Title (en)

RELIABLE COMMUNICATION OVER AN UNRELIABLE TRANSPORT LAYER IN A HAND-HELD DEVICE USING USER-CONFIGURABLE TIMERS

Title (de)

SICHERE KOMMUNIKATION ÜBER EINE UNZUVERLÄSSIGE SCHICHT IN EINEM TRAGBAREN GERÄT UNTER VREWENDUNG VON BENUTZER-KONFIGURIERBAREN ZEITGEBERN

Title (fr)

COMMUNICATION FIABLE SUR COUCHE TRANSPORT PEU FIABLE DANS UN DISPOSITIF PORTATIF UTILISANT DES TEMPORISATEURS CONFIGURABLES PAR L'UTILISATEUR

Publication

EP 0980614 A1 20000223 (EN)

Application

EP 98920174 A 19980504

Priority

- US 9808987 W 19980504
- US 85200297 A 19970506

Abstract (en)

[origin: WO9851052A1] The disclosed system provides reliable communication over the UDP transport layer in a handheld device. By providing reliable communication over the UDP transport layer instead of using the TCP transport layer, memory requirements are reduced, and applications running on the handheld device have reliable data transfers performed on their behalf. Additionally, the use of standardized components, such as the UDP transport layer and a standard network layer like the IP layer, enables the handheld device to efficiently communicate with many other devices in a standardized manner. The disclosed system provides the reliable communication by utilizing a UDP+ layer on top of the UDP transport layer. The UDP+ layer acts as an interface between the application layer and the UDP layer both to provide reliable communication to the application layer and to hide the complexities involved with performing this functionality from the application layer. To provide reliable communication, the UDP+ layer acknowledges all messages received, and the UDP+ layer utilizes a retry timer such that when receipt of a message has not been acknowledged and the retry timer expires, the UDP+ layer resends the message. The value of the retry timer as well as other values used during retransmission of the message are configurable by the user to optimize performance. Also, the UDP+ layer utilizes a number of messages that are used to open a connection, transfer data, and close a connection.

IPC 1-7

H04L 29/06

IPC 8 full level

H04L 29/06 (2006.01); **H04L 29/08** (2006.01)

CPC (source: EP)

H04L 9/40 (2022.05); H04L 69/326 (2013.01)

Citation (search report)

See references of WO 9851052A1

Designated contracting state (EPC)

BE CH DE DK FR GB IT LI LU NL SE

DOCDB simple family (publication)

WO 9851052 A1 19981112; AU 7280798 A 19981127; EP 0980614 A1 20000223; JP 2001524290 A 20011127

DOCDB simple family (application)

US 9808987 W 19980504; AU 7280798 A 19980504; EP 98920174 A 19980504; JP 54830398 A 19980504