

IT TRAINING

“Internet of Things”

PRESENTED BY:
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IoT - “Internet of Things”

“The IoT integrates the interconnectedness of human culture -- our 'things' -- with the interconnectedness of our digital information system -- 'the internet.' -- That's the IoT," [Kevin Ashton](#)

- Connection of devices to internet - IoT
- Any Stand-alone internet-connected device that can be managed/monitored from a remote location/ system - IoT Device
- IoT Ecosystem - Components that enable businesses, Govt., and consumers to connect to their IoT devices:
 - remotes, dashboards
 - networks, gateways
 - analytics
 - data storage
 - security
- For ex: Smart Homes, Wearables
- Smart Cities, Connected car



QUICK Ex of IoT:

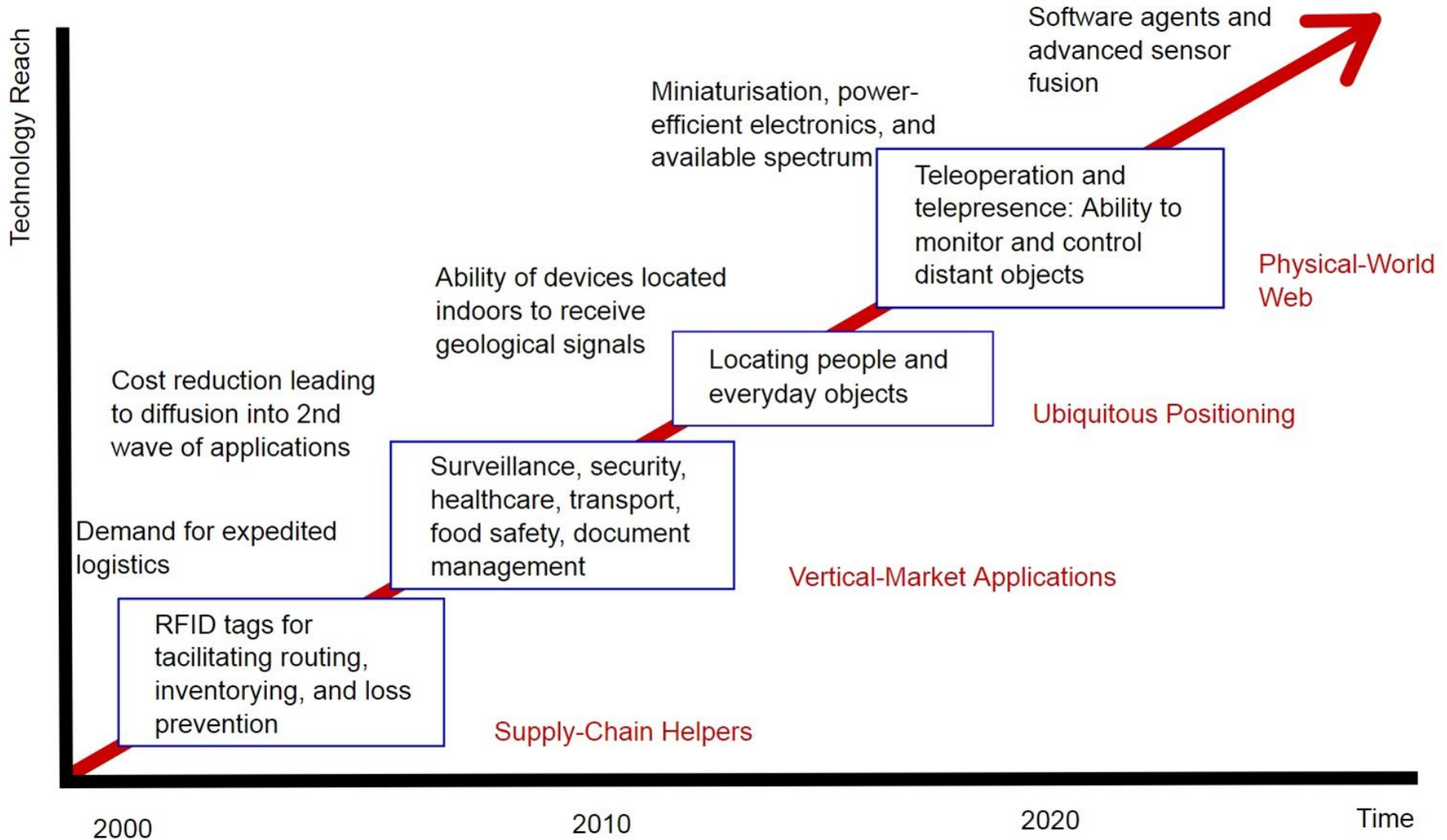
Please click the link below:

<https://drive.google.com/open?id=1oxNwkmmZ83JVtKT4gsvazaa4RFwJtioq>

- Major IoT Companies - MSFT, AMZN, GOOGL, IBM, CSCO, VZ (VERIZON), T (AT&T), GE, FIT, GRMN (GARMIN), HON (HONEYWELL), BLK (BlackRock)
- IoT Platforms - AWS, Azure, ThingWorx IoT, Watson, Cisco IoT Cloud Connect, SF IoT Cloud, Oracle Integrated Cloud, GE Predix

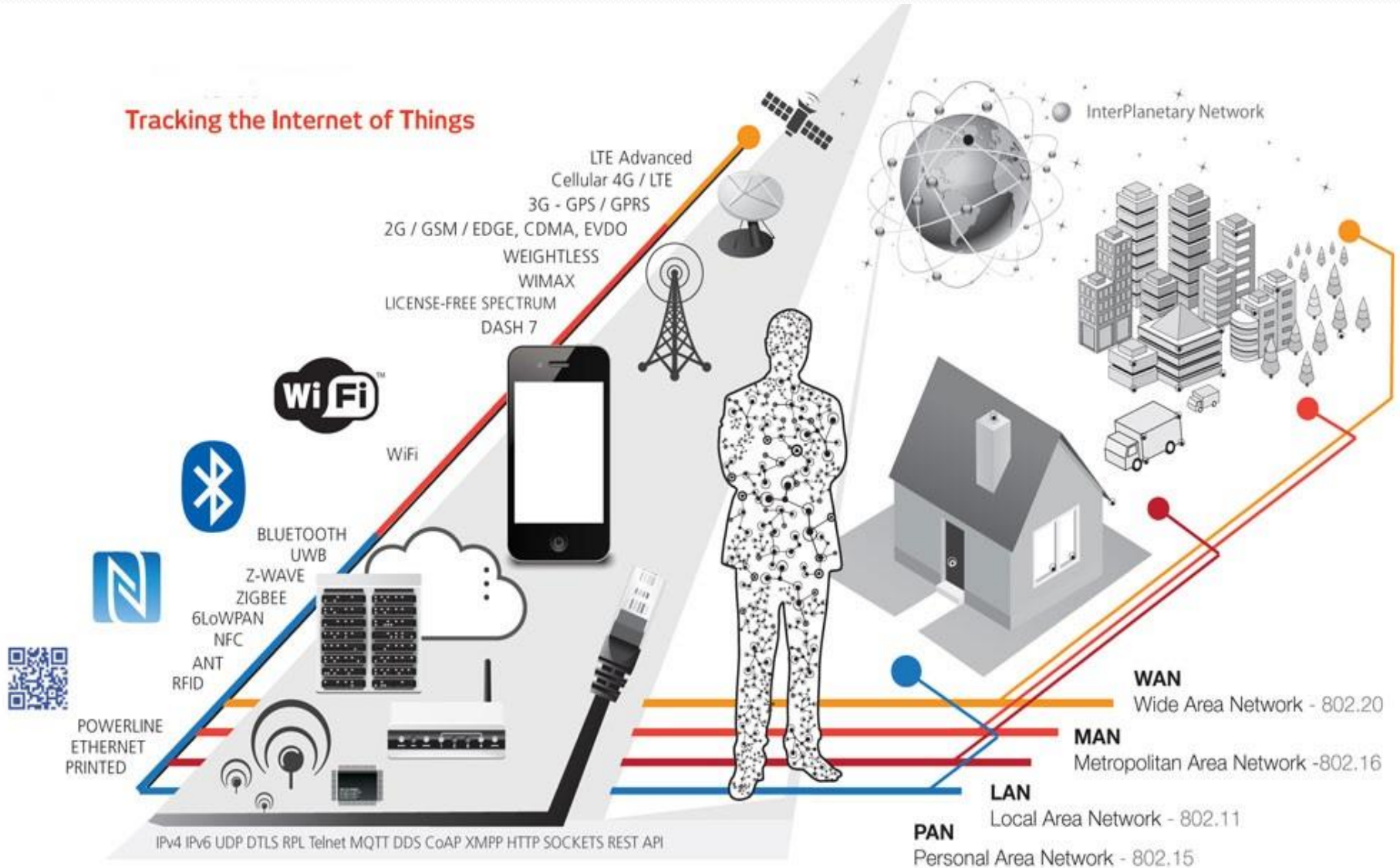
IoT ROADMAP

Technology roadmap: The Internet of Things



IoT TRACKING

Tracking the Internet of Things



GUIDE to IoT

Communication	RFID/ EnOcean/ NFC/ Bluetooth/ WiFi/ GSM/ 3G/ LTE/ GPRS/ Ethernet/ WiMax
Backbone	Internet Protocol/ IPv4/ IPv6/ UDP/ TCP
Hardware	Wireless SoC (System on Chip)/ Semiconductors/ Radio Frequency (RF)/ RaspberryPi/ Arduino
Software	RIOT OS (Programming on C or C++ or Embedded C)
Protocols	CoAP (Constrained Application Protocol) RESTful HTTP (Representational State Transfer) MQTT (Message Queue Telemetry Transport) XMPP (The Extensible Messaging and Presence Protocol)
Cloud Platforms	ThingWorx/ EVERYTHING/ Open.Sen.se

Sample JD - IoT Developer

Our client in Toronto in a software development industry is looking for a Senior IoT Developer with the following technical skills sets. The successful candidate will have experience in development on multiple operating systems including Linux and Windows and embedded devices, and have experience in multiple languages including Go, C#, Java, C and C++, as well as JavaScript and JavaScript frameworks.

Requirements:

- RaspberryPi, Arduino, ESP32, Microcode, MQTT, AWS/AZURE, IoT, LAMP.
- Database experience is a must including SQL Server, PostgreSQL.
- You will work with the full range of modern technologies from Lambda functions in cloud solutions, IoT Messaging queuing systems like MQTT right down to embedded device firmware and custom embedded Linux builds.
- The position requires a developer who is organised, passionate about software development and obsessed with releasing lots of code. The role spans multiple devices, frameworks, APIs, Operating Systems.
- If you have 5+ years of experience with the above mentioned and you are living in Toronto area please send in your resume in word format.

Sample JD - IoT Platform Developer

The Internet of Things is connecting the world and ZTR is leading the way in the industrial space. ZTR provides end-to-end IoT solutions (hardware and software) using cutting edge technologies. We are looking for passionate developers who believe that quality is the path to enlightenment.

Is this you?

- I want to build a massively scalable, high performing IoT platform
- I want to work with the latest technologies and deliver innovative solutions
- I enjoy working on a team that both challenges and supports me
- I want to help an awesome company and its awesome employees become even more awesome

Core technologies / skills:

- 4+ years working with C# or Java
- Docker
- RESTful APIs
- PostgreSQL
- NoSQL database technologies
- Previous experience with cloud based services and IoT platforms is a bonus (AWS)
- Able to follow design patterns and adhere to development standards
- Strong communication skills
- Self-motivated to succeed while working in a team-oriented environment