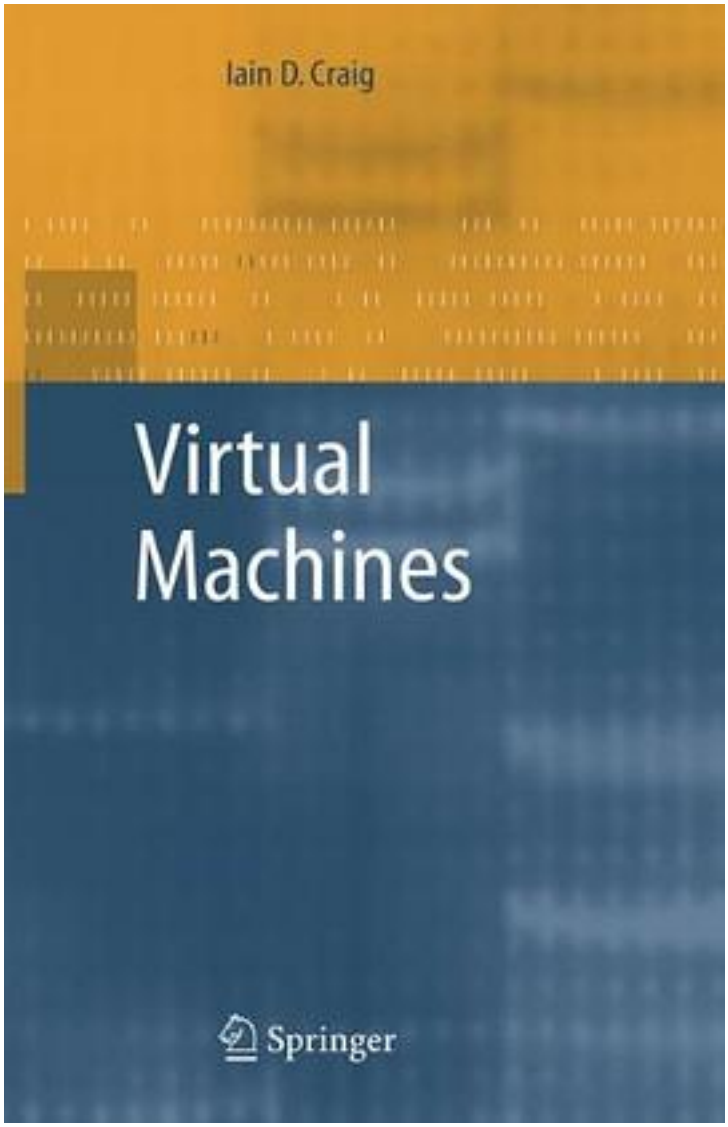
Virtual Machines



Virtual Machines_下载链接1_

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Virtual Machine technology applies the concept of virtualization to an entire machine, circumventing real machine compatibility constraints and hardware resource constraints to enable a higher degree of software portability and flexibility. Virtual machines are rapidly becoming an essential element in computer system design. They provide system security, flexibility, cross-platform compatibility, reliability, and resource efficiency. Designed to solve problems in combining and using major computer system components, virtual machine technologies play a key role in many disciplines, including operating systems, programming languages, and computer architecture. For example, at the process level, virtualizing technologies support dynamic program translation and platform-independent network computing. At the system level, they support multiple operating system environments on the same hardware platform and in servers. Historically, individual virtual machine techniques have been developed within the specific disciplines that employ them (in some cases they aren't even referred to as 'virtual machines'), making it difficult to see their common underlying relationships in a cohesive way. In this text, Smith and Nair take a new approach by examining virtual machines as a unified discipline. Pulling together cross-cutting technologies allows virtual machine implementations to be studied and engineered in a well-structured manner. Topics include instruction set emulation, dynamic program translation and optimization, high level virtual machines (including Java and CLI), and system virtual machines for both single-user systems and servers. The book examines virtual machine technologies across the disciplines that use them-operating systems, programming languages and computer architecture-defining a new and unified discipline. It is reviewed by principle researchers at Microsoft, HP, and by other industry research groups; and written by two authors who combine several decades of expertise in computer system research and development, both in academia and industry.

作者介绍:

目录:

Virtual Machines_下载链接1_

标签

虚拟机

Virtualization

VM

计算机科学

计算机

Virtual-Machine

软件开发

混口饭吃

评论

很基础 但是毕竟是2005年的 扫盲还是很不错的

学习x86 CPU虚拟化原理的天书！力荐！

关于虚拟机最全面的一本书了。

VM的百科全书

两位作者都是有N年实践经验的人, 加上尤其这本书来的是时候,
看看现在各种virtualization技术多么火热...

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书评

许多虚拟化的新技术贯穿在整本书中。作者揭开虚拟机的神秘面纱，深入剖析了他们的工作原理。
同时，这本书也讲述了虚拟机的发展历程，分析了近几十年来不同形式的虚拟机的和姓概念。
本书的开始几章主要是关注模拟器。他们深入地讲解了如何在模拟器中模拟寄存器，内存，中断 等...

A new processor architecture poses significant financial risk to hardware and software developers alike, so both have a vested interest in easily porting code from one processor to another. Binary translation offers solutions for automatically convertin...

应该是入门的标准读物吧。 反正我写一个玩具虚拟保护机时浏览看了一遍。
历史介绍，技术现状，未来预测，都有。并且讲得不错。

虚拟机，理想很优美，现实很无奈。 虚拟机在一定程度上是理想与现实折衷的结果。
Java 虚拟机很好。 .Net 至少有一点不好，就是对变量的操作需要 track
变量类型，强大 JIT
的支撑下，这没什么不好，但是基本上不可能解释执行，在解释执行的时候，比 Java 虚拟机要慢得多！这...

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