## (19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 30 November 2006 (30.11.2006)

(10) International Publication Number WO 2006/127346 A3

- (51) International Patent Classification: *G06F 15/16* (2006.01)
- (21) International Application Number:

PCT/US2006/019049

- (22) International Filing Date: 18 May 2006 (18.05.2006)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:

11/133,957 20 May 2005 (20.05.2005) US

- (71) Applicant (for all designated States except US): TEK-SOUTH CORPORATION [US/US]; 1420 Northbrook Drive, Suite 220, Gardendale, AL 35071 (US).
- (72) Inventors: RIGGS, Nicholas, Dale; 102 Cameron Cove Circle, Leeds, AL 35094 (US). SANDERS, David, Allen, Jr.; 1045 Dalton Drive, Kimberly, AL 35091 (US). RHODES, Michael, Douglas; 1000 Broken Bow Trail, Alabaster, AL 35007 (US).
- (74) Agent: GACHE, Russell, Carter; Sirote & Permutt, P.C., P.O. Box 55727, Birmingham, AL 35255-5727 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report:
  6 December 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

- (54) Title: APPARATUS AND METHOD FOR EFFICIENTLY AND SECURELY TRANSFERRING FILES OVER A COMMUNICATIONS NETWORK
- (57) Abstract: A system and method to reduce the time to transfer files from one computer to another over a communications network, such as the Internet, by avoiding the synchronous timing limitations of current transfer methods. A file that is intended to be transferred from a transmitting computer to a receiving computer is partitioned into multiple synchronous block portions of the existing file, prior to transfer. Each bloc subportion of original file is compressed and queued for transmission to a targe receiving computer. The compressed blocks are kept in a cue, encrypted, an transmitted asynchronously to a target receiving computer over a selecte communications network. Upon receipt at the receiving computer of any of th transmitted blocks, blocks are decrypted, decompressed, and asynchronousl reconstructed into the original file. Since the transmission of blocks to the receivin computer occurs asynchronously, as well as the transmission preparation steps, overal transmission times are improved.



## INTERNATIONAL SEARCH REPORT

International application No.
PCT/US06/19049

| A. CLASSIFICATION OF SUBJECT MATTER IPC: G06F 15/16(2006.01)   |   |  |                       |
|--|---|--|-----------------------|
| USPC: 709/231,232,247 According to International Patent Classification (IPC) or to both national classification and IPC  |   |  |                       |
| B. FIELDS SEARCHED   |   |  |                       |
| Minimum documentation searched (classification system followed by classification symbols) U.S.: 709/231,232,247  |   |  |                       |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  |   |  |                       |
| Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)   |   |  |                       |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT   |   |  |                       |
| Category *   | Citation of document, with indication, where appropriate, of the relevant passages  |  | Relevant to claim No. |
| Y  | US 5526353 (Henley et al) 11 Jun 1996 (11.06.1996), abstract, column 4, lines 64-67,  |  | 1-27                  |
| Y  | column 5, lines 1-21, column 6, lines 41-49, column 7, lines 4-33. US 5,996,022 (Krueger et al.) 30 Nov. 1999 (30.11.1999), column 1 line 58 - column 2, line 9, column 5, lines 59-64, column 6, line 59-65, column 8, lines 13-23 |  | 1-27                  |
| Y  | US 2004/0123094 (Sprunk) 24 Jun. 2004 (24.06.2004), see abstract paragraph 0043   |  | 2,3,7,12,15,16,17,21  |
| Y  | US 6,445,418 (Oh et al.) 03 Sep. 2002. (03.09.2002), column 4, lines 24-43  |  | 4, 8,15,23            |
| Y US 6097733 (Basu et al) 01. Aug. 2000 (01.08.2000),  |   | ), column 13, lines 41-54  | 5,6,9,10,18,19,22     |
|  |   |  |                       |
| Further documents are listed in the continuation of Box C.   |   | See patent family annex.   |                       |
| * Special categories of cited documents:   |   | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  |                       |
| "A" document defining the general state of the art which is not considered to be of particular relevance   |   |  |                       |
| "E" earlier ap   | plication or patent published on or after the international filing date   | "X" document of particular relevance; the considered novel or cannot be consider when the document is taken alone  |                       |
| "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another clation or other special reason (as specified) |   | "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |                       |
| "O" document referring to an oral disclosure, use, exhibition or other means   |   |  |                       |
| "P" document published prior to the international filing date but later than the priority date claimed   |   | "&" document member of the same patent family  |                       |
| Date of the actual completion of the international search 30 August 2007 (30.08.2007)  |   | Date of mailing of the international search report   |                       |
| Name and mailing address of the ISA/US   |   | Authorized officer   |                       |
| Mail Stop PCT, Attn: ISA/US  |   | Jacqueline A. Whitfield  |                       |
| Commissioner for Patents P.O. Box 1450   |   | Special Project Asst.  |                       |
| Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201   |   | Telephone No. (571)272-5000  |                       |