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Referências Bibliográficas

[1] FOSTER, I.; KESSELMAN, C. **The Grid 2: Blueprint for a New Computing Infrastructure**. 2 edição. ed. [S.l.]: Morgan Kaufmann, 2003. ISSN 978-1558609334. 1

[2] ARMBRUST, M. et al. **Above the Clouds: A Berkeley View of Cloud Computing**. [S.l.], fev. 2009. Disponível em: <http://www.eecs.berkeley.edu/Pubs/TechRpts/2009/EECS-2009-28.html>. 1, 2.1

[3] HYDEN, E. A. **Operating System Support for Quality of Service**. Tese (Doutorado) — Wolfson College - University of Cambridge, February 1994. Disponível em http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.14.8560&rep=rep1&type=pdf. 1

[4] BRUNO, J. et al. The eclipse operating system: providing quality of service via reservation domains. In: **Proceedings of ATEC '98: annual conference on USENIX Annual Technical Conference**. Berkeley, CA, USA: USENIX Association, 1998. p. 20–20. 1, 2.1

[5] FOSTER, I.; ROY, A.; SANDER, V. A quality of service architecture that combines resource reservation and application adaptation. In: **Proceedings of IWQoS '00: 8th International Workshop on Quality of Service**. [S.l.: s.n.], 2000. p. 181–188. 1

[6] SEAWRIGHT, L. H.; MACKINNON, R. A. Vm/370 - a study of multiplicity and usefulness. **IBM Systems Journal**, v. 18, n. 1, p. 4–17, 1979. 1, 2.1

[7] TANENBAUM, A. S. **Modern Operating Systems**. 3 edição. ed. [S.l.]: Prentice Hall, 2007. ISSN 978-0136006633. 1, 2.1

[8] FIGUEIREDO, R. J.; DINDA, P. A.; FORTES, J. A. B. A case for grid computing on virtual machines. In: **Proceedings of ICDCS '03: 23rd**

International Conference on Distributed Computing Systems. Washington, USA: IEEE Computer Society, 2003. p. 550. 1

[9] KEAHEY, K.; DOERING, K.; FOSTER, I. From sandbox to playground: Dynamic virtual environments in the grid. In: **Proceedings of GRID '04: 5th IEEE/ACM International Workshop on Grid Computing**. Washington, USA: IEEE Computer Society, 2004. p. 34–42. 1, 2.1

[10] SANTHANAM, S. et al. Deploying virtual machines as sandboxes for the grid. In: **Proceedings of WORLDS '05: 2nd Workshop on Real, Large Distributed Systems (WORLDS 2005)**. Berkeley, CA, USA: USENIX Association, 2005. p. 7–12. 1, 2.1

[11] GUPTA, D. et al. Enforcing performance isolation across virtual machines in xen. In: **Proceedings of Middleware '06: ACM/IFIP/USENIX 2006 International Conference on Middleware**. New York, NY, USA: Springer-Verlag New York, Inc., 2006. p. 342–362. 1, 2.1, 4.7

[12] SOMANI, G.; CHAUDHARY, S. Application performance isolation in virtualization. In: **Proceedings of the 2009 IEEE International Conference on Cloud Computing**. Los Alamitos, CA, USA: IEEE Computer Society, 2009. p. 41–48. ISBN 978-0-7695-3840-2. 1

[13] ADAMS, K.; AGESEN, O. A comparison of software and hardware techniques for x86 virtualization. In: **Proceedings of ASPLOS-XII: 12th international conference on Architectural support for programming languages and operating systems**. New York, NY, USA: ACM, 2006. p. 2–13. ISBN 1-59593-451-0. 1, 2.2

[14] ONGARO, D.; COX, A. L.; RIXNER, S. Scheduling I/O in virtual machine monitors. In: **Proceedings of VEE '08: 4th ACM SIGPLAN/SIGOPS international conference on Virtual execution environments**. New York, NY, USA: ACM, 2008. p. 1–10. ISBN 978-1-59593-796-4. 1, 2.2

[15] PADALA, P. et al. **Performance Evaluation of Virtualization Technologies for Server Consolidation**. [S.l.], 2007. Disponível em: <http://www.hpl.hp.com/techreports/2007/HPL-2007-59R1.html>. 1, 2.2

[16] TANENBAUM, A.; WOODHULL, A. **Operating Systems Design and Implementation**. 3 edição. ed. [S.l.]: Prentice Hall, 2006. ISSN 978-0131429383. 1, 2.1

[17] LEVIN, R. et al. Policy/mechanism separation in Hydra. In: **Proceedings of SOSP '75: 5th ACM Symposium on Operating Systems Principles**. New York, NY, USA: ACM, 1975. p. 132–140. 1, 2.1

[18] CHU, H.-H.; NAHRSTEDT, K. A soft real time scheduling server in UNIX operating system. In: **Proceedings of IDMS '97: 4th International Workshop on Interactive Distributed Multimedia Systems and Telecommunication Services**. London, UK: Springer-Verlag, 1997. p. 153–162. 1, 2.1, 3.2

[19] CHANG, F.; ITZKOVITZ, A.; KARAMCHETI, V. User-level resource-constrained sandboxing. In: **Proceedings of WSS'00: 4th conference on USENIX Windows Systems Symposium**. Berkeley, USA: USENIX Association, 2000. p. 3–3. 1, 2.1

[20] NEWHOUSE, T.; PASQUALE, J. A user-level framework for scheduling within service execution environments. In: **Proceedings of SCC '04: 2004 IEEE International Conference on Services Computing**. Washington, USA: IEEE Computer Society, 2004. p. 311–318. ISBN 0-7695-2225-4. 1, 2.1

[21] ERIKSEN, M. A. Trickle: a userland bandwidth shaper for Unix-like systems. In: **Proceedings of ATEC '05: annual conference on USENIX Annual Technical Conference**. Berkeley, CA, USA: USENIX Association, 2005. p. 43–43. 1, 2.1

[22] YAMADA, H.; KONO, K. User-level disk-bandwidth control for resource-borrowing network applications. In: **Proceedings of NOMS '06: 10th IEEE/IFIP Network Operations and Management Symposium**. [S.l.: s.n.], 2006. p. 1–4. ISSN 1542-1201. 1, 2.1

[23] REIS, V. Q.; CERQUEIRA, R. Reserva de processamento: uma abordagem no nível do usuário. In: **Proceedings of WSO '08: V Workshop de Sistemas Operacionais**. Bento Gonçalves, Brasil: Sociedade Brasileira de Computação, 2008. p. 99–110. ISBN 857669183-3. 1.1

[24] REIS, V. Q.; CERQUEIRA, R. A tool for isolating performance in general-purpose operating systems. In: **Proceedings of MGC '08: 6th International Workshop on Middleware for Grid Computing.**

In conjunction with ACM/IFIP/USENIX 9th International Middleware Conference 2008. New York, USA: ACM Press, 2008. p. 1–6. 1.1, 3.2.1

[25] REIS, V. Q.; CERQUEIRA, R. Controlling processing usage at user level: a way to make resource sharing more flexible. **Concurrency and Computation: Practice and Experience**, John Wiley and Sons Ltd., Chichester, UK, v. 22, n. 3, p. 278–294, 2010. ISSN 1532-0626. 1.1, 4.3

[26] SANTOS, C. E. M. dos. **Gerenciamento de Recursos para Grades Computacionais: Node Control Center**. Dezembro 2009. Trabalho de conclusão de curso. Universidade de São Paulo. Disponível em http://www.ime.usp.br/~cef/mac499-09/monografias/cadu/monografia.pdf. 1.1, 5

[27] PEDRAS, B. F. V. **Uma Infra-estrutura para Injeção de Carga e Falhas em Testes de Sistemas Distribuídos**. 2009. Trabalho de conclusão de curso. Pontifícia Universidade Católica do Rio de Janeiro. 1.1, 5

[28] PARMELEE, R. P. et al. Virtual storage and virtual machine concepts. **IBM Systems Journal**, IBM Corporation, v. 11, n. 2, p. 99–130, 1972. 2.1

[29] ARMBRUST, M. et al. A view of cloud computing. **Communications of the ACM**, ACM, New York, NY, USA, v. 53, n. 4, p. 50–58, 2010. ISSN 0001-0782. 2.1

[30] AMAZON Elastic Compute Cloud (Amazon EC2). 2010. Acessado em 02 de fevereiro de 2010. Disponível em: <http://aws.amazon.com/ec2/>. 2.1

[31] BARHAM, P. et al. Xen and the art of virtualization. In: **Proceedings of SOSP '03: 19th ACM Symposium on Operating Systems Principles**. New York, USA: ACM, 2003. p. 164–177. 2.1

[32] HOME of the Xen hypervisor. 2009. Acessado em 02 de fevereiro de 2010. Disponível em: <http://www.xen.org/>. 2.1

[33] VMWARE Virtualization Software. 2010. Acessado em 02 de fevereiro de 2010. Disponível em: <http://www.vmware.com/>. 2.1

[34] SOLARIS Operating System. 2010. Acessado em 02 de fevereiro de 2010. Disponível em: <http://www.sun.com/software/solaris/virtualization.jsp>. 2.1

[35] OPENVZ Wiki. 2010. Acessado em 02 de fevereiro de 2010. Disponível em: <http://openvz.org/>. 2.1

[36] JONES, M. B. et al. An overview of the rialto real-time architecture. **Readings in multimedia computing and networking**, Morgan Kaufmann Publishers Inc., San Francisco, CA, USA, p. 467–474, 2001. 2.1

[37] BANGA, G.; DRUSCHEL, P.; MOGUL, J. C. Resource containers: A new facility for resource management in server systems. In: **Proceedings of OSDI '99: 3rd Conference on Symposium on Operating Systems Design & Implementation**. New Orleans, USA: USENIX Association, 1999. p. 45–58. 2.1

[38] ARON, M.; DRUSCHEL, P.; ZWAENEPOEL, W. Cluster reserves: a mechanism for resource management in cluster-based network servers. In: **Proceedings of SIGMETRICS '00: the 2000 ACM SIGMETRICS International Conference on Measurement and Modeling of Computer Systems**. New York, NY, USA: ACM, 2000. p. 90–101. ISBN 1-58113-194-1. 2.1

[39] RAJKUMAR, R. et al. Resource kernels: a resource-centric approach to real-time and multimedia systems. **Readings in multimedia computing and networking**, Morgan Kaufmann Publishers Inc., San Francisco, USA, p. 476–490, 2001. 2.1

[40] OIKAWA, S.; RAJKUMAR, R. Portable RK: A portable resource kernel for guaranteed and enforced timing behavior. In: **Proceedings of RTAS '99: 5th IEEE Real-Time Technology and Applications Symposium**. Washington, USA: IEEE Computer Society, 1999. p. 111. ISBN 0-7695-0194-X. 2.1

[41] LEE, C.; RAJKUMAR, R.; MERCER, C. Experience with processor reservation and dynamic QoS in real-time Mach. In: **Proceedings of Multimedia Japan 96**. Japan: [s.n.], 1996. 2.1

[42] GERUM, P. **Xenomai - implementing a RTOS emulation framework on GNU/Linux**. [S.l.], april 2004. Disponível em: <http://www.xenomai.org/documentation/xenomai-2.3/pdf/xenomai.pdf>. 2.1

[43] WANG, Y.-C.; LIN, K.-J. Implementing a general real-time scheduling framework in the red-linux real-time kernel. In: **Proceedings of RTSS**

'99: 20th IEEE Real-Time Systems Symposium. Washington, DC, USA: IEEE Computer Society, 1999. p. 246–255. ISBN 0-7695-0475-2. 2.1

[44] MORENO, M. F. et al. QoSOS: an adaptable architecture for QoS provisioning in network operating systems. **Revista da Sociedade Brasileira de Telecomunicações**, v. 18, n. 2, 2003. ISSN 0102-986X. 2.1

[45] HANSEN, P. B. The nucleus of a multiprogramming system. **Communications of the ACM**, ACM, New York, NY, USA, v. 13, n. 4, p. 238–241, 1970. ISSN 0001-0782. 2.1

[46] ENGLER, D. R.; KAASHOEK, M. F.; O'TOOLE JR., J. Exokernel: an operating system architecture for application-level resource management. In: **Proceedings of SOSP '95: 15th ACM symposium on Operating systems principles**. New York, NY, USA: ACM, 1995. p. 251–266. ISBN 0-89791-715-4. 2.1

[47] VEITCH, A. C.; HUTCHINSON, N. C. Kea - a dynamically extensible and configurable operating system kernel. In: **Proceedings of ICCDS '96: 3rd International Conference on Configurable Distributed Systems**. Washington, DC, USA: IEEE Computer Society, 1996. p. 236. ISBN 0-8186-7395-8. 2.1

[48] DENYS, G.; PIESSENS, F.; MATTHIJS, F. A survey of customizability in operating systems research. **ACM Computing Surveys**, ACM, New York, NY, USA, v. 34, n. 4, p. 450–468, 2002. ISSN 0360-0300. 2.1

[49] HERDER, J. N. **Towards a True Microkernel Operating System**. Dissertação (Mestrado) — Vrije Universiteit Amsterdam, Amsterdã, 2005. Disponível em http://www.cs.vu.nl/~jnherder/publications/masters-thesis.ps.gz. 2.1

[50] KRIEGER, O. et al. K42: building a complete operating system. **SIGOPS Operating Systems Review**, ACM, New York, NY, USA, v. 40, n. 4, p. 133–145, 2006. ISSN 0163-5980. 2.1

[51] GOYAL, P.; GUO, X.; VIN, H. M. A hierarchical cpu scheduler for multimedia operating systems. **Readings in multimedia computing and networking**, Morgan Kaufmann Publishers Inc., San Francisco, CA, USA, p. 491–505, 2001. 2.1

[52] WACHS, M. et al. Argon: performance insulation for shared storage servers. In: **Proceedings of FAST '07: 5th USENIX conference on File and Storage Technologies**. Berkeley, CA, USA: USENIX Association, 2007. p. 5–5. 2.1, 3.2.2, 4.4

[53] YUAN, W.; NAHRSTEDT, K. Energy-efficient soft real-time cpu scheduling for mobile multimedia systems. In: **Proceedings of SOSP '03: 19th ACM symposium on Operating systems principles**. New York, NY, USA: ACM, 2003. p. 149–163. ISBN 1-58113-757-5. 2.2, 5

[54] WANG, S.; BETTATI, R. Reactive speed control in temperature-constrained real-time systems. **Real-Time Systems**, Kluwer Academic Publishers, Norwell, MA, USA, v. 39, n. 1–3, p. 73–95, 2008. ISSN 0922-6443. 2.2, 5

[55] REGEHR, J. Inferring scheduling behavior with hourglass. In: **Proceedings of the FREENIX Track: 2002 USENIX Annual Technical Conference**. Berkeley, CA, USA: USENIX Association, 2002. p. 143–156. ISBN 1-880446-01-4. 2.2

[56] AURRECOECHEA, C.; CAMPBELL, A. T.; HAUW, L. A survey of QoS architectures. **Multimedia Systems**, Springer-Verlag New York, Inc., Secaucus, NJ, USA, v. 6, n. 3, p. 138–151, 1998. ISSN 0942-4962. 3.1

[57] NAHRSTEDT, K.; CHU, H.; NARAYAN, S. QoS-aware resource management for distributed multimedia applications. **Journal of High Speed Networks**, IOS Press, Amsterdam, The Netherlands, v. 7, n. 3-4, p. 229–257, 1998. ISSN 0926-6801. 3.1

[58] BUYYA, R.; ABRAMSON, D.; GIDDY, J. Nimrod/G: An architecture for a resource management and scheduling system in a global computational grid. In: **Proceedings HPC Asia '00: Fourth International Conference on High Performance Computing in the Asia-Pacific Region**. Los Alamitos, CA, USA: IEEE Computer Society Press, 2000. p. 283–289. ISBN 0-7695-0589-2. 3.1

[59] FOSTER, I. et al. A distributed resource management architecture that supports advance reservations and co-allocation. In: **Proceedings of IWQoS '99: 7th International Workshop on Quality of Service**. [S.l.: s.n.], 1999. p. 27–36. 3.1

[60] CARDEI, I. et al. Hierarchical architecture for real-time adaptive resource management. In: SVENTEK, J. S.; COULSON, G. (Ed.). **Proceedings of Middleware 2000: IFIP/ACM International Conference on Distributed Systems Platforms**. New York, USA: Springer, 2000. (Lecture Notes in Computer Science, v. 1795), p. 415–434. ISBN 3-540-67352-0. 3.1

[61] GOLDCHLEGER, A. et al. Integrade: object-oriented grid middleware leveraging the idle computing power of desktop machines: Research articles. **Concurrence and Computation: Practice and Experience**, John Wiley and Sons Ltd., Chichester, UK, v. 16, n. 5, p. 449–459, 2004. ISSN 1532-0626. 3.1, 5

[62] YAMADA, H.; KONO, K. Discnice: User-level regulation of disk bandwidth. **IPSJ Digital Courier**, v. 3, p. 800–815, 2007. 3.2.2

[63] DYNINST API. 2010. Acessado em 19 de fevereiro de 2010. Disponível em: <http://www.dyninst.org/>. 3.2.2

[64] PIN - A Dynamic Binary Instrumentation Tool. 2009. Acessado em 19 de fevereiro de 2010. Disponível em: <http://www.pintool.org/>. 3.2.2

[65] STANKOVIC, J. A.; RAJKUMAR, R. Real-time operating systems. **Real-Time Systems**, v. 28, n. 2-3, p. 237–253, 2004. ISSN 0922-6443. 3.2.2

[66] MORENO, M. **Gerenciamento de recursos dirigido por modelos: adaptabilidade e interoperabilidade no suporte a QoS fim-a-fim**. Tese (Doutorado) — Departamento de Informática - PUC-Rio, Rio de Janeiro, 2008. Disponível em http://www.maxwell.lambda.ele.puc-rio.br/. 3.2.3

[67] IERUSALIMSCHY, R. **The Programming Language Lua**. 2009. Acessado em 04 de março de 2009. Disponível em: <http://www.lua.org/>. 3.2.4

[68] LIU, C. L.; LAYLAND, J. W. Scheduling algorithms for multiprogramming in a hard-real-time environment. **Journal of the ACM**, ACM, New York, NY, USA, v. 20, n. 1, p. 46–61, 1973. ISSN 0004-5411. 3.2.5, 3.3

[69] WALDSPURGER, C. A.; WEIHL, W. E. Lottery scheduling: flexible proportional-share resource management. In: **Proceedings of OSDI**

'94: 1st Symposium on Operating System Design and Implementation. Berkeley, USA: USENIX Association, 1994. p. 1–11. 3.3

[70] DUDA, K. J.; CHERITON, D. R. Borrowed-virtual-time (BVT) scheduling: supporting latency-sensitive threads in a general-purpose scheduler. **SIGOPS Operating Systems Review**, ACM, New York, NY, USA, v. 33, n. 5, p. 261–276, 1999. ISSN 0163-5980. 3.3

[71] KVM. 2010. Acessado em 06 de julho de 2010. Disponível em: <http://www.linux-kvm.org/>. 4.7

[72] DODONOV, E. **Uma abordagem de predição da dinâmica comportamental de processos para prover autonomia a ambientes distribuídos**. Tese (Doutorado) — Instituto de Ciências Matemáticas e de Computação (ICMC) - USP, São Carlos - SP, 2009. Disponível em http://www.teses.usp.br/teses/disponiveis/55/55134/tde-05082009-205709/. 4.8

[73] DODONOV, E.; MELLO, R. F. de. A novel approach for distributed application scheduling based on prediction of communication events. **Future Generation Computer Systems**, 2009. 4.8

[74] DEVARAKONDA, M. V.; IYER, R. K. Predictability of process resource usage: A measurement-based study on UNIX. **IEEE Transactions on Software Engineering**, IEEE Press, Piscataway, NJ, USA, v. 15, n. 12, p. 1579–1586, 1989. ISSN 0098-5589. 4.8

[75] URGAONKAR, B.; SHENOY, P.; ROSCOE, T. Resource overbooking and application profiling in shared hosting platforms. In: **Proceedings of OSDI '02: 5th symposium on Operating systems design and implementation**. New York, USA: ACM, 2002. p. 239–254. 4.8

[76] ZHANG, Q. et al. A regression-based analytic model for capacity planning of multi-tier applications. **Cluster Computing**, Kluwer Academic Publishers, Hingham, MA, USA, v. 11, n. 3, p. 197–211, 2008. ISSN 1386-7857. 4.8, 4.8.1

[77] WOOD, T. et al. Profiling and modeling resource usage of virtualized applications. In: **Proceedings of Middleware 2008, ACM/IFIP/USENIX 9th International Middleware Conference**. New York, NY, USA: Springer-Verlag New York, Inc., 2008. p. 366–387. ISBN 3-540-89855-7. 4.8, 4.8.1

[78] JAIN, R. **The Art of Computer Systems Performance Analysis: Techniques for Experimental Design, Measurement, Simulation, and Modeling**. [S.l.]: Wiley, 1991. 4.8, 4.8.2

[79] ARON, M. **Differentiated and Predictable Quality of Service in Web Server Systems**. Tese (Doutorado) — Rice University, 2000. Disponível em http://www.cs.rice.edu/~aron/papers/phd-thesis.ps.gz. 4.8

[80] MI, N. et al. Burstiness in multi-tier applications: symptoms, causes, and new models. In: **Proceedings of Middleware 2008, ACM/IFIP/USENIX 9th International Middleware Conference**. New York, NY, USA: Springer-Verlag New York, Inc., 2008. p. 265–286. ISBN 3-540-89855-7. 4.8

[81] CHEN, Y. et al. Translating service level objectives to lower level policies for multi-tier services. **Cluster Computing**, Kluwer Academic Publishers, Hingham, MA, USA, v. 11, n. 3, p. 299–311, 2008. ISSN 1386-7857. 4.8, 4.8.1, 4.10

[82] URGAONKAR, B. et al. An analytical model for multi-tier internet services and its applications. In: **SIGMETRICS '05: Proceedings of the 2005 ACM SIGMETRICS International Conference on Measurement and Modeling of Computer Systems**. New York, NY, USA: ACM, 2005. p. 291–302. ISBN 1-59593-022-1. 4.8

[83] URGAONKAR, B.; CHANDRA, A. Dynamic provisioning of multi-tier internet applications. In: **ICAC '05: Proceedings of the Second International Conference on Automatic Computing**. Washington, DC, USA: IEEE Computer Society, 2005. p. 217–228. ISBN 0-7965-2276-9. 4.8

[84] MENASCÉ, D. A.; BARBARÁ, D.; DODGE, R. Preserving QoS of e-commerce sites through self-tuning. In: **Proceedings of EC '01: 3rd ACM conference on Electronic Commerce**. New York, NY, USA: ACM, 2001. p. 224–234. ISBN 1-58113-387-1. 4.8, 4.8.1

[85] TPC-W. 2009. Acessado em 09 junho de 2009. Disponível em: <http://www.tpc.org/tpcw/>. 4.8.1

[86] WEKA 3 - Data Mining with Open Source Machine Learning Software in Java. 2010. Acessado em 24 de fevereiro de 2010. Disponível em: <http://www.cs.waikato.ac.nz/ml/weka/>. 4.8.3

[87] INTEGRADE. 2010. Acessado em 11 de fevereiro de 2010. Disponível em: <http://www.integrade.org.br/>. 5

[88] TECGRAF. 2009. Acessado em 19 de fevereiro de 2010. Disponível em: <http://www.tecgraf.puc-rio.br/>. 5.1

[89] CSBASE. 2010. Acessado em 11 de fevereiro de 2010. Disponível em: <https://web.tecgraf.puc-rio.br/csbase/>. 5.1

[90] SCS. 2009. Acessado em 19 de fevereiro de 2010. Disponível em: <https://jira.tecgraf.puc-rio.br/confluence/display/ESDPUB/SCS>. 5.1