



Alliance

IQRF[®] OS & DPA Release Details



Hynek Syrovátka
IQRF Alliance, CTO

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- IQRF Standards & Certification
- IQRF Repository
- IQRF OS & DPA Release

- Same Standards (Sensor, Binary output, Light)
- A few new/updated Sensor quantities
- New products in the queue



- No API changes
- Profiling
- Improved performance
- Better hosting
- Subjected to a security audit – no major issues
- Let's Encrypt certificate
- Graded A+ by SSL Labs



IQRF OS 4.03

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DPA 3.03

October 28, 2018

Changes and enhancements

- Command [OS Read](#) reads IBK (Individual Bonding Key) too.
- Command [Re-bond node](#) has an optional new parameter MID.
- [Button bonding](#) supports Smart Connect.
- [Button bonding](#) sleep timeout was extended to 73 seconds.
- [Read HWP configuration](#) does not XOR values by 0x34 anymore.
- [Write HWP configuration](#) does not require checksum to be precomputed anymore.
- [EEPROM Extended Write](#) can write over two adjacent 64-byte pages of the EEPROM chip at once.
- Command [Discovery data](#) marked as obsolete and will be removed in the future release. Use more powerful [EEPROM Extended Read](#) instead.
- Peripheral [PWM](#), that was formerly available only in the Demo version, was finally depreciated.
- Discarded command CMD_LED_GET at LED [peripherals](#).
- [DPA Service Mode](#) (DSM) operates with a fixed RX filter of value 5 in order to be independent on potentially too high filter value at [HWP Configuration](#). DSM keeps using full TX power of value 7.
- Meaning of [EEPROM information](#) enumeration parameters changed.
- [Timeslot lengths](#) updated for the current IQRF OS version. LP DPA got faster.
- Custom DPA handlers implementing [FRC](#) must be recompiled as the IQRF OS FRC return value variables have a different address.
- Peripheral [RAM](#) buffer *PeripheralRam* is now allocated at the fixed address at bank #12 for sure.
- Compiler CC5X V3.7A is required for compiling the [Custom DPA Handlers](#).

New features

- New command [Smart Connect](#)
- New command [Validate bonds](#)
- New command [LED Flashing](#).
- [FRC](#) returning 4 bytes.
- Two new embedded FRC commands for the Autonet V2. Please see [Prebonded alive](#) and [Prebonded MIDs](#).
- New embedded FRC command [Test RF Signal](#).
- New API variable [BondingSleepCountdown](#).

Bug Fixes

- Fixed an issue when the DPA for Node without DPA interface support at standard RF mode (HWP-Node-STD-7xD-V302-171116.iqrf or HWP-Node-STD-7xD-V301-170814.iqrf) did not initialize enabled SPI Peripheral.
→ Workaround was to call *enableSPI()* at [DpaEvent_Init](#) event.
- Fixed an issue when the DPA for Coordinator with a UART interface (HWP-Coordinator-STD-UART-7xD-V302-171116.iqrf or HWP-Coordinator-LP-UART-7xD-V302-171116.iqrf) did not shutdown the UART interface before [Discovery](#), [Reset](#), [Restart](#), [Run RFPGM](#) and [LoadCode](#) commands are executed. This might cause malfunctioning in case of discovery or missing DPA Response in other cases.
→ Workaround was to enable Node interface at the [HWP Configuration](#) although the device is the coordinator.

- Things have been **simplified**
- **No** need to **configure** channel before bonding
- **IQRF Smart Connect**
- ...
- No EEPROM paging



- **4-byte FRC** format (from up to 15 Nodes)
- **Bond validation**
- **RF noise/traffic testing** FRC
- And **2 new FRCs** commands for ...



Autonetwork V2

- Supported **natively** by IQRF OS
- **No Custom Handler** needed at Node => more Flash
- **No pre-configuration** needed
- **Faster** and **simpler** compared to previous Autonetwork
- Ready to use **Embedded Handler** for Coordinator
- **C & Java** versions are coming

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