Résumé for Roy Keene

CONTACT
INFORMATION

Roy Keene

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PROFESSIONAL
EXPERIENCE

Various Companies and Institutions

Network and System Administrator   **July 1999 – Present**

As a System and Network Administrator working with various private and government customers it was my duty to manage networking devices, UNIX systems, and Microsoft Windows systems for performing a variety of tasks.

COMPUTER
SKILLS

Programming Languages
- C (ANSI C89, ISO/IEC 9899:1999, and various platform extensions): Expert
- Tool Command Language (TCL): Expert
- Shell Scripting (Bourne, bash, csh, Korn): Expert
- JavaScript (Netscape/W3C DOM): Expert
- Digital Mars D: Advanced
- C++: Advanced
- Perl: Intermediate
- PHP: Intermediate
- Java: Intermediate
- Assembly (sun4m, i80x86, Z80): Intermediate
- SQL (ANSI SQL99): Intermediate
- Various esoteric programming languages

Operating Systems
- Linux (Slackware, RedHat/CentOS, Fedora, SuSE): Expert
- Solaris (2.7, 8, 9, 10): Expert
- Cisco IOS: Expert
- Foundry IOS: Expert
- OpenBSD: Expert
- Mac OS X: Advanced
- HP-UX: Intermediate
- FreeBSD: Intermediate
- NetBSD: Intermediate
- QNX: Intermediate
- Syllable: Intermediate

Hardware Platforms
- Sun Enterprise Server Systems: M9000, M5000, M3000
- Sun Server Systems: SunFire series, Ultra series, SunBlade series
- Sun Workstation Systems: Ultra series, Ultra M series
- Intel Platform: x86, amd64/x86-64/em64t, IA64
- SGI Platform: MIPS
- Alpha Platform: EV67, EV68
- HP Platform: PA-RISC 1.1, PA-RISC 2.0
- ARM Platform: armv9

Networking Technologies
- PPP over Iridium Satellite Links (including bonding over multiple links)

- PPP over cellular
- Conventional Dial-up
- SLIP over traditional and IP serial links
- Wireless Wide Area Networks (1xRTT, EV-DO, EV-DO Revision A)
- PLIP over IEEE 1284 interfaces
- Wireless Ethernet (IEEE 802.11a, IEEE 802.11b, IEEE 802.11g, IEEE 802.11n)
- Ethernet (10BaseT, 100BaseTX, 1000BaseT, 1000BaseSX, 1000BaseLX, 10000BaseLX)
- Link Aggregation (IEEE 802.3ad)
- ATM (OC-3, OC-12, OC-48)
- VLANs (IEEE 802.1q, Cisco ISL)
- Spanning Tree Protocol (STP, IEEE 802.1d) and Rapid Spanning Tree Protocol (RSTP, IEEE 802.1w)
- Quality of Service Packet Shaping (Linux-based shaping using various classes and queuing disciplines)
- Virtual Private Networks (VPN) (IPSec, PPTP, and Proprietary/Custom)

Projects
- Xen Virtualization and Clustering: High availability through data replication using DRBD and virtualization
- CACKey: Implemented PKCS#11 provider talking to PC/SC Compliant Readers for DoD Common Access Cards
- Tcl RSA: Implementation of RSA (including PKCS#1, X.509) in pure Tcl
- Web Application Framework: Framework for writing web applications in TCL including user management, role based access control, identification, and authentication
- Reactive Firewall: Light-weight IDS/IPS; Blocks hosts that send packets to various honeypots or send packets to invalid destinations outside of acceptable rates
- Asterisk Voice-over-IP: Implemented VoIP system to replace part of a legacy system, including multiple phone networks (PSTN and DSN)
- Efficient Firewall in User-space: IPTables target for processing packets in user-space, with a TCL procedure being invoked for every packet
- Reverse Utilities: TCP sockets over HTTP; Evade firewall using valid HTTP/1.0 requests; Experimented with TCP sockets over DNS
- SSE3 Emulator: Polymorphic UNIX library to implement CPU instructions missing by rewriting currently running program in real time
- Linux Kernel Patches: Various hardening and isolation patches to Linux 2.2 (prior to the existence of SELinux and GRSecurity); Various pseudo-filesystems
- Peer to Peer Communication Protocols: Various custom lightweight peer to peer message passing systems
- LibSSH: Porting to Microsoft Windows and maintenance
- ARP Monitoring and Poisoning
- DACT: Dynamic Adaptive Compression Tool
- Random Number Generation: Various random number generation techniques in software that pass the "Diehard Battery of Tests"
- BackupPCd: Deployable client for BackupPC to make backing up Microsoft Windows systems easier
- MRTG High Speed: An enhanced version of the Multi-Router Traffic Grapher than can handle links faster than 100Mbps using statistical analysis
- Protothreads Enhancements: Experiments with the smallest cooperative threading library to enhance functionality
- Anti-Spam Techniques: Greylisting, SPF/SenderID filtering, DNS RBLs
- WebDraw: Web server-side mouse tracking over HTTP/1.1 using a standard web browser
- TkWeb: Converting a TCL/Tk application into a TCL/CGI and HTML 3.2 application

- HTP: Hypertext Time Protocol: Manage the system clock using the time from remote web servers
- Wikit: Many enhancements to the simple TCL-based Wiki software
- StreamIt: Simple content-agnostic HTTP streaming software that relies on clients to rate-limit the data being sent
- Slackware Package Repository: Creation and management of a third-party repository for the Slackware Linux distribution
- MirrorGet: Download accelerator that fetches different parts of a file from different mirror servers
- DoD PKI Integration: CAC support on UNIX clients and servers for HTTPS, SSH, VPN, and physical authentication
- Simple reimplementation of basic UNIX tools prior to the existence of "busybox"
- Various Embedded Linux Systems

EDUCATION   **Long Beach High School**, Long Beach, MS 39560, USA: *Complete*
Pearl River Community College, Poplarville, MS 39470, USA: *Incomplete*
Mississippi State University, Mississippi State, MS 39762, USA: *Incomplete*

CERTIFICATIONS   CompTIA Security+ (**Active**, Satisifies DoD Directive 8570.1 for IAT-II)
NISPOM Chapter 8 Requirements for Industry (**Active**)

REFERENCES   *Available on request.*