



**THE FUTURE  
OF MONEY:  
PROTECTING  
DIGITAL  
"CASH"**

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(U) Some of you may be aware that one of the big stumbling blocks in using the INTERNET for buying and selling goods and services is the lack of a secure and reliable system to pay for them. Several entrepreneurs have been attempting to develop reliable solutions to this problem. Mark Twain Bankshares of St. Louis recently announced that it would soon offer its customers electronic cash or "E-Cash" services developed by DIGICASH, an Amsterdam company run by cryptography-savvy David Chaum. Initially these services are intended to overcome many of the disadvantages of using credit cards for small dollar transactions, but these same technologies could offer new opportunities to those bent on counterfeiting, money laundering, or electronic theft.

(U) These developments have not gone unnoticed by the Congress. Representative Mike Castle's (R-AL-DE) Banking and Financial Services Subcommittee on Domestic and International Monetary Policy recently conducted the second in a series of three hearings on the "Future of Electronic Forms of Money and Electronic Payment Systems" to explore the potential impact of these new technologies on U.S. monetary policy, regulation of the money supply, and financial crimes. Witnesses from the Federal Reserve, the U.S. Mint, the Comptroller of the Currency, the Secret Service, and Treasury's Financial Crimes Enforcement Center advised that although new regulations or legislation targeting digital cash would be premature, the government maintains a responsibility to assure the integrity of, and public confidence in, the entire financial system. They suggested Congress might consider requiring these proposed "cyber" systems to show both a demonstrated ability to protect themselves *and* an ability to assist law enforcement officials when direct or indirect abuse occurs.

(U) Witnesses from the Office of Management and Budget (OMB), the National Institute of Standards and Technology (NIST), and DoD were asked to address INFOSEC and privacy issues since they had been raised as key policy concerns. At the request of the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence (ASDC3I), Mr. Emmett Paige, Jr., NSA's Deputy Director, Mr. Bill Crowell, testified on DoD's behalf. Ms. Sally Katzen of OMB stressed that the government has a responsibility to ensure that the various parts of the U.S. infrastructure that it oversees are sufficiently protected to preclude any attack that would pose a threat to our national and economic security. She went on to say that through informed public dialogue an appropriate balance must be struck between the public safety and national security implications of strong cryptography and the need for business and personnel confidentiality in an international environment. Mr. Ray Kammer, Deputy Director, NIST, provided an overview of the relevant security technologies, to include encryption, digital signature, and key escrow, and in so doing, provided an effective segue to Mr. Crowell's presentation.



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(U) Mr. Crowell stated that he was testifying for DoD in NSA's capacity as a partner with ASDC3I and the Defense Information Systems Agency in developing protected networks for the Defense Information Infrastructure. He stressed the technical expertise in both computer systems and network security that the NSA work force brings to that partnership and the growing importance of that expertise as DoD becomes more dependent on networked information systems. He described the range of security services required to provide full protection to a network; highlighted the increasing vulnerability of information, to include financial transactions as demonstrated by the DoD experience; outlined DoD's INFOSEC strategy and strategic goals (interoperability, multilevel security, and partnership with industry); and emphasized the formidable challenge that implementing both national and global infrastructures presents. Finally, he described NSA's Multilevel Information System Security Initiative (MISSI) as an example of effective network security and invited Members to see a demonstration of that technology.

(U) Feedback after the hearing indicated that Mr. Crowell's presentation was well received and that the Subcommittee staff is eager to schedule MISSI-FORTEZZA demonstrations for the Members. As developments unfold, we'll update you on this issue.

### **ASDC3I TO HOLD TOWN MEETING**

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(U) On 2 November 1995, Mr. Emmett Paige, Jr., Assistant Secretary of Defense for Command, Control, Communications, and Intelligence will visit NSA for a day of briefings and discussions on the Agency's missions, capabilities, and activities. Directly responsible for the intelligence programs and policies which govern NSA, Mr. Paige will begin with a Town Meeting where he will address the work force on the theme "U.S. Intelligence of the Future." The Town Meeting will be held in the OPS2B Canine Suite from 1000-1050 hours. Tickets for priority admission will be available on a first come first served basis from designated POCs in each Key Component. Seating will be open to non-ticket holders after 0940 hours. We'll provide a recap in an upcoming issue.

### **MULTIMEDIA SERVICES — CIRCLING THE GLOBE**

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(U) On any given day at a field site individuals may be listening to or watching NSA's SIGINT Highlights, videoteleconferencing with Headquarters or with another site, accessing digital photos via MOSAIC, taking an NCS distance learning course, watching a previously taped auditorium presentation or a simulcast of a current one. Multimedia technology is the key that makes it all possible. In fact, many of you probably got your first preview of life in the field through narrative and documentary style scripted video productions highlighting the mission and quality of life at your site. Our contacts in Multimedia Services (E2) tell us that, "Over the years, E2 has offered a variety of services to our customers in the field. It was time to market our support capabilities in one package to enhance field communications — our new Field Support Effort has made this goal a reality."

~~(C)~~ The following is a sampling of the multimedia services that are or will be available to the field:

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◆ **Reuters' world event digital photos** are available via MOSAIC to support intelligence reports. Downloading to a disc provides images that can be used for electronic or hard copy presentations.

◆ If your site has access to the **Joint Worldwide Intelligence Communications System (JWICS)**, then you are part of a worldwide DoD network that broadcasts SIGINT in a video news format over the Defense Intelligence Network. For those sites that don't have JWICS but are part of the NSTS or STU-III Enclave secure phone systems, this same information is available in audio format over the **Audio News Service (ANS)** 24-hours-a-day. In addition to SIGINT news, TALK NSA shows featuring Agency seniors and special guests are available over ANS the day after the original program.

◆ For crisis management, analyst-to-analyst discussions, or critical logistics issues, the **Videoteleconferencing Management Center** is a 24-hour operation with multipoint connectivity to all major DoD and Agency videoteleconferencing networks worldwide.

◆ Although many live auditorium events are simulcast to field sites, on 1 November a **new field support service** will list auditorium presentations that have been videotaped during the previous week so that sites can request those that were not simulcast or copies of those they wish to permanently retain.

◆ Other support services for field customers include: the **Secure Distance Learning Network (SDLN)** which can be used to take a course, to complete the professionalization process, or to present information as an Adjunct Faculty member; the **Photo Processing Laboratory** providing processing, and print and digital imaging support; **duplication of in-house video productions and standards conversion**; and **video dissemination for major live events**.

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~~(FOUO)~~ If you'd like to take advantage of any of these services or if you'd like to hear about the exciting new multimedia services on the horizon, (INTELINK, GROUPWARE, point and click video-on-demand, etc.) contact [redacted] 963-6409s, (301) 688-5816 (STU-III only), safewst@e2.e.nsa or media@nsa.

**THIS MONTH IN  
NSA HISTORY**

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~~(TS-CCO)~~ **October 1957:** The United States was shocked by the launch of the world's first artificial satellite, SPUTNIK, by the Soviet Union. It demonstrated Soviet technical proficiency, and, coupled with public failures in space launches by the U.S., suggested that the Soviets might have an edge in military technology. The Intelligence Community began "crash" programs to acquire information on Soviet weapons, and, as part of this, NSA began seeking intercept of communications of the Soviet strategic rocket forces. In

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NSA's Strategic Vision—  
To Create Value for Our Customers Through Intelligence that Counts  
and Superior Information Systems Security Solutions

**Postscript File (U)**

~~(FOUO)~~ **1. Memorial:** VADM McConnell has approved the establishment and location of a memorial to those who have given their lives in service to their country during cryptologic operations since 1945. The memorial will honor both military and civilian personnel of NSA and the Service Cryptologic Elements (SCEs), and will be in addition to any which may be displayed by the SCEs. It will be located near the elevator area on the first floor of OPS2B, on the wall adjacent to the Canine Suite kitchen.


~~(FOUO)~~ The memorial will recognize those who died as a result of enemy action, mishaps such as crashes, and disasters such as fires, but will not include deaths by natural causes. With a few exceptions for security reasons, the names and dates of death of 146 cryptologic personnel are eligible for placement on the memorial. The Director has requested that an Agency-wide competition be conducted for the design of this lasting tribute. The following criteria will apply:

- ✓ Anyone with a permanent NSA badge may enter.
- ✓ A scale drawing of the memorial must be submitted along with a description of materials, colors, and any proposed text.
- ✓ The size of the memorial must be limited to 10-12 feet wide, 8 feet high, and 2 feet deep.

~~(FOUO)~~ Entries must be received in E2, OPS2B, Room 1015, (may be sent by STU-III fax to (301) 688-6914) by 15 November 1995. Final selection will be made by the Senior Agency Leadership Team. The creator of the approved design will be identified by a permanent plaque on the memorial itself.

~~(FOUO)~~ **2. Open Season Preview:** The Office of Human Resources Services will present a Health Benefits Open Season Preview on Wednesday, 8 November 1995 from 0900-1500 hours in the OPS1 North Cafeteria Party Rooms. Plan representatives will be available to answer questions and distribute literature. For more information call [redacted] 982-7935s or 859-6063b. The 1995 Open Season will extend from 13 November to 11 December.

(U) **3. TALK NSA:** Tune in on Wednesday, 8 November from 1000-1100 hours for "A Talk With The D/DIR". The program will air on Channel 35 (OPS) and Channel 21 (FANX). This is your chance to phone in your questions for Mr. Crowell by dialing 968-TALK!



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