

Data Transmission to NCHS via the Internet

Division of Vital Statistics (DVS)



Centers for Disease Control and Prevention
National Center for Health Statistics

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- ❑ Secure Data Network (SDN)
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Current Method of Data Transmission

- State Data Server
 - PC to PC transmission via modem/telephone lines
 - Uploading of data from State
 - VSCP Contract data
 - Inter-State Exchange Data
 - Medical data to be coded
 - Downloading of data processed by NCHS

Current Method of Data Transmission

- State Data Server Security
 - User ID& Password
 - No anonymous logins
 - State can only access it's own data
 - Data Encryption Available

Current Method of Data Transmission

- Disadvantages
 - Slow rate of data transmission
 - Requires telephone line and modem
 - Requires special software for uploading/downloading and encrypting data

Secure Data Network (SDN)

- SDN
 - A secure Internet connection and gateway facility that protects transmissions of data and systems
 - A service for use by varied CDC programs

Secure Data Network (SDN)

- Features
 - Meets CDC policies for data transmission via Internet
 - Web based
 - State would access via PC using Internet Explorer or Netscape browser
 - Tight security controls
 - Uses Digital Certificates
 - Dynamic data encryption

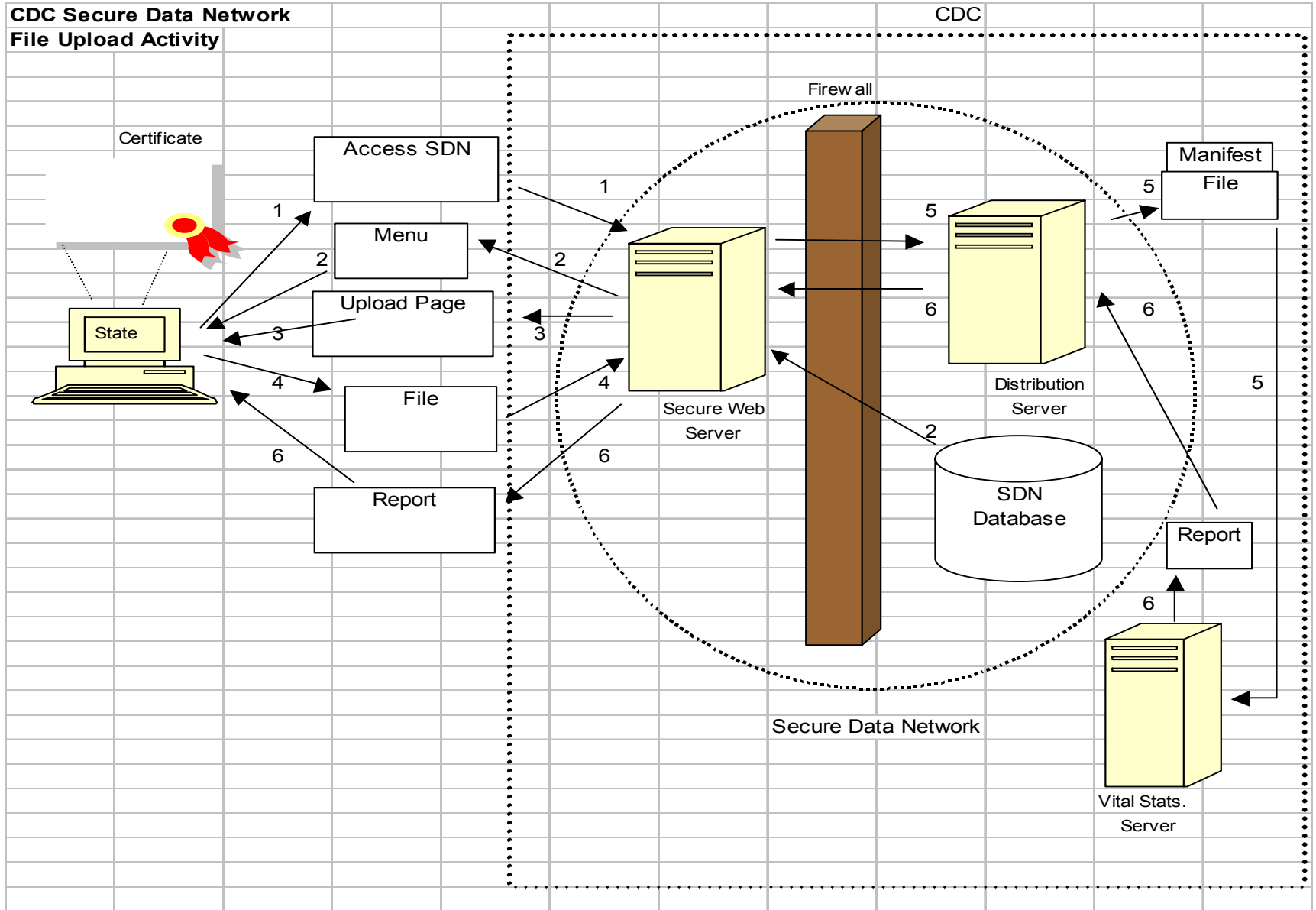
Implications for States

- Faster and more secure data transmission to/from NCHS
- Potential web-based software applications
 - Race Coding
 - Medical Coding
 - O & I Coding

Implications for States

- Machine Requirements
 - Internet Connection
 - PC, Intel 486 processor or greater
 - Windows 95, 98, or NT 4.x or greater
 - Internet Explorer 4.01 or Netscape Communicator 4.5 or greater

SDN File Upload Activity



SDN File Upload Activity

Step #1:	-- Client accesses SDN website						
	-- Secure web server examines clients CDC digital certificate and authenticates identity of client.						
	-- Web server and browser set up encryption keys and begin encrypted session over the web.						
Step #2:	-- Secure web server reads SDN database and determines client's set of permissions.						
	-- Web server generates a menu of permitted activities for the client; client chooses an activity.						
Step #3:	-- Client chooses an activity. The web server confirms client's right to use activity, and displays page for the activity. Design and function of this page are completely within control of program.						
Step #4:	-- Client interacts with page. In this case, client fills out form data, indicates which file to upload, and submits file.						
Step #5:	-- Web server receives file and generates a manifest file-a simple ASCII file containing all known info. about program, activity, client, and information client entered on form, and file is uploaded.						
	-- Manifest file is designed to be easy for computer programs to read and parse.						
	-- Web server passes file and manifest through firewall to a distribution server.						
	-- Distribution Server:						
	-- can understand manifest, log on/off NT & Netware Svrs. on CDC WAN where it has rights						
	-- can copy files to target svrs., spawn other processes, poll for and deliver responses, send mail.						
	In this case, distribution server delivers file and manifest to specified path on Vital Stats. Server and waits for response.						
Step #6:	Vital Stats. Program sends feedback report to client in response to upload.						

Implications for States

- Each user needs a Digital Certificate
- User may export the Digital Certificate to another PC provided the same browser is being used

Implication for States

- Current PC to PC transmission will remain available until it is no longer needed
- Phase-in plan
 - Pilot testing
 - Digital Certificate assignment
 - Test transfers with each state
 - SDN availability to all states by late summer 2002