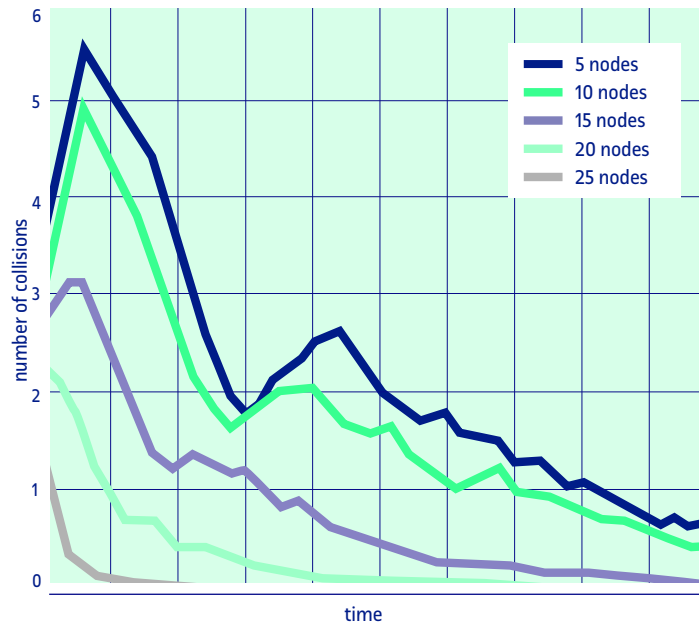


Is your IoT network efficient enough?

Our Hybrid Self-Scheduled protocol (HSS) allows your IoT network to perform up to 99% with energy savings, even with a dynamic configuration and bursty data traffic

HSS is a novel low-power hybrid MAC protocol that provides the following advantages

- **Increases network efficiency up to 99% due to elimination of data packet collisions by distributing nodes in a double queueing system**
- **Network efficiency does not depend on the number of nodes in the network**
- **Saves on infrastructure in dynamic node networks as no planning mechanism is needed**
- **Reduces energy consumption compared to current random network MAC protocols**
- **Counteracts the effects of multi-path propagation and neighbouring network's interferences with frequency hopping mechanism**



Evolution of the length of the Collision Request Queue (CRQ) depending on the number of nodes in the network. After a few number of frames, the length of the CRQ converges to zero

The perfect alternative for data collection scenarios where the traffic is bursty and the number of nodes is dynamic

Available for

Any wireless network, especially those with a dynamic number of nodes that generate bursty traffic



Smart cities

- Measurement and control of public services (water, electricity, gas, etc.)
- Public safety
- Environment
- Urban transport



Industry

- Process and operations
- Supply chain and equipment monitoring



E-health

- Teleassistance
- Remote patient monitoring



Logistics and transport

- Fleet management
- Smart traffic management



Agriculture

- Pest management
- Intelligent irrigation



Inventors

Xavier Vilajosana and Pere Tuset, researchers from the Wireless Networks (WINE) group at the Internet Interdisciplinary Institute (IN3)



Patents

PCT/EP2013/061296, Method and apparatus for sending and receiving data in a machine to machine wireless network



Video

tinyurl.com/UOChss



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