

ATM hot topics

Aravinda Korala, Dec 2018

What's hot in the ATM world?

- ATM security and hardware requirements
- Migration to Windows 10
- ATMs and Cloud Architectures
- XFS4IoT – the new XFS standard
- Nexio standard for ATMs

There are three big things you need to do:

- TPM and secureboot
- Hard disk encryption with BitLocker
- Whitelisting with AppLocker
- All this is standard with **Windows 10 IoT Enterprise**

ATM security - hardware requirements

- TPM 1.2 or better
- Secureboot with UEFI "BIOS"
- Windows 10 Device Guard - requires IOMMU chipset

- Ensure new ATMs are W10 ready
- Follow ATMIA guidance on minimum hardware requirement

ATMIA minimum hardware for Windows 10

Min hardware:

- Processor: 1 GHz or faster with support for PAE, NX, and SSE2
- 64 bit system
- RAM: 2 GB or better
- Hard disk space: 50 GB or better
- Graphics card: Microsoft DirectX 9 graphics device with WDDM driver

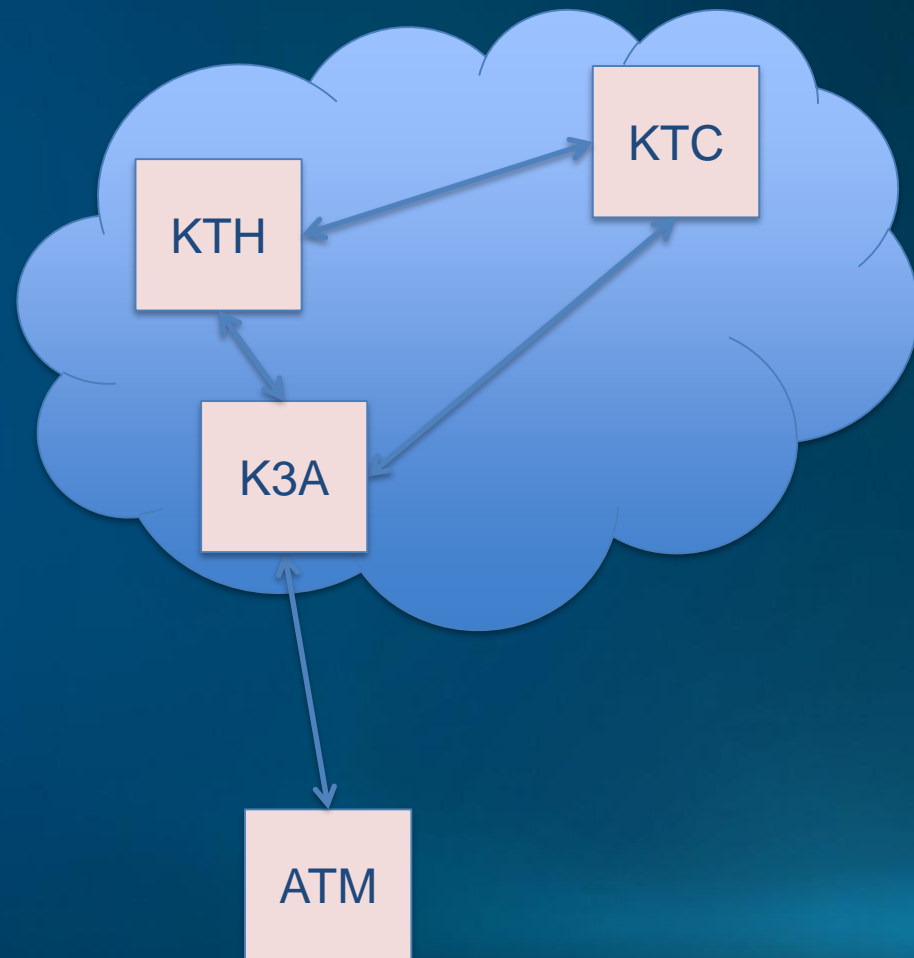
Minimum security:

- TPM 1.2 or better
- Secureboot support (requires UEFI)
- Device Guard support (requires IOMMU chipset)

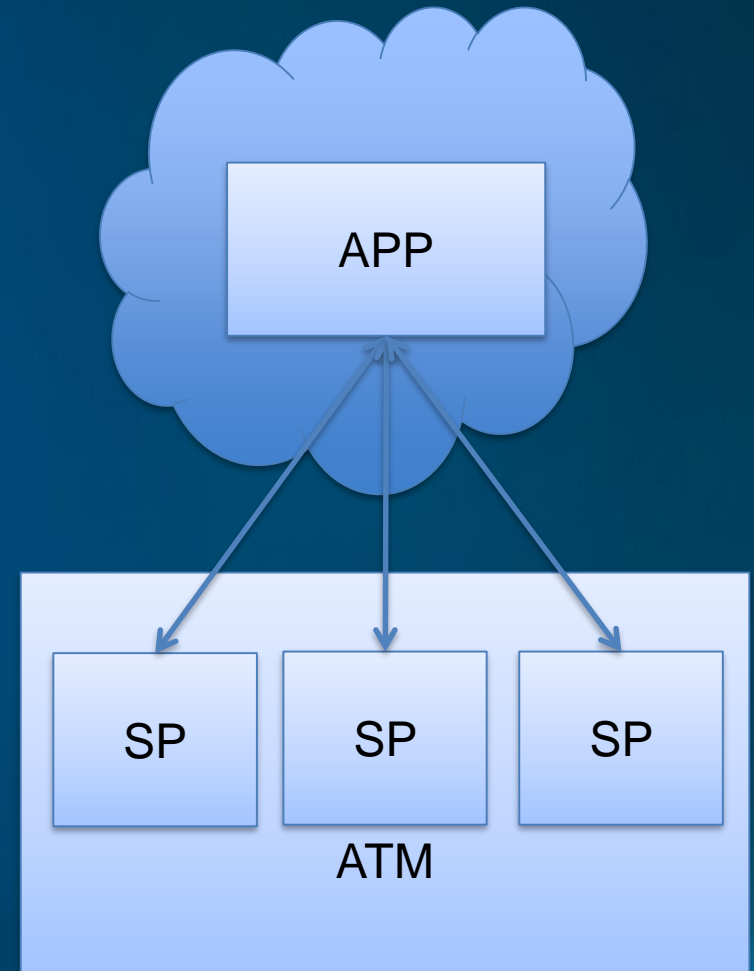
W10 – hardware upgrade needed?

- Hardware vendors say upgrades are required to support W10
- This is a major cost for banks – thousands of dollars per ATM
- There maybe alternatives using software only – speak to Kalignite about it. (Booth 4).

- Banks are using Cloud technologies more and more
- KAL software runs in the Cloud
- Issues around data protection – private Cloud
- XFS4IoT – native Cloud support



- The current version of XFS is V3.3
- The XFS committee is creating a new standard:
- XFS4IoT – with native cloud support



- The world has too many ATM-to-Host protocols. Eg NDC, DDC, ISO8583, Diego, GAB-D etc. Most are poor. Most are proprietary. Most are old.
- Nexo is a new open standard
- Built on ISO 20022
- XML and JSON
- KAL was first to implement nexo on ATMs



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