XFS4IoT SP-Dev Workgroup

6 April 2021

Kick-off meeting was 23 March 2021

- Attended by 150+ people representing 60+ companies

XFS4IoT SP-Dev Workgroup - Review

What is the workgroup's mission?

- Jumpstart XFS4IoT
- Create XFS SPs as fast as possible
- Maximize interoperability between applications and SPs

XFS4IoT SP-Dev Workgroup - Review

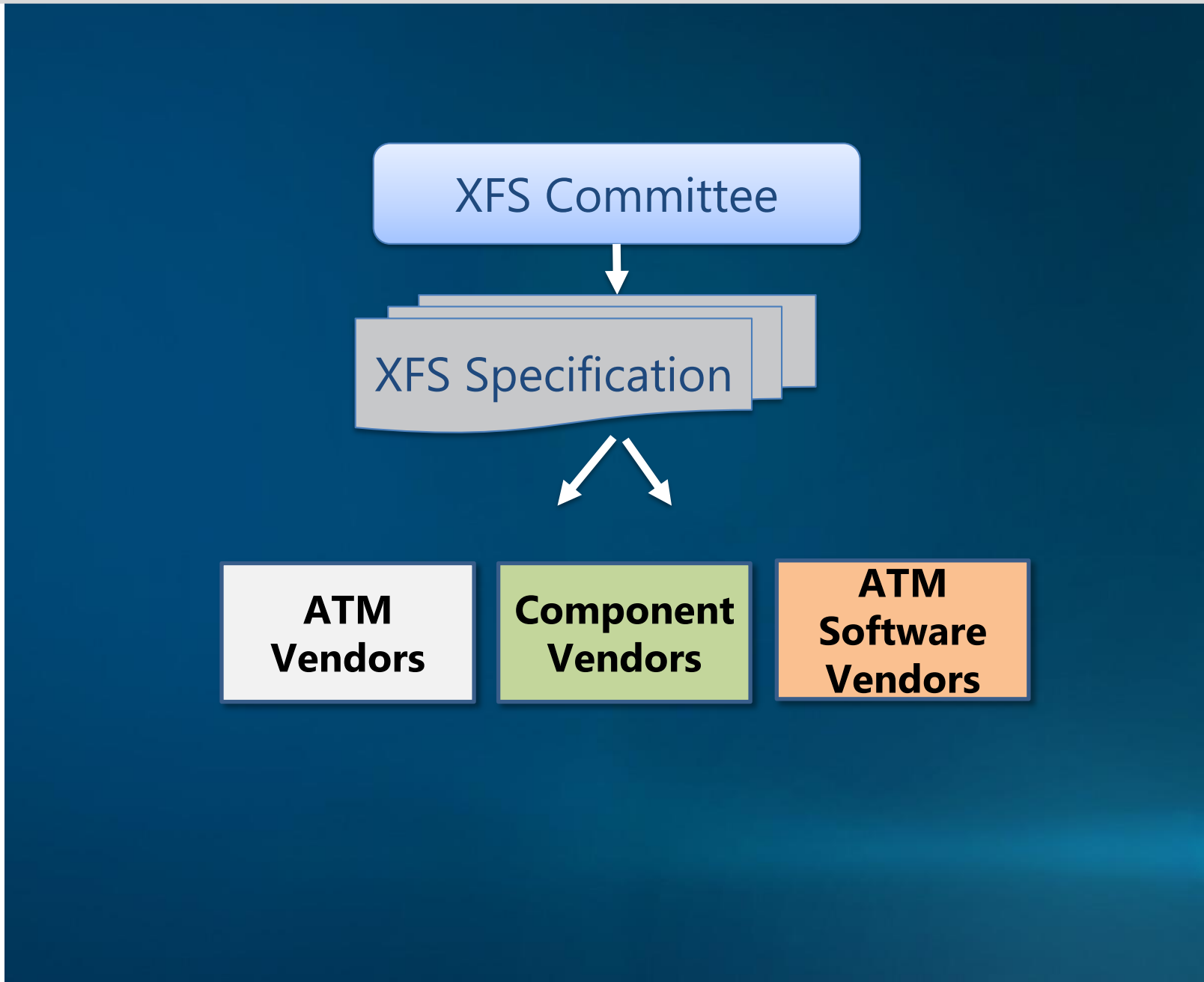
The output of the workgroup is to deliver an XFS4IoT framework enabling workgroup members to:

- Create XFS SPs for their hardware
- Create application software
- Create simulators
- Create test software

Scope of the XFS Committee

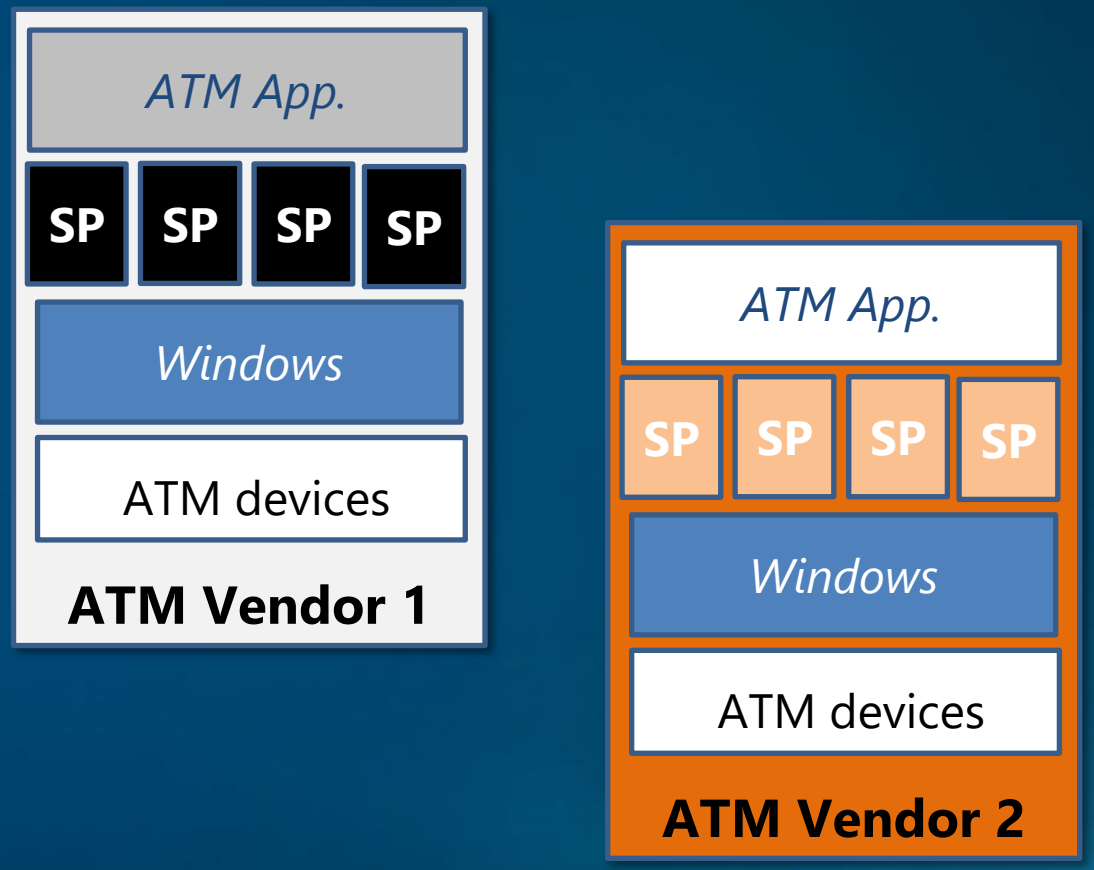
The XFS Committee:

- Defines the XFS specification
- Defines the API of the SPs
- Publishes the XFS specification



Scope of the XFS Committee

Vendors are 100% responsible for the design, development and testing of XFS for their system.



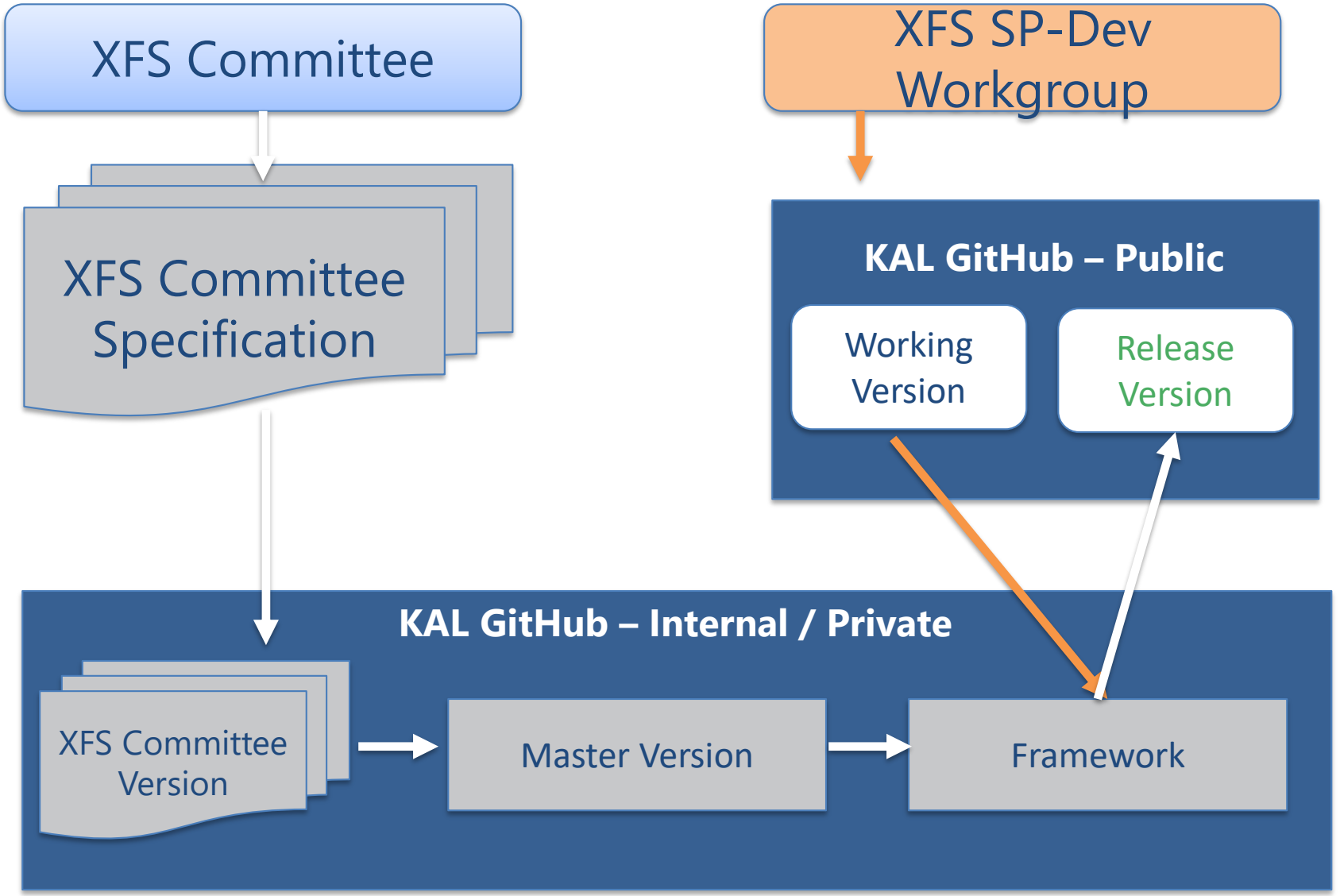
Scope of the XFS Committee

The XFS Committee does not:

- Develop or test SPs
- Publish implementation or testing specifications
- Certify the XFS implementation from the vendors

Scope of the XFS4IoT SP-Dev workgroup

KAL will develop a XFS4IoT framework for each device type.

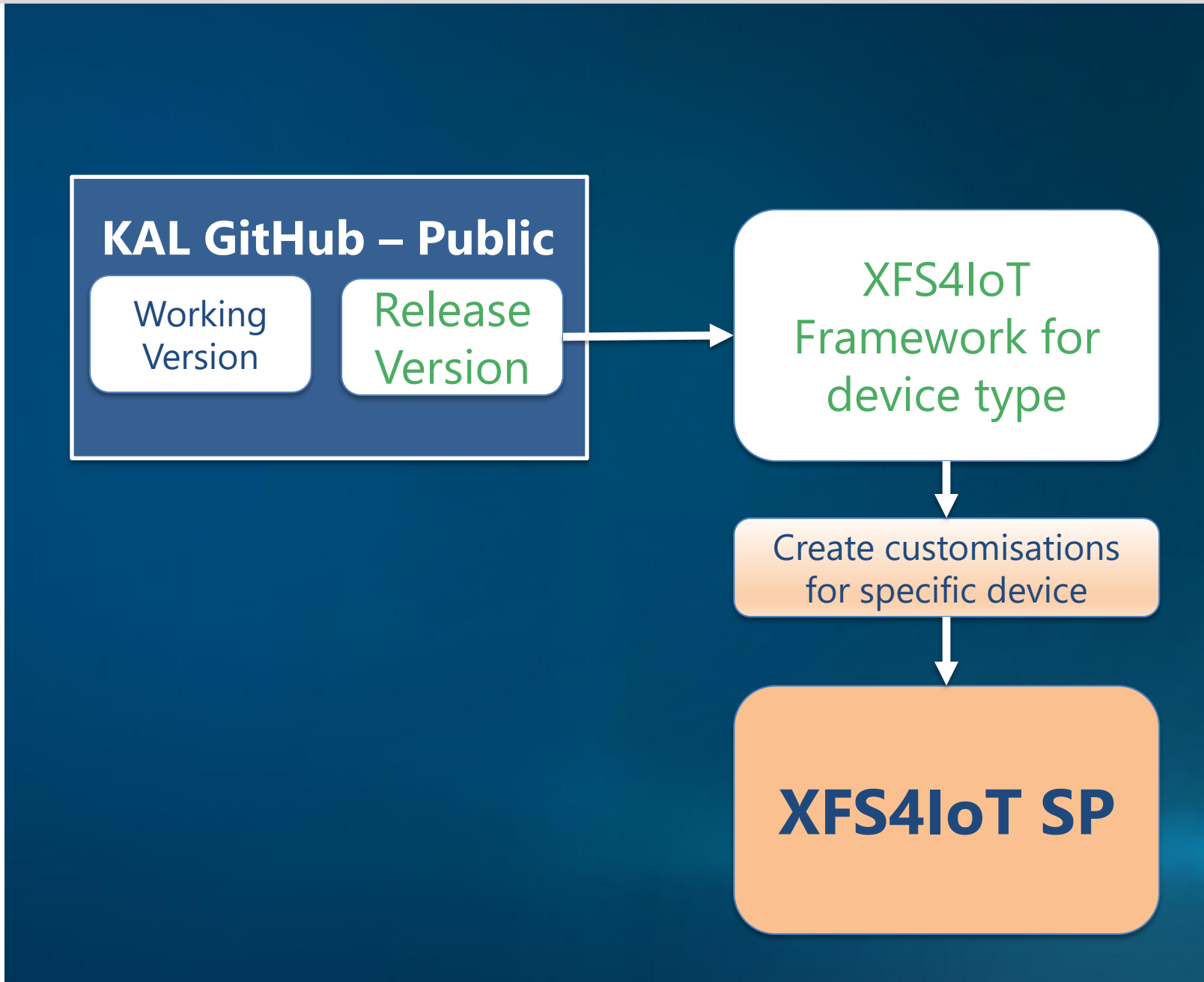


Scope of the XFS4IoT SP-Dev workgroup

- Members of the workgroup can contribute as much or as little as you wish
- We hope you use the SP-Dev framework

Scope of XFS4IoT workgroup members

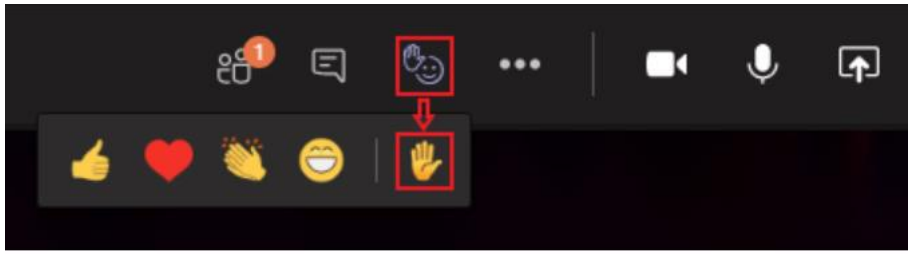
XFS4IoT workgroup members can implement SPs by customizing the XFS4IoT SP-Dev framework to the specific interface requirements for your devices.



XFS4IoT SP-Dev Workgroup

In the next part of the presentation, we cover the technical topics on the agenda.

Raise your hand (✋) in Teams if you have a question.
Please don’t wait.



XFS4IoT Clarifications

- XFS4 is not backwards compatible with XFS3:
  - New functionality (security)
  - No XFS manager, no registry
  - No C++ & no C structures.
  - JSON format messages
- XFS4 and XFS3 data are very close though
- Plan to have XFS 3.50 to back port new functionality from XFS4

XFS4IoT Clarifications

- Port XFS3 applications to XFS4
- Members should redevelop SPs
- Vendor support required
- XFS4 use on:
  - Small devices
  - Low bandwidth IoT connections (eg LoRa Wan)
  - 5G

XFS4IoT SP-Dev Framework

Framework source code repo on GitHub

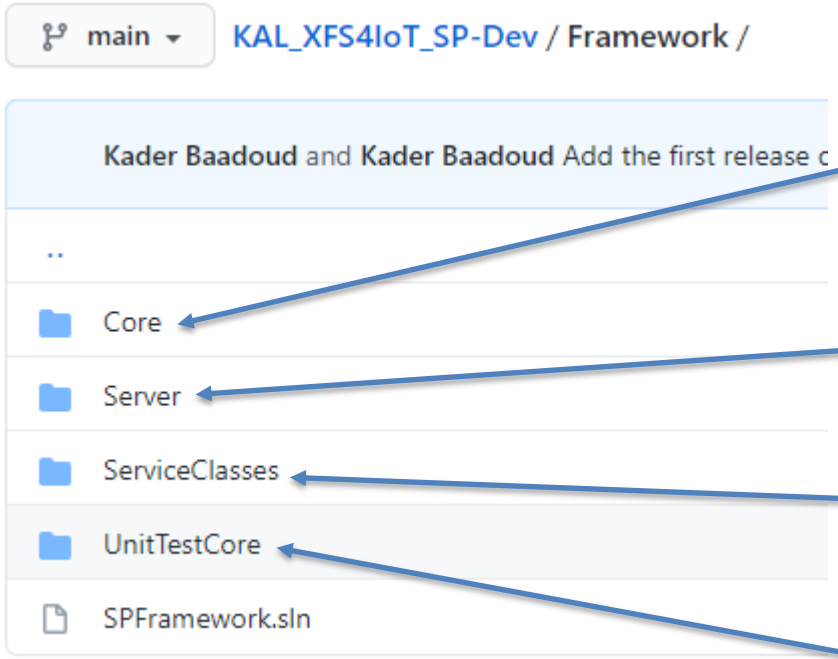
- Watch
- Star
- Fork

Folders

- Framework
- ClientTestApp
- Devices

Building instructions available

Framework – SPFramework.sln



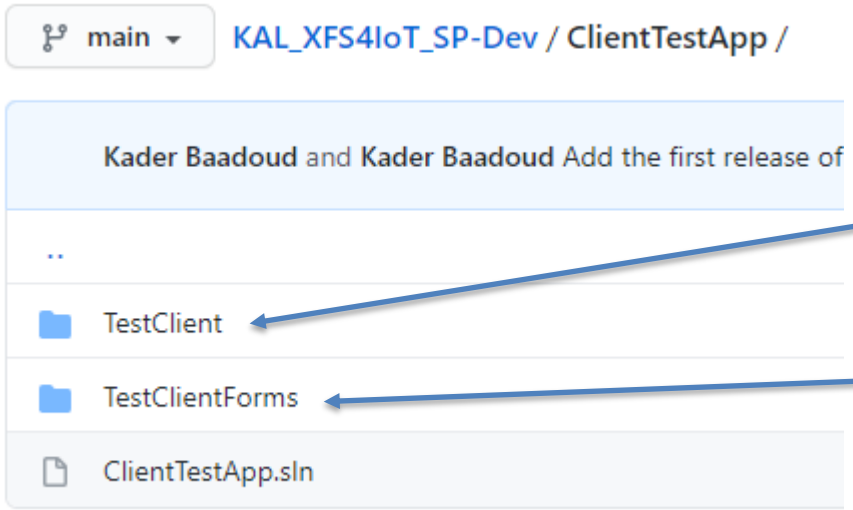
Message classes, core parts used throughout the repository (Contracts, ILogger definition, custom attributes

Code for client/server connection for Endpoints, Service Publishing, Service Discovery, Command dispatching to handlers

Service class interfaces and command handlers

Contains classes used in unit test projects (Console ILogger implemnetation, method to setup Contracts error handler to throw exception)

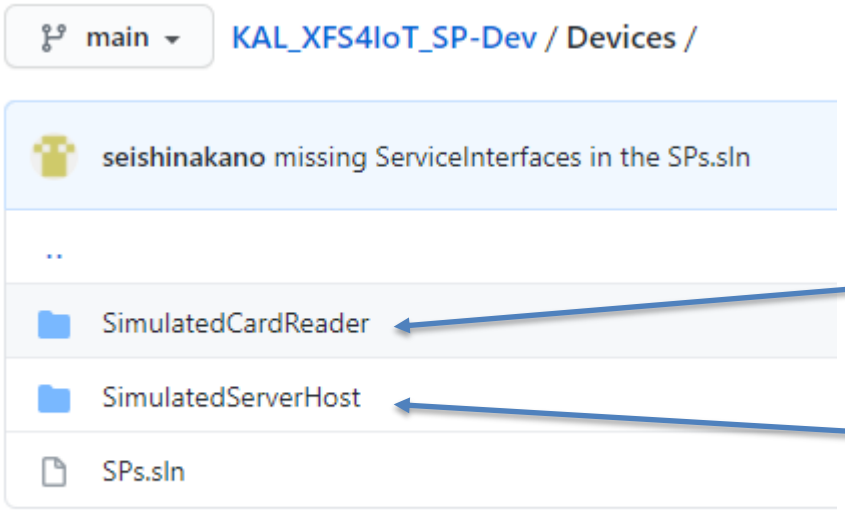
ClientTestApp solution



Small sample test console application which only performs service discovery and some card reader commands

Simple UI for the sample test client application

Devices – SPs.sln



Sample card reader device implementation

Service publisher for Sample devices (Runs sample device implementation and publishes endpoint connection)

XFS4IoT SP-Dev Framework

Let’s have a look at the sample code

- TestClient.cs

- SimulatedCardReader.cs

What's to come on the next calls?

- Security features in XFS4IoT
- Service Discovery in-depth
- More classes coming in the framework
- Creation process of new XFS service classes

Any ideas for topic of discussion are welcome!

Next call

MS Teams

Video calls every two weeks: Tuesdays at 1300 UK time

Next call: 20th April 2021, 1300 UK, 0800 US EST, 2100 Tokyo time