

1. Record Nr.	UNINA9910830640703321
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Titolo	Next generation SDH/SONET [[electronic resource]] : evolution or revolution? // Huub van Helvoort
Pubbl/distr/stampa	Chichester, : Wiley, c2005
ISBN	1-280-24180-2 9786610241804 0-470-09122-3 0-470-09121-5
Descrizione fisica	1 online resource (256 p.)
Disciplina	621.3821 621.38216
Soggetti	Synchronous digital hierarchy (Data transmission) SONET (Data transmission)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Next Generation SDH/SONET; Contents; Preface; Acknowledgements; 1 Introduction; 1.1 History; 1.2 Conventions; 2 Concatenation; 2.1 Payload container concatenation; 2.2 Contiguous concatenation; 2.2.1 CCAT of VC-4 and STS-1 SPE; 2.2.2 CCAT of VC-2; 2.3 Virtual concatenation; 2.3.1 Payload distribution and reconstruction; 2.3.2 VCAT of VC-n; 2.3.3 VCAT of VC-m; 2.3.4 VCAT of PDH; 2.4 Applications of concatenation; 2.4.1 Contiguous to virtual to contiguous conversion; 2.4.2 VCAT and data transport; 2.4.3 VCAT and OTN signal transport; 3 Link capacity adjustment scheme; 3.1 Introduction 3.2 LCAS for virtual concatenation 3.2.1 Methodology; 3.2.2 Control packet; 3.3 Changing the size of a virtual concatenated group; 3.3.1 Planned addition of member(s); 3.3.2 Planned deletion of member(s); 3.3.3 Temporary removal of member; 3.4 LCAS to non-LCAS interworking; 3.4.1 LCAS Source and non-LCAS Sink; 3.4.2 Non-LCAS Source and LCAS Sink; 3.5 LCAS control packet details; 3.5.1 The higher order VLI; 3.5.2 The lower order VLI; 3.5.3 The OTN VLI; 3.5.4 The PDH VLI; 4 The LCAS protocol; 4.1 Introduction; 4.1.1 Asymmetric

connections; 4.1.2 Symmetric connections

4.1.3 Unidirectional operation 4.2 The size of a VCG; 4.3 The LCAS protocol described using SDL; 4.3.1 Used SDL symbols; 4.3.2 LCAS state machines; 4.3.3 LCAS events used in the SDL diagrams; 4.3.4 The SDL diagrams; 5 LCAS time sequence diagrams; 5.1 Introduction; 5.2 Provisioning a member; 5.3 VCG state transition examples; 5.3.1 An increase of the bandwidth of a VCG; 5.3.2 A decrease of the bandwidth of a VCG; 5.3.3 Decrease of bandwidth due to a network problem; 6 Generic framing procedure; 6.1 Introduction; 6.2 Common aspects of GFP for octet-aligned payloads

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7.4.1 Source side GFP adaptation processes

Sommario/riassunto

Since the turn of the twentieth century, telecommunications has shifted from traditional voice transport to data transport, although digitized voice is still a large contributor. Instead of an evolution of existing transport standards, a revolution was necessary in order to enable additional data-related transport. Next Generation SDH/SONET provides a detailed description of the enablers of efficient data transport over any synchronous network. These include virtual concatenation (VCAT), the operation to provide more granularity, and the link capacity adjustment scheme (LCAS), an exte