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DATE:	6/14	SUPERSEDES:	None

TITLE: ESS15, Operating System Support

POLICY: NCR certifies currently supported operating systems on major releases of Retailix software applications and tests operating system updates on sub-releases.

SCOPE: All Retailix software intellectual property for Connected Payments resale

PROCEDURES:

1. Major Release certification:

- a. NCR certifies Major Releases of its Retailix software applications with those hardware platforms and their operating systems released for each such application.
- b. Each specific hardware platform model is typically certified with one operating system (e.g. Microsoft POSReady 7) for use with the software application over the full life cycle of that hardware model. New operating system products are normally certified only for new hardware platform models.
 - i. The operating system provider/licensor normally provides ongoing support and updates covering the full hardware life cycle.
 - ii. Note: Microsoft no longer permits OEM sale of operating system field upgrades for previously installed hardware, requiring instead that all such purchases be made directly from Microsoft. Microsoft, however, does not have the capability to provide the required operating system image to users. Further, an image created for one user may not be provided to other users: as currently written, Microsoft's process to provide such upgrade images is economically unfeasible in all but the highest-tier users.
- c. When certifying Major Releases, NCR uses the most recent available update from the operating system's licensor.

2. Patch ("sub-release") testing:

- a. NCR downloads and performs functional patch testing over the most recent available updates from the operating system's licensor. The operating



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system update levels are provided to Channel Partners as part of the release information.

- b. Time and cost factors limit full application/hardware/operating system certifications to application Major Releases only. Certifications are outside the scope of patch releases.
 - c. NCR's software release experience to date with Retailix applications has demonstrated that this functional patch testing with the current operating system updates has effectively prevented patches from being released with any incompatibilities among the hardware/operating system combinations certified for the application.
 - d. To limit business risks from hidden incompatibilities, Channel Partners and/or end-users are nonetheless encouraged to confirm proper operation with their specific feature, hardware and operating system configurations before rolling out new application software updates to live stores.
3. Microsoft provides downloads with operating system function and security updates. The timing and frequency of such updates cannot be predicted, and there is no reasonable and practical means for an application provider to carry out timely testing or certification across the possible products, hardware and operating systems that in theory could be affected.
- a. As such, NCR limits the certification or testing of operating system updates to Major Releases or patch/sub-releases respectively. No confirmations of interim operating system updates are performed outside of the application software release processes described in sections (1) and (2) above.
 - b. To minimize business risk from operating system incompatibility, NCR therefore recommends that users restrict interim operating system updates, limiting their implementation to those available up to the NCR-tested application software release dates only.
 - i. Users can minimize security risk as well as business/incompatibility risk by staying current with the latest NCR application software patch releases, thereby enabling later operating system updates up to the newer application release or patch dates.
 - c. Regardless, NCR strongly recommends that any such interim operating system updates be applied only after the Channel Partner or end user is



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satisfied of proper application operation over their specific feature, hardware and operating system configurations.

4. Over time, PCI requirements have changed regarding the implementation and timing of platform updates. When protecting merchants, there is growing recognition that security risks must be balanced against the cost of business risks (proper system operation).
 - a. Users should therefore consult their PCI Qualified System Assessor (QSA) or other expert regarding the required timing and conditions for implementing operating system updates.
 - b. NCR strongly recommends Solidcore, properly implemented, to mitigate security risks. Solidcore is proven uniquely effective against highly damaging “zero-day” threats, for which even the best black-list anti-virus products or operating system updates are ineffective until their manufacturers have become aware of the threat, identified its mechanism, developed countermeasures, then tested and released the updated protections.
 - i. In addition, most QSAs recognize Solidcore as a “compensating control,” allowing users to delay immediate implementation of operating system updates until users can check compatibility and safely install them.