

1. Record Nr.	UNINA9910162941303321
Autore	Syngress
Titolo	IP addressing and subnetting, including IPv6 // [technical editor, Marc Blanchet]
Pubbl/distr/stampa	Rockland, MA, : Syngress Media, c2000
ISBN	1-281-07849-2 9786611078492 0-08-053522-4
Edizione	[1st edition]
Descrizione fisica	1 online resource (529 p.)
Altri autori (Persone)	BlanchetMarc <1964->
Disciplina	004.6/2 004.62
Soggetti	Computer network protocols TCP/IP (Computer network protocol)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Front Cover; IP ADDRESSING AND SUBNETTING INCLUDING IPv6; Copyright Page; Contents; PREFACE; Why This Rook is Necessary; Content of this Book; Editor's Acknowledgments; Chapter 1. Addressing and Subnetting Basics; IP Address Basics; Purpose of Subnetting; The Basics Fixed-Length Mask; Summary; FAQs; Chapter 2. Creating an Addressing Plan for Fixed-Length Mask Networks; Introduction; Determine Addressing Requirements; Choose the Proper Mask; Obtain IP Addresses; Calculate Ranges of IP Addresses for Each Subnet; Allocate Addresses to Devices; Document Your Work; Summary; FAQs; Exercises Subnetting TablesChapter 3. Private Addressing and Subnetting Large Networks; Introduction; Strategies to Conserve Addresses; Addressing Economics; RFC 1918-Private Network Addresses; Strategy for Subnetting a Class A; Summary; FAQs; Exercises; Chapter 4. Network Address Translation; Introduction; Hiding Behind the Router/Firewall; How Does NAT Work?; What Are the Advantages?; What Are the Performance Issues?; Proxies and Firewall Capabilities; Summary; FAQs; References & Resources; Chapter 5. Variable-Length Subnet Masking; Introduction; Why Are Variable-Length Masks Necessary?

The Importance of Proper Planning  
Creating and Managing Variable-Length Subnets; Summary; FAQs; Chapter 6. Routing Issues; Introduction; Classless Interdomain Routing; Contiguous Subnets; IGRP; EIGRP; RIP- 1 Requirements; RIP-2 Requirements; OSPF; BGP Requirements; IBGP and EBGP Requirements; Summary; FAQs; Chapter 7. Automatic Assignment of IP Addresses with BOOTP and DHCP Objectives; Introduction; Address Management with These Tools; BOOTP, DHCP, and Routed Networks; BOOTP Implementation Checklist; DHCP Implementation Checklist; Summary; FAQs; Chapter 8. Multicast Addressing  
What Is Multicast? Multicast Addresses; IP Stacks and Multicast; Why Multicast?; Summary; FAQ; References; Chapter 9. IPv6 Addressing; Introduction; IPv6 Addressing Basics; IPv6 Addressing Scheme Characteristics; IPv6 Benefits; The Need for Further Development; Summary; FAQ; Chapter 10. The IPv6 Header; Introduction; Expanded Addressing; Simplified Header; Improved Support for Extension and Option; Flow and Flow Labeling; Authentication and Privacy; IPv6 Header; IPv4 Header; Extension Headers; Upper-Layer Protocol Issues; Summary; FAQs; References; Appendix A : Address Assignment; Introduction  
Registries  
Provider-Based Assignments; Cost of an IP Address; How to Find an IPv4 Address Delegation; How to Find an IPv6 Address Delegation; Internet Governance; Summary; INDEX

---

## Sommario/riassunto

Internetworking Protocol (IP) addresses are the unique numeric identifiers required of every device connected to the Internet. They allow for the precise routing of data across very complex worldwide internetworks. The rules for their format and use are governed by the Internet Engineering Task Force (IETF) of the The Internet SOCIety (ISOC). In response to the exponential increase in demand for new IP addresses, the IETF has finalized its revision on IP addressing as IP Version 6, also know as IPng (ng = Next Generation). Key hardware vendors such as Cisco and major Internet Service Providers

---