

AutoReceive

Technical Notes

Release 8.1

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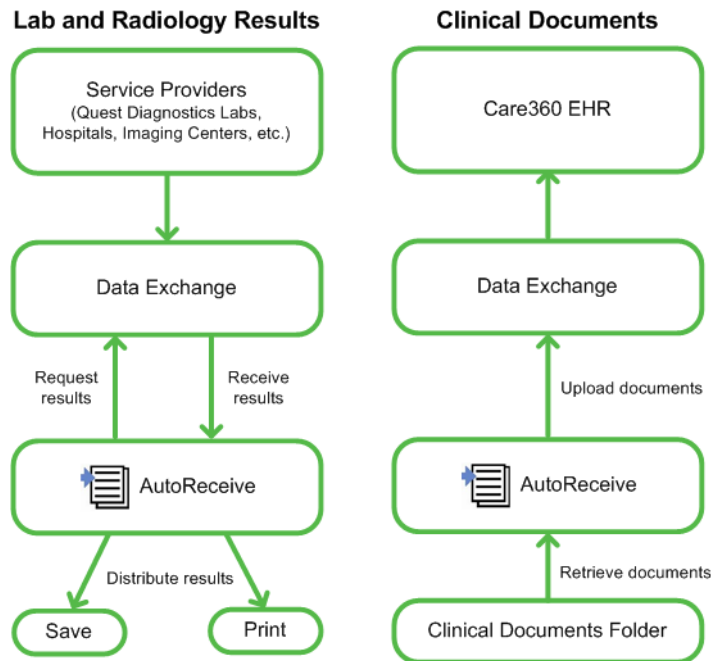
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About AutoReceive

AutoReceive, part of the Care360® suite of products, provides a secure method for the following:

- Receiving, routing, and storing Quest Diagnostics® lab results and radiology results. The results are available in HL7 or printable (PDF) formats. The results are also delivered to Care360 Labs & Meds and Care360 EHR.
- Uploading clinically-relevant scanned documents from your computer or network drive to Care360 EHR.

The following graphic illustrates AutoReceive workflows for lab and radiology results and for clinical documents.



AutoReceive Subscriptions

A subscription is a defined delivery method that identifies the lab or radiology result document types (HL7 or PDF) that you want to receive, or the files that you can upload (scanned clinical documents). All users have access to the AutoReceive user interface for creating and modifying subscriptions. There are a variety of subscription parameters, but two in particular require Windows® security considerations:

- The location to which AutoReceive writes the HL7 or PDF files. For more information, see [“Writing to Network Drives”](#) on page 7.
- The location from which AutoReceive uploads scanned clinical document files. For more information, see [“Uploading Clinical Documents”](#) on page 7.

AutoReceive as a Windows Service

AutoReceive runs as a Windows service by default (called *Service mode*). A Windows service is an application that runs when Windows is started, and continues to run in the background as long as Windows is running. Running as a Windows service enables AutoReceive to continue downloading or printing results even when no user is logged in to Windows. For more information, see [“Restarting the AutoReceive Service”](#) on page 6.

AutoReceive Footprint

Below are the basics that need to be taken into consideration when implementing AutoReceive:

- Operating system requirements.** For a list of the supported operating systems, see [“Operating Systems”](#) on page 4.
- Printer requirements.** For a list of tested printers, see [“Printer Requirements”](#) on page 5.
- Installation options.** AutoReceive can be installed on a non-networked or networked computer as long as the computer is connected to the Internet. The only difference between installing on non-networked and networked computers is that with a networked computer, the results can be written to a network drive. To store the results on a network drive, login credentials must be assigned to AutoReceive, and the password should be one that does not expire.
- Disk space.** Approximately 115 MB of disk space is required for an AutoReceive installation.
- Underlying applications and libraries.** AutoReceive is installed as a Windows service with a Java® application user interface. AutoReceive uses the following third-party libraries:
 - XpdfPrint® 3.0 Dynamic Link Library (DLL)
 - Sun® Java2 Java Runtime Environment (JRE) 1.6.0_15 (located in the *jre160_00* folder in the AutoReceive installation directory)
- Firewall whitelist.** If your site uses a proxy server and access to outbound services is disabled, you must add the endpoint URLs to your firewall whitelist. The endpoints are defined in the app.properties file (located in the *config* folder in the AutoReceive installation directory) and are named as follows:
 - For all AutoReceive installations:** endpoint, statusendpoint, and updateURL
 - For receiving lab and radiology results:** observation.result.endpoint
 - For uploading clinical documents:** docupload.endpoint
- Security.** All communication between AutoReceive and the Data Exchange is encrypted via Secure Sockets Layer (SSL). In addition, AutoReceive communication with the Data Exchange requires the login credentials entered during installation.

Note: The login credentials are unique to AutoReceive. If your site uses Care360 Labs & Meds or Care360 EHR, the login credentials are different from those required for AutoReceive.
- Encryption.** All results submitted to AutoReceive, and all clinical documents uploaded by AutoReceive, are encrypted via SSL (3DES 168-bit).
- Certificates.** AutoReceive is installed with its own trust store; no other certificates are necessary for communicating with the Data Exchange.
- Ports.** The Data Exchange uses the default HTTPS port, which is 443. Internally, AutoReceive uses the port numbers listed below. If any of these port numbers conflict with port numbers in use by other applications running on the AutoReceive computer, you can change the port numbers in the app.properties file (requires AutoReceive restart).
 - instancePort=12399
 - port=12400

Operating Systems

AutoReceive supports the following operating systems:

- Windows 8.1 (32-bit and 64-bit)
- Windows 8 (32-bit and 64-bit)
- Windows 7 (32-bit and 64-bit)
- Windows Vista® (32-bit and 64-bit)
- Windows XP (all service packs) (32-bit)
- Windows Server® 2012 R2 (64-bit)
- Windows Small Business Server (SBS) 2011 Standard (64-bit)
- Windows Server 2008 R2 (64-bit)
- Windows Server 2008 (32-bit and 64-bit)
- Windows Server 2003 (32-bit)

Note: Windows 8.1, Windows 8, Windows 7, Windows Vista, Windows Server 2012 R2, Windows SBS 2011 Standard, Windows Server 2008 R2, and Windows Server 2008 are referred to collectively as User Account Control (UAC) operating systems.

For all operating systems, your computer hardware must meet the requirements recommended by Microsoft®. In addition, your computer must be connected to the Internet.

If you are using a modem, the minimum required modem speed is 56 KB.

Notes:

- Quest Diagnostics will support the Windows XP (all service packs) and Windows Server 2003 operating systems as long as they are supported by Microsoft Corporation.
- Adobe Reader version 5.0 or newer is required for viewing documentation PDF files, and PDF result files that you download using AutoReceive.
- A browser is required for viewing the AutoReceive online help.

Printer Requirements

The printer for receiving and printing documents must be a laser printer that is connected to a workstation or office network. The following requirements apply:

- Microsoft Windows-supported printer
- Network, serial, parallel, or USB connection
- Print drivers appropriate to your computer's operating system

Note: PostScript® printer drivers are not supported.

- Support for landscape and portrait orientation
- 200 dpi print resolution or higher

The following is a list of the printers with which AutoReceive has been tested. However, you are not limited to the printers in this list.

- Lexmark® E322
- OKI® B6500
- OKI B6300
- OKI B4350
- OKI B4300
- OKI C6100
- OKI C5400

Windows Security Considerations

AutoReceive interacts with Windows security during installation and operation.

Installation

For AutoReceive to be installed on Windows UAC operating systems, the installation program must be run under the administrator account by right-clicking the installation executable and selecting the option to run as administrator. For all operating systems, the account under which AutoReceive is being installed must have permission to install applications, and it must have sufficient permissions to run the AutoReceive executable file and the Java Runtime Environment (JRE) that is installed with AutoReceive.

The installation program gives all users full access to the AutoReceive directory, which is necessary for AutoReceive to operate properly. The default AutoReceive installation directories are as follows:

- **32-bit version of Windows:** C:\Program Files\AutoReceive
- **64-bit version of Windows:** C:\Program Files(x86)\AutoReceive

There is one AutoReceive installation per site, and the installation includes two key AutoReceive components that support multiple users, as follows:

- **AutoReceive service.** The AutoReceive service supports multiple users by running in the background (even when no user is logged on) and downloading results to defined locations for all accounts specified in the AutoReceive results subscription.
- **AutoReceive user interface.** The AutoReceive user interface provides a menu and dialog boxes for creating AutoReceive subscriptions and performing various other AutoReceive tasks such as manually requesting result downloads. All users on the computer where AutoReceive is installed can start and use the AutoReceive application, but only one instance of it can be running at a time.

AutoReceive provides two modes (Service mode and Classic mode) for managing how these two components are run. For more information, see the *AutoReceive User Manual*.

Operation

AutoReceive operation considerations include:

- Restarting the AutoReceive service
- Using the AutoReceive user interface
- Writing to network drives
- Uploading clinical documents

Restarting the AutoReceive Service

On Windows UAC operating systems, AutoReceive operates properly in Service mode only if it is run under the local system or administrator account. By default, AutoReceive runs in Service mode, which means that the AutoReceive service runs as the Local System account when the computer is started. Restarting the AutoReceive service can be done only by users with an administrator account.

Therefore, if the AutoReceive service should stop for some reason and need to be restarted, users with non-administrator accounts who attempt to restart the service are presented with a message informing them that an administrator account is required to start the service. Thus, the system administrator for your site may be called upon to start the AutoReceive service.

Using the AutoReceive User Interface

All users on the computer where AutoReceive is installed can start and use the AutoReceive application, but only one instance of it can be running at a time. If users attempt to start the AutoReceive user interface when it is already running, a message appears with an option to quit that instance and start a new one.

Writing to Network Drives

By default, the AutoReceive service runs as the Local System account and does not have privileges to write to a network drive. In order to allow the AutoReceive service to write to a network drive, the service must be configured to run under a named account with the correct privileges, which are as follows:

- *Logon as a service* permission
- Username and password

Uploading Clinical Documents

AutoReceive must have an exclusive lock on a document before it can be uploaded, so the specified folder must have the proper permissions set. In addition, the Windows user that AutoReceive is running under must have write permissions to the directory involved. The file cannot be marked as read-only, and it must be copied completely to the directory before it can be uploaded.

Implementation Checklist

The first step to implementing AutoReceive is to schedule an installation with a Quest Diagnostics Installation Coordinator. Then, consider the options listed in this section so you can provide the information to the Quest Diagnostics personnel performing the installation. You can begin receiving results (and uploading clinical documents if your account is configured for this service) on the same day that AutoReceive is installed.

Installation

- Administrator account for installing and running AutoReceive service.
- Network login credentials if you plan to store results on a network drive. The login credentials (preferably a non-expiring password) must be assigned to the AutoReceive service to allow AutoReceive to write to the network drive.

Lab and Radiology Results Subscriptions

- Standard file naming (provider ID and timestamp), or Enhanced file naming (provider ID, timestamp, message control ID, and document ID (PDF only))
- For HL7 results:
 - Directory path for storing the results
 - Schedule (days) and times (intervals or selected hours) for downloading results
 - Final results only, or partial and final results
 - HL7 filename extension if the results will be imported into electronic medical record (EMR) software that uses an extension other than HL7
 - The Quest Diagnostics account(s) that will use this subscription
- For PDF results:
 - Directory path and/or printer(s) for storing and printing the results
 - Schedule (days) and times (intervals or selected hours) for downloading results
 - Final results only, or partial and final results
 - For enhanced file naming, the print order (file date or file name)
 - The Quest Diagnostics account(s) that will use this subscription

Note: If all clinicians in the office want the same subscription parameters, you need only one of each subscription type (HL7 and PDF). If the clinicians want different subscription parameters, you can create additional subscriptions as long as the clinicians have unique Quest Diagnostics accounts. For example, if the entire office shares one account, only one of each subscription type can be created. If there are three clinicians in the office and each clinician has a unique account, then six subscriptions (three HL7 and three PDF) can be created. In other words, an account can be assigned to only one of each subscription type.

Clinical Document Subscriptions

- The directory path for the folder from which the clinical documents will be uploaded
- The destination provider in Care360 EHR

Legal Notices

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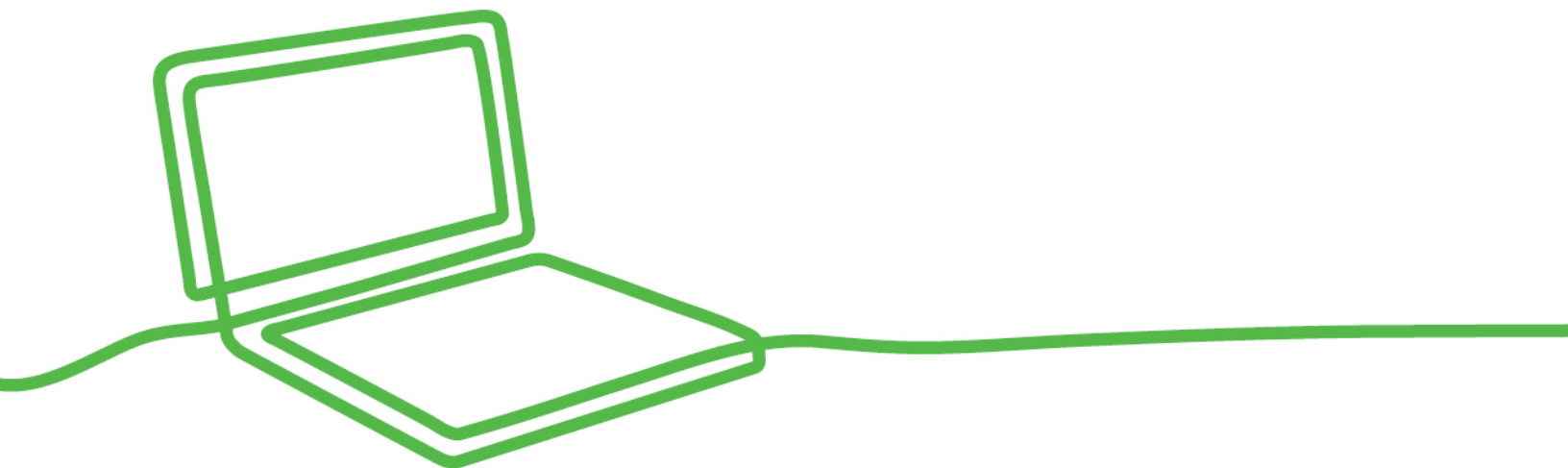
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3 Giralda Farms
Madison, NJ 07940

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