Synchronous Ethernet and IEEE 1588 in Telecoms. Next Generation Synchronization Networks

Description: This book addresses the multiple technical aspects of the distribution of synchronization in new generation telecommunication networks, focusing in particular on synchronous Ethernet and IEEE 1588 technologies. Many packet network engineers struggle with understanding the challenges that precise synchronization distribution can impose on networks. The usual "why", "when" and particularly "how" can cause problems for many engineers. In parallel to this, some other markets have identical synchronization requirements, but with their own design requirements, generating further questions. This book attempts to respond to the different questions by providing background technical information. Invaluable information on state-of-the-art packet network synchronization and timing architectures is provided, as well as an unbiased view on the synchronization technologies that have been internationally standardized over recent years, with the aim of providing the average reader (who is not skilled in the art) with a better understanding of this topic. The book focuses specifically on synchronous Ethernet and IEEE 1588 PTP-based technologies, both key developments in the world of synchronization over the last 10 years. The authors address the needs of engineers and technical managers who are struggling with the subject of synchronization and provide an engineering reference for those that need to consider synchronization in NGN. The market applications that are driving the development of packet network synchronization and timing architectures are also discussed. This book provides a wide audience with everything they need to know when researching, implementing, buying and deploying packet synchronization architectures in telecommunication networks.

Contents

1. Network Evolutions, Applications and Their Synchronization Requirements.
2. Synchronization Technologies.
4. Synchronization Design and Deployments.
5. Management and Monitoring of Synchronization Networks.
Appendix 1. Standards in Telecom Packet Networks Using Synchronous Ethernet and/or IEEE 1588.

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Contents: Foreword xi

Abbreviations and Acronyms xv
Chapter 1. Network Evolutions, Applications and Their Synchronization Requirements

1.1. Introduction

1.2. Evolution from plesiochronous digital hierarchy to optical transport networks

1.2.1. Plesiochronous digital hierarchy and public switch telephone networks

1.2.2. Evolution toward SDH and synchronous optical network

1.2.3. Introduction of optical transport network in transport networks

1.3. Migration and evolution in the next-generation networks: from time division multiplexing to packet networks

1.3.1. Circuit emulation synchronization requirements

1.4. Mobile networks and mobile backhaul

1.4.1. Synchronization requirements in mobile networks

1.5. Synchronization requirements in other applications

1.6. The need to define new synchronization technologies

1.7. Bibliography

Chapter 2. Synchronization Technologies

2.1. Fundamental aspects related to network synchronization

2.2. Timing transport via the physical layer

2.2.1. Synchronous Ethernet

2.3. Packet timing

2.3.1. Packet timing using traffic data

2.3.2. Packet-based methods

2.4. IEEE 1588 and its Precision Time Protocol

2.4.1. Some essentials of IEEE 1588

2.4.2. IEEE 1588-2002: origin and limitations

2.4.3. IEEE 1588-2008 and PTPv2

2.5. The concept of “profiles”

2.5.1. Frequency profile

2.5.2. Phase and time profile (ITU-T G.8275.1)

2.6. Other packet-based protocols

2.6.1. Packet-based timing: starting with CES
A2.2. Mathematical definition of JESS-w 342
Permissions and Credits 345
Biography 349
Index 353

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