



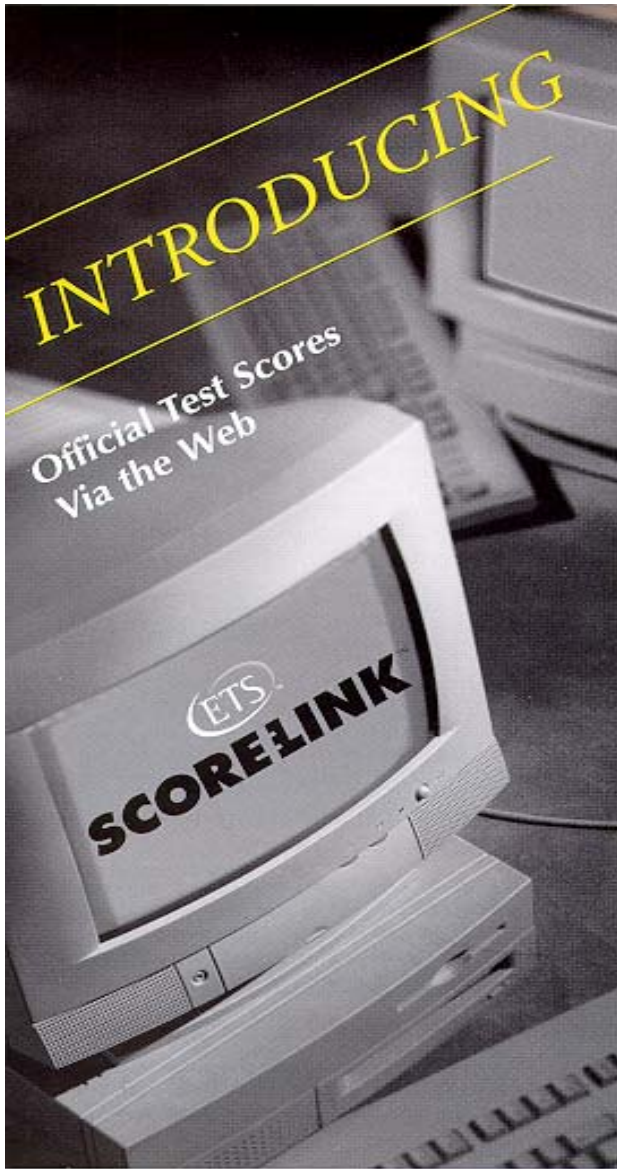
Electronic Test Score Reporting Breaking the Paper Barrier

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Educational Testing Service



Electronic Score Reporting



ETS Corporate Priority

- To focus on developing a new generation of information services to meet the changing needs of our clients.
- To reduce costs associated with paper reporting for both ETS and our clients, but more importantly, improve customer satisfaction by decreasing turnaround time for delivering score data.



Project Description

- This project focuses on the events associated with electronically transmitting scores to designated institutions in both proprietary (the current layout now used for reporting test scores to institutions using tape or diskette) and EDI TS 138 formats
- We are using a push/pull method of transmission which involves ETS “pushing” the data to an anonymous server and each university “pulling” their own data from our server at the university’s convenience





Candidate takes our test

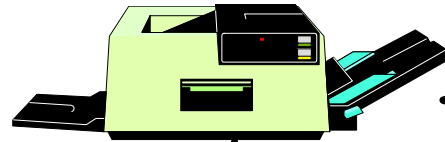
Test Responses

Tapes/Diskettes

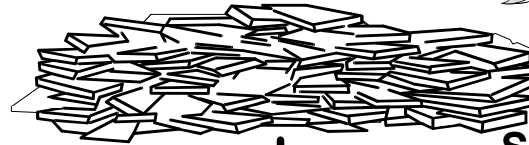


Objective &
Easy Responses

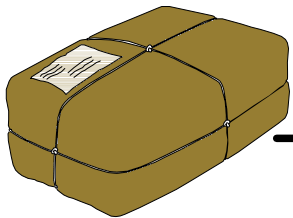
Mainframe



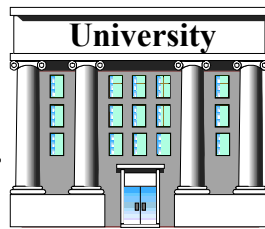
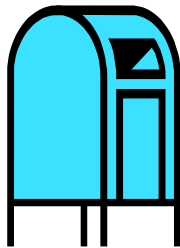
Score Reports



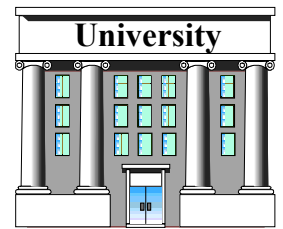
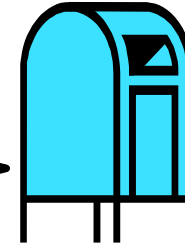
Packaged



Sent to Post Office



Sent to Post Office



Inserted into Envelopes



Breaking the Paper Barrier

■ How we do it today

- ◆ The current process takes 2-3 weeks in many cases
 - Extract score data
 - Create tape, cartridge, diskette
 - mail, Fed Ex
- ◆ Costs associated with paper score reports
 - postage
 - security-grade paper, envelopes
 - costs associated with paper handling within ETS.



Breaking the Paper Barrier

■ How we do it today

◆ Institutional costs

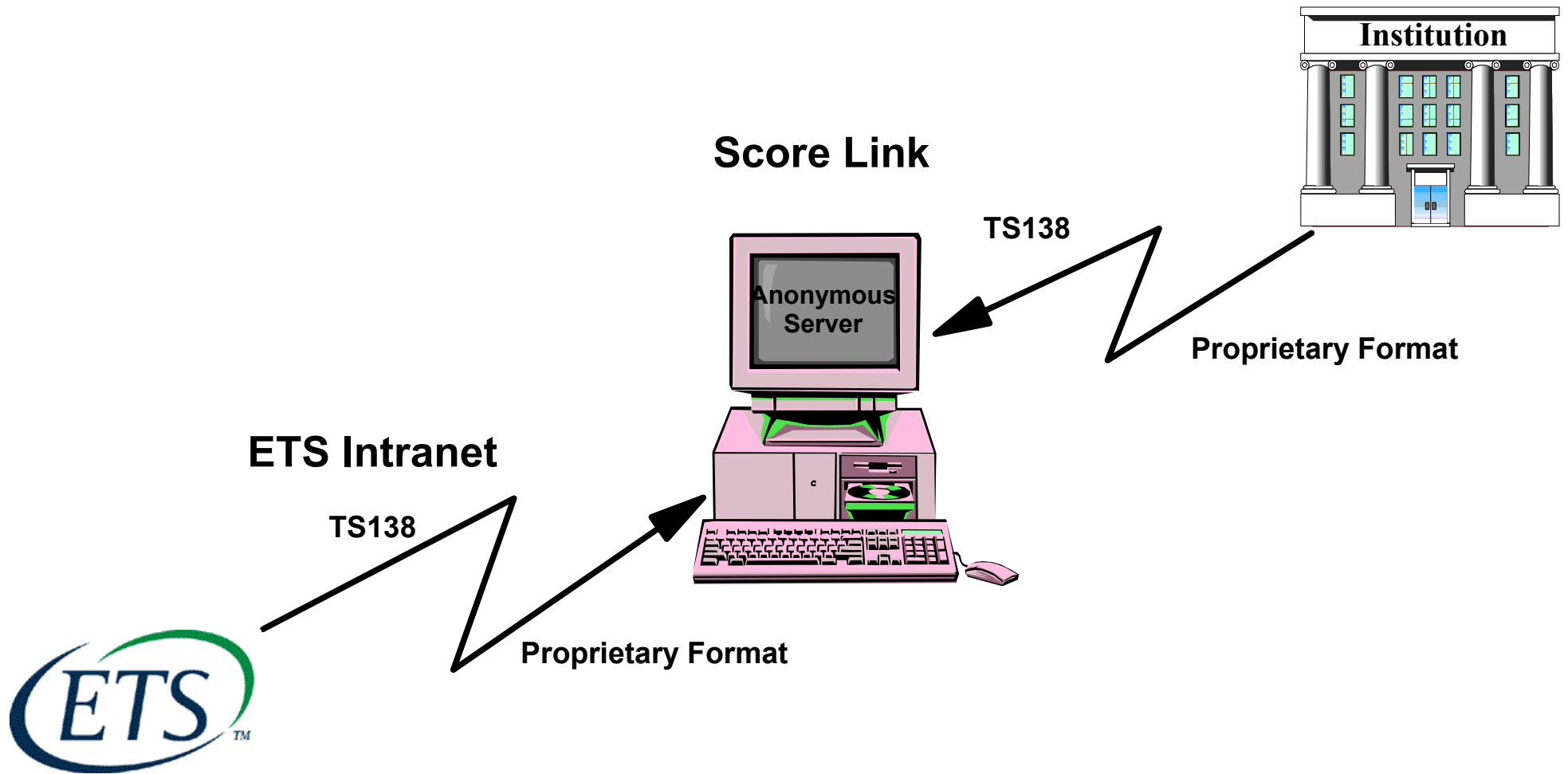
- Opening mail
- Entering score data into the university's system
- Filing the paper report

■ Tape and Diskette Delivery

- ◆ These media will continue but....ETS handling and mailing along with university handling and mailing are still required

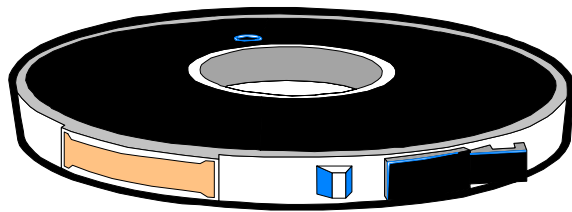


Our Latest Internet Project

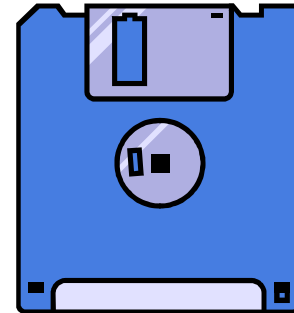


Proprietary Format

- The current layout now used for reporting Test Scores to institutions using tape or diskette



or



EDI Format

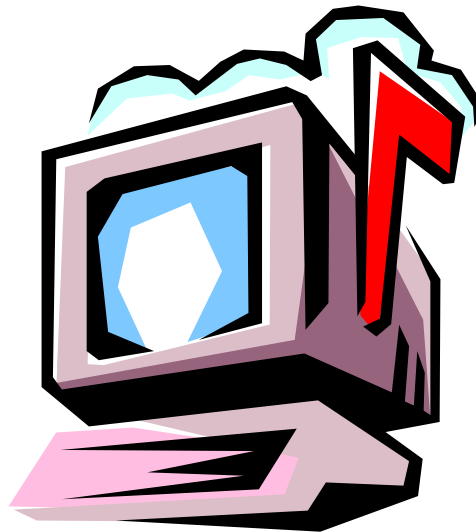
EDI

- (Electronic Data Interchange) is a nationally approved standard format for exchanging business data.
- TS 138 was developed as a joint effort between ETS, AACRAO, ANSI, ACT and NCS.
- www.standardscouncil.org



Benefits

- Information available sooner to a university - no waiting for the mail
- Can be an automated process
- Eliminates the time and cost involved with paper handling



Up and Running

GRE and SAT

- SAT began transmitting score data in September - proprietary format only
- GRE began transmitting score data in October - proprietary and EDI TS 138 formats



Next in Line

GMAT, TOEFL and Praxis

- GMAT and TOEFL will be offering proprietary format and EDI TS 138 format summer '99, Praxis will be implemented in the fall of 1999
- SAT will be offering EDI format in the fall of 2000



Sign-Up Schedule

- GMAT - service sign up information will be available soon
- GRE - you can sign up for the current service now at www.gre.org/scrlink.html
Next year's sign up information will be available in June
- Praxis - service to be offered 09/99, sign up information will be available in May
- SAT - can sign up for the current service now at www.collegeboard.org
- TOEFL - service to be offered 07/99, sign up information available now



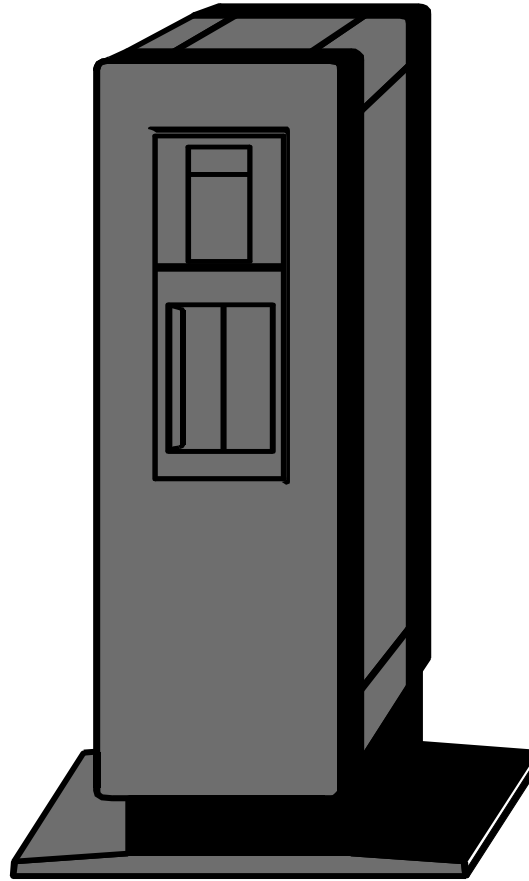
Security

- Each format will be PGP encrypted for security

- International PGP



Automated FTP Process



Web Browser Access



A demo.....

■ E-mail from ETS

```
From: <cpguest@ets.org>, on 10/19/98 9:29 AM:  
To: SMTP@CIPS06@Servers[<rlambert@ets.org>],  
SMTP@CIPS06@Servers[<pmurphy@ets.org>], SMTP@CIPS06@Servers[<rfogel@ets.org>]
```

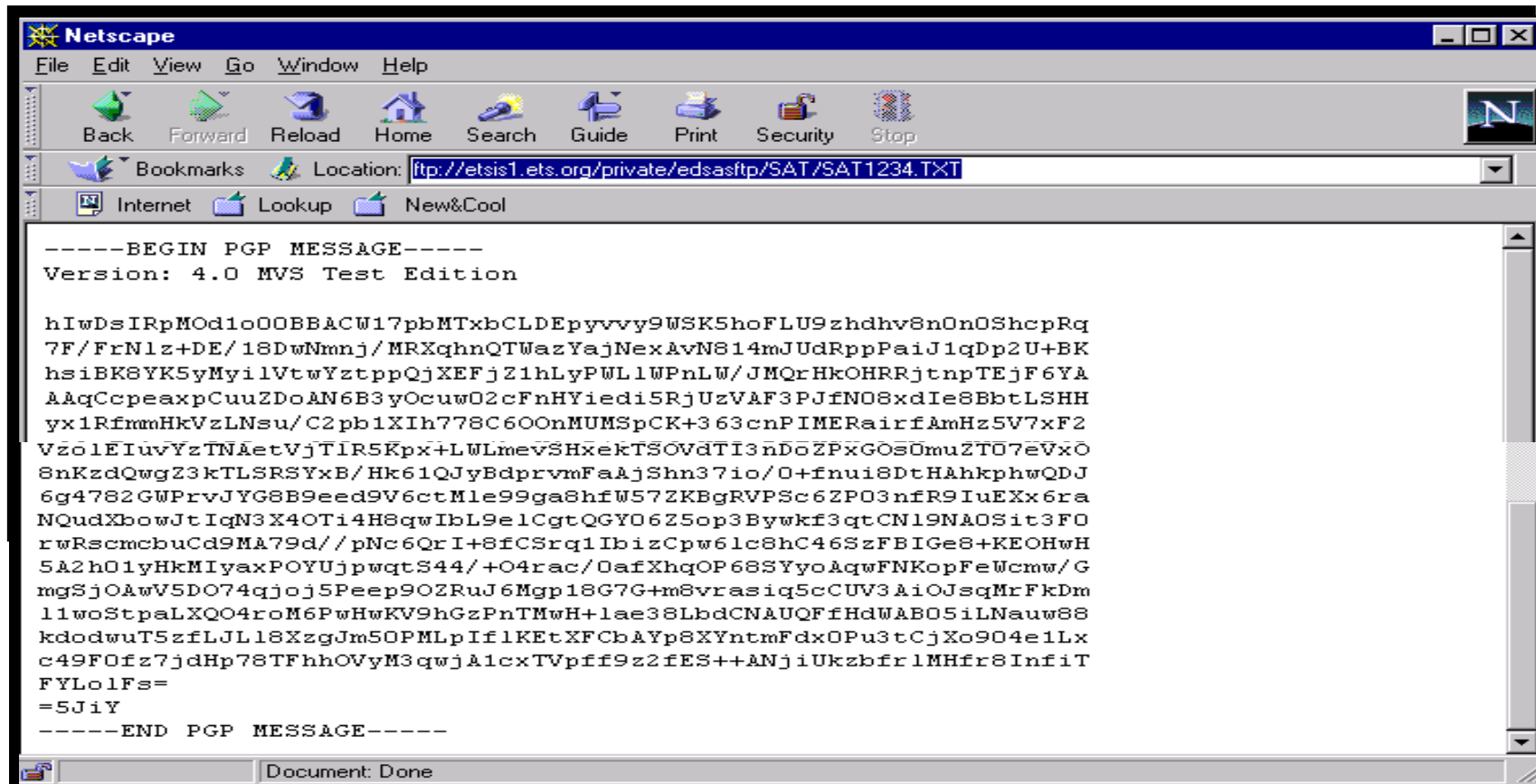
```
There is a file on the anonymous server in the SAT directory  
the ftp address is:
```

```
ftp://etsisl.ets.org/private/edsasftp/SAT/SAT1234.TXT
```



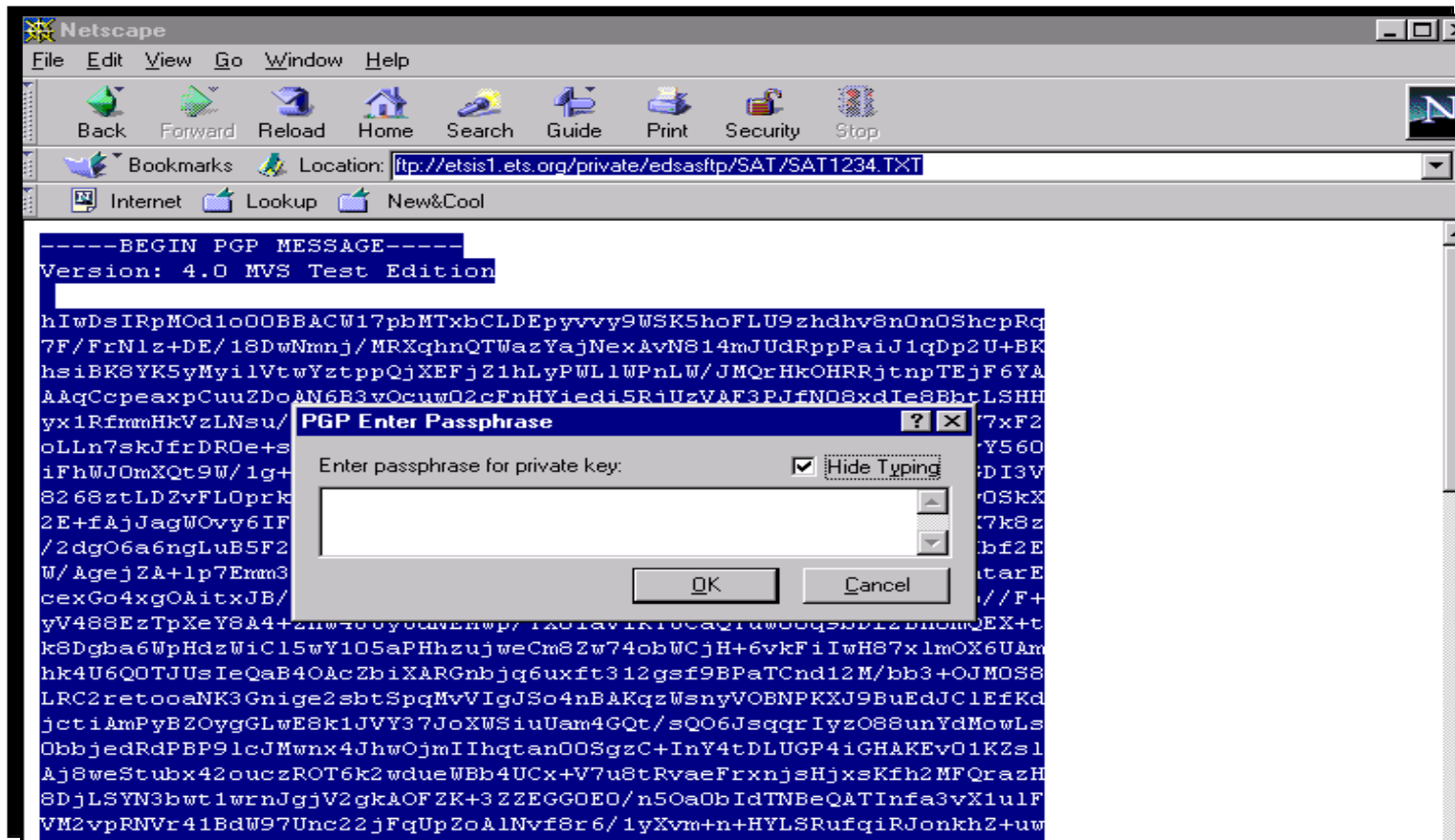
A demo.....

■ Encrypted File



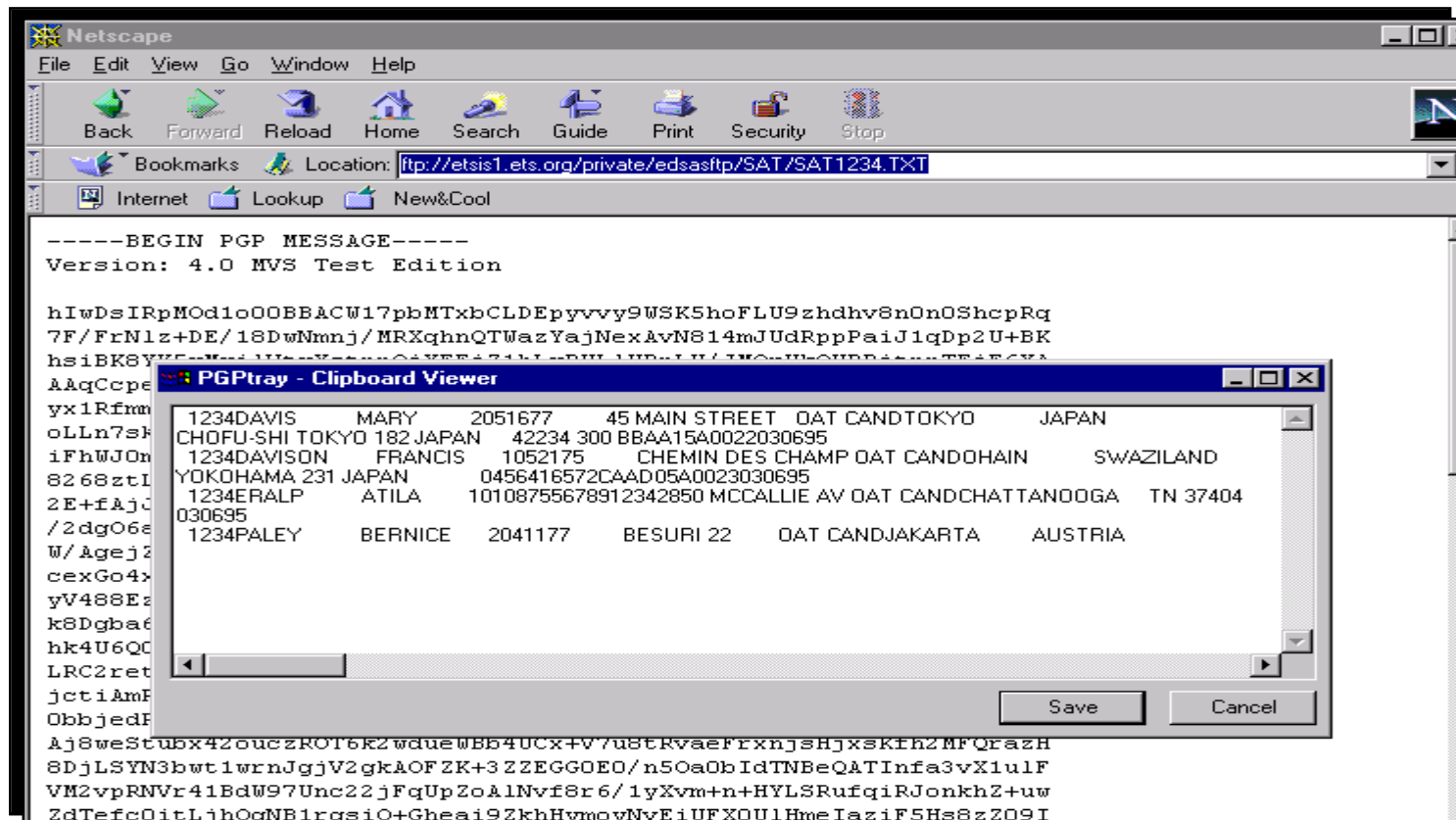
A demo.....

■ PGP Password



A demo.....

■ Decrypted - “Clear Text” File



Web Site - WWW.ETS.ORG/esr

ESR Electronic Score Reporting



- *General Information*
- *Technical Assistance – PGP*
- *FAQ's*
- *Implementation Guides (IGs)*

The Electronic Score Reporting Service was developed and is operated by Educational Testing Service® in cooperation with the College Board®, Graduate Record Examinations® (GRE®) Board, and TOEFL® Policy Council.

