GTU - Prior Art Search

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Patent Search & Analysis Report (PSAR)

Team Id : 1984

Name : SHAH VARUN KETANBHAI

Part - I : PATENT SEARCH TECHNIQUE USED

Patent Search Database Used : Google Patents

Keywords Used for Search : client server symmetric presentation layer connection,client server connection protocol,client server connection protocol for network layer

Search String Used : client server symmetric presentation layer connection

Number of Results/Hits getting : 365,432

Part - II : BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA

Category/Field of Invention :

Invention is Related to/Class of Invention : Printing Systems

Title of Invention : Client Server symmetric presentation layer connection protocol for network printing

Patent No. : US 5,867,636

Application No. : 958,856

Date of Filing/Application : 27/10/1997

Priority Date : 27/10/1997

Publication/Journal Number - (Issue No. of Journal in which Patent is published) : US 5,867,636

Publication Date : 02/02/1999

First Filled Country : United States

Also Published as

Country	Patent No

Applicant for Patent is : Individual

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- INVENTOR DETAIL

Name of Inventor	Address/City/Country of Inventor
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- APPLICANT/ASSIGNEE DETAIL

Name of Applicant/Assignee	Address/City/Country of Applicant
ted walker	Sunnyvale,Cahf

Part - III : TECHNICAL PART OF PATENTED INVENTION

Limitation of Prior Technology/Art :

A printing system enhances communications betWeen the host computer and the network printer. A client server connection protocol facilitates Connectivity providing a Symmetric protocol for connections betWeen servers and clients over connection-based stream-oriented protocols such as Apple Talk DataStreamProtocol(ADSP) and TransmissionCon trolProtocol(TCP). CSCP resides in the presentation layer of the OSI seven-layer model and interfaces With one or more session level protocols. The dynamic port negotiation of CSCP facilitates Concurrency for Server applications by off-loading the port negotiation that Would otherWise have to take Place b3,' the Server and "5 Chants" Thereby' CSCP allows the Printlng System to be "511Vextendedandlute grated With neW protocol/ports as they are developed and introduced.

Specific Problem Solved/Objective of Invention :

The present invention is directed to a network printing system having a client server connection protocol (CSCP) for interfacing one or more session level protocols Within the system to achieve and enhance communication betWeen the host computers and the netWork printer. More particularly, CSCP provides asymmetrical protocol for facilitating connections betWeen servers and clients over connection-based stream-oriented protocols by off-loading port negotiation that Would otherWise have to be performed by the server and itsclients.

Brief about Invention :

provides an illustrative embodiment for the layers of the architecture of the netWork printing system for implementing CSCP in an embodiment of the present inven tion. Each of these layers provides a normalized interface With the loWer layers and their relationship Will be described from the loWer layers, Which interact With the clients, to the upperlayersWherealoftheprotocols/portsinteractWiththe65 printer in essentially the same Way. The interfacing of these layers may be implemented in one or more static memory devices, such as a ROM, Which is installed Within the netWork printer.

Key Learning Points :

IDP netWork managers provide an interface for IDP protocol/ports. Some eXamples of protocol/ports that are presently con?gured for IDP mode communication include
ADSP/EtherTalk, ADSP/LocalTalk, SPX (Novell), TCP/IP and bi-directional Centronics. These protocol/ports are able to communicate With all of the IDP features Which enhance the tWo-Way communication betWeen the host computers and the netWork printer. HoWever, many other eXisting protocol/ports may be modi?ed to support IDP and neW protocols/ports may be created to support IDP. The interface of the IDP netWork managers With these IDP protocol/ports is preferably accomplished With a modi?ed version of the Berkeley socket interface.

Summary of Invention :

These and other objectives are achieved in accordance With the present invention by a network printing system Which provides a symmetric protocol for facilitating con nections betWeen servers and clients over connection based stream oriented protocols. In an exemplary embodiment of the invention, a client server connection protocol (CSCP) facilitates the client/server connections by alloWing CSCP clients to request passive or active connections for speci?c services on a speci?c node and then the negotiation of port/sockets takes place over a CSCP control stream. Thereby, a dynamic port negotiation of the CSCP facilitates concurrency for server applications With a hierarchal struc ture of routines (a CSCP stack) by off-loading the port negotiation that Would other Wise have to take place by the server and its clients.

Number of Claims : 33

Patent Status : Published Application

How much this invention is related with your IDP/UDP? : < 70 %

Do you have any idea to do anything around the said invention to improve it? :

CSCP alsoprovides the capability for a server to reconnect to a previously connected client. As a result, a printer may call back and initiate a connection With a host computer through CSCP.