

<<计算机网络教程>>

图书基本信息

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内容概要

《计算机网络教程:自顶向下方法(英文版)》是计算机领域知名作者forouzan按照目前计算机网络教学比较流行的自顶向下方法编写的一部重要教材。

本书延续了forouzan一贯的风格,以通俗易懂的方式全面阐述了计算机网络原理及其应用,并介绍了一些目前计算机网络发展的新技术。

此外,每章都配有丰富的练习集(包括测试题、练习题、思考题),部分章节还包含仿真实验和编程作业,有助于读者巩固所学知识,提高动手实践能力。

本书特色

协议分层:本书利用internet协议分层和tcp/ip协议族讲授网络原理,强调各层网络理论之间的相互关系。

自顶向下:从应用层开始,尽早让读者理解网络设备如何工作,然后讨论其他各层,最后介绍物理层。

形象直观:采用图文并茂的方法描述技术性很强的问题,较少涉及复杂的数学公式,便于读者理解相关概念。

举例和应用:以丰富的实例,阐明相关概念,并添加了一些现实中的应用,激发读者的学习热情。

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今天我们谈到的网络主要分为两种类型:局域网和广域网。

协议是管理通信的规则集。

在协议分层中,我们需要遵循两个原则以提供双向通信。

首先,每一层需要实现两个相反的任务。

其次,位于两端每层下的两个对象应该是等同的。

TCP/IP是一个由5个层次组成的层次化协议,这5层为应用层、传输层、网络层、数据链路层和物理层

。互联网的历史开始于20世纪60年代中期的ARPA网。

Internet的诞生与Cerf和Kahn的工作以及连接网络的网关出现有很大关系。

Internet的管理随Internet的发展不断演化。

ISOC促进和发起了相关的研究和活动。

IAB是ISOC的技术顾问组。

IETF是负责运行问题的工作组论坛。

IRTF为关注于长期发展研究课题的工作组论坛。

ICANN负责Internet域名和地址的管理。

NIC负责收集和发布有关TCP/IP协议的信息。

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