# Contents

### 1 Introduction and Summary, 1

Federal Support for Gigabit Networking, 1 summary, 8

#### 2 The Internet, 15

Applications, 21 Protocols, 24 Network Components, 26 The Internet and the Public Switched Network, 31

## 3 Broadband Network Technology, 35

Broadband Applications, 35 Fast Packet Networks, 42 Network Component Development-Current Status, 44 Application of Broadband Technologies, 47

#### 4 Gigabit Research, 51

Research Objectives, 52 Testbed Progress, 56

## 5 Application of Testbed Research, 65

Application to the NREN, 65 Application to Other Networks, 70

INDEX, 75





