

XFS4IoT SP-Dev Workgroup

1 Nov 2022

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XFS4IoT SP-Dev Workgroup agenda



- Recap from previous meeting
- Upcoming specification changes
- What's next?



Recap from previous meeting

XFS4IoT Workgroup review



- Presented End-to-End security to stop common types of attacks ("Black box", "Man in the middle", etc.)
 - SP-Dev framework support is currently being implemented
 - Capacity to run on low-power hardware
 - Must be part of the firmware inside the safe
- Discussed the importance of TPMs as part of the End-to-End security framework
- Demo video is available on YouTube



Upcoming specification changes

New service classes



- Check
 - Supported by IPM/CHK/PTR in XFS3
- Mixed media
 - Supported by CIM/IPM in XFS3

Check



- Supports Single and Bundle scanners from a single interface
- Replaces Printer.ReadImage with Check.ReadImage

Mixed media



- Supports checks and notes in the same transaction
- Previously supported by IPM and CIM in XFS3
- Can call CashIn or MediaIn to start the transaction.

Default values for properties



- Adding defaults to message payload properties
- SP-Dev Framework will be updated to set these default values if the property is not included in the JSON message
- The application can omit these values and the framework will use the default value set in the specification
- No changes required in the device implementation

Default values - example



 Taken from TextTerminal Beep command

 Default value is added to the class constructor

```
public BeepClass(bool? Continuous = null, BeepTypeEnum? BeepType = null)
{
    this.Continuous = Continuous;
    this.BeepType = BeepType;
}
```

```
public BeepClass(bool? Continuous = null, BeepTypeEnum? BeepType = BeepTypeEnum.KeyPress)
{
    this.Continuous = Continuous;
    this.BeepType = BeepType;
}
```

Required properties



- Adding required properties to the specification
- Any properties specified as required must be included in the JSON messages
- SP-Dev Framework will be updated to check that all required properties are provided

Required properties - example



Example from message header

 Attribute added to signify a required property

```
[DataMember(Name = "requestId")]
99+ references | Ross Kelly, 362 days ago | 1 author, 1 change | 1 work item
public int? RequestId { get; private set; }
```

```
[DataMember(IsRequired = true, Name = "requestId")]
99+ references | Ross Kelly, 362 days ago | 1 author, 1 change | 1 work item
public int? RequestId { get; private set; }
```

Camera service class



- Fixes to the Camera. Take Picture command and completion payloads
- Ensures the picture data can be returned to the application
- SP-Dev Framework will be updated to support the Camera service class

The impact on SP implementations



- Impact will be minimal
- SP-Dev framework handles the XFS4 communication and provides an interface for the device to implement
- The goal is to avoid changing the interface for the device which avoids breaking changes for existing SPs



What's next?

Work in progress



- Collaborating with the CEN XFS Committee to finalise the next specification release
- Keeping the SP-Dev framework up to date with the CEN XFS specification and working on the upcoming changes
- Continuing to fine-tune the SP-Dev framework through experience/feedback from the development of XFS4 SPs and workgroup members
- Discussing the new classes with the CEN XFS committee

Next call



Zoom

 First Tuesday of each month at 1300 UK time for 30 mins

Next call: 6th December 2022

1300 UK, 0900 US EST, 2200 Tokyo time

Calls are 30 mins long

We will continue to use Zoom

(Interpretation in Japanese, Chinese and Spanish is available using Zoom's interpretation feature)