

Appendix A

Acronyms

AF	Assured Forwarding
AP	Absolute Priority
ATM	Asynchronous Transfer Mode
AWG	Array Waveguide Grating
BE	Best Effort
CAC	Call Admission Control
DAVID	Data And Voice Integration over DWDM
DWDM	Dense Wavelength Division Multiplexing
EF	Expedited Forwarding
FDL	Fibre Delay Line
FEC	Forward Equivalent Class
FTTH	Fibre To The Home
GMPLS	Generalized Multiprotocol Label Switching
HP	High Priority
IETF	Internet Engineering Task Force
IP	Internet Protocol
ISP	Internet Service Provider
LA	Limited Attempts
LAN	Local Area Networks
LOBS	Labeled Optical Burst Switching
LP	Low Priority
LSP	Label Switched Path
MAC	Medium Access Control
MAN	Metropolitan Area Networks
MPLS	Multiprotocol Label Switching
OBS	Optical Burst Switching
OPS	Optical Packet Switching
OVC	Optical Virtual Circuit
OWSA	OVC-to-Wavelength Setup Assignment

PON	Passive Optical Network
PSC	Passive Star Coupler
PWRN	Passive Wavelength Routing Node
QOWSA	QoS OVC-to-Wavelength Setup Assignment
QoS	Quality of Service
RAM	Random Access Memory
RED	Random Early Detection
RPR	Resilience Packet Ring
SCL	Switch Control Logic
SDH	Synchronous Digital Hierarchy
SOA	Semiconductor Optical Amplifier
SONATA	Switchless Optical Network for Advanced Transport Architecture
TE	Traffic Engineering
TWC	Tunable Wavelength Converters
WAN	Wide Area Networks
WDM	Wavelength Division Multiplexing
WDS	Wavelength and Delay Selection

Appendix B

Related publications

B.1 Papers

1. C. Develder, A. Stavdas, A. Bianco, **D. Careglio**, H. Lonsethagen, J. Fernandez-Palacios, R. Van Caenegem, S. Sygletos, F. Neri, J. Solé-Pareta, M. Pickavet, N. Le Sauze, P. Demeester, “Benchmarking and viability assessment of optical packet switching for metro networks”, *IEEE/OSA Journal on Lightwave Technologies*, vol. 22, no. 11, Nov. 2004, pp. 2435–2451.
2. A. Bianco, **D. Careglio**, J. Finochietto, E. Leonardi, G. Galante, F. Neri, J. Solé-Pareta, S. Spadaro, “Multi-class scheduling algorithms for DAVID metro network”, *IEEE Journal on Selected Areas in Communications*, vol. 22, no. 8, Oct. 2004, pp. 1483–1496.
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4. A. M. Hill, **D. Careglio**, J. Solé-Pareta, A. Rafel, “Relative costs of WDM rings and PONs for metro optical packet networks”, in *Proceedings of Photonic in Switching Conference 2003 (PS2003)*, Paris, France, Sep. 2003.
5. **D. Careglio**, J. Solé-Pareta, S. Spadaro, “Heuristics for providing guaranteed service in DAVID metro network”, in *Proceedings of 29th European Conference on Optical Communications (ECOC2003)*, Rimini, Italy, Sep. 2003.
6. S. Bjornstad, C. M. Gauger, M. Nord, E. Baert, F. Callegati, **D. Careglio** et al., “Optical burst switching and optical packet switching”, *Chapter 4 of Book Advanced Infrastructure for Photonic Networks - Extended Final Report of COST Action 266*, pp. 115-154. R. Inkret et al., Editorial Faculty of Electrical, Engineering and Computing, University of Zagreb, Sep. 2003.
7. J. Solé-Pareta, X. Masip-Bruin, S. Sánchez-López, S. Spadaro, **D. Careglio**, “Some open issues in the optical networks control plane”, in *Proceedings of 5th*

- IEEE International Conference on Transparent Optical Networks (ICTON2003)*, Warsaw, Poland, Jun. 2003.
8. **D. Careglio**, A. Rafel, J. Solé-Pareta, S. Spadaro, A.M. Hill, G. Junyent, “Quality of Service strategy in an optical packet network with a multi-class frame-based scheduling”, in *Proceedings of 2003 International Workshop on High Performance Switching and Routing (HPSR 2003)*, Torino, Italy, Jun. 2003.
 9. S. Bjornstad, M. Nord, D. R. Hjelm, N. Stol, F. Callegati, W. Cerroni, C. Raffaelli, P. Zaffoni, C. M. Gauger, C. Develder, J. Cheyng, E. Van Breusegem, E. Baert, D. Colle, M. Pickavet, P. Demeester, M. Lackovic, **D. Careglio**, G. Junyent, M. Klinkowski, M. Marciniak, M. Kowalewski, “Optical burst and packet switching: node and network design, contention resolution and quality of service”, in *Proceedings of 7th International Conference on Telecommunications (ConTEL2003)*, Zagreb, Croatia, Jun. 2003.
 10. **D. Careglio**, J. Solé-Pareta, S. Spadaro, “Optical slot size dimensioning in IP/MPLS over OPS networks”, in *Proceedings of 7th International Conference on Telecommunications (ConTEL2003)*, Zagreb, Croatia, Jun. 2003.
 11. F. Callegati, **D. Careglio**, W. Cerroni, J. Solé-Pareta, C. Raffaelli, P. Zaffoni, “Time-wavelength exploitation in MPLS over OPS networks”, *MPLS workshop*, Girona, Spain, Mar. 2003.
 12. **D. Careglio**, J. Solé-Pareta, S. Spadaro, G. Junyent, “Performance evaluation of interconnected WDM PONs metro networks with QoS provisioning”, in *Proceedings of 7th IFIP Working Conference on Optical Network Design and Modelling (ONDM2003)*, Budapest, Hungary, Feb. 2003.
 13. **D. Careglio**, G. Giner, J. Solé-Pareta, S. Spadaro, G. Junyent, “Evaluacin de la red ptica metropolitana multi-anillo del proyecto DAVID” (in spanish), *XII Jornadas Telecom I+D*, Madrid/Barcelona/Valencia, Nov. 2002.
 14. T. Cinkler, S. Bjornstad, **D. Careglio**, D. Colle, C. Gauger, M. Karasek, A. Kuchar, S. de Maesschalck, F. Matera, C. Mauz, M. Settembre, “On the evolution of the optical infrastructure - COST 266 views”, in *Proceedings of 4th IEEE International Conference on Transparent Optical Networks (ICTON2002)*, Warsaw, Poland, Apr. 2002.
 15. F. Callegati, **D. Careglio**, W. Cerroni, J. Solé-Pareta, “Assessment of packet loss for an optical feedback buffer node using slotted variable length packet and heavy tailed traffic”, in *Proceedings of 4th IEEE International Conference on Transparent Optical Networks (ICTON2002)*, Warsaw, Poland, Apr. 2002.
 16. A. Kuchar, T. Cinkler, S. Bjornstad, **D. Careglio**, D. Colle, C. Gauger, M. Karasek, S. de Maesschalck, F. Matera, C. Mauz, M. Settembre, “COST 266 views on

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B.2 Projects deliverables

1. Deliverable D4, “Requirements for burst/packet networks in core and metro supporting high quality broadband services over IP”, *FP6-506760 NOBEL Project*, Jun. 2004.
2. Deliverable D101, “Network model validation and benchmarking”, *IST-1999-11742 DAVID Project*, Jun. 2003.
3. S. Bjornstad et al, “Optical packet and burst switching”, *Intermediate report of COST 266 Action*, Jul. 2002.
4. Deliverable D131, “Specification of management of multi-layer optical packet networks”, *IST-1999-11742 DAVID Project*, Jun. 2002.
5. Deliverable D122, “Optimisation and traffic performance of optical router and MAC protocol”, *IST-1999-11742 DAVID Project*, Jun. 2002.
6. Deliverable D121, “Traffic models for optical packet networks with quality of service differentiation”, *IST-1999-11742 DAVID Project*, Jun. 2001.
7. Deliverable D6, “Network scenarios and requirements”, *IST-1999-11387 LION Project*, Oct. 2000.

B.3 Other publications

1. M. Klinkowski, F. Herrero, **D. Careglio**, J. Solé Pareta, ”Adaptive routing algorithms for optical packet switching network”, in *Proceeding of 9th IFIP Working Conference on Optical Network Design and Modelling (ONDM2005)*, Milan, Italy, Feb. 2005.

2. F. Herrero, **D. Careglio**, J. Solé Pareta, M. Klinkowski, “Algoritmos de enrutamiento para conmutación de paquetes ópticos”, (in spanish), *XIV Jornadas Telecom I+D*, Madrid, Spain, Nov. 2004.
3. M. Klinkowski, **D. Careglio**, X. Masip-Bruin, S. Spadaro, S. Sánchez-López, J. Solé-Pareta, “A simulation study of combined routing and contention resolution algorithms in connection-oriented OPS network scenario”, in *Proceedings of 6th IEEE International Conference on Transparent Optical Networks (ICTON2004)*, Wroclaw, Poland, Jul. 2004.
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