Ip Stack

Internet protocol suite

required this type of stack. Later, Microsoft would release their own TCP/IP add-on stack for Windows for Workgroups 3.11 and a native stack in Windows 95. These

The Internet protocol suite, commonly known as TCP/IP, is a framework for organizing the communication protocols used in the Internet and similar computer networks according to functional criteria. The foundational protocols in the suite are the Transmission Control Protocol (TCP), the User Datagram Protocol (UDP), and the Internet Protocol (IP). Early versions of this networking model were known as the Department of Defense (DoD) Internet Architecture Model because the research and development were funded by the Defense Advanced Research Projects Agency (DARPA) of the United States Department of Defense.

The Internet protocol suite provides end-to-end data communication specifying how data should be packetized, addressed, transmitted, routed, and received. This functionality is organized...

TCP/IP stack fingerprinting

TCP/IP stack fingerprinting is the remote detection of the characteristics of a TCP/IP stack implementation. The combination of parameters may then be

TCP/IP stack fingerprinting is the remote detection of the characteristics of a TCP/IP stack implementation. The combination of parameters may then be used to infer the remote machine's operating system (aka, OS fingerprinting), or incorporated into a device fingerprint.

LwIP

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lwIP (lightweight IP) is a widely used open-source TCP/IP stack designed for embedded systems. lwIP was originally developed by Adam Dunkels in 2001 at the Swedish Institute of Computer Science and is now developed and maintained by a worldwide network of developers.

lwIP is used by many manufacturers of embedded systems, including Intel/Altera, Analog Devices, Xilinx, TI, ST and Freescale.

Fibre Channel over IP

over an IP network to another FCIP entity which decapsulates them and restores the original FC frames. From the perspective of the IP stack, FCIP runs

Fibre Channel over IP (FCIP or FC/IP, also known as Fibre Channel tunneling or storage tunneling) is a protocol created by the Internet Engineering Task Force (IETF) for storage technology.

An FCIP entity encapsulates Fibre Channel frames using TCP segments and forwards them over an IP network to another FCIP entity which decapsulates them and restores the original FC frames. From the perspective of the IP stack, FCIP runs in the application layer. From the perspective of the FC stack, FCIP provides services of the Fibre Channel Framing and Flow Control Layer (FC-2).

FCIP technology overcomes the distance limitations of native Fibre Channel, enabling geographically distributed storage area networks to be connected using existing IP infrastructure, while keeping fabric services intact. The Fibre...

Double stack

Double stack may refer to: Double-stack rail transport — trains with two layers of containers. A guitar amplifier configuration Dual IP stack implementation

Double stack may refer to:

Double-stack rail transport — trains with two layers of containers.

A guitar amplifier configuration

Dual IP stack implementation, in Internet Protocol version 6

A well car

A type of pit stop strategy in motorsport

IP tunnel

the tunnelling protocol and thus converted into native IP format and injected into the IP stack of the tunnel endpoints. In addition, any other protocol

An IP tunnel is an Internet Protocol (IP) network communications channel between two networks. It is used to transport another network protocol by encapsulation of its packets.

IP tunnels are often used for connecting two disjoint IP networks that don't have a native routing path to each other, via an underlying routable protocol across an intermediate transport network. In conjunction with the IPsec protocol they may be used to create a virtual private network between two or more private networks across a public network such as the Internet. Another prominent use is to connect islands of IPv6 installations across the IPv4 Internet.

In IP tunnelling, every IP packet, including addressing information of its source and destination IP networks, is encapsulated within another packet format native...

Windows Vista networking technologies

2007/2008 a new networking stack named Next Generation TCP/IP stack, to improve on the previous stack in several ways. The stack includes native implementation

In computing, Microsoft's Windows Vista and Windows Server 2008 introduced in 2007/2008 a new networking stack named Next Generation TCP/IP stack,

to improve on the previous stack in several ways.

The stack includes native implementation of IPv6, as well as a complete overhaul of IPv4. The new TCP/IP stack uses a new method to store configuration settings that enables more dynamic control and does not require a computer restart after a change in settings. The new stack, implemented as a dual-stack model, depends on a strong host-model and features an infrastructure to enable more modular components that one can dynamically insert and remove.

Protocol stack

Model that defines seven protocol layers is often called a stack, as is the set of TCP/IP protocols that define communication over the Internet. Georg

The protocol stack or network stack is an implementation of a computer networking protocol suite or protocol family. Some of these terms are used interchangeably but strictly speaking, the suite is the definition of the communication protocols, and the stack is the software implementation of them.

Individual protocols within a suite are often designed with a single purpose in mind. This modularization simplifies design and evaluation. Because each protocol module usually communicates with two others, they are commonly imagined as layers in a stack of protocols. The lowest protocol always deals with low-level interaction with the communications hardware. Each higher layer adds additional capabilities. User applications usually deal only with the topmost layers.

UIP (software)

The uIP is an open-source implementation of the TCP/IP network protocol stack intended for use with tiny 8- and 16-bit microcontrollers. It was initially

The uIP is an open-source implementation of the TCP/IP network protocol stack intended for use with tiny 8- and 16-bit microcontrollers. It was initially developed by Adam Dunkels of the Networked Embedded Systems group at the Swedish Institute of Computer Science, licensed under a BSD style license, and further developed by a wide group of developers.

uIP can be very useful in embedded systems because it requires very small amounts of code and RAM. It has been ported to several platforms, including DSP platforms.

In October 2008, Cisco, Atmel, and SICS announced a fully compliant IPv6 extension to uIP, called uIPv6.

TCP offload engine

network interface cards (NIC) to offload processing of the entire TCP/IP stack to the network controller. It is primarily used with high-speed network

TCP offload engine (TOE) is a technology used in some network interface cards (NIC) to offload processing of the entire TCP/IP stack to the network controller. It is primarily used with high-speed network interfaces, such as gigabit Ethernet and 10 Gigabit Ethernet, where processing overhead of the network stack becomes significant.

TOEs are often used as a way to reduce the overhead associated with Internet Protocol (IP) storage protocols such as iSCSI and Network File System (NFS).