Wireless networks and pervasive computing slp

Evaluation of RAD ials (First sur no qualifications like Dr. College Position in organisation

Place of author

RAD University Tutorials Investigated

Abstract

The evaluation of some of the tutorials from RAD University (RAD 2011). Reporting on three tutorials in the TCP and UDP web pages. What is it a business can expect to be addressed by each of the protocols and do the tutorials work to train for that need.

1. Reliable Multicast Transport (RMT). This is a transport protocol that is aimed at complete reliability but at the expense of delays whereas other protocols give better quality of service (QoS) at the cost of reliability. Some applications are better at taking delays in transmission rather than data loss. RMTP gives loss-less deliveries of bulk data. A cheap way of connecting applications for messaging but not always reliable, a business could use it as long as the applications are not mission critical and time delays are acceptable. Stated by Meital, et al (2003).

The authors have created an interesting web site on RMTP from its start to how it works. It's interesting to be able to learn more on RMTP, this web site definitely helps understanding.

2. Transmission Control Protocol (TCP). The protocol is used on the transport layer of the OSI model. It is a reliable transport layer. Extract: When we say that TCP is " connection-oriented" we mean that there is a procedure that is followed for two communicating end points to exchange data. The TCP connection allows TCP to tailor each byte stream transfer, and maintain the state of that transfer, for each pair of communicating end points. Any given

host might have many simultaneous TCP connections, each one having different characteristics, such as the segment size, the timeout (which will be explained), the window size (also to be explained), etc. A specific TCP connection is defined by a socket pair, where a socket is the IP address and port number on one of the communicating points, and the port number identifies the application process on that end point. The port number serves as part of the interface between TCP and the application layer, by identifying which process within a particular host a segment is associated with. As stated by Koren (2011).

TCP helps businesses with their network connections, as it is very reliable normally, although it cannot take delays as can RMTP, it is an industry standard used by many businesses in their networks, its problems are known. A business should know a lot about its costs on staffing and equipment using this protocol.

This tutorial is a great way to help in-depth understanding of TCP; it has many areas linked from the home page, including demos and animations.

3. User Datagram Protocol (UDP) uses as the underlying system, IP. It's used for application to application messaging without too many protocol mechanisms involved; it is unreliable, as it does not use acknowledgements in the same way as TCP does. It does not order the messages or provide data flow control. UDP messages are lost or arrive out of order or very much else. Its use is in providing a lightweight protocol for delivery of messages for some applications that do use communications so multiplexing and de-multiplexing messages. Stated by Bejarano and Finkel (2004).

A business could use this for speed it is faster than TCP but only as long as occasional system crashes are OK, one use is that of internet telephony.

The tutorial web page is OK it covers the area of UDP, but there are no animations or modern demonstrations to aid learning, it could do with some modernizing.

Citations

RAD Data Communications, Ltd (2011), TCP and UDP tutorials.

From: http://www. rad. com/12/RAD-University-Tutorials/5266/

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