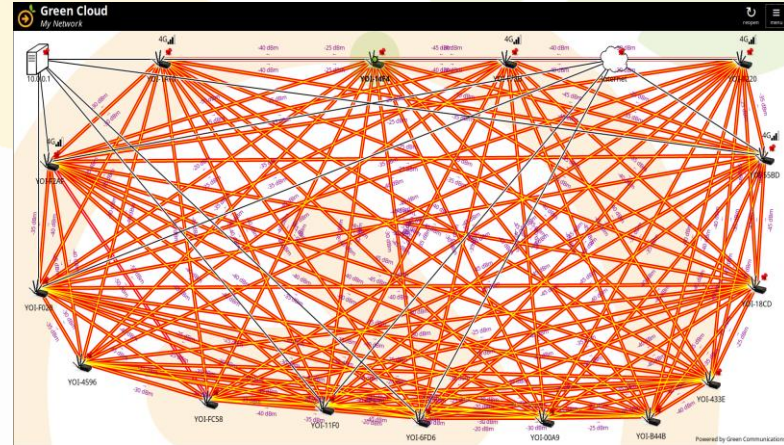
Green PI is the result of 20 years of research and development and a technology transfer from top French universities (Sorbonne University and Paris Saclay University) and the CNRS.

Green PI is protected by patents in Europe, USA and Japan.

PERFORMANCES

Green PI achieves unique performances in terms of:

- network robustness transferring real-time video up to 30 wireless hops (State of the art < 4 hops);
- and energy saving with routers featuring less than 5W energy consumption (State-of-the-art ~15W).



Market Applications

DEFENSE & PUBLIC SAFETY

- Tactical network
- Swarm of connected drones and robots
- Direct communications



PUBLIC INTERNET

- Venues' HD connectivity & digital services
- Operators' network extension & densification
- Indoor/outdoor public Internet infrastructure
- Temporary Internet for events

INTERNET OF THINGS

- Massive IoT
- Internet of moving things
- IoT in constrained environments

TRANSPORTS & LOGISTICS

- On board connectivity with services
- V2X communications
- Swarm of drones and robots (indoor & outdoor)

CYBER SECURITY

- Cyber Resilience: Quickly restoring a digital infrastructure
- Digital transformation: safe environment for testing & integrating new IoT

They Trust Us



GREEN COMMUNICATIONS

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ABOUT US: Green Communications is an innovative company created in 2010 with a unique expertise in wireless networks and distributed systems. The company is strongly engaged in answering the challenge of Internet mobility, saturation and energy footprint. Therefore, we created Green PI, a low carbon impact Internet and edge cloud platform providing fast and resilient services for IoT, mobility and critical applications. Green PI is the result of 20 years of research and development and a technology transfer from top French universities (Sorbonne University and Paris Saclay) and the CNRS.