

endpoint exchange



Versatile Image Exchange



*We call our strategy
Versatile Image Exchange™
— a unique convergence of
Technology, Rules, and Settlement*

What is Endpoint Exchange?

Endpoint Exchange® is a leading electronic check image exchange provider for the financial services industry, serving a diverse group of the country's leading financial institutions, check imaging software developers, and image-item processing outsourcers.

Endpoint Exchange enjoys a legacy of innovation in image exchange and is an industry leader in moving financial institutions to 100% truncation and electronic clearing and settlement.

*The Endpoint Exchange mission is
to move the U.S. payments industry
to 100% check image exchange*

Endpoint Exchange enables U.S. financial institutions to clear their check-based transactions by allowing for the exchange of check images between member institutions. Endpoint Exchange's support of industry standard exchange formats provides the interoperability that financial institutions need to exchange check images in a multilateral environment. Endpoint Exchange capitalizes on existing imaging infrastructure and settlement relationships with the interoperability to connect to every endpoint in the nation.

Endpoint Exchange offers a unique solution that alters the traditional economics of check processing and check clearing:

- Significant improvement in collection time (same-day or next-day availability)
- Simultaneous cost reduction (less paper processing)
- Leveraging the existing investment in check imaging technology

The goal of the Endpoint Exchange Network is to connect and provide every bank, savings and loan, credit union, clearing-house, service bureau, and the Federal Reserve with basic standardized electronic exchange and settlement. Endpoint Exchange is open to all image-enabled check processing entities or financial institutions that have a relationship with an image-enabled vendor and telecommunications access.

Endpoint Exchange leverages technology, rules, and settlement to provide financial institutions with the country's most versatile and interoperable check image exchange network.



Endpoint Exchange Advantages

Benefits to Your Bottom Line

Endpoint Exchange membership is a prerequisite for financial institutions interested in reducing their costs and risks in the areas of check processing, clearing schedules, and float management.

Leverages your existing infrastructure

Endpoint Exchange allows financial institutions to do more with what is already in place, unleashing the power of existing imaging infrastructure, and helping you realize the full potential of your imaging investment, maximizing and accelerating your “ROI.”

Part of a complete check imaging solution

Endpoint Exchange will have your institution fully optimizing the power and promise of your check image capture and archive systems. Endpoint Exchange is not dependent on any one particular technology. Any financial institution, or its service provider, that has the ability to integrate prime pass image capture and delivery systems with a check image archive solution, is perfectly positioned to clear and settle their checks through check image exchange. With check images captured remotely, truncation of the paper check at the earliest point of presentment becomes a reality, with the revenue of the paper check maintained and enhanced.

Delivers consistent, reliable results

Because check image exchange can be completed faster than physical check presentment, the clearing process and return process can be accelerated. By shortening the collection cycle, Endpoint Exchange offers faster clearing and settlement and reduced float, which narrows the window for check fraud. Early cycle identification of fraudulent items provides notice to depositors the next day — not next week. Return checks are received on the day they are returned so that the institution can react quickly and minimize loss.

Reduces the burden on back office staff

The Endpoint Exchange Network uses new electronic check technologies, including image and industry-standard, secure VPN technology, to replace trucks and planes and reintroduces economies of scale into the check processing system. Fewer employees are required for the sorting, balancing, bundling, and delivery of paper checks and documents. The mountains of paper associated with traditional check clearing are eliminated. Member institutions will experience fewer hardware breakdowns, transportation delays, and other costly impediments.

Low uniform pricing across every Federal Reserve District

Endpoint Exchange provides low uniform pricing across every Federal Reserve District, regardless of geographic endpoint, routing number, or time of day. This maintains its position as the most cost-effective mechanism for national check image exchange.

Endpoint Exchange Advantages

Technology - Interoperability

Financial institutions are always looking for new ways to improve the value and return on their payments franchise — new solutions that draw on the latest technologies to transform payment challenges into opportunities. Solutions that enable financial institutions to reduce cost, protect current payment profits, and create new payment revenue streams.

What makes these types of solutions so valuable is their versatility — the ability to work collaboratively, to leverage “relationship capital,” and to improvise and improve new solutions within an environment that is heavily invested in multiple technology platforms and existing infrastructure.

Endpoint Exchange has emerged as such a solution provider. The Endpoint Exchange Network provides a broad range of solutions and capabilities to address the needs of financial institutions of all sizes.

Interoperability

Interoperability and scalability are built into Endpoint Exchange. In addition to X9.37, Endpoint Exchange supports emerging XML formats — new standards designed specifically for the exchange of data between banks.



Endpoint Exchange Advantages

Technology - Interface Options

X9.37 format

The Endpoint Exchange X9.37 interface module provides seamless check image exchange interoperability between the leading check image exchange networks, the Endpoint Exchange Network and the Federal Reserve's FedImage Services, and with the country's top-tier banks that clear and settle millions of checks each day through the SVPCO Image Payments Network and Viewpointe Pointe2Pointe image exchange service.

X9.37 is the industry specification for the electronic exchange of check and image data. The Federal Reserve Bank has approved X9.37 for combining check images and related check information into a single file. The X9.37 standard is supported by virtually all check processing vendors and third-party services.

The Endpoint Exchange X9.37 enables the image exchange programs of every financial institution to reach full potential and improve clearing schedules and float management, regardless of imaging platform or asset size.

API format

The optional Endpoint Exchange API (Application Program Interface) is a documented set of protocols by which any item processing system can connect to the Endpoint Exchange network. Utilizing cross-platform architecture, the API is designed to help developers of check and item processing systems to make their systems tightly integrate with the Endpoint Exchange Client, the node on the network within each participating member's item processing operation. For participants utilizing the X9.37 interface, Endpoint Exchange provides the client functionality from within its data centers.

Endpoint Exchange offers the API at no charge to third-party developers who execute a basic Distribution Agreement with Endpoint Exchange. The Distribution Agreement allows the vendor open access to the Endpoint Exchange API documentation, and free ongoing support and development tools, including an online simulator version of the Endpoint Exchange Network exclusively for developer testing. The Endpoint Exchange API provides interoperability between any item-processing platform, allowing each member institution to exchange images and data with other platforms with transparency. The API option is ideal for those institutions that wish to take advantage of many of Endpoint Exchange's advanced features that can only be fully exploited by tight integration with their item processing system. Endpoint Exchange is the only national image exchange network to offer a free API to allow third-party solution providers to connect their customers to the network.

An API that attracts the country's leading check image software developers and image time-processing outsourcers

In addition to many of the country's leading financial institutions, the Endpoint Exchange Network membership includes several of the country's leading check imaging software developers and image-item processing outsourcers.



Endpoint Exchange Advantages

Technology - Server and Gateway Components



The Endpoint Exchange Network is built around two key components — the Client Gateway and the Endpoint Exchange Server.

The Client Gateway is the node on the network installed in each member's check processing site. The client handles all traffic into and out of that location and interfaces with the local item processing system through a highly adaptable Application Program Interface.

The Endpoint Exchange Server receives and processes all messages from the Endpoint Exchange clients. The database on the Endpoint Exchange Server records all exchange activity with the participating institutions. Daily reports regarding net settlement are provided to the NCHA. The NCHA performs posting to the participant's Federal Reserve bank account. The Endpoint Exchange Server maintains information relating to the payment of each item presented and tracks returns, and redeposit and adjustment requests. This server maintains an online record of all items processed for 90 days, which is used to detect presentment of duplicate items. A separate database of all transactions is maintained for seven years to support audit and reporting function.



Endpoint Exchange Advantages

Rules & Settlement

Federal Reserve Net Settlement

With the use of Federal Reserve Net Settlement through the Endpoint Exchange Network's Clearing House settlement partner, transactions are settled accurately each deposit cycle. Federal Reserve Net Settlement allows participants in private clearing arrangements to exchange and settle transactions on a net basis through reserve or clearing account balances. This process enables financial institutions to feel confident that every transaction they consummate electronically is settled accurately and with finality.

All trades are administered through a United States check clearing house. Check presentment, image exchange, and clearing occur in accordance with ECCHO rules and Regulation CC. Regulation CC and the Uniform Commercial Code determine return deadlines based, in part, on presentment time, ensuring timely notification.

Transactions are traded in near realtime, generating settlement totals for net-settlement to the Federal Reserve in accordance with the deposit deadlines set by clearing houses. Settlement entries consider time zone changes from Hawaii to Puerto Rico.

Partnership with the NCHA as national settlement agent

Endpoint Exchange partners with the NCHA for national settlement. The NCHA is the nation's largest check clearing organization providing payment system services to financial institutions of all types and sizes.

It operates the nation's first completely automated national settlement system, providing highly secure, reliable, and cost-effective image and check settlement services to the industry.

The NCHA is the leading settlement provider for the emerging world of check image exchange. The agreement between Endpoint Exchange and the NCHA ensures that the NCHA will act as the national settlement agent for check image exchange operated by Endpoint Exchange, and brings the industry's most versatile check image exchange network together with the premier settlement provider.

Full compliance with check image exchange rules established by ECCHO (Electronic Check Clearing House Organization)

Endpoint Exchange member institutions exchange check images under the ECCHO rule set. Endpoint Exchange member institutions leverage ECCHO membership to ensure that the collection and settlement of electronic cash letters is controlled by a common, standard national rules set. Every Endpoint Exchange participating member institution, not otherwise a full member of ECCHO, is covered by the ECCHO rule set for all exchanged items without any additional fees.



Endpoint Exchange Advantages *Solutions*

Forward collections — clearing all checks electronically

Endpoint Exchange supports the NCHA's Image Exchange Plus products program, designed to provide Endpoint Exchange member institutions with the ability to truncate 100 percent of their forward collection volume. By accepting check images not drawn on the regular Endpoint Exchange membership, a bank that becomes an NCHA Plus Provider assumes responsibility — for all downstream collection of the item, including the printing of Substitute Checks when necessary, significantly extending the reach of Endpoint Exchange membership. This allows presenting Endpoint Exchange member institutions to clear checks that might otherwise not be electronically tradable through Endpoint Exchange or its exchange partners.

Substitute check presentment

The Endpoint Exchange Network's complete forward presentment image exchange supports substitute checks.

For a financial institution that is not prepared to accept electronic images directly, printed substitute checks must be prepared and delivered as needed. Substitute checks continue to play an important role in the transition from processing paper checks to electronic images by providing a critical interim step for all financial institutions.

With Check 21 in effect, all financial institutions have the opportunity to present substitute checks in place of physical items. Additionally, all financial institutions are required to accept substitute checks in lieu of the original paper items.

The Endpoint Exchange Network enables financial institutions to electronically send transit items under third-party arrangements, at a location much closer to the paying institution, thereby significantly shortening the collection cycle.

Endpoint Exchange Advantages *Solutions*

'Realtime' returns and adjustments

Endpoint Exchange allows financial institutions to electronically return an image of a dishonored check directly to the participating depository institution as soon as it is identified as non-payable by the institution. "Realtime" decisioning translates into a streamlined returns process. Endpoint Exchange provides rapidly accelerated return item notification from other institutions on any item forwarded, allowing better management of loss/risk.

The Endpoint Exchange Network image exchange adjustments are electronic, tied to the original source of receipt to eliminate hours of headaches and frustration. Since Endpoint Exchange eliminates missing/free and listing/recap errors, and provides source and target sequence numbers, the need for source of receipt requests is eliminated. The only adjustments generated or responded to will be for traditional encoding (image amount proofing) errors or for image quality. Since Endpoint Exchange detects and rejects duplicate presentments up front, the only adjustments for duplicate presentment will be due to duplicate presentment activity outside of the normal Endpoint Exchange workflow. Redundant adjustments, which sometimes occur in paper-based clearing when depositing, paying, or intermediary processors simultaneously discover the same error, no longer

occur. Endpoint Exchange prevents redundant adjustments, and as a result, drives down costs, eliminates errors, prioritizes cases, speeds up decisions, reduces float and optimizes the workload.

Endpoint Exchange is tightly integrated with the NCHA's Internet adjustments feature, allowing X9.37 interface customers to initiate and respond to adjustments electronically through the NCHA website. Endpoint Exchange also supports an advanced adjustments option that can be directly interfaced with an institution's own adjustments program.

Endpoint Exchange offers the industry's strongest image quality assurance (IQA) standards, providing image quality assurance testing on 100% of the items passing through the network as a free service for members. The Endpoint Exchange image quality assurance suite runs in the background on the Endpoint Exchange client gateway, (the node on the network installed in each member's check processing site). The client handles all traffic into and out of that location and interfaces with the local item processing system through a highly adaptable application program interface. The IQA suite includes over 50 tests for image quality and usability, which are performed on each item.



Endpoint Exchange Advantages Solutions

As Endpoint Exchange member institutions forward-present their item images, the IQA software checks each one in realtime. Only images that are found to have serious and indisputable problems, such as compression or file errors, are rejected immediately so that they never enter the system, and the presenting institution is notified of the error immediately via the standard API, or by an x9.37 file formatted for “administrative returns”. All other items are carried forward, with the suspect items flagged for the receiving institution’s inspection, along with data about which test(s) failed. This allows the receiving institution to prioritize items that it may wish to review for making an immediate return decision or re-scan request.

If the receiving institution wishes, it can return an item on the basis of image quality alone referencing the appropriate X9.37 return code, well within Reg CC return windows. Endpoint Exchange Network members have the added benefit of being able to return items instantly and electronically, since all the data needed to route the item back to the presenting institution is inherently in the item record. Alternatively, receiving institutions can at their discretion, choose to accept a marginal image for presentment purposes, but can use the Endpoint

Exchange Network’s built-in re-scan request feature to request a new image from the sender, in accordance with clearinghouse rules.

Image quality tests include:

- partial images
- missing or obstructed image segments
- streaks
- missing corners
- too dark or too light to be read
- carrier detection
- image to data mis-match

Image usability tests include legibility of:

- MICR line
- endorsements
- date
- payee line
- signature
- courtesy and legal amounts
- payor information
- bank name and address

Endpoint Exchange offers several reports that complement and extend the balancing and settlement capabilities for both depositing and paying institutions. Member institutions are presented with reports that help them measure and improve their check clearing and settlement strategy.

Depositing institution reports include:

Adjustments

- outgoing adjustment cash letter report

Forward Collections

- outgoing cash letter report
- outgoing deferred cash letter report
- outgoing paid deferred cash letter report

Returns

- outgoing returns cash letter report
- outgoing deferred returns cash letter report
- outgoing paid deferred returns cash letter report

Requests

- outgoing request report

Paying institution reports include:

- incoming cash letter report
- incoming adjustment cash letter report
- incoming returns cash letter report
- incoming requests report

Endpoint Exchange Advantages Reports



Endpoint Exchange Advantages Tools

Exchangeable Volume Analyzer

The Endpoint Exchange Volume Analyzer provides a comprehensive endpoint analysis that shows financial institutions how much of their daily transit check volume can be exchanged on that day with other Endpoint Exchange Network member institutions. This easy-to-use, web-based tool compares the items the financial institution has already captured in the daily check processing operation with the routing and transit numbers of current Endpoint Exchange Network member institutions. It then displays, by Federal Reserve District, the dollar and volume totals of items that can be traded on the Endpoint Exchange Network — if they joined that day.

In order to effectively use the tool, banks must be able to produce, from their current check capture system, a text file listing of items in an industry-standard Comma Separated Value (CSV) file format. The file contains only the ABA number and amount of each check, which ensures that any of on-us or account specific data is kept anonymous in the analysis. Instructions for preparing the file are included with the tool and can be found at on the Endpoint Exchange Web site at www.endpointexchange.com.

The Exchangeable Volume Analyzer tool helps financial institutions access the savings that can be captured regarding:

- The dollar-for-dollar reduction of non-earning assets posted the day prior to settlement.
- The elimination of the expense of earnings credits and account interest tests for every dollar posted early.
- The revenue from increased NSF fee income.
- The reduction of float and non-earnings assets caused by a shorter collection cycle.
- The dollars saved from the elimination of at least one capture cycle.
- The expenses associated with qualifying paper items for returns.
- The research time saved for adjustment requests.

High Dollar Analyzer

Endpoint Exchange provides an image exchange platform that works in “near realtime” and prioritizes and manages IRDs by high dollar amount for optimum float gain and same day settlement. The Endpoint Exchange Network’s web-based High Dollar Analyzer helps financial institutions pre-determine how much they can improve revenue and collection time by clearing checks faster and with a significant reduction in float through the network. Membership in the Endpoint Exchange Network assures member institutions of float improvement with nearly 100% Day-0 or Day-1 availability of funds.

Endpoint Exchange Advantages Network Communications

Point-to-point VPN management and access

The Endpoint Exchange Network offers virtual private networking (VPN) as a method of securely sending and receiving check image data to and from other member institutions. This secure network solution enables Endpoint Exchange member institutions to electronically exchange items with the knowledge that they can authenticate users and encrypt data.

VPN provides proven dependability, scalability and security for member institutions, whether they are sending transactions down the street or around the globe. This network solution allows Endpoint Exchange member institutions to be protected from outside entry and provides a complete audit trail of internal access. No institution will have the ability to access information relative to items it did not deposit, pay, or return.

Optionally, members may make arrangement to establish a private frame circuit connection directly to Endpoint Exchange, or utilize established joint connectivity with our network partners, where volume or customer preferences dictate.



Endpoint Exchange Advantages

Service Level Agreement

Endpoint Exchange believes that Service Level Agreements (SLAs) are critical to ensuring that your institution's check image exchange process is always delivered in a reliable and consistent manner. There are four factors that contribute to a quality implementation.

- availability
- throughput
- customer service
- network firewall security

Availability

The Endpoint Exchange Network ensures maximum uptime. This type of availability means practically no loss of service due to hardware or software errors, and only minimum downtime for scheduled software upgrades or hardware maintenance.

Throughput

Supporting nearly uninterrupted service depends upon on the near-flawless interaction of software (application, OS, and management middleware), hardware, and network design. Endpoint Exchange provides hardware failure protection through redundant processors, storage configurations and power sources. Software failover is built around a combination of software redundancy and network fault tolerance, and is provided through redundant circuit provisioning. Endpoint Exchange manages the network from deposit to presentment.

Customer service

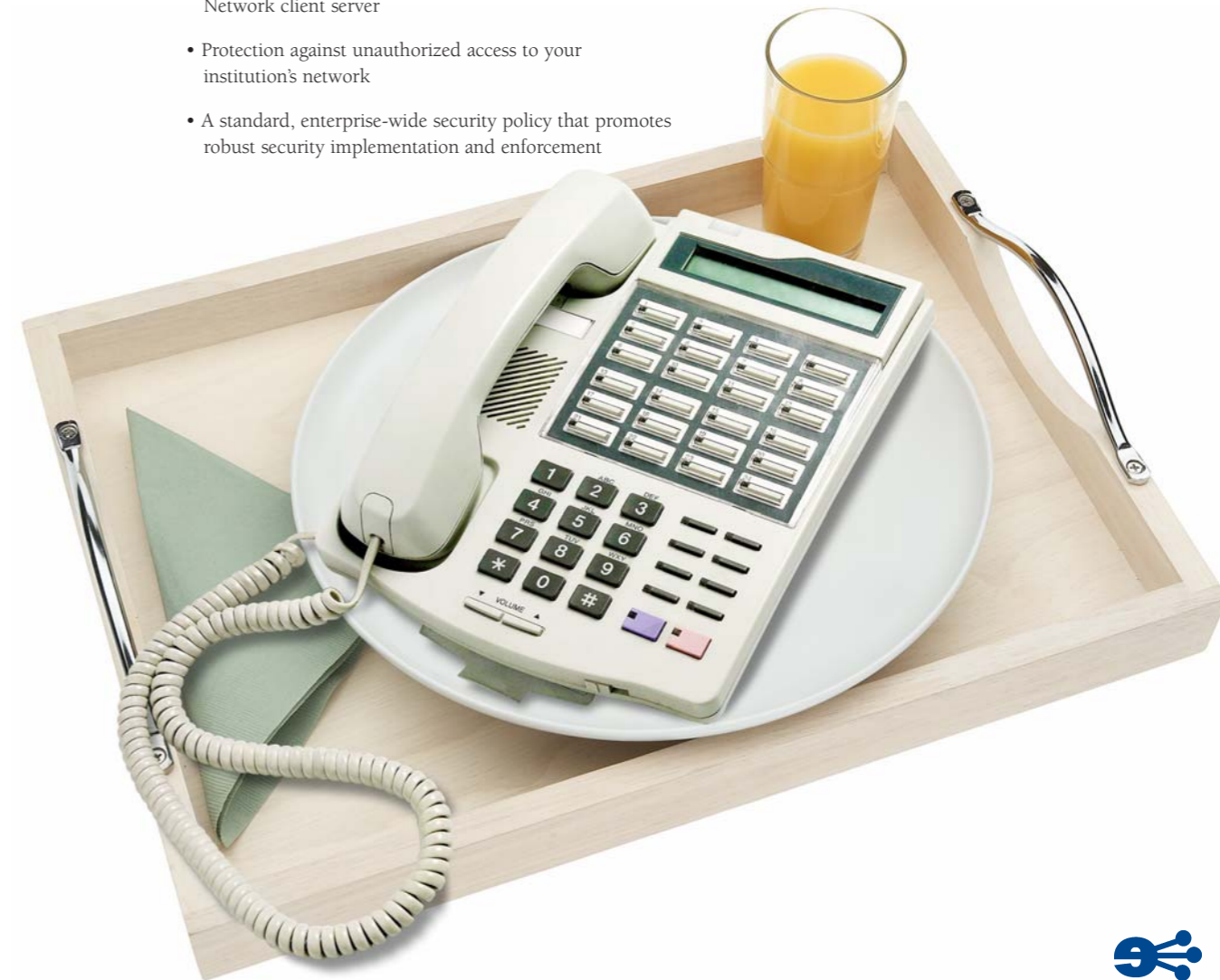
The Endpoint Exchange Network offers single management of a diversified telecom network. Should a problem occur, Endpoint Exchange support personnel and partners will initiate action immediately, coordinating the efforts of solution providers, telecom partners, and your IT staff.

Network and firewall security

Endpoint Exchange deploys a highly secure connection to each one of our member institutions. We manage the service around-the-clock with security and hardware alarm monitoring and reporting and we maintain firewalls and intrusion detection at the central exchange to protect your data. With Endpoint Exchange, maintaining tight security is a process, not a one-time event.

The Endpoint Exchange Network provides:

- Highly secure access from your Endpoint Exchange Network client server
- Protection against unauthorized access to your institution's network
- A standard, enterprise-wide security policy that promotes robust security implementation and enforcement



Endpoint Exchange Advantages

Quick & Easy Enrollment

Your institution is only 60 days away from reaping the many benefits of electronic check image exchange, clearing and settlement.

Becoming a member of Endpoint Exchange

Endpoint Exchange is not dependent on any one single technology standard. Any financial institution with an image-enabled processing platform or a relationship with an image-enabled vendor, coupled with the desire to reduce non-earning assets, fraud write-offs, and check collection costs is an excellent candidate for membership in the Endpoint Exchange Network.

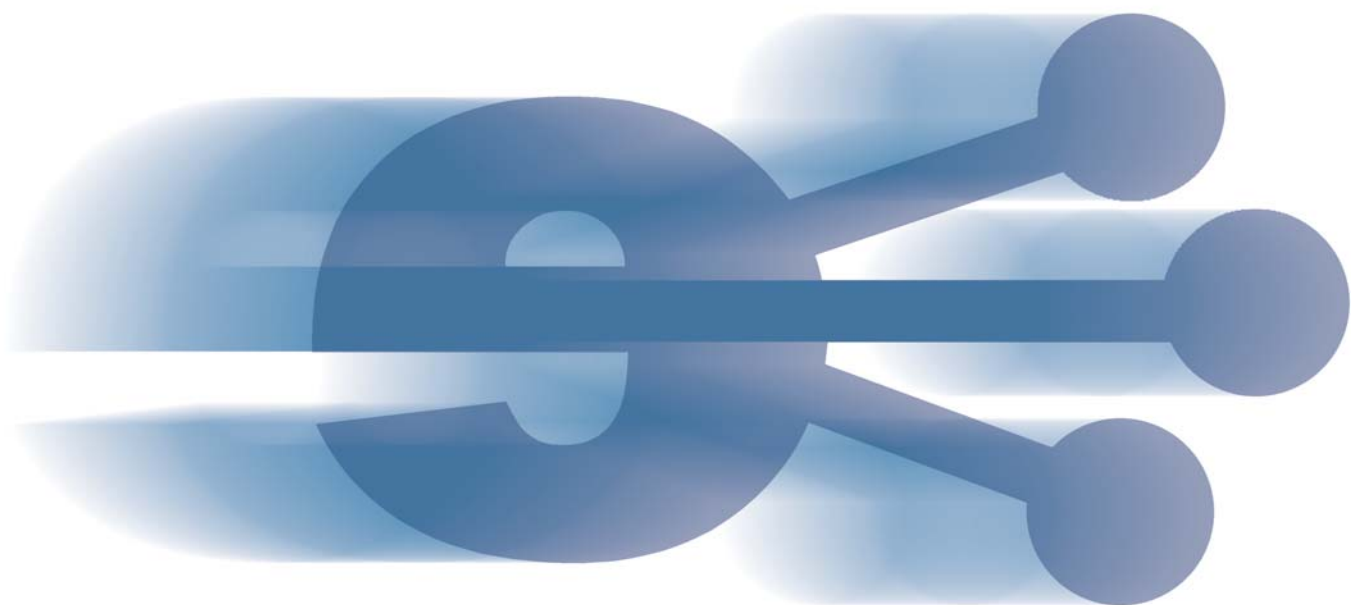
To sign up or learn more about our comprehensive range of check image exchange services, contact the National Clearing House Association (NCHA).

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