



Technical Prerequisites

Cegid Retail Y2 Ed. 2018 On Demand

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Foreword

This document describes the technical prerequisites associated with Cegid Retail OnDemand Y2, a SaaS (Software as a Service) solution hosted by Cegid.

This document covers the technical issues and requirements related to telecommunications and networking, workstations and peripheral devices. If these technical prerequisites are satisfied, the correct operating of the Cegid Retail Y2 OnDemand solution will be ensured. Cegid shall not be held responsible for any issues resulting from the malfunctioning of the application if these prerequisites have not been respected.

In the case of concurrent use of other Cegid applications, the Customer must ensure that all recommendations common to all the offers proposed are effectively met. For customized advice, please contact your sales consultant.

After testing, a customer may decide that a configuration that does not respect these prerequisites, however, meets his needs. If a bug is reported to the Help Desk, the latter will intervene only if the anomaly can be reproduced in an environment meeting the prerequisites.

Remark

Prerequisites for Cegid Retail Intelligence, Demand Forecasting and Sourcing Optimization are described in dedicated documentation and are therefore not discussed in this document.

Please note:

- The Customer must identify their 32-bit or 64-bit architecture in each of the tables presented in this document (refer to the additional information in the appendices.)
- The management of backups is supported by the Customer according to the backup tools and methods he uses. During the installation, Cegid will provide all necessary information regarding the data to be backed up and the precautions to be taken during the backup and restore procedures.

Cegid does not support a configuration based on third-party software (operating system, database, etc.), if the latter is not supported by its editor (Microsoft, Oracle...)

The end of support dates for the main third-party software solutions used in the Cegid offer and edited by Microsoft are referenced in the Appendices of the following document under the title: "Microsoft Support Information."

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1. WORKSTATIONS (DESKTOPS, LAPTOPS, TERMINALS...)

An "Administrator" access right is required to install a Cegid application. Minor updates and the later use of the application require usual standard rights.

| Windows PCs | | |
|----------------------------|----------------------|-----------------------------------|
| Hardware and Components | Minimum | Recommended |
| Processor | Intel Core i3 | Intel Core i3/i5/i7 |
| X64-64bit Operating system | Windows 8.1 SP1 / 10 | Windows 10 |
| Edition | Professional | Enterprise LTSB 2016 or LTSC 2019 |
| Memory | 2 GB | 4 GB (1) |
| .Net Framework | 4.5.2 | 4.7.2 or later |
| Monitor | 15" | 15" or larger |
| Display resolution | 1366*768 | 1680*1050 or higher |

⁽¹⁾ Elements to increase according to analyses carried out (operating system, number of local applications...)

2. POS TERMINALS

An "Administrator" access right is required to install a Cegid application. Minor updates and the later use of the application require usual standard rights.

| Windows PCs | | |
|----------------------------|--|-----------------------------------|
| Hardware and Components | Minimum | Recommended |
| Processor | Intel Core i3 | Intel Core i3/i5/i7 |
| X64-64bit Operating system | Windows Embedded PosReady 7 ⁽²⁾ | Windows 10 |
| Edition | N/A | Enterprise LTSB 2016 or LTSC 2019 |
| Memory | 2 GB | 4 GB (1) |
| .Net Framework | 4.5.2 | 4.7.2 or later |
| Monitor | 12" | 15" or larger |
| Display resolution | 1024*768 | 1680*1050 or higher |

(1) Elements to increase according to analyses carried out (operating system, number of local applications...)

(2) For all new clients, PosReady 7 or higher. Do not forget to consider the Microsoft's end of support as Cegid's supports depends on Microsoft's (see "Support Information for Microsoft Products".)

Note: Do not mix up OPOS manufacturers for device operation.

3. TERMINALS FOR CEGID RETAIL CATALOGING / CLIENTELING / SHOPPING

An “Administrator” access right is required to install a Cegid application. Minor updates and the later use of the application require usual standard rights.

| Tablet PC/Register | | |
|----------------------------|----------------------|------------------------------|
| Hardware and Components | Minimum | Recommended |
| Processor | Intel Core i3 | Intel Core i5 ⁽¹⁾ |
| X64-64bit Operating system | Windows 10 | Windows 10 |
| Edition | Enterprise LTSB 2016 | Enterprise LTSB 2019 |
| Memory | 4 GB | 8 GB |
| Networking | WiFi card | WiFi card or wired network |
| Monitor | 10" | 10" or larger |
| Display resolution | 1366*768 | 1680*1050 or higher |

⁽¹⁾ Elements to increase according to analyses carried out (operating system, number of local applications...)

Certified Receipt Printers

EPSON printers are generally supported and the following are certified:

- The EPSON TMH 6000 IV printer (with WiFi or Ethernet modules.)
- The EPSON TM 88 V and VI printers (with WiFi or Ethernet modules.)
- The EPSON P60 II printer (with WiFi module)
- The EPSON TM-m30 printer (with WiFi module)

Printers will operate in mobility mode, if you implement a WiFi network or a local network in the store.

4. PERIPHERAL DEVICES FOR CEGID RETAIL MOBILE POS

Communications

The devices communicate **only** via the WiFi network.

Certified Apple Devices – Cegid Retail Mobile POS

| Hardware | |
|---------------------------------|---|
| Cegid Retail Mobile POS V4 & V5 | iPod TOUCH 5/6 iPhone 6 / 6S / 6S Plus / SE iPhone 7 / 7 Plus or later iPad Mini 2/3/4 iPad Air / Air 2 / 5 |
| iOS version | |
| Cegid Retail Mobile POS V4 | iOS 8 minimum |
| Cegid Retail Mobile POS V5 | iOS 9.3 minimum |

The following cases can be used with these devices:

- Ingenico iSMP Companion for all devices
- Ingenico iCMP for all devices
- Linea-Pro 5 for iPod 5 and iPhone SE only
- Honeywell Captuvo SL22 for iPod 5 and 6 only
- Honeywell Captuvo SL42 for iPhone 5 / SE / 6 /6s / 6 Plus /6s Plus only (various Captuvo models depending on the size of each device)

The Ingenico cases, iSMP and iCMP, require the use of the centralized transaction management solution from Ingenico called AXIS.

The Verifone Payware cases require the use of the centralized transaction management solution called ADYEN.

- Verifone Payware E315 for iPod Touch
- Verifone Payware E355 for all devices
- Verifone Vx690 for all devices

Certified Receipt Printers

These printers are certified:

- The EPSON TMH 6000 IV printer (with WiFi or Ethernet modules.)
- The EPSON TM 88 V printer (with Wi-Fi or Ethernet modules.)
- The EPSON P60 II printer (with WiFi module)
- The EPSON TM-m30 printer (with WiFi module)

Printers will operate if you implement a WiFi network or a local network in the store.

5. PERIPHERAL DEVICES FOR CEGID RETAIL MOBILE INVENTORY

This chapter concerns the mobile application for managing inventory counts and documents in batch mode.

As Windows Embedded CE 6 is no longer supported by Microsoft since April 10, 2018 (extended support), the use of this software package is the responsibility of the user.

6. PERIPHERAL DEVICES FOR CEGID RETAIL INVENTORY TRACKING

Please note: This chapter concerns the mobile application for managing inventory counts and documents in connected mode.

Communications

Inventory Tracking works autonomously with regular connections to the Y2 database for retrieving different information:

- Product data
- User rights
- Store transactions to perform

Two communications modes are available:

- Wired connection using a dock with network access
- WiFi connection

The software installed on the PDA consists of an APK copied to the mobile device and then installed with native Android tools.

Certified Mobile Devices

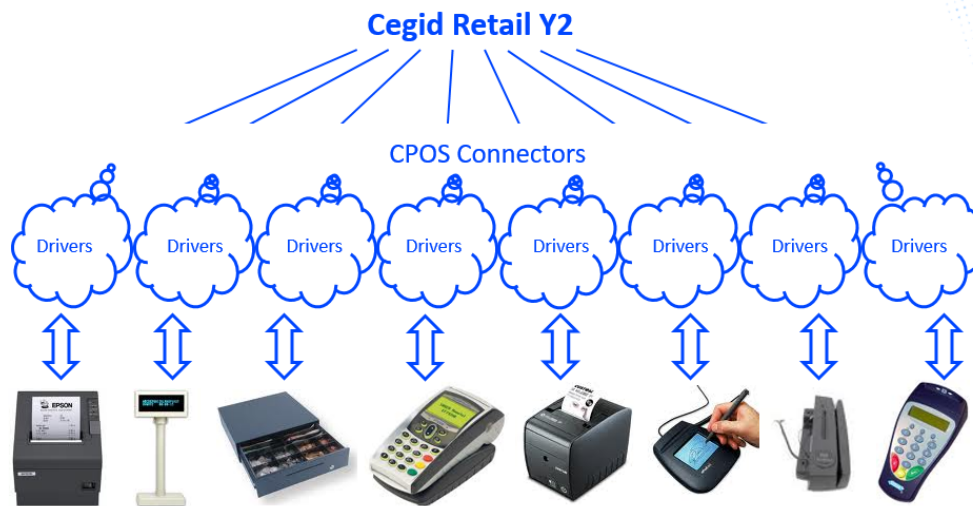
| Model | Monitor | Operating system | Manufacturer end of sale |
|-----------------------|------------|------------------|--------------------------|
| Honeywell Dolphin 75e | 4.3 inches | Android 6.x | 2018 (replaces CT40) |
| Zebra TC51/TC56 | 5 inches | Android 7.x | 2019 (replaces TC52/57) |
| Honeywell EDA50 | 5 inches | Android 7.x | 2019 (replaces EDA51) |
| Zebra TC20 | 4.3 inches | Android 6.x | |
| Honeywell CT40 | 5 inches | Android 7.x | |
| Zebra TC52/TC57 | 5 inches | Android 8.x | |
| Honeywell EDA51 | 5 inches | Android 8.x | |

Minimum memory: 2 GB RAM including 1 GB available

Minimum storage 16 GB

7. PRINTERS & PERIPHERALS

The Cegid applications use the printing infrastructure of the Windows environment. We have to ensure that the print devices do have the certified printing drivers, especially on 64x platforms for an efficient support of the used operating systems (for clients and servers).



Instead of exchanging directly with each device, the POS terminal communicates with a generic multi-device connector called CPOS.

Customers or partners can develop their own drivers to connect their specific devices.

The CPOS connector does not concern:

- Network printers
- Label printers
- Barcode readers
- Inventory terminals

Please note:

In general, the unitary compliance of each device with the prerequisites does not guarantee that the system consisting of an assembly of hardware, OS, software and multiple devices is either functional, or even optimal. This assembly will have to be tested within the project and validated by the project team on the basis of the usage scenario.

Tips:

Do not mix up OPOS manufacturers.

As the serial port is becoming obsolete, focus on the USB interface.

Receipt Printer (except fiscal printer)

There are two operating modes:

- Via a CPOS driver provided by Cegid to communicate with EPSON and compatible printers.
- Via OPOS drivers provided by other vendors (i.e. HP or IBM.)

Customer Display

There are two operating modes:

- Via a CPOS driver provided by Cegid to communicate with EPSON and compatible displays.
- Via OPOS drivers provided by other vendors (i.e. HP or IBM.)

Cash Drawer

There are two operating modes:

- Via a CPOS driver provided by Cegid to communicate with EPSON and compatible cash drawers.
- Via OPOS drivers provided by other vendors (i.e. HP or IBM.)

Barcode Scanner

Handheld barcode readers: all models connected in USB mode or as 'keyboard/control unit' interface (Wedge mode) with the "CR/LF" sequence applying automatically after the reading of a barcode.

Note: the keyboard configuration may affect the interpretation of barcodes.

Magnetic Card Reader

HP models: External MSR device in USB mode driven by the OPOS layer (OPOS version 2.62) + the CPOS layer.

MSR device integrated with the **HP AP5000** and **HPRP9G1** POS terminals driven by the OPOS layer + the CPOS layer.

Document Reader

3M model: "QS 1000" reader driven by the CPOS layer with software components "3M™ Page Reader SDK" in version 3.1.10.

Fingerprint Reader

U.are.U model: "4000B" device driven by the CPOS layer with the software components "DigitalPersona One Touch for Windows SDK" in version 1.6.1.

U.are.U model: "4500" device driven by the CPOS layer with the software components "DigitalPersona One Touch for Windows SDK" in version 1.6.1.

EFT Drivers

Y2 uses EFT solutions using CPOS drivers.

These solutions are specific to every country and EFT requirements.

Cegid provides CPOS driver templates that can be:

- Used in current condition in some cases
- Adapted in other cases
- Serve as templates to develop others

To validate that a driver already exists for the solution you are using in your scope of use, please contact your sales consultant.

Other Printers

For other types of printers, especially network printers, rewritable and label printers, please contact your sales consultant.

8. COUNTRY PACKAGES

The concept of “Country Packages” includes many elements about deployment specifics in different countries including the following information:

- Translation management
- Tax management
- For some countries, specific reports and receipt formats
- For some countries, management of fiscal references
- For some countries, integration of local components such as:
 - Specific functional components
 - Packaged exports
 - Tax printers or components
- For some countries, software certification

Please refer to documentation dedicated to “Country packages” to get information about the technical requirements about their specific components.

9. NETWORKING

ADSL versus SDSL

For Web Access **HTTPS** solutions, the store needs only a simple ADSL subscription.

For a great number of connections (local for navigating and e-mailing, and remote on the business application server(s)), the Headquarters should focus on the use of two separate Internet subscriptions, one for Internet navigating and the e-mailing in the Headquarters, and the other dedicated to business connections.

In this case, the use of Internet in the Headquarters does not have a negative impact on cashing operations in the store.

The latency for Internet accesses is a very important concept for the use of the Cegid Retail Y2 solution.

A Round Trip Time superior to **100 ms** may alter the user experience of Cegid products. Especially on POS terminals it is necessary to test the target sales process to validate user experience according to the various network performance levels that will be encountered. If need be, the configuration of the sales process can be adapted to the network constraints for some stores.

Average bandwidth stated for the Front Office

On the average 50 kb/s to 100 kb/s per user. Of course, this average should be modulated by the effective use of the Front-Office product.

For some processes, peaks of 100 kb/s can be stated.

Analyses (dashboards) and **inventories** (with inventory closure) are the most bandwidth consuming processes in the Front-Office.

| Number of concurrent users | Technology | Minimum throughput for download | Minimum throughput for upload | Maximum round trip time |
|----------------------------|---------------------------------------|---------------------------------|-------------------------------|-------------------------|
| < 3 | ADSL (*) | 1 Mb/s | 256 Kb/s | 100 ms |
| 3 to 9 | SDSL | 1 Mb/s | 1 Mb/s | |
| 10 to 19 | SDSL | 2 Mb/s | 2 Mb/s | |
| 20 to 39 | SDSL | 4 Mb/s | 4 Mb/s | |
| >= 40 | SDSL versus Fiber - Specific analysis | | | |

(*) With the ADSL technology, cuts and slowdowns linked to this technology can be observed.

Average bandwidth stated for the Back Office

On the average 100 kb/s per user. Of course, this average has to be calibrated according to the functional requirements and the effective use of the Back Office product.

Analyses (cubes, dashboards, statistics...), **Inventories** (with inventory closure), **replenishment calculations, imports/exports**, and **accounting interfaces** are the most bandwidth consuming processes on the Back Office.

| Number of concurrent users | Technology | Minimum throughput for download | Minimum throughput for upload | Maximum round trip time |
|----------------------------|---------------------------------------|---------------------------------|-------------------------------|-------------------------|
| < 2 | ADSL (*) | 1 Mb/s | 256 Kb/s | 100ms |
| 2 to 9 | SDSL | 1 Mb/s | 1 Mb/s | |
| 10 to 19 | SDSL | 2 Mb/s | 2 Mb/s | |
| 20 to 39 | SDSL | 4 Mb/s | 4 Mb/s | |
| >= 40 | SDSL versus Fiber - Specific analysis | | | |

(*) With the ADSL technology, cuts and slowdowns linked to this technology can be observed.

10. APPENDICES

Terminology Details Concerning Processor Architectures

In documents issued by Cegid, the **64-bit** term refers to the architecture – or instruction set – named **x86-64**, often abbreviated as **x64**.

This architecture is a 64-bit extension of the conventional Intel 32-bit instruction set x86 and has been introduced by AMD, initially as AMD64. It is supported by all EM64T Intel processors (this acronym designates at Intel the support for this instruction set) and also by all the 64-bit AMD processors.

*This architecture must **not** be mistaken for the one known as **IA-64**, implemented by the Intel processors of the **Itanium** family, which is a distinct and incompatible 64-bit architecture. IA-64 and the Itanium processors are outside the Cegid 64-bit scope and are not validated.*

Cegid’s Policy Concerning the Application of Microsoft Patches

To correct malfunctioning and/or to improve the support and the security of its products, Microsoft regularly provides updates to be applied to the solutions concerned.

These updates are, among others:

Service Packs/Updates

Set of fixes and changes that apply to a product. These service packs are quite a few (often less than 5 in the whole product lifecycle.) They can be minimums required for installing Microsoft or Cegid solutions, or even third-party applications.

Cegid tests the service packs/updates in conjunction with the applied solutions and publishes information after their release by Microsoft (prerequisite notes identify **explicitly** versions and levels of service packs supported).

Quality Update

Set of software fixes that corrects security or robustness issues, releases by Microsoft on a supported version/service pack/update (including Extended support for security patches.) These fixes are generally provided on a monthly basis via Windows and/or Microsoft Update.

Microsoft recommends installing these hotfixes (Categorized as important/critical or recommended.) Although Microsoft tests updates extensively for compatibility with deployed applications, there is a risk of undesired edge effects in a particular one environment. Cegid therefore recommends testing the implementation of the Quality Updates in a "pilot environment" representative of the production environment, and then accepting its deployment in concentric

circles on the other machines. (Cegid may propose the implementation of various tools provided by Microsoft to meet this issue.)

Specific updates

Unavailable online, these updates are created to address a particular problem. They are delivered by Microsoft exclusively when dealing with an identified problem.

Support Information for Microsoft Products

The various products (operating systems, database engines, office products, etc.) mentioned in this document are subject to the support conditions and particularly to the “end of support” conditions.

End dates of extended support for these products (which is the date Microsoft no longer provides security patches) are mentioned below. More detailed and comprehensive information is available:

Microsoft lifecycle: <http://www.microsoft.com/lifecycle>

To benefit from the latest technological developments and from the publisher’s support if required, it is important to consider the product lifecycles, as well as a migration towards later platforms supported by the various business solutions.

To ensure the stability of its solutions deployed on the hardware in hundreds of stores, Cegid supports what Microsoft is committed to supporting for 10 years. That’s why for Windows 10, Cegid only supports Windows 10 Enterprise LTSC and LTSC 2019, and not the semi-annual versions of Windows 10 that have only a 18 months support.

| Microsoft Products (Publisher’s Information) | | |
|--|--------------------------------------|---|
| Marketed product | End of extended support (mm/dd/yyyy) | Remark |
| Windows Embedded POSReady 7 | 10/12/2021 | Security updates may be extended after this date ⁽¹⁾ |
| Windows 7 SP1 Professional | 1/14/2020 | |
| Windows 8.1 Professional | 1/10/2023 | |
| Windows 10 Enterprise 2016 LTSC | 10/13/2026 | |
| Windows 10 Enterprise 2019 LTSC | 1/9/2029 | |

Sources: <https://support.microsoft.com/en-us/help/13853/windows-lifecycle-fact-sheet>

⁽¹⁾ Microsoft may provide a security patch (but not full support) until January 2023. See section “Windows 7 Extended Security Updates” in <https://www.microsoft.com/en-us/microsoft-365/blog/2018/09/06/helping-customers-shift-to-a-modern-desktop/>