

# **IQRF Interoperability Certification Procedure**

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# IQRF Interoperability Certification Procedure

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## 1. Goal

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- To check and certify interoperability compliance of IQRF Alliance (further as Alliance) member's product with IQRF Standard.

## 2. Prerequisites

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- The product manufacturer is a Sponsor, Contributor or Adopter IQRF Alliance Member.
- The Product is qualified for certification (suits to the IQRF Ecosystem, based on DPA framework) by Alliance.
- The Product has HWPID provided by Alliance implemented in the Custom DPA Handler.
- The product is an IQRF end device (sensor and/or actuator).

## 3. Certification Service Fee

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- Certification Service fee is published on the official Alliance website and could be changed time by time.
- Re-Certification Service Fee is set up by Alliance based on the re-certification extent.
- There could be extra fees charged to the Member especially (not only) in the following cases:
  - There are more than 3 iterations feedbacks from Alliance
  - The Product, TD and/or Custom DPA handler is very complex
- The Alliance will inform the Member about extra charges before related costs will be generated.

## 4. Certification discontinuation

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- Certification process could be stopped by the Member in any phase of the Certification.
- Certification process could be stopped by the Alliance especially (not only) in the following cases:
  - Member doesn't fix issues specified by Alliance expert.
  - Member provides updates with significant and unnecessary latency (1+ month) or in very poor quality.
  - Member is not willing to pay extra Certification Service Fees in the case of more than 3 feedbacks to fix any issue in the Product.
- In the above-mentioned cases Member doesn't get any part of the payed Certification Service Fee back.

## 5. Inputs

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- Required:
  - Product Technical Documentation (TD from now, [Template](#) available).
  - One HW sample of the Product.
- Recommended:
  - User Guide (not the subject of certification) as a useful certification supporting material ([Template](#) for IQRF part of a User Guide available).
  - Custom DPA Handler source code (examples available in [IQRF Start-up package](#)).
- Custom DPA Handler source code

- Serves for potential quick double check of a cause of any issue, feedback and improvement and optimization suggestions.
- The code must have compile-able libraries and other conditions must be provided and/or specified.
- Alliance will use the provided source code for certification purposes only, will treat it as confidential information and will not share it with any third parties.
- All digital inputs should be sent to [alliance@iqr.org](mailto:alliance@iqr.org).

## 6. HW logistics

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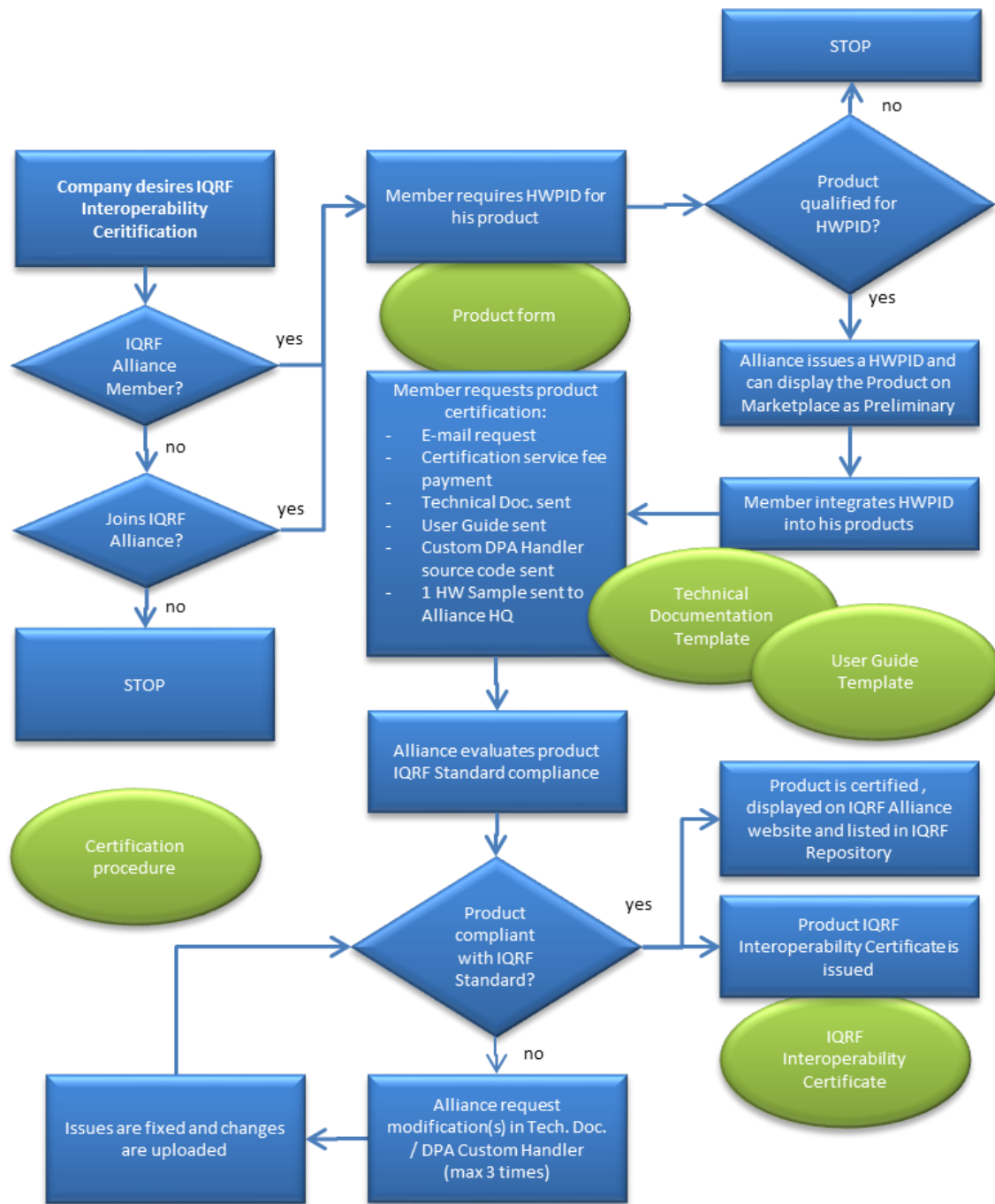
- Member is responsible to deliver one HW sample of the Product to Alliance HQ (IQRF Alliance s.r.o., Prumyslova 1275, 506 01 Jicin, Czech Republic, EU) before the certification process can be started.
- Member will deliver the product on his own costs.
- The product will stay in the Alliance HQ until the certification process is finished.
- It is recommended to leave one sample of the Product in Alliance HQ for further potential re-certification and marketing purposes after the certification process is finished.
- In the case Member requires the HW to be sent back after the certification process is finished, Alliance will do so on Member's cost.
- In the case the Product is too big and/or heavy for shipment or it is not possible to ship the Product for any other reason, Member should deliver at least part of the Product which could be used for the certification.
- In very unique cases the certification could be done remotely. This expects maximal cooperation on the Member side and special approval by Technical Committee Chairman.

## 7. Conditions

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- TD as the key document is checked for a compliance with formal requirements stated at the IQRF Technical Documentation TEMPLATE document ([Template](#)).
  - Syntax – TD is formally checked if all important points according to IQRF Technical Documentation TEMPLATE are covered
  - Semantics – Logical and relationship points are checked from SW and DPA perspective
- The product technical characteristics from the TD point of view are checked against IQRF Standard guidelines and requirements ([IQRF Standard Manuals](#)).
- The content of the TD is iteratively updated by the customer based on the Alliance feedback until there are no issues. (Certification fee covers three iteration feedbacks only. Extra iterations will be charged by extra payments).
- The Alliance Member delivers updated **Custom DPA Handler** (source code and/or .hex file) when changes have to be made because of issues previously found in the TD.
- The Product behavior is compared against TD. The differences found are iteratively fixed by the Alliance member. Note: only the Product functionality that can be physically carried out is verified.
- Mandatory default channel is 52 for 868 MHz band and 104 for 916 MHz band.
- **The subjects of the Certification are IQRF Standard requirements only.**

**Certification Process**



## 8. Output

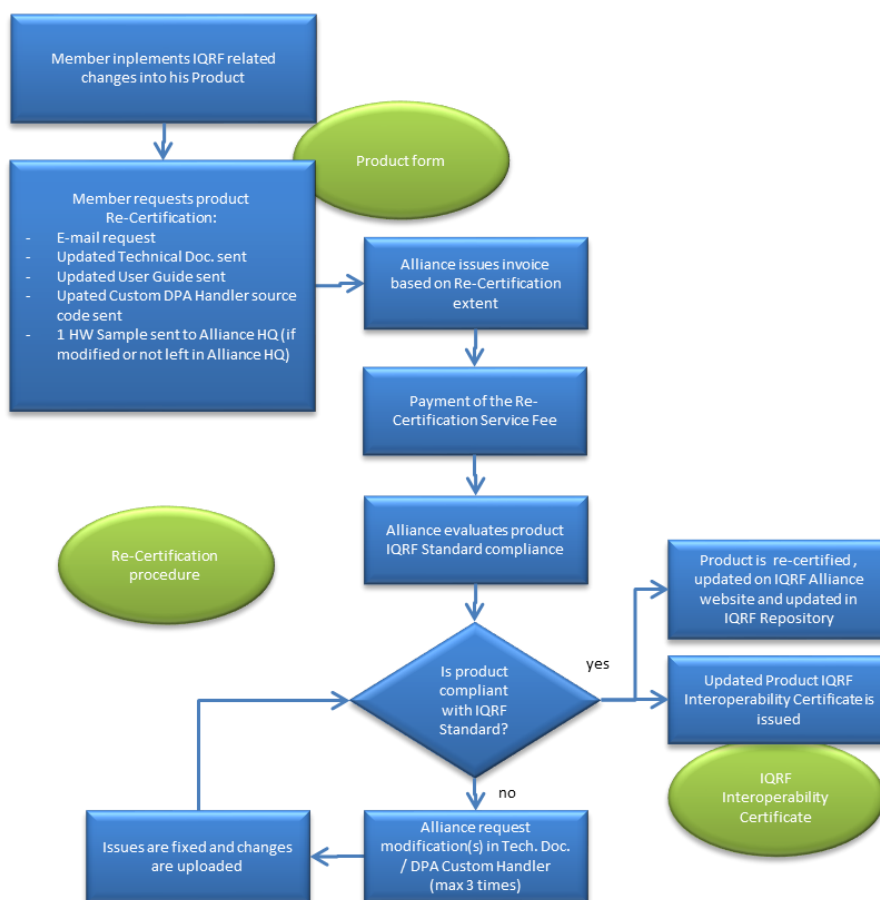
When the Product is successfully certified then:

- The Product will be marked as IQRF Certified on the Alliance Marketplace and the Member is allowed to use IQRF Certified logo on his Product and related promotion materials.
- An electronic .pdf certificate will be issued. It includes IQRF Alliance member’s specification, product specification, and its version, date of the certification, unique HWPID and version, besides other things.
- The certificate, as well as TD and User's Guide, will be available for download on the IQRF Marketplace.
- The Product will be listed in the IQRF Repository.
- All documents that were submitted for the certification are archived.

## 9. Re-Certification

- Product needs to be re-certified in the following situations:
  - There is/are new or modified IQRF DPA command(s) related to IQRF Standard used in the Custom DPA Handler

### Re-Certification Process



## 10. Responsibilities

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- Alliance is responsible for:
  - Setting up and publishing IQRF Standard
  - Setting up and publishing IQRF Certification Process and related documents
  - Maintaining Database of IQRF Certified products and their HWPIDs
  - Maintaining IQRF Marketplace
  - Maintaining IQRF Repository
  - Issuing IQRF Certificate once all requirements are met
  
- Member is responsible for:
  - Certifying all products that use DPA commands according to the IQRF Standard
  - Following IQRF Standard and Certification procedure
  - Re-Certifying Product in the cases stated in this Procedure
  - Providing all required information, data, SW and HW in order to make the certification process smooth and effective

### 3rd party certification

- IQRF Alliance member is allowed to use 3<sup>rd</sup> party to realize all necessary steps related to IQRF Interoperability certification.

## 11. Alliance Membership Suspension or Termination

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- In the case of Suspension or Termination of the Alliance membership of the Member according to Alliance Terms & Conditions:
  - Member is not allowed to use IQRF Certified logo on his certified products anymore
  - All Products (both certified and not certified) will be disabled on the Marketplace
  - All certified Products will be disabled in the Repository
  - All Products will be disabled in the [www.iqrf.shop](http://www.iqrf.shop)
- Once Membership is reactivated all rights (IQRF Certified logo, Marketplace, Repository, IQRF.shop) are reactivated as well