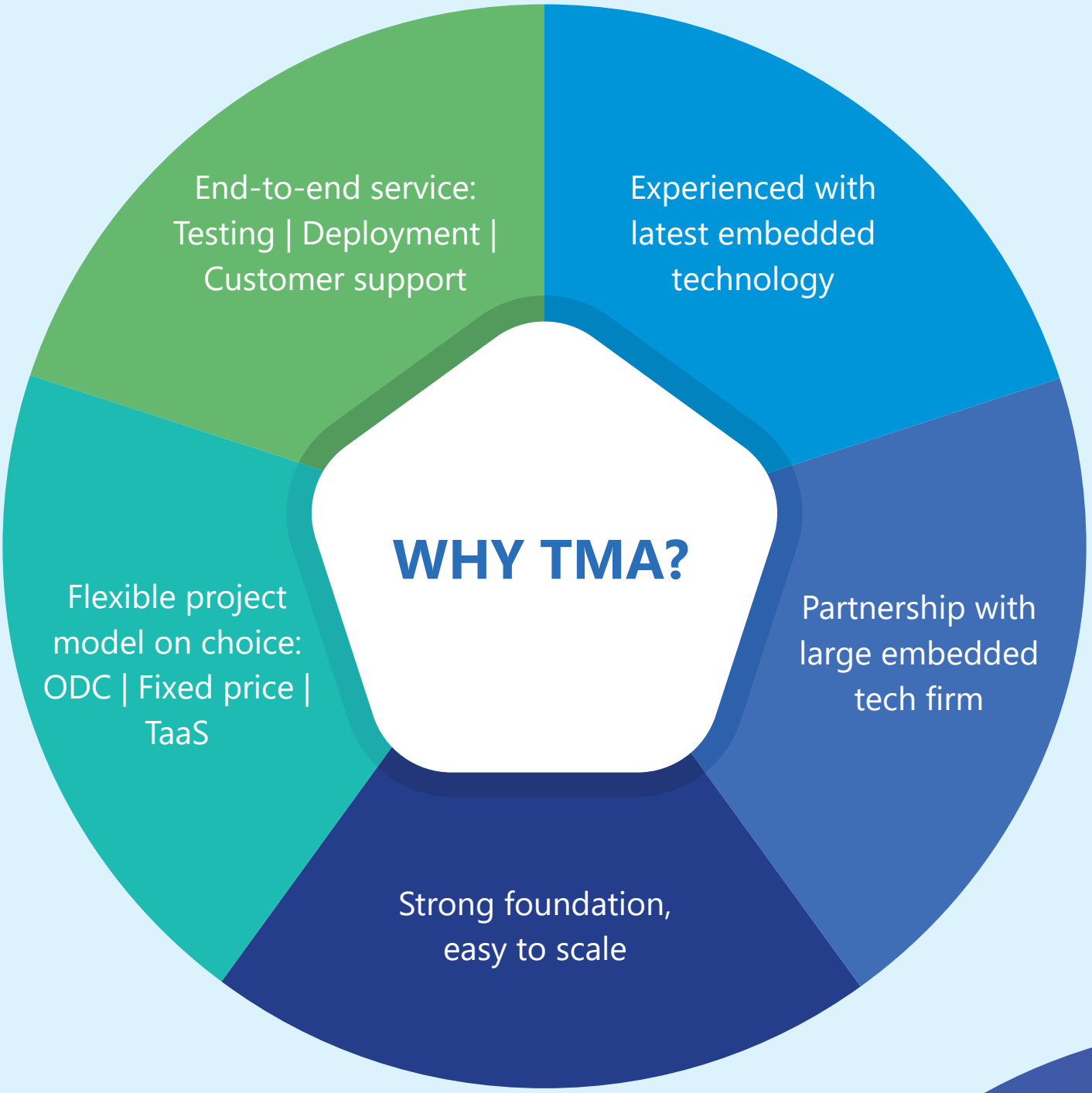
IoT Testing

WHAT WE OFFER?

Verification and validation for firmware and applications running on IoT embedded modules (2G/3G/4G/5G cellular, wifi, Bluetooth, GNSS) with automation level > 70%

www.tmasolutions.com

sales@tmasolutions.com



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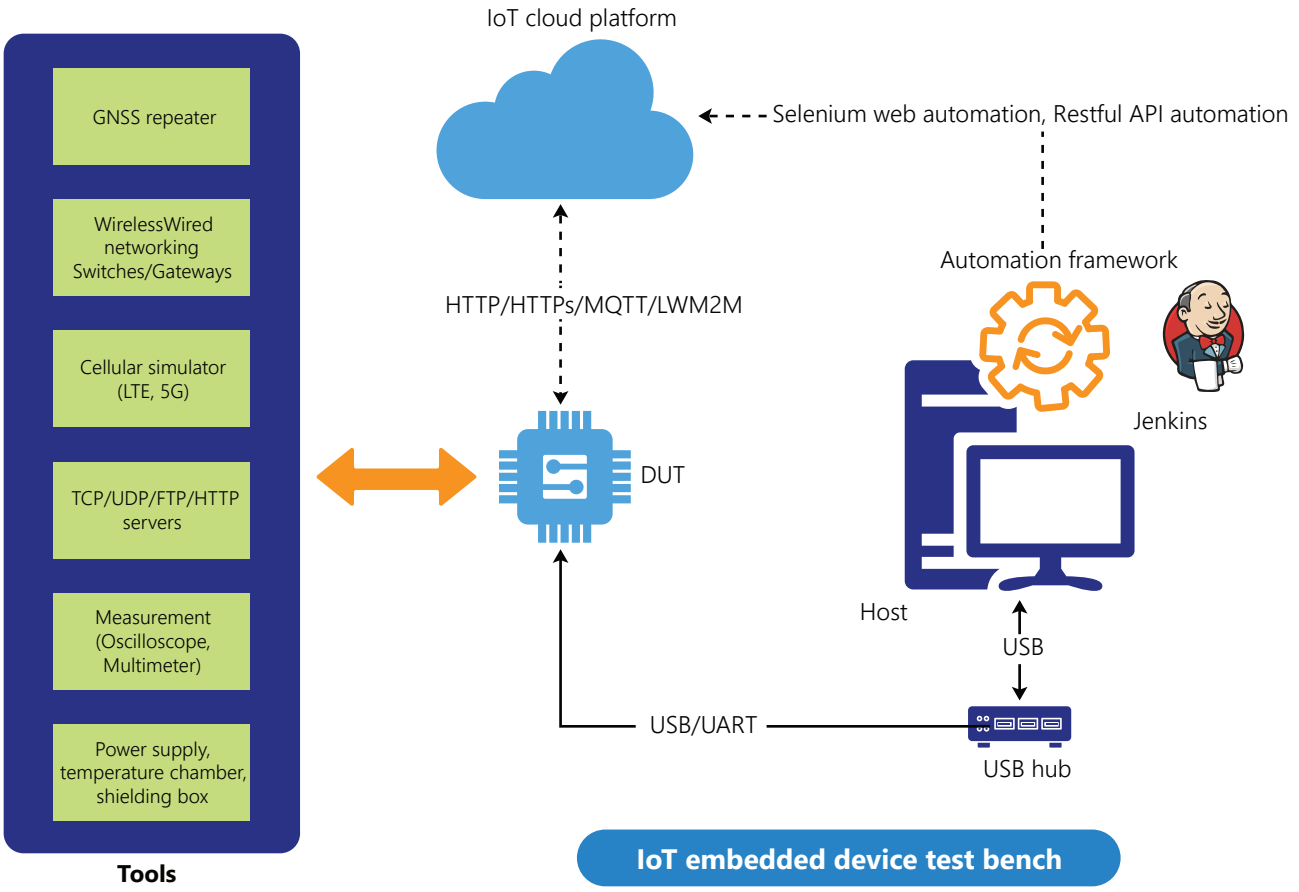
DEVELOPMENT MODEL

Agile | Waterfall



Black-box test type

- Black-box test type: functional, performance, stress test, end-to-end testing.

Applications testing

- C/C++ API testing

Firmware testing

- Testing for AT commands based on ITU V.25 ter, 3GPP specifications and manufacturer 's specifications.
- IoT cloud interaction testing: device management, firmware-over-the-air (FOTA), software-over-the-air (SOTA).

TECHNOLOGY

01

Protocol: HTTP/HTTPs, UDP/DTLS, TCP/TLS, FTP, MQTT, OMA DM, LWM2M, RESTful API.

Programming language: C/C++, Python, JavaScript.

02

03

Operating System: Windows, Linux, RTOS, Thread-X.

Hardware: Raspberry Pi, Arduino, MangOH, Analog/Digital I/O, UART, USB, RS232, RS485, I2C, SPI.

04

05

Cellular simulator: R&S CMU200, R&S CMW500, Amarisoft.

Other tools: temperature chamber, oscilloscope, multimeter, DC power control.

06