IQRF Tech News

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My name is, I will …
I was told not to fill the presentation by too much text – I took it literally :-) - next slide
Do not even expect table of contents :-)
Let's concentrate to the spoken detail and the discussion at the end
The presentation with brief :-) speaker notes is available on request

IQRF OS + DPA + SDK + IDE

IQRF is not IQRF OS only anymore
Truly the full ecosystem OS-DPA-SDK
IDE is not actually only IDE – for development only; it is also a full IQRF maintenance app

Although there was IQRFA conference last autumn – we have IQRF distributors here – they met a year ago last time

TR-7x Support

"Simply" HW support
Easy = transparent migration from TR-5x to TR-7x
Certain features available at TR-7x only (OTA)
Extended external EEPROM – 64 kB of space
Faster SPI communication support
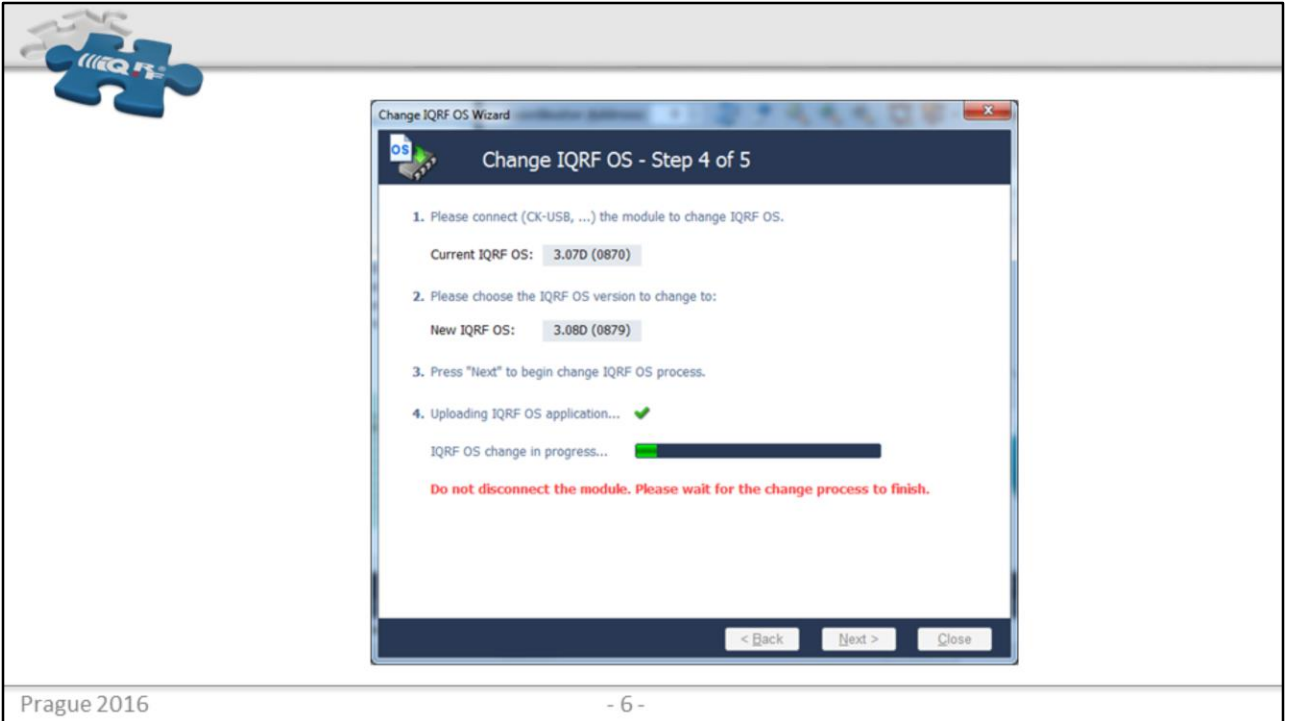More space for custom DPA handler compared to TR-5x

IQRF OS Update

No need to send TRs to MICRORISC for IQRF OS update
We call it actually IQRF OS Change as the IQRF OS can be also downgraded
So starting from IQRF OS 3.06 you can bidirectionally move among IQRF OS versions
Can be full done manually by user, from IQRF IDE, from DPA, …

5

Describe the picture…

Upgraded FRC

- 2B FRC
- Selective FRC

Describe the picture…

8

IQRF SDK @ https://github.com/iqrfsdk

- Make easy integration of DPA with controling systems
- **Java framework** for DPA
- **C** libraries for **Arduino a chipKIT,** update for IQRF and DPA
- **C++** library **Linux** type **Raspberry PI, Turis Omnia, Intel AAEON GW** etc. under development
- **OTA** support under development
- Demo with **MQTT** protocol toward the clouds

9

Supported by DPA only. "Pure C code application" not supported
Virtually everything can be updated over the IQRF MESH network
So no need dismantle hundreds of lamps from mobile platform and one-by-one TR update
When talking about code – basic concept is, that the data are 1st to be stored at externa EEPROM and then loaded into Flash
The external EEPROM can hold multiple items – handlers, DPAs, even IQRF Oss
Full support from DPA API and from IQRF IDE
In the future will be Selective (affected Nodes can be selected) from the IDE

10

OTA

Custom DPA Handler

Just store your Custom DPA Handler(s) (CDH) into EEPROM and switch them (reset is required)
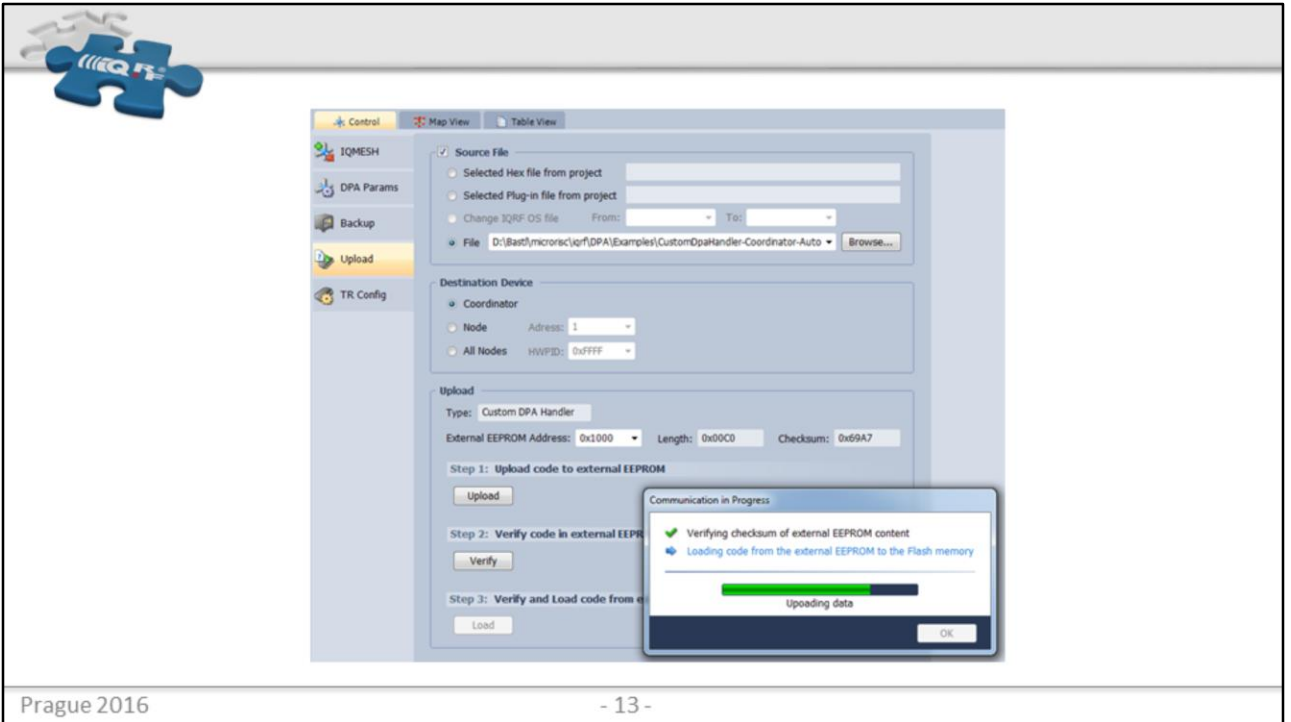Useful for upgrades, testing, demos

OTA

.iqrf Files (DPA)

Similar to the CDH
.iqrf files store a code in the encrypted way
.iqrf files are used to distribute DPA
So again – new DPA release? Update it over the whole network

12

Describe the picture…

13

OTA

IQRF OS Update

Same concept but in this case the special CDH (doing the actual IQRF OS change) must be uploaded
When the change is done, upload your original handler pre-stored at the external EEPROM
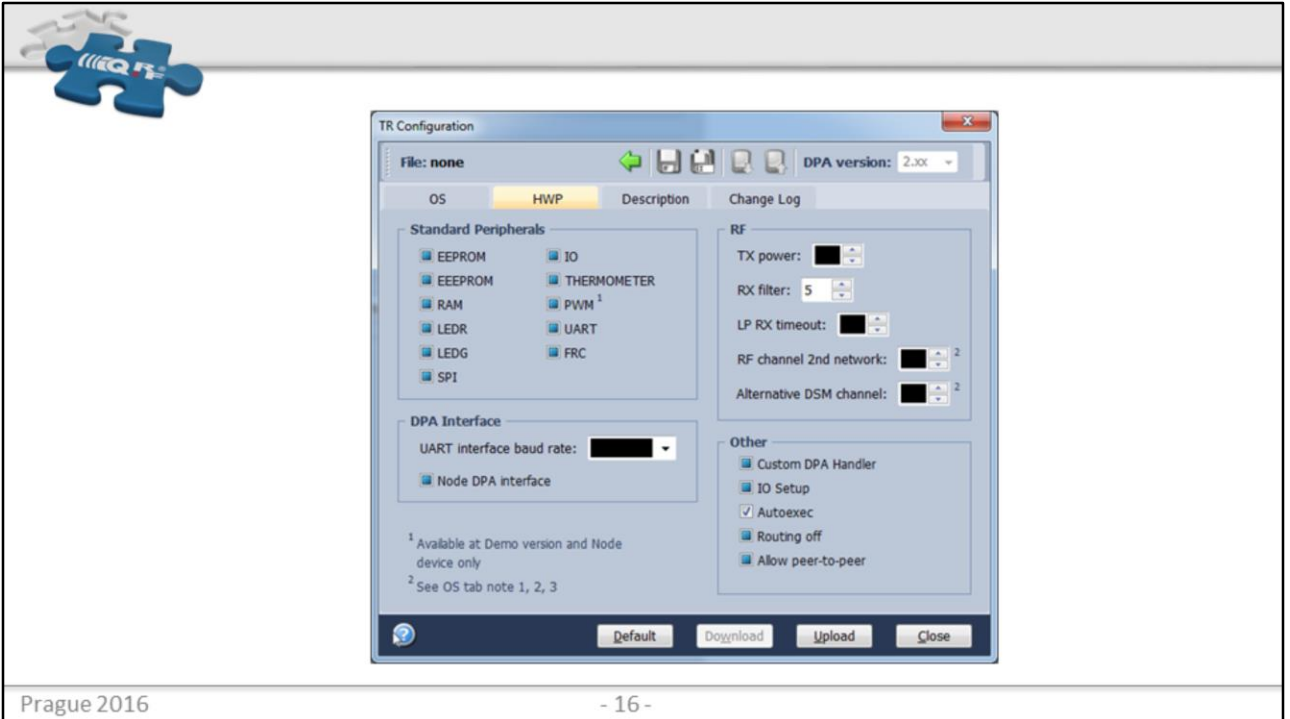
OTA

Configuration

Allows to finely configure existing IQRF MESH devices over the DPA
Finely means that the configuration is selective on configuration "byte" or even "bit" level
So you can e.g. change the RX filter and enable Autoexec at heterogeneous Nodes without affecting the rest of their configuration

Describe the picture…

OTA

DEMO

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Q&A

Thank You! Thank You! Thank You! Thank You! Thank You! Thank You! **Thank You!** Thank You! Thank You! Thank You! Thank You! Thank You! Thank