Aloha Platform Strategy

Bigger Ecosystem to Provide Flexibility and Extensibility

Extended Cloud Architecture and Simplified Site Footprint

Mobility & Device Agnostic Solutions

Industry Trend:
Growth in Off-Premise Channels and Guest Engagement

Industry Trend:
Easier Deployment & Access via Cloud

Industry Trend:
More Smart Edge Devices
Aloha Platform Strategy

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Some Historical Perspective

2000s
- Aloha POS only
- Premise-based COM
- Requires in-store deployment

2013
- Across NCR Hospitality
- Application-based API
- Partner Friendly

2017
- Across NCR
- Micro-service based
- Partner Centric

Site Level Applications
“Aloha Connect”

Integrate Applications
“Cloud Connect”

Modern APIs
“Omni-Channel Decision Support Platform (ODSP)”
Omni-Channel Decision Support Platform (ODSP)

NCR Capabilities

Third Party Applications

Customer Apps
Omni-Channel Decision Support Platform (ODSP)

**NCR Capabilities**
- Logistics
- Forecasting & Replenishment
- Menus and Items
- Mobile Apps
- Loyalty & Promotions
- Restaurant Production
- Digital Commerce
- POS

**NCR Marketplace**
- Digital Coupons
- Analytics
- Loyalty
- Ecosystem Partners

**Customer Apps**
- Digital Coupons
- Analytics
- Loyalty

**OMNI-CHANNEL DECISION SUPPORT PLATFORM**
- Consumer Menu Service
- Delivery Service
- Inventory Service
- Recommendations Service
- Order Service
- Customer Data Management
- Transaction Data Mgmt.
- Analytics Service

**Business Services**
- Tax Service
- Master Data / Catalog Service
- Security
- Storage
- Workflow
- Notifications
- Provisioning
- Usage Data

**DIGITAL AND PHYSICAL TOUCHPOINTS**
- POS
- Mobile POS
- Drive Thru
- Self-Ordering Kiosk
- Kitchen Production
- Digital Signage
- Payment Terminals
Simplifying Omni-Channel Menus
Simplifying Omni-Channel Menus
Simplifying Omni-Channel Menus

POS Systems

Self-Service Kiosks
Simplifying Omni-Channel Menus

- POS Systems
- Self-Service Kiosks
- Mobile Apps
- Online Ordering
- Delivery Marketplaces
Potential Users of the Platform

- Grubhub
- Uber Eats
- Just Eat
- Flyt
- Acrelec
- Restaurants
- Line Ten Ltd
- Doshii
- Deliveroo
PAYMENT INTEGRATIONS AND EXTENSIBILITY USING COMMON API FRAMEWORK
Focusing on the Developer Experience
Welcome to NCR's Developer Experience

NCR has always valued third party solution providers and developer partners. Now we’ve built a place just for developers. We call it the Developer Experience — DX for short. The DX is full of tools: Tools that allow you to easily find the APIs you’re looking for. Tools that walk you through examples with code snippets in the popular technology stacks. Tools that let you test APIs in a sandbox to ensure they’re right for you. It’s your site, so come in and explore!
API Explorer (Partner View)

- List of available APIs
- Filterable by Industry and Category
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- More Smart Edge Devices
NCR OMNI-CHANNEL PLATFORM

TODAY’S ALOHA PLATFORM

Aloha Kitchen -or- Kitchen printers

POS and Takeout/Delivery

Firewall

In-Store Controller

Router

Configuration

Reports

Deployment

Redundancy

Built-for-Purpose Handheld Terminals

TODAY’S ALOHA PLATFORM
TODAY’S ALOHA PLATFORM

NCR OMNI-CHANNEL PLATFORM

NCR CLOUD CONNECT

PAYMENTS
ONLINE RESERVATIONS
CONFIG
HISTORICAL RESTAURANT
RESTAURANT STATE
LOYALTY
STORED VALUE
REMOTE ORDERING
MOBILE PAYMENT
RESTAURANT POSITIONING

MANAGE
CFC
NBO
AL
RT
RG
CONFIGURATION CENTER
BACK OFFICE
INSIGHT
REAL-TIME
RESTAURANT GUARD
LOYALTY
STORED VALUE
ONLINE ORDERING
MOBILE PAY
CUSTOMER VOICE

ENGAGE
AL
ASV
AO
MP
CV
LOYALTY
STORED VALUE
ONLINE ORDERING
MOBILE PAY
CUSTOMER VOICE

PLATFORM
CMC
COMMAND CENTER

Firewall
Router
In-Store Controller
Configuration
Reports
Deployment
Redundancy
Built-for-Purpose Handheld Terminals

Aloha Kitchen -or- Kitchen printers
POS and Takeout/Delivery

TODAY’S ALOHA PLATFORM
THE NEXT GEN ALOHA PLATFORM

NCR OMNI-CHANNEL DECISION SUPPORT PLATFORM

Data Platform
API Marketplace (expanding API micro-services)

Configuration Reports

Deployment Redundancy

Built-for-Purpose Handheld Terminals

Aloha Kitchen -or- Kitchen printers POS and Takeout/Delivery
Aloha Platform Strategy

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- Extended Cloud Architecture and Simplified Site Footprint
- Mobility & Device Agnostic Solutions

Industry Trend:
- Growth in Off-Premise Channels and Guest Engagement
- Easier Deployment & Access via Cloud
- More Smart Edge Devices
Modernizing the Architecture and User Experience

Aloha Mobile → Aloha Mobile Next → Aloha POS (Mobile or Fixed)
Innovating the Edge

- Single code base (UI Focused)
- Multi-OS and device agnostic
- Improved quality with deeper automated testing
- Improve speed to market for new features and enhancements
Future Aloha User Experiences
Aloha Platform Strategy

- Bigger Ecosystem to Provide Flexibility and Extensibility
- Extended Cloud Architecture and Simplified Site Footprint
- Mobility & Device Agnostic Solutions

Several Live Use Cases Today

One Live Proof of Concept

Q2 – 2019 Pilot
CX ASIA 2018

NCR Hardware Overview

POS, Mobile, Kiosk, Devices
Agenda

- Current POS portfolio
- Mobile
- Printers
- Kitchen
- Kiosks
- Digital Menu Media Player
The anatomy of a sale

Market / Customer variations

Lead

SW  SVS  HW

Sale

50% Software / Solutions
30% Services / Support
20% Hardware
NCR POS Portfolio

Modular

XR8
Full Size POS
Intel® Gen 6 / 7

XR8C
Compact Chassis
Intel® Gen 6 / 7

XR6
Compact POS
Intel® Gen 4

Retail Integrated

XR7 Plus (15/18/21)
All-in-one
Intel® Gen 6 / 7

XR7 (15/18/21)
All-in-one
Intel® Gen 6 / 7

XR5 (fan-less)
All-in-one fan-less
Braswell Quad Core

XR3 (fan-less)
Value fan-less POS
Braswell Dual Core

XR4 (fan-less)
Value compact
Braswell Dual

Hosp Integrated

XR7 Plus (15/18/21)
All-in-one
Intel® Gen 6 / 7

RealPOS XR7 15”
All-In-One Multi-touch
Intel® Gen 4

P1235 / P1535 12”/15”
All-In-One Fan-less
Braswell Quad Core

EX15 15” (China/Europe)
All-In-One Fan-less
J1900 Quad core

PX10/PX15
Tablet style Fanless POS
Apollo Lake

PX10/PX15
Tablet style Fanless POS
Apollo Lake

P1532 15”
All-In-One Fan-less
Braswell Dual Core
POS Considerations

We believe the following factors are important for your customers to consider when choosing their POS:

<table>
<thead>
<tr>
<th>Best Design for Hospitality</th>
</tr>
</thead>
<tbody>
<tr>
<td>All-in-one, Touch, Brightness, Security, Energy Usage, Fan Usage, Longevity, Durability</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low Maintenance / TCO</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>High Connectivity</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Open Architecture</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Low Risk / Proven Design</th>
</tr>
</thead>
</table>
How do we compete?

Selling the value

Continue to focus on what differentiates us:

• Purpose-built ruggedized hardware, not repurposed PCs
• Extended support and lifecycles
• Extensive testing & platform integration
• Advanced systems management features, including our unique image recovery capability, system odometers, and predictive service offers
• Ability to deliver a complete solution that includes services, software, and peripherals
# NCR RealPOS XR7 Plus

## Multi-touch
- Stylish and compact all-in-one
- 15”, 18.5” and 21.5” PCAP (multi-touch)
- High brightness LED LCD (500 nits)
- 50K hours

## Best-in Class Performance
- 6th generation Intel® Core processors...Gen 7 option
- Intel Core i5 vPro, Core i3, Celeron
- 4GB DDR3 to 32GB DDR3 (2 slots)
- SSD or HDD; RAID

## Versatile
- Kiosk, table-top mount, pole, wall, or pedestal
- Integrated options – consumer displays, MSR, fingerprint reader, camera, wireless

## Retail Hardened
- Engineered for harsh environments
- Powered USB and serial connectivity
- Enhanced security - encrypted MSR
- Anti-glare

---

The look you want with the extreme performance and reliability you need.
NCR P1535 / P1235
Integrated Touch POS

- Purpose Built
  - Fanless design runs cool and quiet
  - SSD option means fast read and write
  - No moving parts means higher availability
  - Integrated power supply in base

- Flexible
  - 15” or 12” Touch
  - Flat Front Projected Capacitive touch
  - Versatile mount options

- Performance
  - New Gen Intel® Processor
  - Quad Core – N3160
  - DDR3 Memory Technology
  - Power efficient

- Expandable
  - Integrated options—Scanner, MSR, UV light
  - 2x20 or LCD Customer displays (10” or 15”)

Powerful and compact touch solution
Purpose built for Hospitality/Retail
## P1235/P1535: Connectivity

<table>
<thead>
<tr>
<th>Ethernet</th>
<th>![Ethernet Diagram]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Serial</strong></td>
<td>![Serial Diagram]</td>
</tr>
<tr>
<td>3xRJ12, 12v</td>
<td>2xRJ45, 12v RTS, 5v DTR</td>
</tr>
<tr>
<td><strong>Cash Drawer</strong></td>
<td>![Cash Drawer Diagram]</td>
</tr>
<tr>
<td>RJ12 24v - (optional Y cable for dual 12v or dual 24v)</td>
<td></td>
</tr>
<tr>
<td><strong>USB 3.0</strong></td>
<td>![USB 3.0 Diagram]</td>
</tr>
<tr>
<td><strong>12V USB</strong></td>
<td>![12V USB Diagram]</td>
</tr>
<tr>
<td><strong>2x Video</strong></td>
<td>![2x Video Diagram]</td>
</tr>
<tr>
<td>HDMI (adapter to DVI)</td>
<td>DisplayPort (locking/cust display)</td>
</tr>
<tr>
<td><strong>Expansion Options</strong></td>
<td>![Expansion Options Diagram]</td>
</tr>
<tr>
<td>24V USB+2x RJ12 Serial</td>
<td>Large pwr supply</td>
</tr>
<tr>
<td>USB+2x RJ12 Serial</td>
<td>Small pwr supply</td>
</tr>
</tbody>
</table>
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PX10 / PX15 POS
New “PX10” Overview

- 10.1” Full HD LED LCD (16:9)
- Projective Capacitive Touch
- Latest Intel CPU – Dual-core
- 4GB or 8GB RAM;
- 32GB, 64GB, 128GB storage
- Fanless design
- Tilt hinge
- Windows 10 IoT 64bit, Android

- **Ports:** CashDraw, Ethernet, 1xUSB-C, 2xUSB-A, 1xRJ45 Serial

- **Options:**
  - MSR, scanner, port expansion cable, battery, wireless. **Future:** Biometrics, 2x20, 2x20DB
- 7” Customer Display

FIT-FOR-PURPOSE – DESIGNED AS POS TERMINAL, NOT BOLTED TOGETHER TABLET. PURPOSE BUILT.
PX Overview

I/O Bottom of Base

Integrated 7” Display

Remote 10” Display

Battery Add-On on Top of Base

Integrated Scanner Front or Back Mount

Port Expansion

Remote 7” Display
## PX10/PX15 Connectivity

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethernet</strong></td>
<td>1 x Ethernet&lt;br&gt;10/100/1000 (Support GB Ethernet)</td>
</tr>
<tr>
<td><strong>Serial</strong></td>
<td>1 x serial RJ45&lt;br&gt;12 volt (RTS) or 5v (DTR), 500mA</td>
</tr>
<tr>
<td><strong>Cash Drawer</strong></td>
<td>1 x RJ12 (24v)&lt;br&gt;supports dual independent 12v or 24v CD via Y cable</td>
</tr>
<tr>
<td><strong>USB 3.0</strong></td>
<td>2 x USB</td>
</tr>
<tr>
<td><strong>USB Type C</strong></td>
<td>1 x USB C (12v @3A)&lt;br&gt;Use USB C for video/power for customer display</td>
</tr>
<tr>
<td><strong>Sim Card Reader</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Expansion Option</strong></td>
<td>1 x RJ45&lt;br&gt;2 x 12V PUSB&lt;br&gt;1 x 24V PUSB</td>
</tr>
</tbody>
</table>
PX15 coming in Q1 2019
15.6” screen

SAME SLEEK DESIGN BUT LARGER SCREEN
NCR Aloha Mobile Ordering Solutions

ALOHA POS

NCR 7779 Tablet

- 8.3”/10” semi-rugged tablet
- 1900x1200 WUXGA
- Quad-core z7345, BT-T
- Win10 64bit
- Intg’d MSR, e355 options
- Future: 2D, external hot swap battery options

ALOHA MOBILE (AMOB)

NCR Orderman7

- 7th gen order & pay purpose-built device
- 5” Android
- 2D, MSR options
- Hot swap battery

iOS Devices

- Third-party hardware
NCR Tablet
8IN and 10IN

Specifications

1. HD Display Options – 8.3” and 10.1”, 1920x1200 px
2. Projective Touchscreen – Multi-touch, pen, and glove support
3. Intel Baytrail T Chipset – Quad Core CPU Z3745
4. Memory and Storage - 4 GB DDR3, 64 GB SSD standard
5. Operating System – Windows 10 LTBS (2016) 64bit
6. Interfaces – Full-size USB2.0, audio jack 3.5mm, μUSB for charging
7. Radios - WiFi, BT, NFC,
8. Cameras – Main 8MP, Front 2MP
9. Sensors – Ambient light, proximity, E-compass, accelerometer, gyro
10. Rugged – Impact Resistant from 1m, Operating temp -10C to +50 C
11. Security – Kensington Lock feature
12. Water Resistant – IP65 rated (payment accessories not rated)
13. Replaceable Battery – Up to 6hrs (8IN) and 7.5hrs (10IN) continuous
14. Payment Device Holders – Verifone e355

Designed for Vertical Markets
Longevity: available until end of 2020
Extended Temperature Range
## Docking options for POS / Kiosk operation

<table>
<thead>
<tr>
<th>Charge Only</th>
<th>Full I/O</th>
<th>ENS Genesis™</th>
<th>ArmorActive RapidDoc™</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Fixed angle</td>
<td>▪ Fixed angle</td>
<td>▪ Tilt / swivel</td>
<td>▪ Widest tilt / Swivel</td>
</tr>
<tr>
<td>▪ Rapid charge (0-90% in 2hrs)</td>
<td>▪ 3x USB</td>
<td>▪ Keylock option</td>
<td>▪ RFID/SW security</td>
</tr>
<tr>
<td>▪ 4-tablet charger</td>
<td>▪ LAN</td>
<td>▪ 2x USB</td>
<td>▪ 6x USB, LAN</td>
</tr>
<tr>
<td></td>
<td>▪ HDMI</td>
<td>(Coming soon)</td>
<td>▪ SmartBack for 10” with hand strap, EMV device sled</td>
</tr>
</tbody>
</table>

**PLUS POWERED PERIPHERAL HUB FOR 12V, 24V CONNECTIVITY**
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NCR Kiosk overview
Kiosk Hardware
Small to Large Format

Range of sizes 10” to 32”

- NCR Hardware offers different sizes to meet different needs
- Stand, wall, pole, floor mounts
Self Order Station - PX10
SelfServ Kiosk Family

SelfServ XK7
- Interactive Kiosk
- 15” 18.5” or 21.5” P-Cap Touch
- Pedestal, Wall or Countertop

SelfServ 90
- Credit / Debit Self Checkout
- 15” P-CAP Touchscreen
- Pedestal, Wall or Countertop

SelfServ XK32
- Interactive Kiosk
- 32” PCAP Touchscreen
- Integrated peripherals
Self Order Kiosk
XK32 Hardware Overview

- 32" P-Cap Display
- XR7 motherboard
- NCR receipt printer
- EMV Payment (mount only)
- NCR Scanner option
- uNav ADA keypad option
- Windows 10
- Single and Dual sided configurations
- Multiple mounting options (floor, ceiling and wall)
Wall Mount
NCR 7199 – Top or Front paper exit
**NCR RealPOS 7199 Thermal Receipt Printer**

**THE SLEEK LOOK YOU DESIRE WITH THE PERFORMANCE, RELIABILITY, AND SIZE YOU REQUIRE.**

| Performance Increase | • 14 inches per second (350mm/second) (105 lines per inch)  
| | • Higher Print Quality than current product  
| | • 5% Energy Improvement  
| | • USB 2.0 High speed |

| Increased Reliability | • 200 km head life (12.5% life increase)  
| | • 2 million knife cuts (100% more reliable than current model)  
| | • More robust firmware logic (modular design)  
| | • Spill proof, enclosed internal components |

| Enhanced Flexibility | • Top and front existing receipt printing orientation  
| | • Horizontal and vertical installation  
| | • Various interface support (USB, Serial, LAN – Release 1.0) & (Bluetooth, Wi-Fi – Release 1.1) |

| Improved Usability | • One hand cover open  
| | • Fool proof power connector insertion  
| | • Visual understanding of error (Multi-color LED)  
| | • USB Thumb Drive (User friendly way to change print config and flash firmware) |
NCR Site Controllers

**S500-MT**
Mid-Tower form factor back office Site Controller with multiple drive and expansion options.
- 18" x 8" x 17"
- Site Controller or Pro OS
- Quad and Dual Core Options

**S500-SF**
Small form factor back office Site Controller with multiple expansion options.
- 5.5" x 16" x 13"
- Site Controller or Pro OS
- Quad and Dual Core Options

**N4000**
Smallest form factor, hardened, solid state, fit-for-purpose back office Site Controller. Fanless.
- 13" x 9" x 3.5"
- Site Controller 2016 or Win 10 Pro OS
- Hexa and Quad Core options
NCR Bump Bar
The next-generation controller for more precise kitchen production

- Solid state design / No vent holes
- Small form factor
- Intel Braswell Celeron dual core processor
- Windows 7 and Windows 10 Embedded
- Storage – 32 GB or 64 GB SSDs
- RAM – 4 GB or 8 GB
- Multiple points of connectivity
  - 3 USB 3.0, 2 Serial (12V power)
  - 10/100/1000 Ethernet
  - Audio line out 3.5 mm
- Status LEDs & power button on front panel
- DVI-I video; DVI to VGA adapter included
NCR Site Controllers
Interact efficiently with kitchen production systems

- Designed for the kitchen environment
- Serial interface
- 16 programmable keys
- Speaker with three volume levels for order alerts
- Integrated mounting bracket
- Removable end cap for quick access to serial connector and key legend
NCR KT2200 Kitchen Touch Display

New stainless steel touch solution for kitchens

- 21.5” stainless steel touch display (LED back-lit LCD)
- Widescreen 16:9, Full HD 1920x1080
- PCAP touch technology – multi-touch & gesturing
- Designed for the kitchen environment - moisture, gloves
- Integrated speaker
- DVI and VGA
- Optional quick release bracket for KC4 kitchen controller
Digital Menu Hardware for Vitalcast
Failover Architecture

Eliminates down screens due to player failure
NEW NCR MP600 Android Media Player

**SPECS**
- Dual-core+ iMX6 CPU
- Dual-output 1080p (HDMI)
- Built-in network switch for daisy-chaining
- RS-232 for panel control
- RGB sensor for proof-of-play at the display

**FEATURES**
- Small footprint, fanless
- Power over Ethernet
- Failover capability
- Images / Videos
- Rendered Text (fonts)
- Unlimited Scheduling
- Control via web admin
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ADVANCED Exchange Device
Advanced Exchange Depot

Functional Failure
Includes loose components, port and board failures, processor failures, power supply failure, etc.

Normal Wear
Includes normal wear on all parts, including worn touch glass, display failures associated with the back-light of the LCD panel, etc.

Process Breakdowns
Includes any breakdowns in the service process by NCR or the Client, including no fault found, software errors, configuration errors, etc.
Exchange

• Replacement equipment is better than the original product

• 1st time fix rate of 95%

• Once in 5 years

• Extends the useful life
# Support Model Value Statement

## RESULTS

<table>
<thead>
<tr>
<th>Refurbishment</th>
<th>Minimal Site Impact</th>
<th>Consistent Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit tested as a whole</td>
<td>Reduced site down time</td>
<td>Return rate does not increase over time</td>
</tr>
<tr>
<td>Complete unit break down, piece parts tested individually</td>
<td>Increased First Time fix</td>
<td>1.4 visits versus 7 visits, in a break fix model, over 8 years</td>
</tr>
<tr>
<td>Engineering Change orders performed</td>
<td>Software and OS errors are resolved</td>
<td>Lower overall return rates</td>
</tr>
<tr>
<td>Wear items proactively replaced</td>
<td>Higher site uptime</td>
<td></td>
</tr>
<tr>
<td>Cosmetic refurbishment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## OPERATIONS

- Minimal Site Impact
  - Reduced site down time
  - Increased First Time fix
  - Software and OS errors are resolved
  - Higher site uptime

## END USER

- Consistent Performance
  - Return rate does not increase over time
  - 1.4 visits versus 7 visits, in a break fix model, over 8 years
  - Lower overall return rates

## TCO

- Minimal Site Impact
  - Reduced site down time
  - Increased First Time fix
  - Software and OS errors are resolved
  - Higher site uptime

- Consistent Performance
  - Return rate does not increase over time
  - 1.4 visits versus 7 visits, in a break fix model, over 8 years
  - Lower overall return rates
Thank You!

Questions?
Orderman 7 Handheld
Mobile POS Terminal

- 5.0" Display – Hi definition
- Capacitive Touchscreen
- Integrated WiFi and Bluetooth
- Integrated Orderman Secure Radio
- Impact Resistant - Metal Chassis
- Water Resistant – IP65 rated
- Removable Battery
- Physical Side Buttons
- Two capacitive front buttons
- One physical front button
- Lanyard
- NFC for Tap-To-Go
- 125Khz RFID reader
- Single & multi-service cradles
Hardware Innovations
Extensible: Providing even greater capabilities for the operation

- Two digital out display ports for customer display options
- Integrated scanner option for barcodes, QR codes
- Wall Mount / Pole Mount for flexible mounting
- Optional built-in camera, built-in wireless, and expansion cards
- High connectivity to add peripherals
- Easy and Secure SSD replacement
All in one connectivity overview
Designed for retail peripherals

- 3 x 12V USB, 1 x 24V USB, 2 x USB 3.0 ports
- 1 serial port standard (RJ45 0, 5, 12V)
- Cash drawer port (supports dual drawers - 12 or 24 volt)
- Ethernet
- Dual Display port
- Optional 3 x RS232 HUB (2 x RJ50 and 1 x DB9 powered)
Integrated Touch Roadmap - Hosp

<table>
<thead>
<tr>
<th>Product (Launch Date)</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q1/Q2</td>
<td>Q3/Q4</td>
<td>Q1/Q2</td>
</tr>
<tr>
<td>XR7 Core i5 / i3 / Cel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Win10 64 bit, 120GB</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>XR7 Plus Gen6 CPU refresh</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P1535 (Q2 2016)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Win10 32/64 bit, 60GB and 120GB</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P1235</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Win10 32/64 bit, 60GB and 120GB</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>P1532 (Q2 2016)</td>
<td></td>
<td></td>
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<tr>
<td>Win10 32/64 bit, 32GB, 64GB, 128GB</td>
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</tr>
<tr>
<td>PX10 / PX15</td>
<td></td>
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</tr>
<tr>
<td>PX10 Win10 64 bit</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Windows 10 IoT Enterprise 2016 LTSB (32bit or 64bit) 10/14/2026
NCR POS
Purpose built for retail

**COMPREHENSIVE TESTING**

- Environmental testing
  - Shock and vibration
  - Temperature cycling
  - Liquids and dust
  - Packaging and drop testing
  - Electro-static discharge (ESD) up to 15kV

- Platform integration testing
  - Multiple operating system environments

- Regulatory compliance
  - Product safety (UL/TUV, CE, CCC, CU-ETA)
  - EMC (FCC, CE, VCCI)
  - Weights & measures

Extensive testing beyond legal and industry standards to meet the demands of retail
Recovery Tool
Extended product and support lifecycle

- 4-5 year production life (typical)
- 5-7 year hardware support (post production)
- Select components with extended availability
- Chipsets / processors selected from Intel® 's embedded roadmap – typically 7 year life versus 12-18 months
- Stable technology platform with timed release of product changes
- Enables a consistent operating system image over long deployment timeframes to reduce support costs
NCR POS

- Recover using factory saved image
- Use Recovery Partition to perform on-site recovery
- Image capture and restore from local drive, network, or USB drive
- Physical button on terminal
- Auto backup scheduling

Access to Recovery Button

Capture/Apply

.WIM File
XML
Factory
Site
User
NCR Hospitality POS Terminal Portfolio

Our offerings in 2018

XR7 Plus
- 15” or 18.5”
- Flat Front Touch
- High Connectivity
- High Performance

P1535 / P1235
- 12” or 15”
- Flat Front Touch
- High Connectivity
- Quad Core

New PX10 and PX15
- 10.1” and 15.6”
- Flat Front Touch
- Small Footprint
- Limited Connectivity

P1532
- Fanless
- Value Touch
- Dual Core
- Full Connectivity
**NCR Site Controllers Q1 2019**

**S500-MT**
- **CPU**
  - Intel i7-6700 Quad Core (4.0 GHz)
  - Intel i5-6500 Quad Core (3.6 GHz)
  - Intel i3-6100 Dual Core (3.7 GHz)
  - Intel Pentium G4400 Dual Core (3.3 GHz)
- **RAM**
  - 4GB Standard, 16GB Max DDR4 2133 MHz
  - Optional 8GB, 32GB Max DDR4 2133 MHz
- **Storage**
  - Std 500GB or 2TB 7200rpm SATA hard drive
  - Std 120GB SATA SSD
  - Optional additional drives (4 total)
- **Features**:
  - Multiple removable drives
  - Locking front bezel standard
  - Optional 4U rack mount kit
  - On-board RAID 0, 1, 5 and 10
  - DVI-I or 2 x HDMI
  - Optional Modem, Serial, Parallel card
  - USB 3.0 (Qty. 10) and 2.0 (Qty. 4)
  - PCI and PCIe expansion ports
  - 2 Gigabit NIC (1 AMT capable)
  - CD-RW/DVD-RW

**S500-SF**
- **CPU**
  - Intel i7-6700 Quad Core (4.0 GHz)
  - Intel i5-6500 Quad Core (3.6 GHz)
  - Intel i3-6100 Dual Core (3.7 GHz)
  - Intel Pentium G4400 Dual Core (3.3 GHz)
- **RAM**
  - 4GB Standard, 16GB Max DDR4 2133 MHz
  - Optional 8GB, 32GB Max DDR4 2133 MHz
- **Storage**
  - Std 500GB or 2TB 7200rpm SATA hard drive
  - Std 120GB SATA SSD
  - Optional additional HDD (2 total)
- **Features**:
  - Mounting Bracket
  - Optional locking cover
  - On-board RAID 0 and 1
  - DVI-I or 2 x HDMI
  - Optional Modem, Serial, Parallel cards
  - USB 3.0 (Qty. 10) and 2.0 (Qty. 4)
  - PCI and PCIe expansion ports
  - 2 Gigabit NIC (1 AMT capable)
  - CD-RW/DVD-RW

**N4000**
- **CPU**
  - i7-8700 Hexa Core (4.6 GHz turbo) (future)
  - i5-8400 Hexa Core (4.0 GHz turbo)
  - i3-8100 Quad Core (3.6 GHz)
- **RAM**
  - 8GB Standard, 32 Max GB RAM DDR4 2400/2133 MHz
- **Storage**
  - 120GB M.2 MVNE SSD Standard
  - 120GB and 240GB SSD SATA Optional
  - 3 Drive Configuration Option Available
- **Features**:
  - Fan-less
  - 2U Rack Mount
  - Wall mount Bracket
  - Dual Display Port (DP++) Standard
  - Optional HDMI and DVI adapters/dongle
  - 2 USB 2.0 and 4 USB 3.1
  - 2 LAN Controllers
### Support Model Value Statement

<table>
<thead>
<tr>
<th><strong>RESULTS</strong></th>
<th><strong>OPERATIONS</strong></th>
<th><strong>END USER</strong></th>
<th><strong>TCO</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Refurbishment</strong></td>
<td>Unit tested as a whole</td>
<td>Reduced site down time</td>
<td>Return rate does not increase over time</td>
</tr>
<tr>
<td></td>
<td>Complete unit break down, piece parts tested individually</td>
<td>Increased First Time fix</td>
<td>1.4 visits versus 7 visits, in a break fix model, over 8 years</td>
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<tr>
<td></td>
<td>Engineering Change orders performed</td>
<td>Software and OS errors are resolved</td>
<td>Lower overall return rates</td>
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<tr>
<td></td>
<td>Wear items proactively replaced</td>
<td>Higher site uptime</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cosmetic refurbishment</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Minimal Site Impact</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Consistent Performance</strong></td>
<td></td>
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</tbody>
</table>
Command Centre

PCI compliant remote support tool

View status of devices at sites
• POS terminals
• Kitchen displays
• Manager’s PC

Alerts on site based issues

Detailed audit trail & reports
CX ASIA 2018

EX15 POS (China/Europe)
EX 15 overview

Great performance at a value price

- Compact all-in-one design with rugged die-cast aluminum chassis
- 15” TFT LED back-lit display, 4:3 aspect ratio, 1024 x 768 resolution
- Sleek zero-bezel display with multi-touch (projected capacitive) support. No calibration required
- Intel® J1900 Quad-Core Celeron processor
- DDR3L-1600 Memory
  - 4GB standard, 8GB Maximum, one slot
- Disk Drive Options
  - 120GB Solid State Drive (SSD) – recommended
  - 500GB Hard Disk Drive (HDD)
EX 15 Connectivity

Designed for retail and hospitality peripherals

External I/O row connectivity

- 3 x USB 2.0 ports
- 1 x USB 3.0 ports
- 4 serial RS232 port standard (RJ50)
- Cash drawer port (supports dual drawers - 12 or 24 volt)
- Ethernet
- VGA Display, Audio Out
- External SATA / USB Port with Power
EX 15 Configuration Options
Integrated peripherals & customer displays

- Integrated peripherals
  - Magnetic stripe reader
  - Dallas i-button Reader
  - Addimat Key Reader

- 2 x 20 LCM Customer Display International, and Simplified Chinese Options, RS232 Interface

- 10.4” LED Back-lit 2nd Display 800 x 600 Resolution, VGA Interface

- Mount options:
  - POS stand
  - Wall-mount VESA 75 x 75mm