
Table of Contents

Preface	vii
1. The Business Case	1
The Inevitable Business Case Discussion	1
The Human Capacity for Predictions and the Business Case of Evolution	2
IPv6 Has No Immediate Business Case for Many	4
IPv6 Has an Immediate Business Case for Some	5
What You Lose If You Don't Invest in IPv6	6
Where Does Time Pressure Come From?	7
Opportunities of IPv6 Integration	9
How to Save Money by Integrating IPv6	10
When You Outsource	11
Summary	11
A Quote from Fred Wettling	12
2. Planning for IPv6	13
Business Relevance	13
What Are You Talking About?	13
Core to Edge	15
Edge to Core	15
IPv6 Islands	15
Planning and Deployment Methodologies	16
How to Get Started	16
Create an IPv6 Governance and Project Team	17
Education and Consulting	18
High-Level Concept	19
Mind the Apps	20
Ways to Get There	20
Define IPv6 Requirements	20
Network Assessment	21
Evaluate Vendors, Products, and Service Providers	22

Build Labs and Pilots	22
Refine Your High-Level Strategy and Define Low-Level Deployment Plans	23
The Golden Rule Set	24
Choices and Designs	25
Routing and Routing Protocols	25
Address Plan	27
Security Design	34
Procedures	36
DNS Design	38
Management Concept	40
Address Management	41
The Inevitable Word on NAT	42
Summary	43
3. Integration and Transition Technologies	45
Overview of the Integration and Transition Technologies	45
Available Mechanisms	46
Dual-Stack	46
MPLS	47
Tunneling	48
NAT and Translation	56
How Can IPv6 Clients Reach IPv4 Content?	61
Load Balancing	62
Summary	63
Appendix: References	65