

# Steel-Belted Radius<sup>®</sup> Global Enterprise Edition (GE): Authentication Solution for Today's Global Business

Today, global enterprises, government agencies and their respective networks face many obstacles. Chief among these obstacles is keeping their enterprise network secure while authenticating and managing thousands of users who require local and remote network access on a daily, if not continual basis. In many instances, these global organizations and their networks are handling more users daily or even hourly than many of the world's busiest telecom operators and service providers. To address these monumental challenges, it is critical for global organizations to select and deploy the most powerful, reliable AAA/RADIUS authentication solution available.

A AAA/RADIUS solution is vital to an organization's core ability to manage local, remote, and wireless LAN (WLAN) users. A AAA/RADIUS solution can not only dictate and manage secure access to the enterprise network; it can control how users connect and what resources they can access on the enterprise network. It also aids in accounting for a user's actions while they are connected to the enterprise network. For large worldwide organizations and government agencies, a superior, robust, fiercely-reliable solution such as Juniper Networks Steel-Belted Radius<sup>®</sup> Global Enterprise (GE) Edition delivers the ideal AAA/RADIUS solution.

Steel-Belted Radius (SBR) GE has been deployed and operated around the clock in many of the busiest networks in the world. This time- and industry-tested AAA/RADIUS server has demonstrated day in and day out the reliability, flexibility and interoperability necessary to authenticate, manage, and account for tens of thousands of users. SBR controls network access and ensures that access to the network is recorded. Plus, SBR GE manages users on wired or wireless LANs deploying the IEEE 802.1X standard from a single administration interface.

A key member of the Juniper Networks dependable, standards-based Steel-Belted Radius<sup>®</sup> family of AAA/RADIUS servers, SBR GE, like its other family members – Steel-Belted Radius Enterprise Edition (EE) and Service Provider (SP) Edition – significantly enhances the security and manageability of large enterprise and government networks. SBR GE delivers scalable authentication control, robust access policy management, and centralized configuration management with the performance needed to tackle tens of thousands of concurrent users.

With Steel-Belted Radius GE, organizations can take advantage of the breadth of capabilities found in Juniper's Steel-Belted Radius (SBR) Enterprise Edition (EE), the market-leading AAA/RADIUS server for small to mid-sized enterprises; and, organizations will also enjoy many additional features designed specifically to address deployment in the world's largest, most active networks. These features – ensuring reliable uptime, flexibility and powerful user management; and compatibility with virtually any and every network environment – allows organizations to safely implement Steel-Belted Radius GE as the centerpiece of their network security and access control architecture.

No other AAA/RADIUS product offers the robust functionality and dependability of Juniper Networks Steel-Belted Radius GE.

Steel-Belted Radius GE:

- Enhances network security by standardizing and enforcing unified authentication and security
- Delivers extremely reliable performance with a minimum of downtime and productivity loss, increasing ROI
- Places and enforces robust controls on users and their network access
- Provides unparalleled business logic controls that allow administrators to determine what levels of authentication and authorization they require based on the access being requested by the user
- Controls costs by determining and enforcing who can connect to the network, when, and for how long
- Is standards-based and vendor-agnostic, interfacing seamlessly with network access equipment from different vendors simultaneously, protecting existing network equipment investments
- Delivers cross-platform (Windows, Solaris, Linux), multi-vendor, multiple authentication method support
- Supports all popular stores of user credentials (Windows, LDAP, SQL, Token, Proxy Radius)
- Saves support staff time and expense while increasing productivity through dynamic reporting and statistics, as well as comprehensive, granularly detailed log files
- Provides virtually anytime/anywhere administration
- Decreases administrative time, load, and cost while limiting administration and configuration errors via centralized administration and management features and automated or customized configuration tools and processes
- Empowers administrators with enhanced security controls
- Integrates into a preferred SNMP management scheme enabling organizations to keep ahead of any issues that may occur on the network
- Has been designed for compatibility and interoperability and will support current and future network configurations
- Instantly accommodates new employees and legacy systems

Feature	Steel-Belted Radius® Enterprise Edition (EE)	Steel-Belted Radius® Global Enterprise Edition (GE)	Benefit
Round robin authentication and accounting across SQL or LDAP databases and directed realms for redundancy and load balancing	No	Yes	<b>Reliability</b> Steel-Belted Radius GE delivers and adheres to stringent uptime requirements so enterprises can be assured their authorized users can gain network access.
Supports “failover” to back-up SQL or LDAP database if primary database becomes unavailable	No	Yes	
Fully supports reliable database configurations and reliable hardware configurations	No	Yes	
Supports standard SNMP RADIUS authentication and accounting server MIBs, but also implements a proprietary MIB which allows events to be reported to the console	No	Yes <i>(on Solaris platform and Linux)</i>	<b>Management</b> Manage Steel-Belted Radius GE using the tools you already have in place. Robust scripting capability makes it simple to set up and manage large numbers of users. JavaScript updates extend SBR’s already formidable policy and control capabilities, enabling administrators to apply greater granularity for authentication decisions (when using an LDAP back-end data store).  And, JavaScripting for LDAP allows administrators to combine the flexibility of JavaScript with the power of the SBR LDAP authentication plug-in, providing a highly customizable solution to take care of even the most complicated business rules.
LDAP Configuration Interface allows scripting and easy access to Current Sessions list	Optional Add-on	Yes	
Straightforward, easy to use user interface makes SBR simple to configure	Yes	Yes	
Supports selective application of administrator access levels to configuration data	No	Yes	
JavaScripting update available so that more granular decisions can be applied (when authentication occurs against an LDAP back-end data store)	No	Yes	
JavaScripting for LDAP	No	Yes* JavaScript license key required	
Directed realms, which provide virtualized instances of the server allowing requests to be managed according to their nature	No	Yes	
Supports SQL, LDAP, ODBC, Tokens, Active Directories, NT Domains, Solaris NIS/NIS+, local database, and any combination of these methods	Yes	Yes	
Combine profiles and group authentication to easily configure large numbers of users with similar access privileges	Yes	Yes	<b>User Authentication</b> Easily configure the security scheme that best meets network needs and requirements. Security requirements can be varied across groups of users, or can be accommodated from legacy systems.
Grant access based on user or group membership	Yes	Yes	
Time-of-day and session-time-limits provide additional network access control	No	Yes	<b>Service Delivery</b> Authorize different users or groups of users for different levels of access to network resources.  User profiles allow the creation and assignment of similar connection characteristics to users or groups.
Account lockout based on failed access attempts and authentication attributes	No	Yes	
Configure profile settings on a user-by-user basis	Yes	Yes	
Comprehensive log files with configurable levels of detail	Yes	Yes	
The ability to specify how log files are written	No	Yes	<b>Accounting</b> Steel-Belted Radius GE compiles a complete record of all access activity on an enterprise network, which is an essential tool for diagnostics, security, and aiding in adherence to government and industry regulations.
Map different attributes with similar information to the same alias with attribute mapping, easily accommodating different equipment	No	Yes	
Reliable accounting allows for spooling of accounting data for delivery to a central repository	No	Yes	
Robust, comprehensive multi-vendor equipment support	Yes	Yes	<b>Integration</b> Steel-Belted Radius GE (and EE) easily and seamlessly integrates into any network environment, supporting and leveraging existing equipment and data infrastructure and is extensible and flexible for future use, even with equipment additions or network changes.
Supports any SQL or LDAP database, no modifications required	Yes	Yes	
Use IP or DHCP address pools	No DHCP	Yes	

Feature	Steel-Belted Radius® Enterprise Edition (EE)	Steel-Belted Radius® Global Enterprise Edition (GE)	Benefit
Supports legacy authentication protocols and EAP types (PAP, CHAP, MS-CHAP, MS-CHAP-V2, EAP-TTLS, EAP-PEAP, EAP-15, EAP-POTP (32), EAP-FAST, EAP-MD5, EAP-LEAP, EAP-TLS)	Yes	Yes	<b>Total Support</b> Provides complete management for 802.1X-based network environments, enabling the management of local, remote, and WLAN users from a single console.
Full proxy RADIUS support, serving as both target and forwarding server	Yes	Yes	<b>Flexibility</b> Steel-Belted Radius GE can easily distribute authentication and accounting to the appropriate RADIUS server.  Also, SBR GE manages multiple types of service to ensure the appropriate level of AAA enforcement for each network access point.
Handles user names of any format, easing the assimilation of new or acquired employees	No	Yes	
Proxy filtering allows for the selective modification of attributes as proxy packets flow to and from the server	No	Yes	
Attribute translation facilitates handling RADIUS requests from a variety of types of NAS clients	No	Yes	



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