Record Nr. UNINA9910961295503321 Autore Marchioni Francesco Titolo JBoss AS 5 performance tuning: build faster, more efficient enterprise Java applications / / Francesco Marchioni Birmingham, U.K., : Packt, 2010 Pubbl/distr/stampa **ISBN** 9786612937897 9781282937895 1282937898 9781849514033 1849514038 Edizione [1st ed.] Descrizione fisica 1 online resource (312 p.) Community experience distilled Collana Disciplina 005.13 Soggetti Application software - Development Java (Computer program language) Computer software - Development Open source software Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Nota di contenuto Cover: Copyright: Credits: About the Author: About the Reviewers: Table of Contents; Preface; Chapter 1: Performance Tuning Concepts; Preface; What you will get in this book?; What is performance?; Scalability: the other side of performance; The tuning process; Tuning in the software development cycle; Building the performance test; Establish a baseline: Collect data: Analyze data: Configure and test again; Tuning Java Enterprise applications; Areas of tuning; Summary; Chapter 2: Installing the Tools for Tuning; Welcome to scientific tuning; The rationale behind the choice of the tools Profiling the Java Virtual MachineInstalling the JVM; Installing VisualVM; Connecting to a local server; Connecting to a remote server; Monitoring your server: The Monitor tab: The Threads tab: The Profiler tab: Collecting snapshots; Extending VisualVM; Profiling your applications with Eclipse Test and Performance Tools Platform (TPTP) Project;

Installing the TPTP suite; Updating Eclipse; How to profile an application; Going beyond the basics of TPTP; Load testing your

application with JMeter; Building a Test Plan; Step 1: Create a Thread Group; Step 2: Create a Sampler

Step 3: Create a ListenerMaking your test plan a bit more realistic; How to create a complex Test Plan; Running JMeter as a shell; Operating system tools and commands; Windows users; Unix users; Dealing with low CPU utilization; Dealing with high CPU utilization; Dealing with high resource contention; Dealing with high disk utilization; Summary; Chapter 3: Tuning the Java Virtual Machine; The starting point; Choosing the JVM settings; Setting the correct heap size; The correct amount of memory to grant your application; I cannot allocate enough memory for the JVM!

Where do I configure JVM settings in JBoss AS?Sizing the garbage collector generations; Which is the correct ratio between the young and old generations?; The garbage collector algorithms; Choosing the right garbage collector for your application; The G1 garbage collector; Debugging garbage collection; Making good use of the memory; Avoid creating large Java objects; Handling 'Out of Memory' errors; Finding the memory leak in your code; A practical example; Application description; Setting up a test bed; Benchmark aftermath; Summary; Chapter 4: Tuning the JBoss AS

From the release 4.x to 5.x, and onComparing server releases; Creating a custom application server configuration; JBoss AS pools; The System thread pool; Finding out if the System thread pool is a bottleneck; JDBC connection pool; Calculating the optimal min-pool-size and max-pool-size; Using Prepared Statements efficiently; Detecting connection leaks; Should you reuse connections or acquire new onesfrom the pool?; Logging for performance; Choosing the best logging strategy; Which is the fastest appender?; Should I use the AsyncAppender to improve my log throughput?

Which layout should I choose for my logs?

Sommario/riassunto

Build faster, more efficient enterprise Java applications