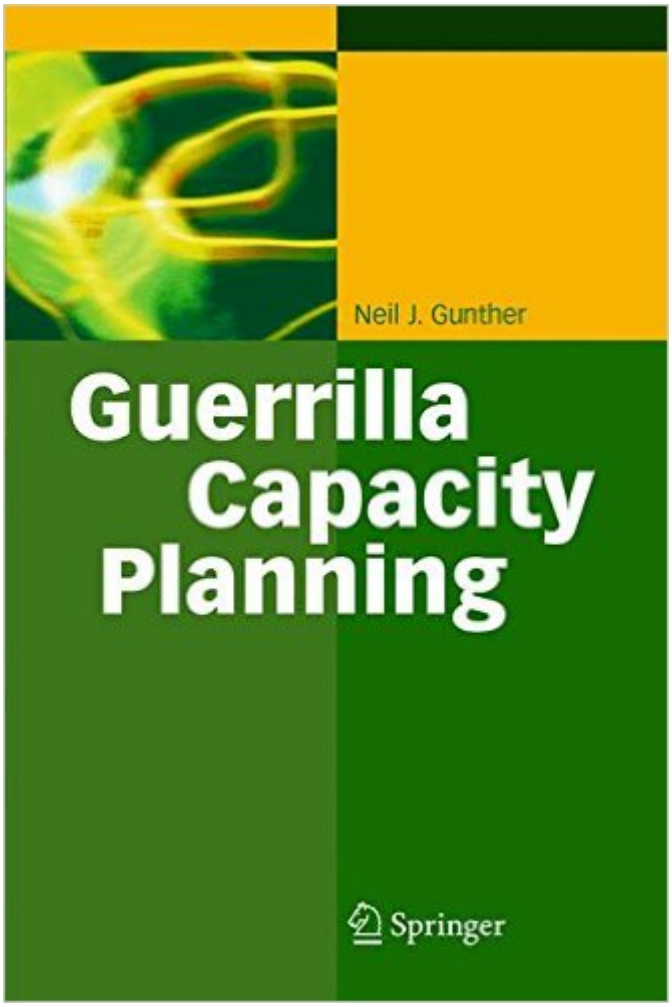
Guerrilla Capacity Planning: A Tactical Approach To Planning For Highly Scalable Applications And Services



Synopsis

Under todayâ ™s shortened fiscal horizons and contracted time-to-market schedules, traditional approaches to capacity planning are seen by management as inflating production schedules. In the face of relentless pressure to get things done faster, this book facilitates rapid forecasting of capacity requirements, based on opportunistic use of available performance data and tools so that management insight is expanded but production schedules are not. The book introduces such concepts as an iterative cycle of improvement called "The Wheel of Capacity Planning," and Virtual Load Testing, which provides a highly cost-effective method for assessing application scalability.

Book Information

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Customer Reviews

Dr. Neil Gunther has undertaken an important work, that of teaching to IT professionals the basics of measuring and modeling the scalability of parallel computer systems. The model that he develops in his book is a useful starting point; however, this model fails to provide a sufficiently general basis for modeling the behavior of the wide variety of current parallel computer systems.The "universal scalability law" that he describes in section 4.4, and for which he provides figure 4.8 and equation 4.31, extends Amdahl’s Law via the addition of a "coherency" term that models effects such as data exchange between parallel processes. And although Dr. Gunther suggests that this coherency term ought to grow linearly with the number of parallel processes, and hence should appear as a quadratic term in equation 4.31, this coherency term depends on the specific communication architecture of the computer system and can grow non-linearly, for example, as log to the base two

of the number of processes.This logarithmic growth law may occur because one processor may not communicate directly with all other processors. Instead, one processor may send information to two other processors, and each of those two processors may send information to two more processors, and so forth. Therefore, in order to model the communication that occurs in such a communication cascade, the quadratic n(n-1) coherency term in equation 4.31 should be replaced by an n*log(n) term.Moreover, performance data that are obtained from current parallel computer systems do not always conform to Dr. Gunther's "universal" scalability "law" under other conditions.