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	Paper Title:	SONET/SDH: Review of Technology and Developments	
	<p>Abstract: This paper attempts to describe how SONET/SDH works, down to the octet level. The SONET/SDH development for the current technology has been discussed and analyzed for better communication and improvement is SONET/SDH Technology. The STS-1 frame, Concatenation, VT's etc. Architectures will be discussed, analyzed and the ways that how we can implement by means of the FPGA and ARM-11 core will be formulated and reviewed. When the SONET/SDH comes in market and today's Telecommunication market has lots of differences. The differences are based on the technology, new ideas, Implementation algorithm, computing architectures etc. are evolutionary enhanced. What is the impact of technology on the SONET and what more we can implement to enhance the SONET/SDH architecture has been discussed in this paper.</p> <p>Keywords: SONET/SDH, STS, Optical carrier, FPGA for SONET, ARM for SONET.</p> <p>References:</p> <ol style="list-style-type: none">1. P. Ashwood-Smith, Y. Fan, A. Banerjee,J. Drake, J. Lang, L. Berger, G. Bernstein, K. Kompella, E. Mannie, B. Rajagopalan, D. Saha, Z. Tang, Y. Rekhter, and V. Sharma, Generalized MPLSV Signaling Functional Description, IETF Internet draft, Jun. 2000.2. Bellcore, Operations Application MessagesVLanguage for Operations Application Messages, TR-NWT-000831. [Online]. Available: http://telecom-info.telcordia.com/.3. U. Black, Network Management Standards SNMP, CMIP, TMN, MIBs, and Object Libraries, A. Bittner, Ed. New York: McGraw-Hill, 1995,ISBN: 007005570X.4. S. Chen, I. Ljubic, and S. Raghavan,BThe regenerator location problem,[Networks., vol. 55, no. 3, 2010,pp. 205–220.5. A. Chiu, G. Choudhury, G. Clapp, R. Doverspike, J. W. Gannett,J. G. Klineciewicz, G. Li, R. A. Skoog, J. Strand, A. Von Lehmen, and D. Xu,BNetwork design and architectures for highly dynamic next-generation IP-over-optical long distance networks,[J. Lightw. Technol., vol. 27, no. 12, pp. 1878–1890, Jun. 2009.6. A. Chiu, A. G. Choudhury, G. Clapp, R. Doverspike, M. Feuer, J. W. Gannett, J. Jackel, G. T. Kim, J. G. Klineciewicz, T. J. Kwon, G. Li, P. Magill, J. M. Simmons, R. A. Skoog, J. Strand, A. Von Lehmen, B. J. Wilson, S. L. Woodward, and D. Xu, BArchitectures and protocols for capacity-efficient, highly-dynamic and highly-resilient core networks,[J. Opt. Commun. Netw., vol. 4, no. 1, pp. 1–14, Jan. 2012.7. DARPA CORONET Project. [Online]. Available: http://www.darpa.mil/Our_Work/STO/Programs/Dynamic_MultiTerabit_Core_Optical_Networks_(CORONET).aspx.8. R. Doverspike and J. Yates, B Challenges for MPLS in optical network restoration,[IEEE Commun. Mag., vol. 39, no. 2, pp. 89–97, Feb. 2001.9. R. Doverspike and J. Yates, BPractical aspects of bandwidth-on-demand in optical networks Panel on Emerging Networks Service Provider Summit, Anaheim, CA, Mar. 2007.10. R. Doverspike and P. Magill, BChapter 13 in Optical Fiber Telecommunications V B,[in Commercial Optical Networks, Overlay Networks and Services. Amsterdam, The Netherlands: Elsevier, 2008.11. R. Doverspike, K. K. Ramakrishnan, and C. Chase, BChapter 2 in Guide to Reliable Internet Services and Applications,[in Structural Overview of Commercial Long Distance IP Networks, C. Kalmanek,S. Misra, and R. Yang, Eds. 1st ed. New York: Springer-Verlag, 2010.12. EO-NET, Project on Elastic Optical Networks. [Online]. Available: http://www.celticinitiative.org/Projects/Celtic-projects/Call7/EO-Net/eonet-default.asp.13. C. V. Saradhi, R. Fedrizzi, A. Zanardi, E. Salvadori, G. M. Galimberti, A. Tanzi, G. Martinelli, and O. Gerstel, BTraffic independent heuristics for regenerator site selection for providing any-to-any optical connectivity,[in Proc. Conf. Opt. FiberCommun./Nat. Fiber Opt. Eng. Conf., Los Angeles, CA, Mar. 2010, pp. 1–3.14. M. D. Feuer, D. C. Kilper, and S. L. Woodward, BChapter 8 in Optical Fiber Telecommunications V B,[in ROADMs and Their System Applications. Amsterdam, The Netherlands: Elsevier, 2008.15. C. Fludger, T. Duthel, D. van den Borne, C. Schulien, E.-D.Schmidt, T. Wuth, J. Geyer, E. De Man, G.-D.Khoe, and H. de Waardt, BCoherent equalization and POLMUX-RZ-DQPSK for robust 100-GE transmission,[J. Lightw. Technol., vol. 26, no. 1, pp. 64–72, Jan. 2008.16. A. Gerber and R. Doverspike, BTraffic types and growth in backbone networks,[in Proc. Conf. Opt. FiberCommun./Nat. Fiber Opt. Eng. Conf., Los Angeles, CA, Mar. 2011, pp. 1–3.17. S. Gorshe, A Tutorial on ITU-T G.709 Optical Transport Networks (OTN) Technology White Paper, 2010.[Online]. Available: http://www.elettronicanews.it/01NET/Photo_Library/775/PMC_OTN_pdf.pdf.18. International Telecommunication Union (ITU)VSector T. [Online]. Available: http://www.itu.int/ITU-T/19. Internet Engineering Task Force (IETF).[Online]. Available: http://www.ietf.org/20. IETF RFC 2328, OSPF Version 2, Apr. 1998.[Online]. Available: http://www.ietf.org/rfc/rfc2328.txt.21. IETF RFC 4090, Fast Reroute Extensions to RSVP-TE for LSP Tunnel, May 2005. [Online]. Available: http://www.ietf.org/rfc/rfc4090.txt.22. IETF RFC 4655, A Path Computation Element (PCE)-Based Architecture, Aug. 2006. [Online]. Available: http://tools.ietf.org/html/rfc4655.23. IETF, Path Computation Element (PCE) Subgroup. [Online]. Available: http://datatracker.ietf.org/wg/pce/charter/.24. IETF, CCAMP Subgroup. [Online]. Available: http://datatracker.ietf.org/wg/ccamp/charter/25. I. Kaminow and T. Koch, Eds., OpticalFiber Telecommunications III. New York: Academic, Apr. 14, 1997.26. G. Li, A. Chiu, R. Doverspike, D. Xu, and D. Wang, BEfficient routing in heterogeneous core DWDM networks,[in Proc. Conf. Opt. FiberCommun./Nat. Fiber Opt. Eng. Conf., San Diego, CA, Mar. 2010, pp. 1–3.27. R. Martinez, C. Pinart, F. Cugini,N. Andriolli, L. Valcarenghi, P. Castoldi,L. Wosinska, J. Comellas, and G. Junyent, BChallenges and requirements for introducing impairment-awareness into the management and control planes of ASON/GMPLS WDM networks,[IEEE Commun. Mag.,vol. 44, no. 12, pp. 76–85, Dec. 2006.28. Optical Internetworking Forum (OIF). [Online].Available: http://www.oiforum.com/29. Optical Internetworking Forum (OIF),External Network-Network Interface (E-NNI) OSPF-Based RoutingV1.0 (IntraCarrier) Implementation Agreement,OIF-ENNI-OSPF-01.0, Jan. 17, 2007. [Online].		
	Authors:	Prajakta R. Pawde, Vikrant Chole	

2.	Paper Title:	Generation of Java Code Structure from Uml Class Diagram	7-10
		<p>Abstract: Unified modelling language (UML) is a visual modelling language, which has gained popularity among software practitioners. The significance of automatic generation of object-oriented code from UML diagrams has increased due to its benefits, such as, cost reduction and accuracy. This paper extends our work on a tool for automatic generation of Java code structure from UML diagrams. In this UML class diagram is given as input to the tool to generate java code structure. We can use that structure for any program by coding manually for the desire output. Using already defined structure reduces cost to build the complete executable code. The extension includes a more detailed overview of the code generation tool regarding its architecture and code generation process. The propose approach only uses UML class diagram to build java code structure which is convenient for programmers and for cost reduction.</p> <p>Keywords: UML, Unified, Generatio.</p> <p>References:</p> <ol style="list-style-type: none"> Booch, G. , J. Rumbaugh, and I. Jacobson, The Unified Modeling Language User Guide, Addison-Wesley, 1999. 'http://xerces.apache.org/xerces2-j/', 2 November 2010 Kundu, D., Samanta, D., Mall, R.: 'An approach to convert XMI representation of UML 2.x interaction diagram into control flow graph', ISRN Softw. Eng., 2012, 2012, pp. 1–22 'http://www.omg.org/spec/uml/2.2/superstructure', 2 November 2010 Michal Bližňák. CodeDesigner RAD homepage. http://codedesigner.org/, 2011. Niaz, I.A., Tanaka, J.: 'An object-oriented approach to generate Java code from UML statecharts', Int. J. Comput. Inf. Sci., 2005, 6, (2) Jakimi, A., El Koutbi, M.: 'An object-oriented approach to UML scenarios engineering and code generation', Int. J. Comput. Theory Eng., 2009, 1, (1), pp. 35–41 'http://www.magicdraw.com/', 2 November 2010 'http://www.visual-paradigm.com/product/vpuml/', 2 November 2010 Niaz, I.A., Tanaka, J.: 'An object-oriented approach to generate Java code from UML statecharts', Int. J. Comput. Inf. Sci., 2005, 6, (2) Ali, J., Tanaka, J.: 'Converting statecharts into Java code'. Proc. Of Fourth World Conf. on Integrated Design and Process Technology (IDPT99), Dallas, Texas, USA, 2000 Niaz, I.A., Tanaka, J.: 'Mapping UML statecharts to Java code'. Proc. Of IASTED Int. Conf. on Software Engineering (SE 2004), Innsbruck, Austria, 2004, pp. 111–116 Engels, G., Hucking, R., Sauer, S., Wagner, A.: 'UML collaboration diagrams and their transformations to Java'. Proc. of the Second Int. Conf. on the UML, 1999, (LNCS 1723) pp. 473–488 'http://objectgeneration.com/eclipse/04-sequencediagrams.html', 2 November 2010 J. Ali, and J. Tanaka, "An Object Oriented Approach to Generate Executable Code from the OMT-based Dynamic Model", Journal of Integrated Design and Process Science (SDPT), vol. 2, no. 4, 1998, pp.65-77. D. Harel, and E. Gery, "Executable Object Modeling with Statecharts", 18th International Conference on Software Engineering (SE'96), IEEE Computer Society Press, Berlin, Germany, March 25-29, 1996, pp.246-257. Donald E. Knuth. The Art of Computer Programming Vol 1.Boston: Addison-Wesley, 3rd edition, 1997. 	
3.	Authors:	Deepak B. Kanthale, R. P. Mahajan	11-15
	Paper Title:	IR-Tree Implementation using Index Document Search Method	
		<p>Abstract: Given a geographic question that's composed of question keywords and a location, a geographic programmed retrieves documents that area unit the foremost textually and spatially relevant to the question keywords and therefore the location, severally, and ranks the retrieved documents consistent with their joint matter and spacial relevances to the question. the shortage of Associate in Nursing economical index that may at the same time handle each the matter and spacial aspects of the documents makes existing geographic search engines inefficient in respondent geographic queries. during this paper, we have a tendency to propose Associate in Nursing economical index, referred to as IR-tree, that in conjunction with a top-k document search algorithm facilitates four major tasks in document searches, namely, 1) spacial filtering, 2) matter filtering, 3) connexion computation, and 4) document ranking in an exceedingly absolutely integrated manner. Additionally, IR-tree permits searches to adopt totally different weights on matter and spacial connexion of documents at the runtime and therefore caters for a good kind of applications. a group of comprehensive experiments over a good vary of eventualities has been conducted and therefore the experiment results demonstrate that IR-tree outperforms the state-of-the art approaches for geographic document searches</p> <p>Keywords: Spacial filtering matter filtering, connexion computation, and document ranking.</p> <p>References:</p> <ol style="list-style-type: none"> E. Amitay, N. Har'El, R. Sivan, and A. Soffer, "Web-a-Where:Geotagging Web Content," Proc. ACM SIGIR '04, pp. 273-280, 2004. V.N. Anh, O.d. Kretser, and A. Moffat, "Vector-Space Ranking with Effective Early Termination," Proc. ACM SIGIR '01, pp. 35-42, 2001. V.N. Anh and A. Moffat, "Pruned Query Evaluation Using Pre-Computed Impacts," Proc. ACM SIGIR '06, pp. 372-379, 2006. R. Baeza-Yates and B. Ribeiro-Neto, Modern Information Retrieval. Addison-Wesley, 1999. Y.-Y. Chen, T. Suel, and A. Markowetz, "Efficient Query Processing in Geographic Web Search Engines," Proc. ACM SIGMOD '06, pp. 277-288, 2006. Dow Jones Factiva, http://www.factiva.com, 2010. R. Fagin, A. Lotem, and M. Naor, "Optimal Aggregation Algorithms for Middleware," Proc. Symp. Principles of Database Systems (PODS '01), pp. 102-113, 2001. I.D. Felipe, V. Hristidis, and N. Rishe, "Keyword Search on Spatial Databases," Proc. IEEE 24th Int'l Conf. Data Eng. 	

	(ICDE '08), pp. 656-665, 2008.	
9.	V. Gaede and O. Günther, "Multidimensional Access Methods," ACM Computing Survey, vol. 30, no. 2, pp. 170-231, 1998.	
10.	U. Gantzer, W.-T. Balke, and W. Kiessling, "Optimizing Multi-Feature Queries for Image Databases," Proc. Int'l Conf. Very Large Data Bases (VLDB '00), pp. 419-428, 2000.	
11.	A. Guttman, "R-Trees: A Dynamic Index Structure for Spatial Searching," Proc. ACM SIGMOD '84, pp. 47-57, 1984.	
12.	R. Hariharan, B. Hore, C. Li, and S. Mehrotra, "Processing Spatial- Keyword (SK) Queries in Geographic Information Retrieval (GIR) Systems," Proc. 19th Int'l Conf. Scientific and Statistical Database Management (SSDBM '07), pp. 16-25, 2007.	
13.	D. Hiemstra, "A Probabilistic Justification for Using TF x IDF Term Weighting in Information Retrieval," Int'l J. Digital Libraries, vol. 3, no. 2, pp. 131-139, 2000.	
14.	G.R. Hjaltason and H. Samet, "Distance Browsing in Spatial Databases," ACM Trans. Database Systems, vol. 24, no. 2, pp. 265-318, 1999.	
15.	C.B. Jones, A.I. Abdelmoty, D. Finch, G. Fu, and S. Vaid, "The SPIRIT Spatial Search Engine: Architecture, Ontologies and Spatial Indexing," Proc. Third Int'l Conf. Geographic Information Science (GIS '04), pp. 125-139, 2004.	
16.	K.S. Jones, "A Statistical Interpretation of Term Specificity and Its Application in Retrieval," J. Documentation, vol. 28, no. 1, pp. 11-21, 1972.	
17.	I. Lazaridis and S. Mehrotra, "Progressive Approximate Aggregate Queries with a Multi-Resolution Tree Structure," Proc. ACM SIGMOD '01, pp. 401-412, 2001.	
18.	R. Lee, H. Shiina, H. Takakura, Y.J. Kwon, and Y. Kambayashi, "Optimization of Geographic Area to a Web Page for Two- Dimensional Range Query Processing," Proc. Fourth Int'l Conf. Web Information Systems Eng. Workshops (WISEW '03), pp. 9-17, 2003.	
19.	Z. Li, C. Wang, X. Xie, X. Wang, and W.-Y. Ma, "Indexing Implicit Locations for Geographical Information Retrieval," Proc. Third Workshop Geographic Information Retrieval (GIR '06), 2006.	
20.	"Los Angeles Times," http://www.latimes.com , 2010.	
21.	A. Markowetz, Y.-Y. Chen, T. Suel, X. Long, and B. Seeger, "Design and Implementation of a Geographic Search Engine," Proc. Eighth Int'l Workshop Web and Databases (WebDB), pp. 19-24, 2005.	
22.	K.S. McCurley, "Geospatial Mapping and Navigation of the Web," Proc. Int'l Conf. World Wide Web (WWW '01), pp. 221-229, 2001.	
23.	A. Ntoulas and J. Cho, "Pruning Policies for Two-Tiered Inverted Index with Correctness Guarantee," Proc. ACM SIGIR '07, pp. 191- 198, 2007.	
24.	G. Salton and C. Buckley, "Term-Weighting Approaches in Automatic Text Retrieval," Information Processing & Management, vol. 24, no. 5, pp. 513-523, 1988.	
25.	S. Shekhar, S. Chawla, S. Ravada, A. Fetterer, X. Liu, and C.-T. Lu, "Spatial Databases—Accomplishments and Research Needs," IEEE Trans. Knowledge and Data Eng. (TKDE), vol. 11, no. 1, pp. 45-55, Jan./Feb. 1999.	
26.	Y. Zhou, X. Xie, C. Wang, Y. Gong, and W.-Y. Ma, "Hybrid Index Structures for Location-Based Web Search," Proc. 14th ACM Int'l Conf. Information and Knowledge Management (CIKM '05), pp. 155- 162, 2005.	