YRH Newsletter

January, 2016

The Internet of Things (IoT) and Machine to Machine (M2M)



The IoT is the next disruptor in communications, big data, the internet, and applications. It is predicted by many to change our everyday lives in ways we can't even imagine yet. With tens of billions of connected devices and the potential trillions in revenue that come with it, many are banking on the IoT. Some however do not believe the hype and have coined IoT the latest bubble. So what's all the buzz about? What sectors and applications will be emerge or be implicated? How will it impact our communication systems? This Newsletter will try to shed some light on these questions and try to demystify this topic.

The IoT is made up of connected objects like cars, sensors, electronics, controllers, and their background applications and services. M2M strictly deals with the communications portion of the IoT and is therefore a subset of it.

Some applications for the IoT are:

- + Automotive
- + Industrial/Manufacturing
- + Agricultural
- + Energy/Utilities
- + Consumer Electronics
- + Smart Homes
- + Smart Cities
- + Health & Medical
- + Building automation

The end goal is increased automation, efficiency, tracking, and new and emerging applications and services that can be leveraged by users, businesses, and public institutions.

Telecommunications operators, chip manufacturers, cloud services, device makers, and applications developers are all expected to benefit from IoT and take a slice of the pie.

SERVICES AVAILABLE

- + Consulting
- + Technology Evaluation
- + Measurements
- + Technology Evaluation
- + Predesign Assessments
- + Network Design
- + Redesign Solutions
- + Mitigation Solutions
- + Project Management
- Post Construction Validation



SOLUTIONS

YRH provides multiple elements to help you achieve your IoT goals. Our knowledge, experience, and flexibility ensures that we are practical and creative at the same time.

ENGINEERING

Our professional engineering team will design an efficient solutions adjusted to your needs, whether they are a simple project, a complex system or a network.

CONSULTING

Our broad experience and reputation in multiple telecommunication areas gives our engineering team the knowledge to help you in your telecommunication projects. We value our independence from service providers and manufacturer to provide the best evaluations and solutions.

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Mobility everywhere 5G FTTH/FTTN Internet LPWA data center

cloud computing

INTERNET of THINGS **ZigBee auction**

LTE Advance+ capital security **VoLTE**

consolidation LoRa

BigData Wi-Fi Code 6 compliance DAS smart cities M2M smart machine

HotSpots Bluetooth Smartgrid ITS Small cell LPWA IOT

At the heart of our organization is a dynamic, involved and innovative team of consulting engineers specialized in broadcasting and telecommunications, with a solid reputation for problem-solving.

In its more than 48 years of existence, YRH has operated in more than 50 countries on 5 continents, in a variety of climatic conditions and work environments. Our varied experience is at your disposal in this increasingly competitive domain.

Our strength lays in our dedication to the excellence of our work and our attention to the needs of our clients. At YRH we not only work for you but with you to ensure your entire satisfaction at every stage.

Yves R. Hamel et Associés Inc., your consultant-experts in telecommunications, broadcasting and mobile networks since 1967.

Cisco, Qualcomm, Huawei, Ericsson, Google, Apple, Samsung, Intel, Avago, Verizon, and Vodafone are just a few players investing heavily in the IoT; but many are backing more than one initiative, hoping one emerges. Herein lays one of the challenges of the early stages of the IoT: how to pick a winner?

Bluetooth, Zigbee, Wifi, and 2G to 5G technologies can all meet a specific need. Moreover Low Power Wide Area (LPWA) standards LoRa Alliance, Weightless, and SigFox for example, are currently being developed and deployed to specifically meet IoT needs. There are always challenges to the adoption of a new technology and in this case there are many ranging from security, privacy, adoption of standards, revenue generation, and chip costs to name a few.

The YRH team stands out by the quality of its knowledge, its flexibility and the breadth of its experience. We can help you achieve your IoT goal: whether it is design approach, network design or coverage or technology evaluation and project management. Our knowledge and experience help us cut through the noise and get to practical and realistic solutions. At the same time, our creative approach makes sure that an out of box solution is not too far away. We aim to deliver a highest quality product, based on in-depth technical and theoretical knowledge and vast hands-on experience.

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Each client and each project are unique and so require a specific analysis or

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