

Mechanisms and Constructs for System Virtualization

1. R. P. Goldberg. 1973. Architecture of virtual machines. In Proceedings of the workshop on virtual computer systems. ACM, New York, NY, USA, 74-112. DOI=<http://dx.doi.org/10.1145/800122.803950>
2. Gerald J. Popek and Robert P. Goldberg, Formal Requirements for Virtualizable Third Generation Architectures, Communications of the ACM, July 1974 of Volume 17, Number 7.
3. A quick refresher on ISA comparison is available here: https://www.cis.upenn.edu/~milom/cis501-Fall05/lectures/02_isa.pdf
4. Richard L. Sites, Anton Chernoff, Matthew B. Kirk, Maurice P. Marks, and Scott G. Robinson. 1993. Binary translation. *Commun. ACM* 36, 2 (February 1993), 69-81. DOI=<http://dx.doi.org/10.1145/151220.151227>
5. Chapter 2 from Virtual Machines, Smith & Nair text book.
6. Saumya K. Debray, William Evans, Robert Muth, and Bjorn De Sutter. 2000. Compiler techniques for code compaction. *ACM Trans. Program. Lang. Syst.* 22, 2 (March 2000), 378-415. DOI=<http://dx.doi.org/10.1145/349214.349233> (optional)
7. Mark Probst, Dynamic Binary Translation, <https://pdfs.semanticscholar.org/e67d/7810e9f7baad696e1e5be0c9f1dde39a178d.pdf>
8. Saurav Bansal, Alex Aiken, Binary Translation Using Peephole Superoptimizers, http://www.cse.iitd.ernet.in/~sbansal/pubs/osdi08_html/index.html https://www.usenix.org/legacy/event/osdi08/tech/full_papers/bansal/bansal.pdf
9. <https://www.vmware.com/techpapers/2007/architecture-of-vmware-esxi-1009.html>
10. Linux KVM: <http://dl.acm.org/citation.cfm?id=1344217>
Qumranet: KVM-Kernel-based Virtualization Driver
11. Palacios:
Jack Lange, Kevin Pedretti, Trammell Hudson, Peter Dinda, Zheng Cui, Lei Xia, Patrick Bridges, Andy Gocke, Steven Jaconette, Mike Levenhagen, Ron Brightwell (2010) **Palacios and Kitten : New High Performance Operating Systems For Scalable Virtualized and Native Supercomputing** In: *Proceedings of the 24th IEEE International Parallel and Distributed Processing Symposium*.
<http://www.cs.unm.edu/~ssl/research/projects/palacios.shtml>
12. Para-virtualization: Xen and the art of virtualization: Paul Barham, Boris Dragovic, Keir Fraser, Steven Hand, Tim Harris, Alex Ho, Rolf Neugebauer, Ian Pratt, and Andrew Warfield. 2003. Xen and the art of virtualization. In Proceedings of the nineteenth ACM symposium on Operating systems principles (SOSP '03). ACM, New York, NY, USA, 164-177. DOI=<http://dx.doi.org/10.1145/945445.945462>
13. Hardware Virtualization:
Intel Virtualization Technology:
http://download.microsoft.com/download/5/b/9/5b97017b-e28a-4bae-ba48-174cf47d23cd/vir054_wh06.ppt

Intel Corporation: Intel Virtualization Technology for Directed I/O.
<https://composter.com.ua/documents/vt-directed-io-spec.pdf>

The AMD-V Story http://www.amd.com/us-en/0,3715_15781_15785,00.html

Paul Willmann, Scott Rixner, and Alan L. Cox, Protection Strategies for Direct Access to Virtualized I/O Devices. In USENIX Annual Technical Conference (USENIX 08), Boston, MA, June 2008.:

http://www.usenix.org/events/usenix08/tech/full_papers/willmann/willmann_html/index.html

Intel 82576 Gigabit Ethernet Controller:

<https://www.intel.com/content/dam/doc/product-brief/82576-gbe-controller-brief.pdf>

Advanced Virtualization capabilities of Power5 systems: W. J. Armstrong, R. L. Arndt, D. C. Boutcher, R. G. Kovacs, D. Larson, K. A. Lucke, N. Nayar, and R. C. Swanberg. 2005. Advanced virtualization capabilities of POWER5 systems. IBM J. Res. Dev. 49, 4/5 (July 2005), 523-532.