Welcome to
STM32 Zigbee workshop

Introduction and agenda
Start at 9 am CET

Workshop team

Jiri VLCEK – ST Prague

Jiri is an Application Engineer in EMEA Team providing technical support for STM32 customers. Jiri is focused on Wireless applications including BLE, Thread, Zigbee and Matter. Jiri joined STMicroelectronics in 2016 and previously studied at Czech Technical University in Prague.

Aniss ABDELLAOUI – ST Paris

With a previous 3 years' experience as a Zigbee developer providing connected solutions in smart home & heating industry, Aniss joined ST in 2023 as a member of EMEA team focusing on 2.4GHz wireless technologies and supporting ST customers through their Zigbee journey.

Petr DAVID – ST Prague

With previous 3 years' experience as a general purpose microcontroller support trainee, Petr joined the EMEA RF MCU support team in 2023 focusing on 2.4GHz wireless technologies.

Yvon RANNOU – ST Munich

With more than 20 years of experience in embedded processing and communication systems including MCUs, MPUs, sub-GHz, and 2.4 GHz connectivity, Yvon is a valued member of ST´s wireless marketing team. He focuses on business development in EMEA supporting all ST wireless technologies.

Purpose of the workshop

- Highlights **STM32 portfolio for Zigbee application,** introduce ST Zigbee stack and interoperability overall Zigbee solutions

- Learn keys features and architecture of ST **Zigbee stack**

- Demonstrate ease of use, quick way to evaluate and develop Zigbee application with **STM32 wireless ecosystem**

Agenda (9:00 – 12:00)

1 — 5 min — Session introduction & agenda

2 — 30 min — Introduction of ST Zigbee solutions based on STM32WB and WBA

3 — 30 min — **"Hello World" application – On/Off** Code and architecture walkthrough

4 — 30 min — **Extended On/Off example** Light bulb / Light Switch

5 — 15 min — **Adding extra ST Coordinator** Demonstrate interoperability

6 — 15 min — Break

7 — 30 min — **Cluster management** Change On/Off to Heater/Thermostat

8 — 15 min — **Large Zigbee network**

9 — 10 min — Takeaways, Q&A

Theory   Demo

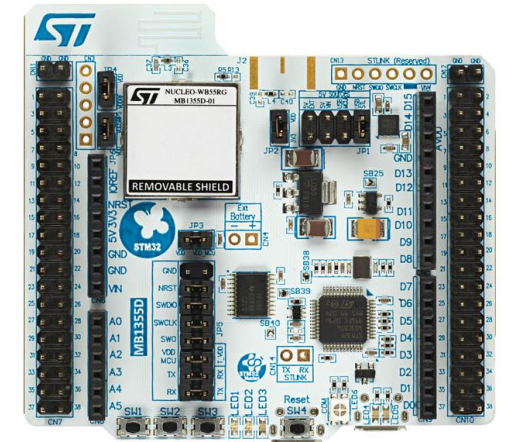# Hardware Tools

- **P-NUCLEO-WB55**
  - ST-LINK/V2
  - STM32WB55RG
    - Cortex-M0+/M4 (dual core) @64Mhz
    - 1MB Flash
    - 256KB RAM
    - Multiprotocol – BLE, Thread, Zigbee, Matter

- **NUCLEO-WBA55**
  - ST-LINK/V3
  - STM32WBA5xCG
    - Cortex-M33 (dual core) @100Mhz
    - 1MB Flash
    - 128KB RAM
    - Multiprotocol – BLE, Thread, Zigbee, Matter

- **USB cables**

- STM32CubeIDE 1.15.0 or later

  https://www.st.com/en/development-tools/stm32cubeide.html

- STM32CubeWB 1.19.0 or later

  https://www.st.com/en/embedded-software/stm32cubewb.html

- STM32CubeWBA 1.3.0 or later

  https://www.st.com/en/embedded-software/stm32cubewba.html

Payoff of the workshop

- Have better understanding of **ST Zigbee offer** for STM32 wireless

- Learn key features of **ST Zigbee stack**

- Know where and **how to continue using Zigbee with STM32**

- Get answer(s) to any other question(s) talking directly with STM32 experts

Remote flow and rules

Remote workshop **Rules**

- If not speaking **please make sure to be muted** (we'll mute all in beginning).

- **Use CHAT window** of the Teams meeting to ask questions or highlight a problem during all the chapters and hands-on exercises.
  - Please mention slide number in case the question is related to specific slide.
  - Questions will be answered by facilitators in written form inside the CHAT window directly in real time.
  - Specific questions will be read by the facilitator at the end of each chapter and answered in spoken way by all the facilitators.

- In case of more complex issues private CHAT session can be started.

- If needed to share screen or have dedicated audio exchange, we will enable it at hands-on session check points or during the break.

LET'S START!!!

Find out more at STM32 Wireless Microcontrollers

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