

Juniper Networks VSAs

Table 1 on page 1 lists Juniper Networks VSA formats for RADIUS. JUNOS software uses the vendor ID assigned to Juniper Networks (vendor ID 4874) by the Internet Assigned Numbers Authority (IANA).

Table 1: Juniper Networks (Vendor ID 4874) VSA Formats

Attribute Number	Attribute Name	Description	Length	Subtype Length	Value
[26-1]	Virtual-Router	<ul style="list-style-type: none">Virtual router name for the Broadband Remote Access Server (B-RAS) user's IP interface.Allowed only from RADIUS server in default virtual router context.For restricted users, specifies the only virtual router that the user can access.For nonrestricted users, specifies the initial virtual router that the user accesses.See the enable command in the <i>Passwords and Security</i> chapter in <i>JUNOS System Basics Configuration Guide</i>.	len	sublen	string: virtual-router-name
[26-2]	Local-Address-Pool	<ul style="list-style-type: none">Name of an assigned address pool that should be used to assign an address for the userSame as RADIUS attribute 88, Framed-Pool	len	sublen	string: address-pool-name
[26-3]	Local-Interface	Interface to apply to the E-series side of the connection	len	sublen	string: local-interface
[26-4]	Primary-DNS	<ul style="list-style-type: none">B-RAS user's DNS address negotiated during IPCP4-octet IP address	12	6	integer: 4-byte primary-dns-address
[26-5]	Secondary-DNS	<ul style="list-style-type: none">B-RAS user's DNS address negotiated during IPCP4-octet IP address	12	6	integer: 4-byte secondary-dns-address
[26-6]	Primary-WINS (NBNS)	<ul style="list-style-type: none">B-RAS user's WINS (NBNS) address negotiated during IPCP4-octet IP address	12	6	integer: 4-byte primary-wins-address
[26-7]	Secondary-WINS (NBNS)	<ul style="list-style-type: none">B-RAS user's WINS (NBNS) address negotiated during IPCP4-octet IP address	12	6	integer: 4-byte secondary-wins-address
[26-8]	Tunnel-Virtual-Router	Virtual router name for tunnel connection	len	sublen	string: tunnel-virtual-router

Table 1: Juniper Networks (Vendor ID 4874) VSA Formats (continued)

Attribute Number	Attribute Name	Description	Length	Subtype Length	Value
[26-9]	Tunnel-Password	Tunnel password in cleartext	len	sublen	string: tunnel-password
[26-10]	Ingress-Policy-Name	Input policy name to apply to B-RAS user's interface	len	sublen	string: input-policy-name
[26-11]	Egress-Policy-Name	Output policy name to apply to B-RAS user's interface	len	sublen	string: output-policy-name
[26-12]	Ingress-Statistics	Enable or disable input statistics on B-RAS user's interface	12	6	integer: 0 = disable, 1 = enable
[26-13]	Egress-Statistics	Enable or disable output statistics on B-RAS user's interface	12	6	integer: 0 = disable, 1 = enable
[26-14]	Service-Category	ATM service category to apply to B-RAS user's interface	12	6	integer: 1 = UBR, 2 = UBR PCR, 3 = NRT VBR, 4 = CBR 5 = RT VBR,
[26-15]	PCR	<ul style="list-style-type: none"> ■ Peak cell rate ■ 4-octet integer 	12	6	integer: 4-octet
[26-16]	SCR	<ul style="list-style-type: none"> ■ Sustained cell rate ■ 4-octet integer 	12	6	integer: 4-octet
[26-17]	Mbs	<ul style="list-style-type: none"> ■ Maximum burst rate ■ 4-octet integer 	12	6	integer: 4-octet
[26-18]	Init-CLI-Access-Level	<ul style="list-style-type: none"> ■ Specifies the initial level of access to CLI commands ■ See the enable command in the <i>Passwords and Security</i> chapter in <i>JUNOS System Basics Configuration Guide</i>. 	len	sublen	single attribute: enter 0, 1, 5, 10, or 15
[26-19]	Allow-All-VR-Access	<ul style="list-style-type: none"> ■ Specifies user access to all virtual routers ■ See the enable command in the <i>Passwords and Security</i> chapter in <i>JUNOS System Basics Configuration Guide</i>. 	len	sublen	integer: 0 = disable, 1 = enable
[26-20]	Alt-CLI-Access-Level	<ul style="list-style-type: none"> ■ Specifies other levels of access to CLI commands ■ See the enable command in chapter <i>Passwords and Security</i> in <i>JUNOS System Basics Configuration Guide</i>. 	len	sublen	single attribute; enter 0, 1, 5, 10, or 15

Table 1: Juniper Networks (Vendor ID 4874) VSA Formats (continued)

Attribute Number	Attribute Name	Description	Length	Subtype Length	Value
[26-21]	Alt-CLI-Vrouter-Name	<ul style="list-style-type: none"> For restricted users, specifies other VRs that the user may access. See the enable command in chapter Passwords and Security in <i>JUNOS System Basics Configuration Guide</i>. 	len	sublen	string: virtual-router-name
[26-22]	Sa-Validate	<ul style="list-style-type: none"> Enable or disable source address validation on a user's interface 4-octet integer 	len	sublen	integer: 0 = disable, 1 = enable
[26-23]	Igmp-Enable	<ul style="list-style-type: none"> Enable or disable IGMP on a user's interface Allows the end user to register for the reception of multicast services 4-octet integer 	len	sublen	integer: 0 = disable, 1 = enable
[26-24]	Pppoe-Description	The string <i>pppoe < mac addr ></i> sent to the RADIUS server supplied by PPPoE	len	sublen	string: pppoe < mac addr >
[26-25]	Redirect-Vrouter-Name	<ul style="list-style-type: none"> Virtual router name indicating the VR context in which to authenticate the user Behavior is similar to that of a remote domain-map lookup. 	len	sublen	authentication-redirection
[26-26]	QoS-Profile-Name	Name of the QoS profile to attach to the user's interface	len	sublen	string: qos-profile-name
[26-28]	Pppoe-Url	PPPoE URL that is passed to PPPoE subscribers	len	sublen	string:URL
[26-30]	Tunnel-Nas-Port-Method	Conveys nasPort and nasPort type in tunnel	12	6	4-octet integer: 0 = none, 1 = Cisco CLID
[26-31]	Service-Bundle	Specifies the SRC service bundle	len	sublen	string
[26-33]	Tunnel-Max-Sessions	Maximum number of sessions allowed in a tunnel	12	6	integer: 4-octet
[26-34]	Framed-Ip-Route-Tag	Route tag to apply to returned framed-ip-address	12	6	integer: 4-octet
[26-35]	Tunnel-Dialout-Number	Dial number in L2TP dial-out	len	sublen	string:dial-out-number
[26-36]	PPP-Username	Username used in PPP L2TP dial-out sessions at the LNS for L2TP dial-out	len	sublen	string: ppp-username
[26-37]	PPP-Password	Password used in PPP L2TP dial-out sessions at the LNS for L2TP dial-out	len	sublen	string: ppp-password

Table 1: Juniper Networks (Vendor ID 4874) VSA Formats *(continued)*

Attribute Number	Attribute Name	Description	Length	Subtype Length	Value
[26-38]	PPP-Protocol	PPP authentication protocol used for L2TP dial-out sessions at the LNS	12	6	integer: 0 = none; 1 = PAP; 2 = CHAP; 3 = PAP-CHAP; 4 = CHAP-PAP
[26-39]	Tunnel-Min-Bps	Minimum line speed for L2TP dial-out	12	6	integer
[26-40]	Tunnel-Max-Bps	Maximum line speed for L2TP dial-out	12	6	integer
[26-41]	Tunnel-Bearer-Type	Bearer capability required for L2TP dial-out	12	6	integer: 0 = none; 1 = analog; 2 = digital
[26-42]	Input-GigaPkts	Number of times input-packets attribute rolls over its 4-octet field	12	6	integer
[26-43]	Output-GigaPkts	Number of times output-packets attribute rolls over its 4-octet field	12	6	integer
[26-44]	Tunnel-Interface-Id	Tunnel interface selector that AAA caches as part of the tunnel-session profile and the user's profile. This attribute is available to the RADIUS authentication and accounting servers.	len	sublen	string: tunnel selector
[26-45]	Ipv6-Virtual-Router	Virtual router name for B-RAS user's IPv6 interface	len	sublen	string: virtual-router-name
[26-46]	Ipv6-Local-Interface	Local IPv6 interface to apply to the E-series side of the connection	len	sublen	string: ipv6-local-interface
[26-47]	Ipv6-Primary-DNS	B-RAS user's primary IPv6 DNS address negotiated by DHCP	len	sublen	hexadecimal string: ipv6-primary-dns-address
[26-48]	Ipv6-Secondary-DNS	B-RAS user's secondary IPv6 DNS address negotiated by DHCP	len	sublen	hexadecimal string: ipv6-secondary-dns-address
[26-51]	Disconnect-Cause	L2TP PPP disconnect cause information received by the LAC	len	sublen	string:l2tp-ppp-disconnect-cause
[26-52]	Radius-Client-Address	RADIUS relay server's IP address	12	6	integer:4-octet
[26-53]	Service-Description	AAA profile service description string	len	sublen	string:profile-service-description
[26-54]	L2tp-Recv-Window-Size	<ul style="list-style-type: none"> ■ L2TP receive window size (RWS) for a tunnel on the LAC ■ Number of packets that the peer can transmit without receiving an acknowledgment from the router ■ 4-octet integer 	12	6	integer:4-octet

Table 1: Juniper Networks (Vendor ID 4874) VSA Formats *(continued)*

Attribute Number	Attribute Name	Description	Length	Subtype Length	Value
[26-55]	DHCP-Options	Client's DHCP options	len	sublen	string:dhcp-options
[26-56]	DHCP-MAC-Address	Client's MAC address	len	sublen	string:mac-address
[26-57]	DHCP-GI-Address	DHCP relay agent's IP address	12	6	integer:4-octet
[26-58]	LI-Action	Packet mirroring action	len	sublen	Salt encrypted integer: 0 = stop monitoring; 1 = start monitoring; 2 = no action
[26-59]	Med-Dev-Handle	Link to which packet mirroring is applied	len	sublen	Salt encrypted string; contains an ASCII-encoded unsigned integer
[26-60]	Med-Ip-Address	IP address of analyzer device to which mirrored packets are forwarded	len	sublen	Salt encrypted IP address
[26-61]	Med-Port-Number	UDP port in the analyzer device to which mirrored packets are forwarded	len	sublen	Salt encrypted integer
[26-62]	MLPPP-Bundle-Name	Text string that identifies the Multilink PPP bundle name	len	sublen	string:mlppp-bundle-name
[26-63]	Interface-Desc	Text string that identifies the subscriber's access interface	len	sublen	string:interface-description
[26-64]	Tunnel-Group	Name of the tunnel group assigned to a domain map	len	sublen	string:tunnel-group-name
[26-65]	Activate-Service	Service to activate for the subscriber	len	sublen	string:service-name
[26-66]	Deactivate-Service	Service to deactivate for the subscriber	len	sublen	string:service-name
[26-67]	Service-Volume-tagX	Amount of traffic, in MB, that can use the service; service is deactivated when the volume is exceeded	12	6	integer: volume in MB; 0 = infinite volume
[26-68]	Service-Timeout-tagX	Number of seconds that the service can be active; service is deactivated when the timeout expires	12	6	integer: time in seconds; 0 = no timeout
[26-69]	Service-Statistics-tagX	Enable or disable statistics for the service	12	6	integer: 0 = disable; 1 = enable time statistics; 2 = enable time and volume statistics
[26-70]	Ignore-DF-Bit	Enable or disable the ignore don't fragment (DF) bit feature on a B-RAS user's interface	12	6	integer: 0 = disable; 1 = enable

Table 1: Juniper Networks (Vendor ID 4874) VSA Formats (continued)

Attribute Number	Attribute Name	Description	Length	Subtype Length	Value
[26-71]	IGMP-Access-Name	Access List to use for the group (G) filter	len	sublen	string:32-octet
[26-72]	IGMP-Access-Src-Name	Access List to use for the source-group (S,G) filter	len	sublen	string:32-octet
[26-73]	IGMP-OIF-Map-Name	Multicast OIF (outgoing interface) mapping	len	sublen	string:32-octet
[26-74]	MLD-Access-Name	Access List to use for the group (G) filter	len	sublen	string:32-octet
[26-75]	MLD-Access-Src-Name	Access List to use for the source-group (S,G) filter	len	sublen	string:32-octet
[26-76]	MLD-OIF-Map-Name	Multicast OIF (outgoing interface) mapping	len	sublen	string:32-octet
[26-77]	MLD-Version	MLD Protocol Version (MLD Version 1 = 1; MLD Version 2 = 2)	12	6	integer:1-octet
[26-78]	IGMP-Version	IGMP Protocol Version (IGMP Version 1 = 1; IGMP Version 2 = 2; IGMP Version 3 = 3)	12	6	integer:1-octet
[26-79]	IP-Mcast-Adm-Bw-Limit	The maximum multicast bandwidth that will be admitted on an IP interface, in Kbps	12	6	integer:4-octet
[26-80]	IPv6-Mcast-Adm-Bw-Limit	The maximum multicast bandwidth that will be admitted on an IPv6 interface, in Kbps	12	6	integer:4-octet
[26-81]	L2c-Information	Series of type length value (tlv) fields (binary) representing the access loop parameters as defined in GSMP extensions for layer2 control (L2C) Topology Discovery and Line Configuration—draft-wadhwa-gsmp-l2control-configuration-00.txt (July 2006 expiration)	len	sublen	string: format is a series of type length value (tlv) fields (binary) representing the access loop parameters
[26-82]	Qos-Parameters	Name of the QoS parameter instance to create on the user's interface, followed by the value of the parameter. For example, the max-bandwidth 4000000 parameter instance represents the parameter name that was defined using the qos-parameter-define command (max-bandwidth) and the value to assign to the parameter (4000000). Multiple instances of this VSA can be returned from RADIUS using this format.	len	sublen	string: format is <i>parameter name parameter value</i> , where <i>parameter name</i> is ASCII name of a parameter name found in the QoS parameter definition and <i>parameter value</i> is the ASCII representation of 0–21474836470; multiple instances of this VSA can be returned from RADIUS using this format

Table 1: Juniper Networks (Vendor ID 4874) VSA Formats *(continued)*

Attribute Number	Attribute Name	Description	Length	Subtype Length	Value
[26-83]	Service-Session	Name of the service (including parameter values) that is associated with service manager statistics	len	sublen	string:service-name
[26-84]	Mobile-IP-Algorithm	Authentication algorithm used for Mobile IP registration	12	6	integer: 4-octet
[26-85]	Mobile-IP-SPI	Security parameter index for Mobile IP registration	12	6	integer: 4-octet
[26-86]	Mobile-IP-Key	Security association MD-5 key for Mobile IP registration	len	sublen	string: 32-octet
[26-87]	Mobile-IP-Replay	Replay time stamp for Mobile IP registration	12	6	integer: 4-octet
[26-88]	Mobile-IP-Access-Control-List	Access control list to filter on basis of care-of address	len	sublen	string: 32-octet
[26-89]	Mobile-IP-Lifetime	Registration lifetime for Mobile IP registration	12	6	integer: 4-octet
[26-90]	L2TP-Resynch-Method	L2TP peer resynchronization method	12	6	integer: 0 = disabled; 1 = failover protocol; 2 = silent failover; 3 = failover protocol with silent failover as backup
[26-91]	Tunnel-Switch-Profile	<ul style="list-style-type: none"> ■ Name of the L2TP tunnel switch profile ■ The L2TP tunnel switch profile defines the L2TP tunnel switching behavior for the interfaces to which this profile is assigned 	len	sublen	string: tunnel-switch-profile
[26-92]	L2C-Up-Stream-Data	Actual upstream rate access loop parameter (ASCII encoded) as defined in GSMP extensions for layer2 control (L2C) Topology Discovery and Line Configuration—draft-wadhwa-gsmp-l2control-configuration-00.txt (July 2006 expiration).	len	sublen	string: actual upstream rate access loop parameter (ASCII encoded)
[26-93]	L2C-Down-Stream-Data	Actual downstream rate access loop parameter (ASCII encoded) as defined in GSMP extensions for layer2 control (L2C) Topology Discovery and Line Configuration—draft-wadhwa-gsmp-l2control-configuration-00.txt (July 2006 expiration).	len	sublen	string: actual downstream rate access loop parameter (ASCII encoded)

Table 1: Juniper Networks (Vendor ID 4874) VSA Formats *(continued)*

Attribute Number	Attribute Name	Description	Length	Subtype Length	Value
[26-94]	Tunnel-Tx-Speed-Method	The method that the router uses to calculate the transmit connect speed of the subscriber's access interface. This speed is reported in L2TP Transmit (TX) Speed AVP 24. During the establishment of an L2TP tunnel session, the LAC sends AVP 24 to the LNS to convey the transmit speed of the subscriber's access interface.	12	6	integer: 1 = static-layer2, TX speed based on static layer 2 settings; 2 = dynamic-layer2, TX speed based on dynamic layer 2 settings; 3 = qos, TX speed based on QoS settings; 4 = actual, TX speed that is the lesser of the dynamic-layer2 value or the qos value
[26-95]	IGMP-Query-Interval	IGMP Query Interval	12	6	integer: 4-octet
[26-96]	IGMP-Max-Resp-Time	IGMP Maximum Response Time	12	6	integer: 4-octet
[26-97]	IGMP-Immediate-Leave	IGMP Immediate Leave	12	6	4-octet integer: 0 = disabled 1 = enabled
[26-98]	MLD-Query-Interval	MLD Query Interval	12	6	integer: 4-octet
[26-99]	MLD-Max-Resp-Time	MLD Maximum Response Time	12	6	integer: 4-octet
[26-100]	MLD-Immediate-Leave	MLD Immediate Leave	12	6	4-octet integer: 0 = disabled 1 = enabled
[26-110]	Acc-Loop-Cir-Id	Identification of the subscriber node connection to the access node	len	sublen	string: up to 63 ASCII characters
[26-111]	Acc-Aggr-Cir-Id-Bin	Unique identification of the DSL line	len	sublen	integer: 8-octet
[26-112]	Acc-Aggr-Cir-Id-Asc	Identification of the uplink on the access node. For example: <ul style="list-style-type: none">■ For Ethernet access aggregation: <i>ethernet slot/port [:inner-vlan-id] [:outer-vlan-id]</i>■ For ATM aggregation: <i>atm slot/port:vpi.vci</i>	len	sublen	string: up to 63 ASCII characters
[26-113]	Act-Data-Rate-Up	Actual upstream data rate of the subscriber's synchronized DSL link	12	6	integer: 4-octet
[26-114]	Act-Data-Rate-Dn	Actual downstream data rate of the subscriber's synchronized DSL link	12	6	integer: 4-octet
[26-115]	Min-Data-Rate-Up	Minimum upstream data rate configured for the subscriber	12	6	integer: 4-octet

Table 1: Juniper Networks (Vendor ID 4874) VSA Formats *(continued)*

Attribute Number	Attribute Name	Description	Length	Subtype Length	Value
[26-116]	Min-Data-Rate-Dn	Minimum downstream data rate configured for the subscriber	12	6	integer: 4-octet
[26-117]	Att-Data-Rate-Up	Upstream data rate that the subscriber can attain	12	6	integer: 4-octet
[26-118]	Att-Data-Rate-Dn	Downstream data rate that the subscriber can attain	12	6	integer: 4-octet
[26-119]	Max-Data-Rate-Up	Maximum upstream data rate configured for the subscriber	12	6	integer: 4-octet
[26-120]	Max-Data-Rate-Dn	Maximum downstream data rate configured for the subscriber	12	6	integer: 4-octet
[26-121]	Min-LP-Data-Rate-Up	Minimum upstream data rate in low power state configured for the subscriber	12	6	integer: 4-octet
[26-122]	Min-LP-Data-Rate-Dn	Minimum downstream data rate in low power state configured for the subscriber	12	6	integer: 4-octet
[26-123]	Max-Interlv-Delay-Up	Maximum one-way upstream interleaving delay configured for the subscriber	12	6	integer: 4-octet
[26-124]	Act-Interlv-Delay-Up	Subscriber's actual one-way upstream interleaving delay	12	6	integer: 4-octet
[26-125]	Max-Interlv-Delay-Dn	Maximum one-way downstream interleaving delay configured for the subscriber	12	6	integer: 4-octet
[26-126]	Act-Interlv-Delay-Dn	Subscriber's actual one-way downstream interleaving delay	12	6	integer: 4-octet
[26-127]	DSL-Line-State	State of the DSL line	12	6	4-octet integer 1 = Show uptime 2 = Idle 3 = Silent
[26-128]	DSL-Type	Encapsulation used by the subscriber associated with the DSLAM interface from which requests are initiated	11	5	string: 3-byte
[26-129]	Ipv6-NdRa-Prefix	Prefix value in IPv6 Neighbor Discovery route advertisements	len	sublen	hexadecimal string
[26-130]	QoS-Interfaceset-Name	Name of the QoS interface set to attach to the subscriber interface	len	sublen	string: qos-interfaceset-name
[26-140]	Service-Interim-Acct-Interval	Amount of time between interim accounting updates for this service.	12	6	integer: time in the range 600–86400 seconds; 0 = disabled

Table 1: Juniper Networks (Vendor ID 4874) VSA Formats *(continued)*

Attribute Number	Attribute Name	Description	Length	Subtype Length	Value
[26-141]	Downstream-Calculated-QoS-Rate	Calculated downstream QoS rate in Kbps as set by the ANCP configuration	12	6	integer: 4-octet
[26-142]	Upstream-Calculated-QoS-Rate	Calculated downstream QoS rate in Kbps as set by the ANCP configuration	12	6	integer: 4-octet
[26-143]	Max-Clients-Per-Interface	Maximum number of PPPoE client sessions supported per interface. For DHCP clients, this value is the maximum number of PPPoE sessions per logical interface. For PPPoE, this value is the maximum number of PPPoE subinterfaces per a PPPoE major interface.	12	6	integer: 4-octet
[26-144]	PPP-Monitor-Ingress-Only	Enable or disable monitoring of only ingress traffic to determine inactivity of a PPP session and subsequent disconnection of an inactive session. If this option is disabled or not configured, the router monitors both ingress traffic and egress traffic to determine session inactivity.	12	6	integer: 0 = disable, 1 = enable