



Radiator RADIUS Server

Recognised world wide as the most flexible and configurable RADIUS server available

In the fast changing network environment, management of network security is paramount. Controlling who and what connects to your network is essential to protect critical infrastructure and information. Radiator gives you the most flexible and extensible RADIUS server to implement your security architecture.

The Software

Radiator RADIUS server was originally developed in 1998 - a revolutionary concept of a commercial source code product that offered a very flexible, reliable RADIUS server with the support of a well established company.

Authentication for wired and wireless networks with support for a huge range of authentication types. Designed to interoperate with any SQL database, many billing systems and web hotspot portals, Radiator offers you a wide range of options for user management with additional custom modules being easily developed. Full web GUI for configuration and monitoring.

As a source code product Radiator will run on any operating system*. Once installed and configured Radiator requires minimal system administration.

Range of Licensing suits a single server office up to the complex multiple server Telco environments.

The Implementation

Radiator is widely used by ISP, Telecommunication, University, Government and Commercial organisations in over 180 countries throughout the world.

Wireless access is now part of many companies networks and security management can be challenging. Wireless and wired access to your network can be easily managed with Radiator.

Hotspot providers in apartments, cafes, office buildings and hotels can use Radiator for authentication to their networks.

Complex requirements are easily implemented with Radiator.

The OSC Team

Our Technical Team has many years experience in the network authentication environment and is actively involved in the development of new technologies and standards. Design, customisation and development services are available.

Our Support Team provides responsive, expert answers to technical questions and has been described by our customers as simply "THE BEST".

Ongoing development of our software maintains it at the top of the RADIUS server market.



Technical Specifications

Special Features

- Unlimited users and NAS devices
- Fully featured web GUI interface for configuration and monitoring
- Username rewriting and realm stripping
- Automatically choose authentication methods based on any combination of request attributes
- Flexible and extensible event logging Logging to flat files, STDOUT, SQL, syslog, or your own logging system
- Optional session database (DBM or SQL) and web cgi script for viewing
- Supports IPv4 and IPv6 for RADIUS, proxy, TACACS+, RadSec, SNMP
- Free private server & client certificates for testing 802.1X and TLS
- SNMP support for the IETF RADIUS server MIB for gathering statistics with SNMP
- IETF RADIUS tunnelling attributes
- Integrates with complete Lawful Interception systems providing RADIUS based triggering, traffic interception, mediation & warrant management
- Full source code
- Object-Oriented design and understandable code (with many comments).

Other protocols supported

- Acts as a DIAMETER to RADIUS gateway for NAS authentication & accounting DIAMETER support includes TLS encryption, TCP or SCTP transport, accounting, PAP, CHAP, MSCHAP, MSCHAPV2 & EAP types
- Interoperates with OpenDiameter
- Can optionally act as a TACACS+ server, converting TACACS+ requests into RADIUS requests (PAP and CHAP)

Proxying

- Proxy to primary/secondary radius servers with multiple fallbacks & round-robin DNS
- Rewriting of requests & replies during forwarding & proxying
- Multiple proxy targets, with packet and attribute filtering
- Multi-homed hosts
- Standard proxy using UDP
- Proxying to other RADIUS servers by RadSec for secure reliable delivery
- Full suite of load balancing algorithms for RADIUS proxying

System requirements (*)

- Any Unix including Linux (Red Hat, Debian, Mandrake, SuSE, Lindows, Slackware, Ubuntu etc on Intel, Sparc, PPC, HP-PA etc), Solaris (Intel and Sparc), FreeBSD, NetBSD, SunOS, AIX, IRIX, SCO Open Server, Digital, HP-UX
- Windows Vista, XP, NT, 95, 98, 2000/03
- MacOS X and MacOS X server
- Novell Open Enterprise Server
- VMS
- Perl 5.005 or better, ActivePerl from ActiveState on Windows, Linux, Solaris & MacOS X
- Perl Digest-MD5 module version 2.12 or better

- Any modern server class machine
- ### RFC's
- Complies with RFCs 2138, 2139, 2548, 2619, 2621, 2865, 2866, 2867, 2868, 2869
 - DIAMETER RFCs 3588, 4005, 4072
 - EAP RFC's 2716, 2246, 2284, 2869 & 2284 <http://www.ietf.org/rfc.html>

Authentication Methods

- Authentication for many different realms, clients or any other RADIUS attribute with different databases, options & authentication methods for each
- Grouping, chaining, diverting & reusing of authentication methods even with very unusual collections of user databases
- Authentication checked in a multitude of ways: if user is in any database, if user is in all databases or any combination
- Simultaneous use checking can optionally verify sessions for most NASs
- Automatic IP address allocation from SQL database & DHCP
- Plug-in authentication handlers
- Works with almost any SQL database schema
- Multiple DEFAULT users with optional Fall-Through for special cases
- Block authentication according to time of day and day of week & force disconnection at the end of valid time blocks
- Run-time variable substitution in RADIUS reply items
- Optional tunnelling of RADIUS requests using SOAP over HTTP or HTTPS for improved security
- Flat files in standard RADIUS user database format
- Supports plaintext, Unix Crypt, MD5 crypt, Radmin RCRYPT, SHA crypt passwords in any combination
- Novell eDirectory with universal passwords
- LDAP Supports SSL and TLS connections, simple and SASL binding
- Windows Active Directory
- Microsoft Windows LSA
- NIS+, CDB, POP3, IMAP, AFS Kerberos
- PAM & any authentication method supported by PAM
- Custom one-time password systems including auto password generation & customisable back-channel password delivery via SMS
- RAdmin User Administration
- Cyrus SASL saslauthd authentication
- Legacy user databases
- External programs & scripts
- iPass & GoRemote roaming services
- RSA Security RSA Mobile
- CHAP authentication
- MSCHAP (v1 and v2) authentication & MPPE Keys as per RFC 2548.
- VOIP implementations
- RADIUS SIP Digest

Token Based Authentication

- RSA Security SecurID
- SafeWord
- VASCO Digipass

EAP 802.1X

- EAP TLS, EAP MD5-Challenge & One-Time-Password
- PEAP EAP authentication methods, including MD5, One-Time-Password (OTP), Generic Token Card (GTC), TLS
- TTLS (including PAP, CHAP, MSCHAPV1 and MSCHAPV2)
- Dynamic WEP keys supported for PEAP, TLS and TTLS
- EAP-SIM, EAP-AKA (separate module)
- Compatible with Cisco LEAP
- Can gateway between PEAP-MSCHAPV2 clients and non-EAP RADIUS servers
- Proxying of EAP requests
- Accurate TTLS RADIUS accounting
- Free Private server & client certificates for testing 802.1X authentication suitable for use with TLS, TTLS & PEAP
- Supports multi-platform TNC with XSupplicant and libtnc

EAP Clients Supported

- Windows XP & Vista, MacOS X, Xsupplicant, WPA_Supplicant, Cisco Secure Services, Alfa+Ariss SecureW2, Odyssey, Boingo, PocketPC, etc

User management/Accounting/Billing

- Radiator works with any SQL database that has Perl DBD support, including: Oracle, Informix, Sybase, mSQL, MySQL, MSSQL, ODBCInterbase, SAP, SQLite, PostgreSQL, etc
- Web portals including ChillSpot
- Utilities for creating & updating user databases in various formats
- Flat files for users & accounting
- RAdmin User Administration
- Many ISP billing packages
- Legacy accounting databases
- Micros Fidelio Opera Hotel Property Management System
- Convert passwords from Cisco Secure ACS database dumps or Juniper Networks Steel Belted RADIUS RIF export files (optional service)

Client Devices

- Supports most NAS devices including: Dialup DSL, Wireless VPN, VOIP, GPRS,
- Supports most Vendor Specific Attributes (VSA's)
- Works with pGina, a RADIUS enabled login authenticator for Windows
- Network devices from all major vendors including: Ascend, Assured Access, Apple, Altiga, Alcatel, Bay Breezecom, Cisco, 3Com Computone, Colubris, D-Link Extreme, Enterasys, Ericsson, Foundry, HP, Huawei, Netgear, KarlNet, Linksys LanCom, Nokia, Nomadix, Nortel, Orinoco, Proxim, Redback, Redcreek, Shasta, SecurityDynamics, Shiva, Spring Tide, Tigris, Trapeze, Unisphere, Xyplex, ZyXel, etc

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