

eConcierge powered by Xerox™

Technical information



The eConcierge powered by Xerox Supplies Assistant alerts printer admins when supplies are low and provides a secure online environment for ordering supplies. Developed by Xerox, the free service leverages existing network technology to add operating efficiencies and service reward benefits to your networked printers.

What the eConcierge powered by Xerox service does for your company

It saves time and effort. The eConcierge powered by Xerox service automates the process of monitoring and ordering printing supplies through the power of network communications. The system provides a user-controlled, secure environment that streamlines a previously labor intensive process, lowering your company's operating costs.

The service is free. There are no contracts or long term commitments required. However when you use the service continuously, you receive free extended service coverage on your eligible* Xerox printers.

How the eConcierge powered by Xerox service works

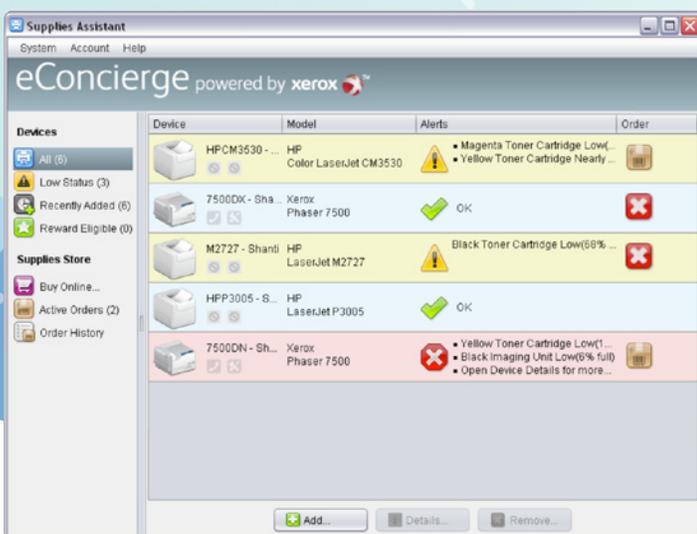
The Supplies Assistant is a desktop application installed on one or more networked PCs. Using industry standard SNMP protocol it identifies and monitors the printing devices—Xerox and non-Xerox—on your network. Printer status can be checked at any time from the desktop. When supply levels are nearing empty, the application automatically alerts office support personnel via pop-ups and/or email notifications. The application provides a secure portal from which to purchase printer supplies. Orders are filled and shipped from distribution warehouses so the supplies are virtually always in stock.

Technology for today's business challenges

Business leaders continually rely on IT experts and system administrators for technology solutions that improve business operations and/or reduce costs. The eConcierge powered by Xerox service provides a free logistics solution that does both. And it's backed by Xerox, the industry leader in printer management solutions.

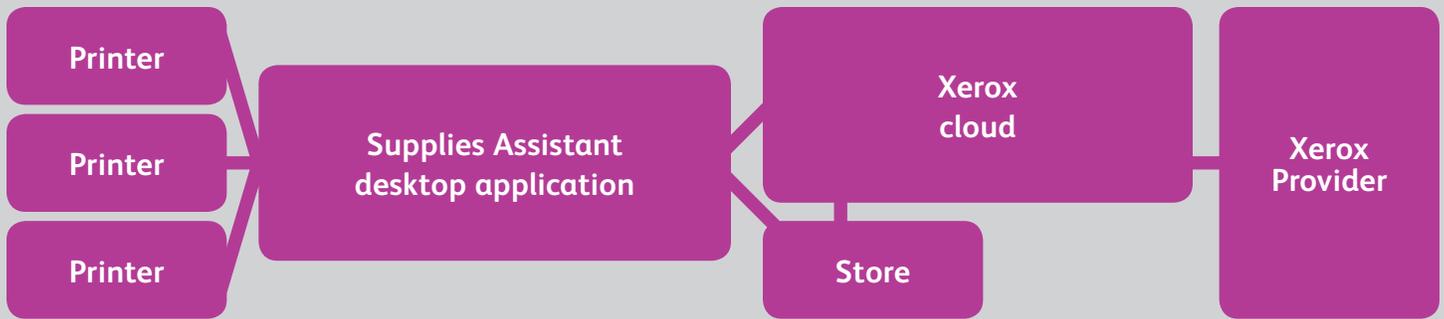
Supplies Assistant desktop application

The desktop application performs two key functions. One polls networked printing devices through SNMP and HTTP protocols to monitor supply levels and status. The second provides a password protected user interface for you to view the supplies status of all of your selected network printers. When it's time to place an order, simply login to your online store. Your order is protected by industry standard secure data transfer and encryption.



Printer listing and status

Information flow of the eConcierge powered by Xerox service.



Network security

The Supplies Assistant desktop application uses SNMP communications protocol to discover and identify printing devices on the network. Upon discovery, SNMP and HTTP are used to monitor supply levels and status with READ-ONLY access.

Data security

When notified of low supply levels, customers place orders directly through the eConcierge powered by Xerox service. Credit card transactions are processed through a secure gateway provided by Authorize.net®, whose parent company is CyberSource®, a Visa® company. Credit card information is used on a transaction basis and is not retained in the system. Authorize.net provides robust security for transactions with certification from the Better Business Bureau®, participation in Trustwave's Trusted Commerce™ program, and membership in ETA.

Basic information about your printers, such as IP addresses, model numbers, supply levels and billing information* is exchanged between the external Xerox eConcierge cloud (a secure Xerox server) and the desktop application, through a secure 128-bit encrypted, HTTPS, Secure Sockets Layer (SSL) connection.

*Billing information for Xerox printers

Powered by Xerox

The cloud is hosted and managed by Xerox. The Supplies Assistant desktop application is customized for your Xerox Provider, who supplies valuable local resources and service.

System requirements

The Supplies Assistant is installed on a network computer with access to the printers chosen for the service. This is typically the PC of the person assigned to monitor and order printer supplies, but it can be installed on multiple computers. The computer(s) must be turned on during normal business hours to facilitate printer status updates, but the user is not required to be logged in to the Supplies Assistant application to receive status alerts.

The desktop application may also be installed on a network server with a keyboard, mouse, and display.

Minimum computer specifications

- Microsoft Windows XP (Home or Professional), Vista, Windows 7, Mac OS 10.5 or greater.
- Network Transmission Control Protocol (TCP/IP) active.
- User Datagram Protocol (UDP) active.
- Browser: Internet Explorer 7 or Firefox 3.6 on XP or Vista; Internet Explorer 8 or Firefox 3.6 on Windows 7; Safari 5.0.1 on Mac OS 10.5 or greater.
- 120MB RAM (70MB application, 50MB for monitoring service)

Proxy server access

The Supplies Assistant connects to the cloud through the Internet. Offices utilizing a proxy server for Internet access need to provide the proxy server's IP address and Port number during setup of the Supplies Assistant desktop application.

Printer requirements

The eConcierge powered by Xerox service supports a range of printer brands including Xerox, HP, Lexmark and Samsung, with more to follow. Printers must be SNMP-based devices, located on the network, with support for the following MIBs:



- RFC 1514/2790 (Host resources MIB v1/v2)
- RFC 3508 (Printer MIB v1)
- Private Manufacturer MIB for select devices

Printers connected via USB are not accessible. Printers under a Managed Print Service such as PagePack® 3.0 are not eligible.

Add printers automatically

The Supplies Assistant relies on a standard TCP/IP network port to monitor printers. The printer discovery function of the desktop application performs an IP address sweep to identify eligible printers on a customer's network.

The discovery process runs with minimal network impact. It explores the same subnet that the host computer is connected to. The discovery process is complete when:

- All of the printers on the network have been located
- The discovery time limit is reached
- Customer ends the discovery process

During the IP address sweep, a single packet is sent to every IP address on the subnet. Any device that responds is "discovered" as a live IP address. The client application then queries the live IP addresses to identify SNMP-enabled printing and non-printing devices. Basic information such as make, model, serial number, consumable status, etc. is added to the client interface as it is discovered. You can then edit the list of available printers.

Once selected, the printers will be queried periodically (default is every five minutes) for updates on printer status and consumable levels. This information is transferred to the cloud where it is used to update the client application and track each printer's free service eligibility. The data transfer occurs once daily or when a printer's consumable reaches a reorder point. When a new printer is added to the network you can add it to the client application by entering its IP address, DNS Name or re-running printer discovery.

Add printers manually

You can stop the automatic printer discovery process at any time, for example when all of the required printers have been found. Alternatively, you can bypass the printer discovery process and add specific printers to the client application by entering network IP addresses or DNS Names into the application. This alternate method is useful if the printer discovery process fails to discover any required printer.

Network impact of printer discovery

Although network administrators will see a steady stream of packets on their network during the printer discovery process, the network impact is no more than 7kB per printer. Likewise router usage logs will record multiple entries, but the impact is minor.

The network impact of printer discovery for a customer with ten networked printers can be calculated as follows:

$$10 \text{ (printers)} \times 978 \text{ (bytes/printer)} = 9.5\text{kB}$$

Network impact of updating printer status

The client application monitors the designated network printers once every five minutes to update their status and supply levels. After an initial poll "handshake", the application and the printer exchange a short series of queries and responses until the data for each device is complete.

Ports and protocols used by the Supplies Assistant

Printer discovery and supplies status	Protocol	Printer Port	Data Direction
Laser printers	SNMP v1, v2	161	Outgoing
Solid ink printers	SNMP v1, v2	161	Outgoing
	HTTP/HTTPS*	80/443	

*Xerox Phaser® 8500, 8550, 8560, 8860 only

The network impact of polling and gathering historical data once every five minutes for a fleet of ten printers, over a one month period, can be calculated as follows:

Consumable data gathering

**10 (printers) × 144 (polls per day) × 30 (days)
× 36,611 (bytes/printer) = 1.5GB/month**

Note: It takes approximately 5 minutes to poll 10 printers. The interval between polling queries is 5 minutes.

Historical print data gathering

**10 (printers) × 30 (days) × 36,611 (bytes/printer)
= 10.7MB/month**

Note: Historical print data are only gathered for select Xerox printers.

Total network impact

Using the previous examples, the total monthly network impact of the Supplies Assistant desktop application is:

**9.5kB (discovery) + 1.5GB (status poll)
+ 10.7MB (historical data) = 1.51GB/month**

Internet bandwidth impact

The Supplies Assistant desktop application communicates securely with the eConcierge powered by Xerox cloud over the internet using encrypted data. It uploads shipping and billing, and user account information. It downloads information on printers, orders, and shipments. The exact impact of this data transfer is dependent on the number of printers managed, but it's on the same order as a web service such as Gmail or Yahoo mail.

The Supplies Assistant also passively communicates with the cloud to update printer consumable status and retrieve Alerts and current printer status information. The impact of the total daily passive communications for a fleet of ten printers can be calculated as follows:

Passive download

**10 (printers) × 1 (times/day)
× 300 (bytes/printer) = 2.9kB**

Passive upload

**10 (printers) × 1 (times/day)
× 1700 (bytes/printer) = 16.6kB**

Total passive Internet throughput = **19.5kB/day**

Maximize business efficiency

The free eConcierge powered by Xerox service streamlines the entire process of monitoring and ordering printer supplies. It frees up valuable administrative time for more important tasks that contribute to core business functions. Developed and hosted by Xerox, the service is managed locally by your Xerox Provider.

Minimal network impact

The eConcierge powered by Xerox service offers robust security for online ordering with minimal impact to your network. The service supports a variety of printer manufacturers and provides a free extended service benefit for eligible* Xerox printers, when used continuously for supplies reorders. It's a cost effective solution office managers can rely on to improve business operations and reduce costs.



*To qualify simply use the service for a minimum of 30 days and with your second supplies order for each Xerox product, its extended service coverage will begin. Xerox will provide free extended service coverage over the normal supported life of that Xerox product as long as you continue placing your supply orders through the eConcierge powered by Xerox service. The coverage will be the same as what was provided when the device originally shipped—quick exchange, depot repair or onsite. Xerox reserves the right to discontinue the service reward for a specific model at any time.

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