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SECURITY TRAINING AND SERVICES

Gateway Performance Optimization

Timothy C. Hall, Shadow Peak Inc.

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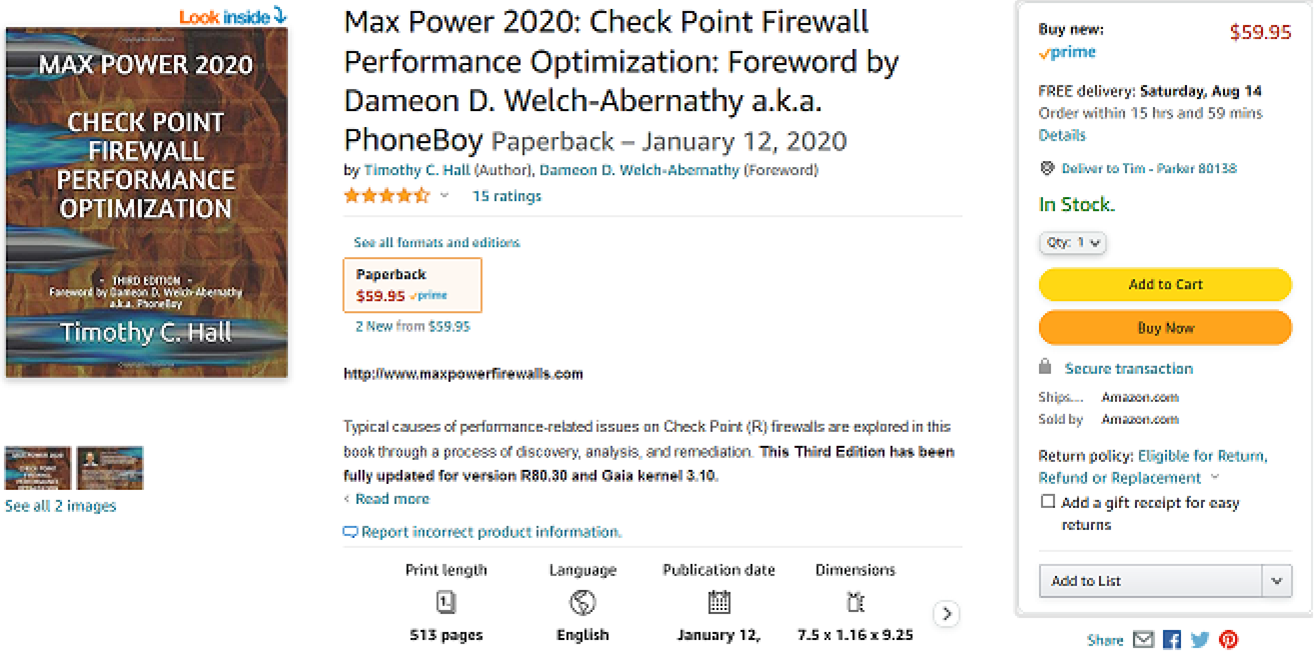
Welcome & Introduction

- Your Instructor: **Timothy Hall, CISSP**
  - Worked with Check Point™ products since 1997, Check Point™ instructor since 2004
  - Founder of Shadow Peak Inc, a Check Point™ Authorized Training Center (ATC) (http://www.shadowpeak.com)
  - Link to all CheckMates Posts (3,000+), Link to all CPUG.org posts (2,200+)
  - Creator of the self-guided video training series "Max Capture: Know Your Packets" & "Gaia 3.10 Immersion"
  - Author of Book “Max Power 2020: Check Point™ Firewall Performance Optimization”



Max Power 2020: Check Point Firewall Performance Optimization: Foreword by Dameon D. Welch-Abernathy a.k.a. PhoneBoy Paperback – January 12, 2020

by Timothy C. Hall (Author), Dameon D. Welch-Abernathy (Foreword)

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Gateway Performance Optimization Class Details

- **Prerequisites**: Minimum CCSE certification and at least 3 years experience working with Check Point™ gateways in a production environment. Preferred: Minimum 5 years of experience working with Check Point™ gateways on a production environment and knowledge of SecureXL and CoreXL.
- We will be working with the R81.20 GA Check Point™ code. Differences in R81.20 vs. older code will be highlighted; about 90% of the total class material also applies to R81.10 and earlier versions roughly back to version R80.40. R80.30 and earlier code versions are no longer officially supported by Check Point™.
- Your lab exercises are in a break/fix format. A number of issues and badly-optimized configurations based on real-world problems were introduced to your lab environment prior to class and will be rectified as you proceed through the lab exercises, running speed tests along the way to gauge the effectiveness and performance gain of your optimizations.
- The main focus of this course is the R81.20 code running on Check Point™ appliances (models 2200-28XXX), open hardware, and Maestro/Scalable Platforms (whose differences are covered by an appendix). VSX is not included. Most class material will also apply to Quantum Spark appliances (SMB models 1200-1800); some limited reference links will be provided for Quantum Spark/SMB appliances. For a great optimization guide specifically crafted for the SMB/Spark appliances, see this truly excellent CheckMates article by Hristo Grigorov: Brief introduction to SMB performance tuning.
- The material presented in this course will mostly apply to CloudGuard gateways subject to the specific limitations detailed in sk174965: Check Point™ Quantum R81.20 (Titan) Release Known Limitations and to a lesser degree Section 7 of this SK: sk141173: Check Point™ R80.20 with Gaia 3.10 for CloudGuard and Open Server Security Gateways.
- Hyperlinks shown in this document are “hot” and can be clicked to show the specified resource in your web browser.

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List of Class Modules

- Module 1 – R81.20 Performance Introduction & Concepts
- Module 2 – Network Level Optimization
- Module 3 – Basic Gaia 3.10/RHEL Optimization
- Module 4 – ClusterXL Performance Tuning
- Module 5 – CoreXL & Multi-Queue
- Module 6 – SecureXL Throughput Acceleration
- Module 7 – Access Control Policy Tuning
- Module 8 – Threat Prevention Policy Tuning
- Module 9 – HTTPS Inspection Optimization
- Module 10 – Heavy Connections/Elephant Flows & HyperFlow/Pipeline Processing
- Appendix A – Intermittent/Historical Performance Issues Investigation & Monitoring
- Appendix B – Maestro/Scalable Platforms Commands

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