# Internet of Things

From the Thing to the Cloud





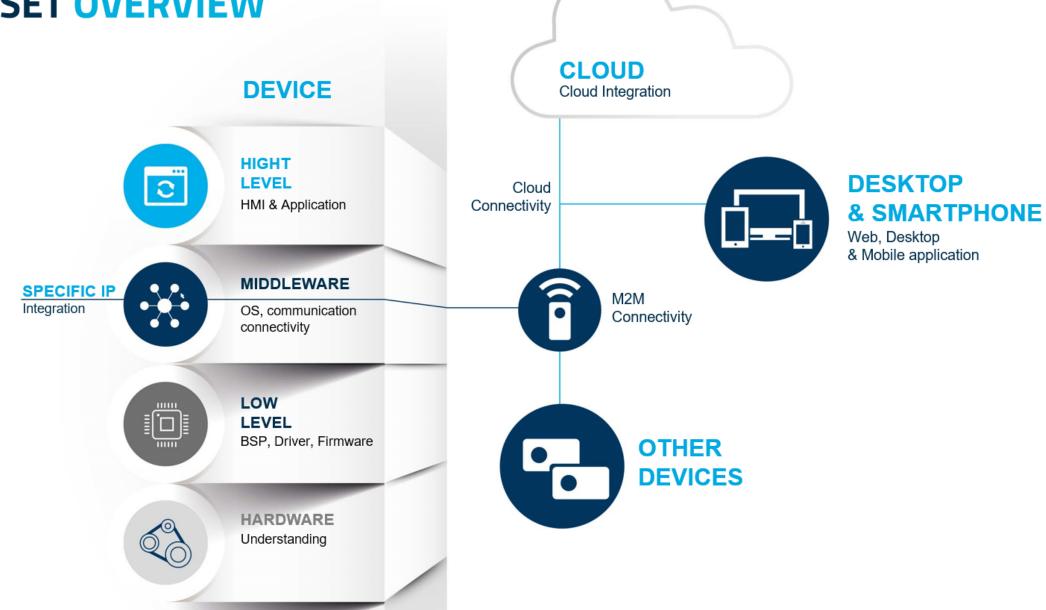
**EMBEDDING SUCCESS** 

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Smart Objects System Architect





# **OUR SKILLSET OVERVIEW**



# **SOFTWARE INDEPENDENCE** amazon web services CLOUD DEVICE Cloud Integration **DESKTOP** 0 Cloud Connectivity & SMARTPHONE Web, Desktop & Mobile application C++ C# Java SPECIFIC IP M<sub>2</sub>M Integration OS, communication Connectivity connectivity Cos . OTHER BSP, Driver, Firmware **DEVICES HARDWARE** Understanding

# Prerequisit

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## Personal Training on:

- Base of Language C: <a href="https://www.lynda.com/C-tutorials/Start-your-C-essential-training/772324/5009121-4.html">https://www.lynda.com/C-tutorials/Start-your-C-essential-training/772324/5009121-4.html</a>
- Base of Javascript: <a href="https://www.lynda.com/JavaScript-tutorials/Learning-JavaScript-Language/782146-2.html">https://www.lynda.com/JavaScript-tutorials/Learning-JavaScript-Language/782146-2.html</a>
- Base of HTML: https://www.lynda.com/CSS-tutorials/Examining-your-HTML/182174/193660-4.html
- Usage of Git: https://www.lynda.com/Git-tutorials/Up-Running-Git-GitHub/409275-2.html

## Tools

- VMWare Workstation Player 15 (Evaluation): <a href="https://www.vmware.com/fr/products/workstation-player/workstation-player-evaluation.html">https://www.vmware.com/fr/products/workstation-player/workstation-player-evaluation.html</a>
  - MAC User needs to get VMWare Fusion for Mac
- Adobe Acrobate Reader DC: <a href="https://get.adobe.com/fr/reader/">https://get.adobe.com/fr/reader/</a>
  - If you are able to read this document, it means that you're all set ☺

### Session Virtual Machine

- Download the VM from our file server.
  - Link: <a href="https://files.witekio.com/dl3031587317">https://files.witekio.com/dl3031587317</a>
  - User password is Witekio



# **Gettings ready for Team Work**

## Build your Team

- You are 32 students registered for this training session
- Find two other guys to build a 3 members Team
- Only two of you will be in Duo

# Repository

- Create a free account on git hub <a href="https://github.com">https://github.com</a>
- Create a private repository : Ynov-loT-Training
  - ie: https://github.com/NicolasBesson/Ynov-IoT-Training/
- Add other team members to the repository collaborator list
  - <a href="https://github.com/NicolasBesson/Ynov-loT-Training/settings/collaboration">https://github.com/NicolasBesson/Ynov-loT-Training/settings/collaboration</a>
- Add myself as a collaborator
  - NicolasBesson

Drop me an email at <a href="mailto:nbesson@witekio.com">nbesson@witekio.com</a> when done.



# Agenda

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# Day 1 to 5:

- Introduction to the Internet of Things
- Architecture of a Thing
- Labs: The Sensor, The Gateway, The Cloud, The IoT Edge, ThingsBoard

# Day 6 to 11:

The IoT Project

# MARCH2019

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
4	25	26	27	28	1	2	3	
	4	5	6	7	8	9	10	
_								
/	11	12	13	14	15	16	17	
			Introduction to IoT					
_								
'	18	l 19	20	21	22	23	24	
_								
2	25	1 26	27	28	29	30	31	
	1	2	3	4	5	6	7	

# APRIL2019

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
T 1		2	Lab Object Lab Gateway	Lab Cloud Project Identification	5	6	7
8		9	10	11	12	13	14
15	5	16	17 IoT Protocols Project Management	18 Cloud, IoT Edge Lab Docker	ThingsBoard Lab ThingsBoard Theorical Exam Pitch Projet	20	21
22	2	23	24	25	26	27	28
29		30	1	2	3	4	5
6		7	8	9	10	11	12

# MAY2019

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
29	30	1	2	3	4	5
			Project	Project		
6	7	8	1 9	1 10	11	12
			Project	Project		
13	14	15	16	17	18	19
		Project Oral Presentation				
20	21	22	23	24	25	26
27	28	29	30	31	1	2
3	4	5	6	7	8	9

# **Evaluation**

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# Labs Coeff 2 Exam Coeff 1

- Labs
  - All source code MUST be stored on a git repo

    - \Lab\_01\<Lab 01 files>\Lab\_02\<Lab 02 files>
- Theorical Exam
  - QCM on the topics covered so far



# **Evaluation**

# **Projet Coeff 3**

- Project Pitch Document
  - Product description
  - Product use cases
  - Planning
  - Over
- Oral Project Pitch (5 minutes + 5 minutes)
  - Convince me
- Project realization
  - Source code review
  - System architecture
  - Daily follow up
- Project Presentation (25 minutes + 5 minutes)
  - Project completion
  - Power Point Presentation
  - Technical knowledge



# **Accountability & Commitment**

Up to date expertise

Agility & Scalability

Reliability

**Local Teams** 

Worldwide presence

**Global Actions** 

**Compliance with customers teams** 

# Thank you

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