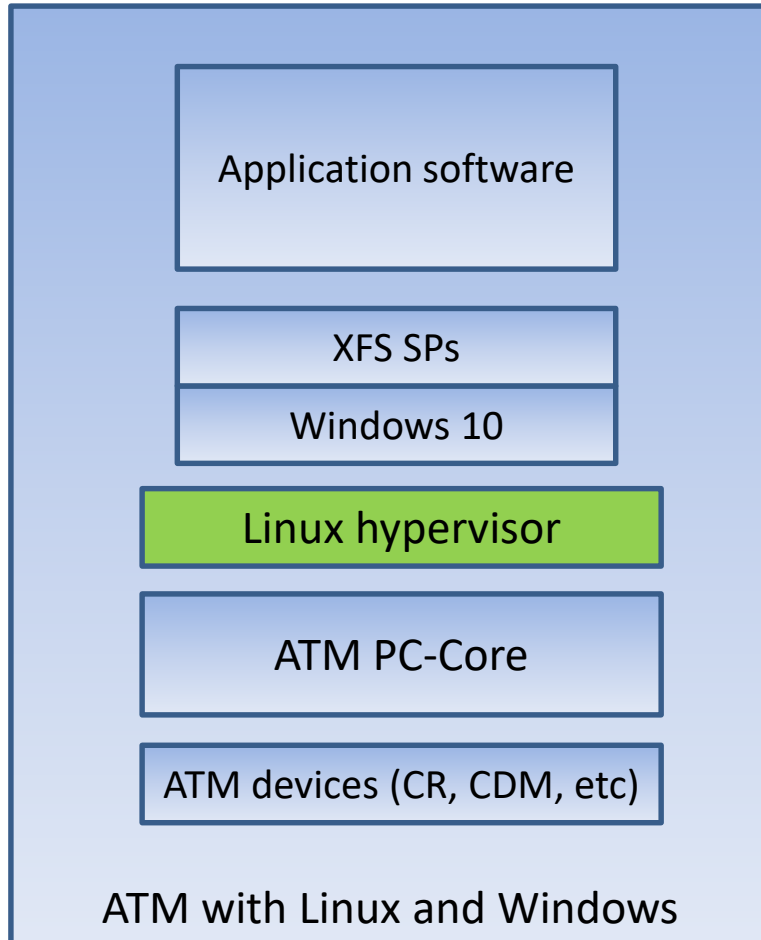# ATMs must migrate to Windows 10

- Windows 7 support ends in 2020
- Just like in 2014, banks have to migrate ATMs
- Just like in 2014, they will need to upgrade their hardware...
- It will be expensive and time consuming

It gets worse with Windows 10

- Major upgrades under Windows 10 will be more frequent

- These upgrades are called "SACs" and "LTSCs"
  — SAC: Semi-annual channel
  — LTSC: Long term service channel

- Motherboard component vendors do not plan to support new OSs

- Motherboard upgrades will become more frequent – not less

There is an alternative

- KAL have partnered with Red Hat to create an alternative

- The solution is to run both Linux and Windows 10 in the same ATM. The two OSs are combined using a hypervisor

- The advantage with Linux is that the PC-core drivers are supported by Red Hat Linux for the lifetime of the hardware

- The advantage with Windows 10 is that all current ATM software will continue to run. The two OSs work in tandem.

The software-only solution for Windows 10 migration

KAL

Application software

XFS SPs

Windows 10

Linux hypervisor

ATM PC-Core

ATM devices (CR, CDM, etc)

ATM with Linux and Windows

- The solution involves inserting a Linux Hypervisor between Windows 10 and the hardware.

- This solves the "support" problem

- KAL and Red Hat provide a subscription license for long term support for banks.

- There is an OEM version for hardware vendors to use.

Performance

- Speed impact is less than 2% compared with Windows 10 running natively

- RAM requirement is not increased compared with native use

Low Cost

- It costs much less to use the Kalignite Hypervisor than to upgrade motherboards for each Windows upgrade.

- Kalignite Hypervisor costs €100 per ATM per year subscription cost (license + maintenance)
  — Includes all Kalignite Hypervisor components
  — Includes RHEL and RHV optimized for ATMs from Red Hat
  — Includes 24x5 support. (24x7 option)
  — Works with KAL software suite or with 3rd party application software

KAL's whitepaper

- KAL published a detailed whitepaper in Jan 2019

- Download it from our website at https://www.kal.com

- There is a link on the home page