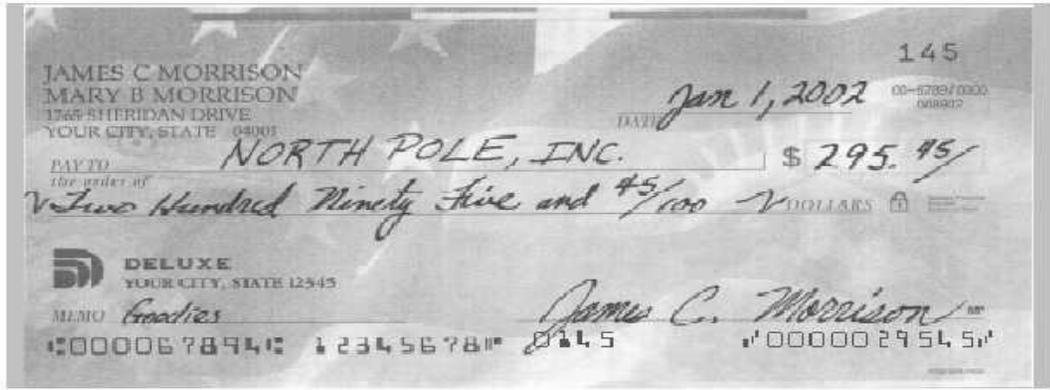


011500120
 01/03/2002
 A5A740A979
 This is a LEGAL COPY of
 your check. You can use it
 the same way you would use
 the original check.

EE20E85T8Z
 2E02/21/13 C100JC1E01



⑆0000067894⑆ ⑆2345678⑆ 0115 ⑆0000029545⑆

Front

Check 21

Back

0530-60183 07832982
 NAVIGATA BANK, N.A., CDC
 CHARLOTTE, NC 1175-662
 1800539446

>0310000111 < 01/02/2002
 78156830233

⑆0310000111⑆
 FIRST UNION NATL SVC-813
 PHILLYPHSA PA 01622862
 70156830233

DO NOT SIGN/WRITE/STAMP BELOW THIS LINE
 FOR FINANCIAL INSTITUTION USE ONLY

FOR DEPOSIT ONLY
 FIRST UNION NATIONAL BANK
 ACCOUNT 4234567890123
 NORTH POLE, INC.

ENDORSE HERE

Tara Rice
September 2004

10530001831 01/03/2002
 1800539446
 *123456789*01/04/2002
 123456789012345

↓ Do not endorse or write below this line. ↓

Did you know?

- **The US is the last industrialized country to adopt inter-bank check truncation.**
- France, Germany, the UK, Hong Kong and Singapore are recent converts.
- Norway initiated “direct pricing” for payment services. This helped reduce check volume from 31.6 million checks in 1993 to 2 million checks in 2002.
- When debit cards were introduced, Finnish banks charged a small per-check fee (10 cents/check). Today check use is almost nonexistent.

Check 21 (C21) Overview

- Signed into law 10/28/03, Takes effect 10/28/04.
- Introduces the “substitute check”.
- Does not regulate industry, provide coverage for image exchange (IMEX), or define specific industry standards for substitute checks.
 - ANSI / Subpart D to Reg CC define standards.
 - Implementation of C21 will be an amendment to Regulation CC (Subpart D). Final Rule released on July 26.
- Designed to be flexible legislation – to facilitate check truncation and movement to electronic payments without stifling innovation.

Confusing....Electronic Images vs. Substitute Checks

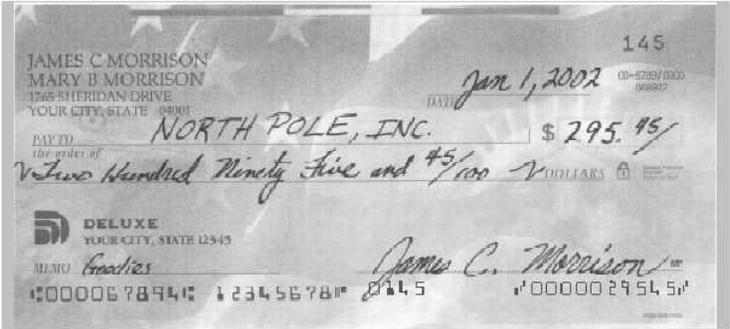
- An image is not a substitute check until it has been printed and meets certain requirements.
- C21 (and now, Reg CC) describe the different requirements for:
 - (1) an image replacement document (IRD).
 - (2) a substitute check, and
 - (3) a substitute check that is the legal equivalent of a paper check.
- Banks can choose whether or not to accept and create images, but they must **accept** substitute checks.

More confusing...IRDs vs. Substitute Checks

Substitute checks are IRDs -- But IRDs are not necessarily substitute checks...

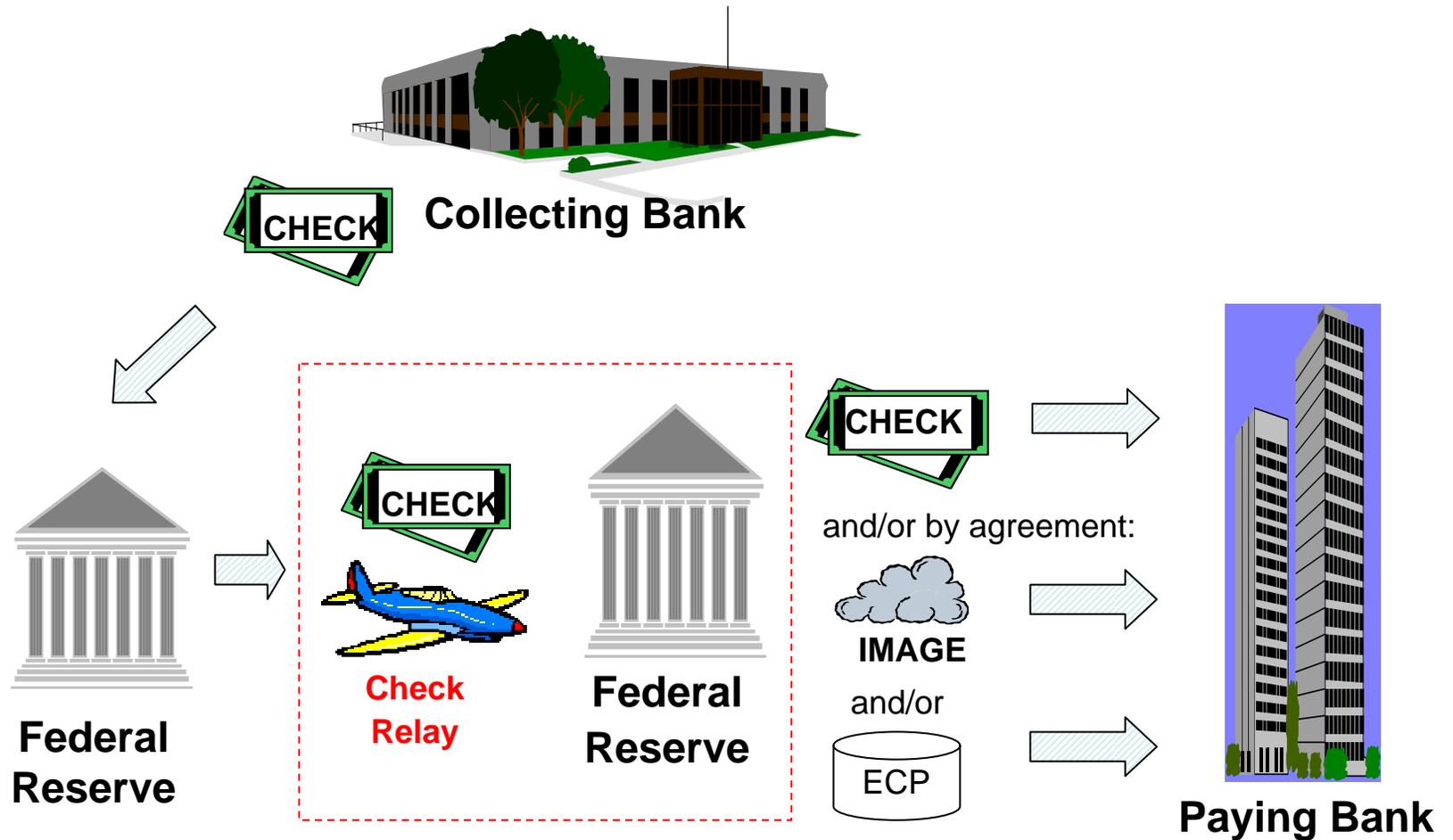
- **An IRD** is a machine-readable substitute document created from the image that is made from the front and back of the original check. (ANSI standard, X9.100-140, not yet final).
- A **substitute check** is a paper reproduction of an original check that
 - 1) contains an image of the front and back of the original check;
 - 2) bears a MICR line that contains all the info appearing on the MICR line of the original check at the time that the original check was issued and any other info encoded in the MICR line before the image was captured;
 - 3) conforms to ANSI X9.100-140; and
 - 4) is suitable for automated processing in the same manner as the original check.
- But, in order **to be the legal equivalent of the original check**, a substitute check must represent all the info on front and back of the original check at the time it was truncated and bear the legend:
 - "This is a legal copy of your check. You can use it the same way you would use the original check."

Substitute Check Design

<p>*011500120* 01/03/2002 A9A740A979</p> <p>This is a LEGAL COPY of your check. You can use it the same way you would use the original check.</p>	<p>2C02/23/13 C11001C1E001</p> <p>EEDE0E5T92</p>	 <p>JAMES C MORRISON MARY B MORRISON 1566 SHERIDAN DRIVE YOUR CITY, STATE 09001</p> <p>145</p> <p>DATE <i>Jan 1, 2002</i> 00-0700/0000 000012</p> <p>PAY TO the order of <u>NORTH POLE, INC.</u> \$ <u>295.45</u></p> <p><i>Two Hundred Ninety Five and 45/100 DOLLARS</i></p> <p>DELUXE YOUR CITY, STATE 12345</p> <p>MEMO <i>Gratias</i></p> <p><i>James C. Morrison</i></p> <p>⑆000067894⑆ ⑆2345678⑆ 0115 ⑆0000029545⑆</p>
<p>⑆000067894⑆ ⑆2345678⑆ 0115 ⑆0000029545⑆</p>		

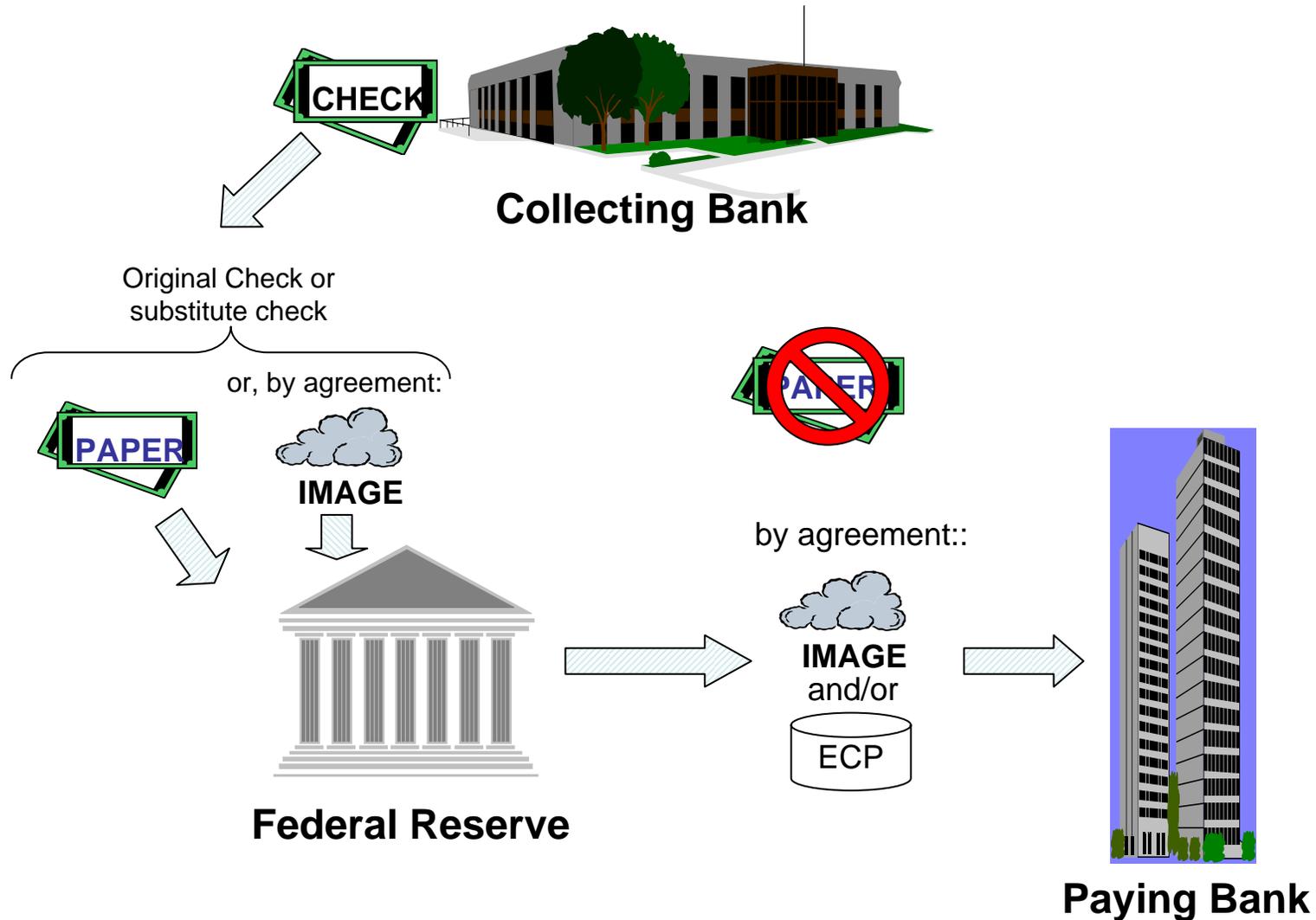
<p>0530-6018 41932902 NATIONAL BANK, N.A. COC CHARLOTTE, NC 1175-662 1800539446</p>	<p>>031000011< 01/02/2002 7815830233</p>	<p>JAN - 2 02</p> <p>⑆031000011⑆ FIRST UNION NATL SVC-818 PA 01022862 7815830233</p>	<p>DO NOT SIGN, WRITE, STAMP, OR WRITE BELOW THIS LINE FOR FINANCIAL INSTITUTION USE ONLY</p> <p>ENDORSE HERE:</p> <p>FOR DEPOSIT ONLY FIRST UNION NATIONAL BANK ACCOUNT # 1234567890123 NORTH POLE, INC.</p>	<p>↓ Do not endorse or write below this line. ↓</p> <p>10530001831 01/03/2002 1800539446 *123456789* 01/04/2002 123456789012345</p>
---	--	--	---	---

Current Collection Process



Check 21 Enabled Process*

**paper truncation with image and/or substitute check on request, image truncation*



Flexible Legislation

- Generally, C21 is touted as a flexible law in that it is intended to speed the move toward electronic exchange – away from physical transport of paper checks.
- C21 does not mandate that banks present checks electronically, but creates greater flexibility, which allows banks to choose between paper, image or a combination of both.
- Some banks feel, however, that C21 diverts attention away from other electronic payment initiatives, such as mobile payments, and does not deter customers from writing costly checks.

Minimum Requirements for Banks

- Accept properly prepared substitute checks without requiring agreements
 - Must meet warranty / indemnity requirements
- Educate bank staff
- Notify and educate customers
- Develop an internal recredit process/procedure.
 - C21 includes an expedited recredit provision. banks will need to develop internal processes and procedures accommodate the recredit provision.
- Fine tune technology
 - MICR encoding requires minor change in code

Misconceptions...

Check 21 DOES NOT:

- Require any bank to USE electronic check processing.
- Mandate banks to receive electronic presentment.
- Require banks to create IRDs (or substitute checks).
- Authorize image exchange (IMEX).
- Make check images the legal equivalent of checks.
- Affect bank agreements covering the exchange of check images.
 - Banks must (still) have agreements with other banks to exchange electronic images.

The Final Rule (Reg CC, Subpart D)

- Reconverting bank duties
 - The **reconverting bank** is the bank that creates the substitute check from the paper check –or–
 - If the substitute check was created by a “person that is not a bank, the first bank that transfers, presents, or returns that substitute check or, in lieu thereof, the first paper or electronic representation of that substitute check.”
- Responsibilities of banks that receive substitute checks
- Warranties and indemnity
 - Apply to the reconverting bank and any bank that uses a substitute check or paper or electronic representation of one.
- Expedited recredit
 - Both for consumers and between banks
- Consumer awareness disclosures

Consumer Protection

- Warranty and indemnity provisions
 - Warranty assures the recipients that the substitute check is as good as the original check and protects the recipients in the event another version of the check is presented or returned.
 - Indemnity mandates that any parties that subsequently handle the substitute check (parties “downstream”) will not suffer a loss as a result of receiving a substitute check instead of the original paper check.
 - If there is a breach of warranty, the indemnity amount is the loss proximately caused by the breach of warranty.
 - Warranties and indemnities “run” with the substitute check.

Consumer Protection

- Expedited recredit provision
 - Customer has 40 days after statement delivery to make claim.
 - If bank determines claim is valid, account must be credited within one day.
 - If bank has not completed investigation in 10 days, it must recredit consumers up to \$2,500 plus interest and remainder on 45th calendar day.
 - Several safeguards for banks exist in order to limit fraudulent claims.
 - Banks have expedited recrediting rights too.
 - This expedited recredit provision differs from the one under Reg E (which covers electronic funds transfer).

Expected Benefits for Banks

- More payment processing options
- Opportunities for greater technological innovation
 - Especially in Day 2 processing (returns and adjustments).
 - Example: image-enabled ATMs will capture image at remote site, allow many more deposit sites.
- Lower costs
 - Reduced labor expenses due to ability to use electronic sorting.
 - Reduced Infrastructure costs due to elimination of costly transportation costs (air and road).
 - Reduced float.

Expected Benefits for Consumers

- Improved information flow.
 - On-line access to check images.
 - In the future: printed copies of checks after ATM deposits.
- Quicker access to deposited funds.
 - Availability could drop from 3-4 days to 1 day.
 - May someday be able to post ATM deposits in real time.
- Reduced costs.
 - But only if banks pass cost reductions to consumers.

Expected Costs to Banks

- New risks associated with substitute checks.
 - Fraud – both internal and external
 - Operational losses
- Education of consumers and bank employees.
- Infrastructure costs:
 - Large investments in imaging and printing technology.
 - Creating and clearing substitute checks will initially cost more than clearing paper checks.

Expected Costs to Consumers

- Potential increase in some types of fees
- May not reduce funds availability
 - If Banks do not pass on improved funds availability to consumers.
 - No requirement exists that they do so.
 - But interest-bearing accounts will start to accrue interest once funds become available.
- Will lose choice to receive original checks

Operational Risk and C21

- Check 21 will likely add new operational loss types through use of substitute checks and images.
 - It will impact fraud detection and prevention techniques and shift the focus to image-survivable security features.
- But it should decrease operational risk in some cases.
 - New technology (i.e., image-enabled ATMs) will someday allow instant check processing.
 - This will enable banks to identify fraudulent checks immediately.
 - Electronic transfer systems may be more secure than physical processing of checks.
- Many bankers believe check fraud will increase in the short run until new detection processes are in place and settled.

Large Bank vs. Small Bank Preparation for C21

- Large Banks
 - Going beyond minimum compliance requirements and focusing efforts to increase their image exchange capabilities.
 - Typically purchasing software from vendors and implementing it in-house.
- Mid-Sized Banks
 - Likely will not create IRDs, but will be ready to create & receive an image file.
 - Typically outsourcing their check processing.
- Community Banks
 - Seem to be divided in their efforts: some are outsourcing their image exchange capabilities while others are investing in imaging technology – which is less expensive for smaller banks.

What Banks Are Doing Now

- Creating image exchange affiliations
 - Banks are forming both image exchange networks and collective archives.
 - 10 of Viewpoints banks are expected to use its image-sharing capabilities by mid 2005 (B of A, BB&T, First Tennessee, FleetBoston, HSBC, J.P. Morgan Chase, National City, SunTrust, U.S. Bancorp, and Zions).
- Working on fraud prevention
 - Imaging and IRDs require new methods for detecting and preventing fraud
- Looking at expanding imaging into all payments departments
 - Many industry professionals see imaging expanding into lockboxes, allowing them to be opened in more areas and be more easily integrated with other departments

What Banks Are Doing Now

- Nearly one third (32%) of banks surveyed by BAI reported that they were implementing a C21 strategy, up from 26% in the December survey.
 - 21% said that their companies had a detailed implementation plan, up from 6%.
 - 40% of the surveyed group declined to place their banks in one of the two ready categories.
 - Primary Check 21 related investments during the next 12 months will be in employee training, marketing to consumers and electronic check presentment.
 - A continuing concern is the impact of Check 21 on fraud.
 - Source: June 2004 BAI Check 21 Impact Survey. 160 banks participated. www.bai.org/check21/surveyresults/index/asp

What Banks Are Doing Now

- Although many banks are making investments on image technology and other related preparations for Check 21, a number of banks are investing less aggressively than expected.
- Vendors report that only a small number of early adopters invested heavily in Check 21 technology and others are still waiting.
- The main issue cited for low investment is that payback of image exchange is not realized until it is widely adopted.
- Vendors expect that banks will follow quickly after the early adopters prove the benefits of swapping check images.
- Source: “Check 21 Not a Sprint but a Marathon.” AB, 09/07/04.

Timeline to Realize Expected Benefits

- It will likely take 3-5 years to make significant inroads to full check truncation (AB Supplement, 2004).
- Technology costs are high.
 - Some of the US's largest banks are budgeting \$100 - \$200 million (for hardware and software).
 - Community banks will likely need to spend \$250,000-\$400,000.
 - But are currently budgeting much less. 46% community banks are budgeting less than \$50,000 per year for technology (AB Supplement).
- But banks will be compelled to adopt truncation as cost of processing checks increases. Paper check will become more expensive as prices increase in a declining industry.

Networks and Archives

- **Viewpointe Exchange**
 - Created by J.P. Morgan, B of A, Zions and IBM in November 2000. Viewpointe is a privately held company that creates an archive of check images.
- **SVPCo**
 - Created by the Clearing House and some large banks. SVPCo offers electronic check clearing and truncation services. Will link to Fed, Viewpointe, major check processors and eventually Endpoint Exchange. SVPCo's customers/owners have ~60% of DDA deposits in US.
- **Endpoint Exchange**
 - A national check clearing exchange network that rides on internet technology. It is the only national check image exchange network up and running today.
- **FedImage Services**
 - Provides check image capture, archiving, online retrieval, and bulk file delivery to more than 900 financial institutions.

The Fed's Role in C21

- The Federal Reserve
 - Will set some standards for banks that do business with FRBs. In May, it announced:
 - Standard format for image cash letters
 - Standard approach to image rendition compression
- Federal Reserve Financial Services
 - Will offer a suite of C21 products and services
 - Will require a depositor certification process for banks that wish to send electronic images to the Fed.
 - Testing and conversion for Fed will begin September 2004 and will need to be “scheduled and managed.”
 - The Fed does not expect all banks to be fully certified and ready for conversion by 10/28/2004.

Conclusion

- Check 21 is expected to speed transition to electronic payments systems.
- May reduce costs and provide increased flexibility to banks and consumers.
- May reduce overall risk, but increase – in short run - vulnerability in certain areas, such as networks and IT systems.
- May increase overall consumer satisfaction, but will require education of consumers.

Helpful Resources

- Final Rule – Reg CC Subpart D:
 - <http://www.federalreserve.gov/BoardDocs/Press/bcreg/2004/20040726/attachment.pdf>
- FRBC Annual Report 2003. “Evolving Payment Standards and Public Policy.”
- BAI Banking Strategies, March/April 2004. “Paper to Pixels: Strategizing for Check 21.”
- American Banker Supplement, May 2004. “Check 21: From Paper to Imaging.”
- ABA Bank Compliance, March/April 2004. “Check 21:Stepping up to the Plate.”
- ABA. March 2004. Check 21 Resource Document. Available on FR Financial Services webpage or at:
 - <http://www.aba.com/NR/rdonlyres/CBDC1A5C-43E3-43CC-B733-BE417C638618/35072/ResourceDocument.pdf>
- ECCHO (electronic check clearing organization) website.
 - www.eccho.org