



ATM Software

XFS4IoT SP-Dev Workgroup

6th May 2025

- Recap from previous meeting
- IBNS – what it is and how to use it
- Demo – IBNS on XFS4IoT
- What's next?
- Next meeting

Recap from previous meeting

- Framework roadmap
 - Remove reflection
 - Ahead-Of-Time compilation
 - Embedded devices
- Demo: XSF4IoT + XFS3 hybrid systems



All about Banknote Neutralization

- Modernise XFS3.x
 - New technologies. Easier to work with.
 - Clean up the historical interface to make development easier
- Take XFS forward with new features and devices. The last new standard was Biometrics. Banknote Neutralization is the first new device for many years.

- **Intelligent Banknote Neutralization System.** e.g. Ink staining and similar. Make banknotes worthless to a thief.
- **Classic IBNS** – autonomous. Automatic. No control. Difficult to monitor. No standards
- **XFS4IoT Banknote Neutralization** – Controllable. Easy to monitor. Secure. Standardized.



- Read and report on status
 - Is protection active?
 - Has protection been triggered?
- Control mode – automatic, disabled
 - Enable autonomous mode for normal operations
 - Disable during replenishment, cleaning, etc.
- Trigger – explicitly destroy the notes if an attack is detected

- XFS4IoT can disable the Banknote Neutralization security, so it's critical that API is secure
- E2E security, built on existing E2E mechanisms.
 - Requires a token to perform critical actions, like disabling autonomous mode



- Framework support for IBNS devices – Now available, published in 3.1.0
- Sample SP – code samples showing how to develop an SP
- Visual Studio template – automatic creation of an SP from scratch



- **Local supervisor app:** integrate with cash replenishment or maintenance to allow control through a single unified user interface
- **Remote control:** allow a central security organization to control access to cassettes
- **Remote activation:** combine signals from multiple sources to identify an attack and remotely destroy the notes

XFS4IoT SP-Dev IBNS Demo

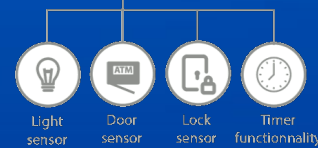


XFS SP
+ XFS Test Client



USB

IBNS Controller



2 Cash Units
with IBNS
integrated



IBNS
External Display



DEMO SETUP

XFS SP Dev
Test Client



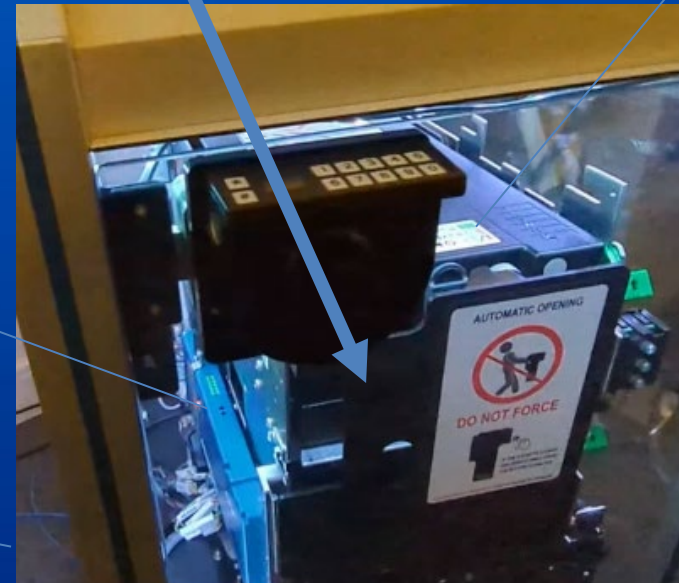
ATM

IBNS
External Display

2 Cash Units
with IBNS

IBNS
Controller

USB Cable





Initial status: ATM is closed and locked, IBNS armed.

XFS4 IoT Controlled Sequence:

- (1) Desarming sequence
- (2) Re-arming sequence
- (3) Neutralization Trigger



DEMO
SEQUENCE

IBNS – demo by Oberthur



What's next?

What's next?



- Framework updates and roadmap
- Guest speakers
- DK specification
- More demos (biometrics and more)



Zoom

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

Next call: 3rd June 2025

1300 UK, 0800 US EDT, 2100 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)