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Autore	Keilser Jan Just
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Nota di contenuto	Cover; Copyright; Credits; About the Author; About the Reviewers; www.PacktPub.com; Table of Contents; Preface; Chapter 1: Point-to-Point Networks; Introduction; Shortest setup possible; OpenVPN secret keys; Multiple secret keys; Plaintext tunnel; Routing; Configuration files versus the command-line; Complete site-to-site setup; 3-way routing; Chapter 2: Client-server IP-only Networks; Introduction; Setting up the public and private keys; Simple configuration; Server-side routing; Using client-config-dir files; Routing: subnets on both sides; Redirecting the default gateway Using an 'ifconfig-pool' blockUsing the status file; Management interface; Proxy-arp; Chapter 3: Client-server Ethernet-style Networks; Introduction; Simple configuration-non-bridged; Enabling client-to-client traffic; Bridging-Linux; Bridging-Windows; Checking broadcast and non-IP traffic; External DHCP server; Using the status file; Management interface; Chapter 4: PKI, Certificates, and OpenSSL; Introduction; Certificate generation; xCA: a GUI for managing a PKI (Part 1); xCA: a GUI for managing a PKI (Part 2); OpenSSL tricks: x509,

pkcs12, verify output; Revoking certificates
The use of CRLsChecking expired/revoked certificates; Intermediary CAs; Multiple CAs: stacking, using --capath; Chapter 5: Two-factor Authentication with PKCS#11; Introduction; Initializing a hardware token; Getting a hardware token ID; Using a hardware token; Using the management interface to list PKCS#11 certificates; Selecting a PKCS#11 certificate using the management interface; Generating a key on the hardware token; Private method for getting a PKCS#11 certificate; Pin caching example; Chapter 6: Scripting and Plugins; Introduction; Using a client-side up/down script
Windows login greeterUsing client-connect/client-disconnect scripts; Using a 'learn-address' script; Using a 'tls-verify' script; Using an 'auth-user-pass-verify' script; Script order; Script security and logging; Using the 'down-root' plugin; Using the PAM authentication plugin; Chapter 7: Troubleshooting OpenVPN: Configurations; Introduction; Cipher mismatches; TUN versus TAP mismatches; Compression mismatches; Key mismatches; Troubleshooting MTU and tun-mtu issues; Troubleshooting network connectivity; Troubleshooting client-config-dir issues; How to read the OpenVPN log files
Chapter 8: Troubleshooting OpenVPN: RoutingIntroduction; The missing return route; Missing return routes when 'iroute' is used; All clients function except the OpenVPN endpoints; Source routing; Routing and permissions on Windows; Troubleshooting client-to-client traffic routing; Understanding the 'MULTI: bad source' warnings; Failure when redirecting the default gateway; Chapter 9: Performance Tuning; Introduction; Optimizing performance using 'ping'; Optimizing performance using iperf; OpenSSL cipher speed; Compression tests; Traffic shaping; Tuning UDP-based connections
Tuning TCP-based connections

Sommario/riassunto

100 simple and incredibly effective recipes for harnessing the power of the OpenVPN 2 network

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Sommario/riassunto

This open access book gives a systematic introduction into the spectral theory of differential operators on metric graphs. Main focus is on the fundamental relations between the spectrum and the geometry of the underlying graph. The book has two central themes: the trace formula and inverse problems. The trace formula is relating the spectrum to the set of periodic orbits and is comparable to the celebrated Selberg and Chazarain-Duistermaat-Guillemin-Melrose trace formulas. Unexpectedly this formula allows one to construct non-trivial crystalline measures and Fourier quasicrystals solving one of the long-standing problems in Fourier analysis. The remarkable story of this mathematical odyssey is presented in the first part of the book. To solve the inverse problem for Schrödinger operators on metric graphs the magnetic boundary control method is introduced. Spectral data depending on the magnetic flux allow one to solve the inverse problem in full generality, this means to reconstruct not only the potential on a given graph, but also the underlying graph itself and the vertex conditions. The book provides an excellent example of recent studies where the interplay between different fields like operator theory, algebraic geometry and number theory, leads to unexpected and sound mathematical results. The book is thought as a graduate course book where every chapter is suitable for a separate lecture and includes problems for home studies. Numerous illuminating examples make it easier to understand new concepts and develop the necessary intuition for further studies.