

Chapter 36

DTD for Layer 2 Address Learning Response Tags

This chapter contains the Extensible Markup Language (XML) document type definition (DTD) called `junos-l2al.dtd`, which lists the JUNOS XML tags that contain Layer 2 address learning information. The associated XML namespace is `http://xml.juniper.net/junos/9.4R1/junos-l2al`. To review reference pages for the tags, see “Summary of Layer 2 Address Learning Response Tags” on page 1027.

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<!-- Copyright (c) 2000-2008, Juniper Networks, Inc. -->
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<!-- All rights reserved. -->
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```
<!-- junos-l2al.dtd -->
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```
<!ELEMENT bd-name (#PCDATA)>
```

```
<!ELEMENT bridge-statistics-information (l2ald-rtb-entry | interface-statistics)*>
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```
<!ELEMENT broadcast-bytes (#PCDATA)>
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<!ELEMENT broadcast-packets (#PCDATA)>
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<!ELEMENT byte-count (#PCDATA)>
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<!ELEMENT component-nhindex (#PCDATA)>
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<!ELEMENT event-error (#PCDATA)>
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```
<!ELEMENT event-name (#PCDATA)>
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<!ELEMENT event-op (#PCDATA)>
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<!ELEMENT event-owner (#PCDATA)>
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<!ELEMENT event-type (#PCDATA)>
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```
<!ELEMENT flood-group-composite-function (#PCDATA)>
```

```
<!ELEMENT flood-nh-components (interface-name | interface-type | nh-type | nhindex)*>
```

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<![ATTLIST flood-nh-components junos:style CDATA #IMPLIED]>
```

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<!ELEMENT flood-nh-group (flood-nh-group-name | flood-nh-group-type | nh-type | nhindex  
| flood-group-composite-function | flood-nh-components | flood-nh-p2mp-components)*>
```

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<![ATTLIST flood-nh-group junos:style CDATA #IMPLIED]>
```

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<!ELEMENT flood-nh-group-name (#PCDATA)>

<!ELEMENT flood-nh-group-type (#PCDATA)>

<!ELEMENT flood-nh-p2mp-components (component-nhindex)*>

<!ELEMENT flood-route (route-prefix | route-type | owner | route-flood-group-name |
route-flood-group-index | nh-type | nhindex | flood-nh-p2mp-components |
flood-nh-components | flood-nh-group)*>
<!ATTLIST flood-route junos:style CDATA #IMPLIED>

<!ELEMENT flooded-bytes (#PCDATA)>

<!ELEMENT flooded-packets (#PCDATA)>

<!ELEMENT instance-name (#PCDATA)>

<!ELEMENT interface (interface-name | interface-id | interface-description |
local-interface-index | interface-flags | interface-flags-description)*>

<!ELEMENT interface-description (#PCDATA)>

<!ELEMENT interface-flags (#PCDATA)>

<!ELEMENT interface-flags-description (#PCDATA)>

<!ELEMENT interface-id (#PCDATA)>

<!ELEMENT interface-name (#PCDATA)>

<!ELEMENT interface-statistics (interface | remote-pe | broadcast-packets |
broadcast-bytes | multicast-packets | multicast-bytes | flooded-packets | flooded-bytes |
unicast-packets | unicast-bytes | mac-limit | num-mac-count)*>

<!ELEMENT interface-type (#PCDATA)>

<!ELEMENT I2-bridge-vlan (#PCDATA)>

<!ELEMENT I2-mac-address (#PCDATA)>

<!ELEMENT I2-mac-bridging-domain (#PCDATA)>

<!ELEMENT I2-mac-entry-flags (#PCDATA)>

<!ELEMENT I2-mac-epoch (#PCDATA)>

<!ELEMENT I2-mac-flags (#PCDATA)>

<!ELEMENT I2-mac-ifl-generation (#PCDATA)>

<!ELEMENT I2-mac-interface-device (#PCDATA)>

<!ELEMENT I2-mac-learn-mask (#PCDATA)>

<!ELEMENT I2-mac-logical-interface (#PCDATA)>

<!ELEMENT I2-mac-logical-system (#PCDATA)>

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<!ELEMENT I2-mac-routing-instance (#PCDATA)>

<!ELEMENT I2-mac-sequence-number (#PCDATA)>

<!ELEMENT I2-mac-stp-index (#PCDATA)>

<!ELEMENT I2-mac-vlan (#PCDATA)>

<!ELEMENT I2ald-bridge-domain-flood-event-info (event-name | event-type | event-owner
| event-op | event-error)*>
<!ATTLIST I2ald-bridge-domain-flood-event-info junos:style CDATA #IMPLIED>

<!ELEMENT I2ald-bridge-domain-flood-event-list (I2ald-bridge-domain-flood-event-info)*>

<!ELEMENT I2ald-bridge-domain-flood-event-queue (I2ald-bridge-domain-flood-next-event
| I2ald-bridge-domain-flood-event-list)*>

<!ELEMENT I2ald-bridge-domain-flood-instance (I2ald-bridge-domain-lr-information)*>

<!ELEMENT I2ald-bridge-domain-flood-instance-information (instance-name |
num-active-ce-iffs | num-active-ve-iffs | flood-route)*>
<!ATTLIST I2ald-bridge-domain-flood-instance-information junos:style CDATA #IMPLIED>

<!ELEMENT I2ald-bridge-domain-flood-next-event
(I2ald-bridge-domain-flood-event-info)*>

<!ELEMENT I2ald-bridge-domain-flood-route-information (flood-route)*>

<!ELEMENT I2ald-bridge-domain-lr-information (logical-system-info |
I2ald-bridge-domain-flood-instance-information)*>

<!ELEMENT I2ald-bridge-instance-group (I2rtb-name | I2rtb-bridging-domain |
I2rtb-instance-description | I2rtb-instance-type | I2rtb-instance-state |
I2rtb-instance-restart-state | I2rtb-instance-pathse1-timeout | I2rtb-interface-name |
I2rtb-macs-learned | I2rtb-instance-flags | I2rtb-bridge-vlan | I2rtb-brief-summary)*>

<!ELEMENT I2ald-bridge-instance-information (I2ald-bridge-instance-group)*>
<!ATTLIST I2ald-bridge-instance-information junos:style CDATA #IMPLIED>

<!ELEMENT I2ald-config-flag (#PCDATA)>

<!ELEMENT I2ald-config-smac-count (#PCDATA)>

<!ELEMENT I2ald-global-configuration (I2ald-mac-aging-time | I2ald-config-flag |
I2ald-mac-learning-status | I2ald-hardware-mac-learning-status |
I2ald-software-mac-learning-status | I2ald-statistics-status | I2ald-sequence-number |
I2ald-mac-learn-toggle-count | I2ald-hardware-mac-learn-toggle-count |
I2ald-software-mac-learn-toggle-count | I2ald-statistics-toggle-count |
I2ald-global-mac-limit-count | I2ald-global-mac-limit | I2ald-global-packet-action-drop |
I2ald-interface-mac-limit-wm | I2ald-rtb-mac-limit-wm | I2ald-mac-limit-wm |
I2ald-interface-mac-limit-timeout | I2ald-rtb-mac-limit-timeout | I2ald-mac-limit-timeout |
I2ald-config-smac-count | I2ald-non-config-smac-count)*>
<!ATTLIST I2ald-global-configuration junos:style CDATA #IMPLIED>

<!ELEMENT I2ald-global-mac-limit (#PCDATA)>

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<!ELEMENT I2ald-global-mac-limit-count (#PCDATA)>

<!ELEMENT I2ald-global-macdb (I2ald-mac-entry)*>

<!ELEMENT I2ald-global-macdb-count (mac-count)*>

<!ELEMENT I2ald-global-packet-action-drop (#PCDATA)>

<!ELEMENT I2ald-hardware-mac-learn-toggle-count (#PCDATA)>

<!ELEMENT I2ald-hardware-mac-learning-status (#PCDATA)>

<!ELEMENT I2ald-if-mac-count-entry (interface-name | mac-count)*>
<!ATTLIST I2ald-if-mac-count-entry junos:style CDATA #IMPLIED>

<!ELEMENT I2ald-interface-mac-count (I2ald-total-intf-mac-count |
I2ald-if-mac-count-entry)*>

<!ELEMENT I2ald-interface-mac-limit-timeout (#PCDATA)>

<!ELEMENT I2ald-interface-mac-limit-wm (#PCDATA)>

<!ELEMENT I2ald-interface-macdb (I2ald-macdb-if-name | I2ald-mac-entry)*>

<!ELEMENT I2ald-mac-aging-time (#PCDATA)>

<!ELEMENT I2ald-mac-destination-address-statistics (packet-count | byte-count)*>

<!ELEMENT I2ald-mac-entry (I2-mac-address | I2-mac-interface-device |
I2-mac-logical-interface | I2-mac-routing-instance | I2-mac-bridging-domain |
I2-mac-logical-system | I2-mac-vlan | I2-mac-stp-index | I2-mac-epoch |
I2-mac-ifl-generation | I2-mac-sequence-number | I2-mac-learn-mask | I2-mac-entry-flags
| I2-mac-flags | I2-bridge-vlan | I2ald-mac-source-address-statistics |
I2ald-mac-destination-address-statistics)*>
<!ATTLIST I2ald-mac-entry junos:style CDATA #IMPLIED>

<!ELEMENT I2ald-mac-learn-toggle-count (#PCDATA)>

<!ELEMENT I2ald-mac-learning-status (#PCDATA)>

<!ELEMENT I2ald-mac-limit-timeout (#PCDATA)>

<!ELEMENT I2ald-mac-limit-wm (#PCDATA)>

<!ELEMENT I2ald-mac-source-address-statistics (packet-count | byte-count)*>

<!ELEMENT I2ald-macdb-if-name (#PCDATA)>

<!ELEMENT I2ald-macdb-rtb-name (#PCDATA)>

<!ELEMENT I2ald-non-config-smac-count (#PCDATA)>

<!ELEMENT I2ald-perf-counters (perf-desc | perf-count | perf-start-time-sec |
perf-start-time-usec | perf-end-time-sec | perf-end-time-usec | perf-diff-time-sec |
perf-diff-time-usec)*>

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<!ELEMENT I2ald-rtb-entry (I2rtb-name | I2rtb-bridging-domain | I2rtb-id | I2bd-id |
I2bd-vlan-id | I2rtb-logical-system | I2rtb-sequence-number | I2rtb-mac-limit |
I2rtb-macs-learned | I2rtb-config-smacs-learned | I2rtb-non-config-smacs-learned |
I2rtb-flags | I2rtb-irb-interface | I2rtb-irb-interface-index | I2rtb-handle |
I2rtb-config-bd-vlan | I2rtb-config-operation | I2rtb-config-flags | I2rtb-config-params |
I2rtb-instance-type | I2rtb-config-smac-count | I2rtb-rtsock-write-errors)*>
<!ATTLIST I2ald-rtb-entry junos:style CDATA #IMPLIED>

<!ELEMENT I2ald-rtb-if-mac-count (I2ald-rtb-if-mac-count-entry)*>

<!ELEMENT I2ald-rtb-if-mac-count-entry (interface-name | mac-count)*>

<!ELEMENT I2ald-rtb-learn-vlan-mac-count (I2ald-rtb-learn-vlan-mac-count-entry)*>

<!ELEMENT I2ald-rtb-learn-vlan-mac-count-entry (learn-vlan | mac-count)*>

<!ELEMENT I2ald-rtb-mac-count (I2ald-rtb-mac-count-entry)*>

<!ELEMENT I2ald-rtb-mac-count-entry (rtb-name | bd-name | rtb-mac-count |
I2ald-rtb-if-mac-count | I2ald-rtb-learn-vlan-mac-count)*>

<!ELEMENT I2ald-rtb-mac-learn-address (#PCDATA)>

<!ELEMENT I2ald-rtb-mac-learn-count (I2ald-rtb-mac-learn-address |
I2ald-rtb-mac-learn-num-times)*>

<!ELEMENT I2ald-rtb-mac-learn-num-times (#PCDATA)>

<!ELEMENT I2ald-rtb-mac-limit-timeout (#PCDATA)>

<!ELEMENT I2ald-rtb-mac-limit-wm (#PCDATA)>

<!ELEMENT I2ald-rtb-macdb (I2ald-macdb-rtb-name | I2ald-mac-entry)*>

<!ELEMENT I2ald-sequence-number (#PCDATA)>

<!ELEMENT I2ald-software-mac-learn-toggle-count (#PCDATA)>

<!ELEMENT I2ald-software-mac-learning-status (#PCDATA)>

<!ELEMENT I2ald-statistics-status (#PCDATA)>

<!ELEMENT I2ald-statistics-toggle-count (#PCDATA)>

<!ELEMENT I2ald-total-intf-mac-count (#PCDATA)>

<!ELEMENT I2ald-vpls-flood-event-info (event-name | event-type | event-owner | event-op
| event-error)*>
<!ATTLIST I2ald-vpls-flood-event-info junos:style CDATA #IMPLIED>

<!ELEMENT I2ald-vpls-flood-event-list (I2ald-vpls-flood-event-info)*>

<!ELEMENT I2ald-vpls-flood-event-queue (I2ald-vpls-flood-next-event |
I2ald-vpls-flood-event-list)*>

<!ELEMENT I2ald-vpls-flood-instance (I2ald-vpls-lr-information)*>

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<!ELEMENT I2ald-vpls-flood-instance-information (instance-name | num-active-ce-iffs |
num-active-ve-iffs | flood-route)*>
<!ATTLIST I2ald-vpls-flood-instance-information junos:style CDATA #IMPLIED>

<!ELEMENT I2ald-vpls-flood-next-event (I2ald-vpls-flood-event-info)*>

<!ELEMENT I2ald-vpls-flood-route-information (flood-route)*>

<!ELEMENT I2ald-vpls-lr-information (logical-system-info |
I2ald-vpls-flood-instance-information)*>

<!ELEMENT I2bd-id (#PCDATA)>

<!ELEMENT I2bd-vlan-id (#PCDATA)>

<!ELEMENT I2rtb-bridge-vlan (#PCDATA)>

<!ELEMENT I2rtb-bridging-domain (#PCDATA)>

<!ELEMENT I2rtb-brief-summary EMPTY>

<!ELEMENT I2rtb-config-bd-vlan (#PCDATA)>

<!ELEMENT I2rtb-config-flags (#PCDATA)>

<!ELEMENT I2rtb-config-operation (#PCDATA)>

<!ELEMENT I2rtb-config-params (#PCDATA)>

<!ELEMENT I2rtb-config-smac-count (#PCDATA)>

<!ELEMENT I2rtb-config-smacs-learned (#PCDATA)>

<!ELEMENT I2rtb-flags (#PCDATA)>

<!ELEMENT I2rtb-handle (#PCDATA)>

<!ELEMENT I2rtb-id (#PCDATA)>

<!ELEMENT I2rtb-instance-description (#PCDATA)>

<!ELEMENT I2rtb-instance-flags (#PCDATA)>

<!ELEMENT I2rtb-instance-pathse1-timeout (#PCDATA)>

<!ELEMENT I2rtb-instance-restart-state (#PCDATA)>

<!ELEMENT I2rtb-instance-state (#PCDATA)>

<!ELEMENT I2rtb-instance-type (#PCDATA)>

<!ELEMENT I2rtb-interface-name (#PCDATA)>

<!ELEMENT I2rtb-irb-interface (#PCDATA)>

<!ELEMENT I2rtb-irb-interface-index (#PCDATA)>

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<!ELEMENT l2rtb-logical-system (#PCDATA)>
<!ELEMENT l2rtb-mac-limit (#PCDATA)>
<!ELEMENT l2rtb-macs-learned (#PCDATA)>
<!ELEMENT l2rtb-name (#PCDATA)>
<!ELEMENT l2rtb-non-config-smacs-learned (#PCDATA)>
<!ELEMENT l2rtb-rtsock-write-errors (#PCDATA)>
<!ELEMENT l2rtb-sequence-number (#PCDATA)>
<!ELEMENT learn-vlan (#PCDATA)>
<!ELEMENT local-interface-index (#PCDATA)>
<!ELEMENT logical-system-info (logical-system-name)*>
<!ELEMENT logical-system-name (#PCDATA)>
<!ELEMENT mac-count (#PCDATA)>
<!ELEMENT mac-limit (#PCDATA)>
<!ELEMENT multicast-bytes (#PCDATA)>
<!ELEMENT multicast-packets (#PCDATA)>
<!ELEMENT nhindex (#PCDATA)>
<!ELEMENT nhtype (#PCDATA)>
<!ELEMENT num-active-ce-iffs (#PCDATA)>
<!ELEMENT num-active-ve-iffs (#PCDATA)>
<!ELEMENT num-mac-count (#PCDATA)>
<!ELEMENT owner (#PCDATA)>
<!ELEMENT packet-count (#PCDATA)>
<!ELEMENT perf-count (#PCDATA)>
<!ELEMENT perf-desc (#PCDATA)>
<!ELEMENT perf-diff-time-sec (#PCDATA)>
<!ELEMENT perf-diff-time-usec (#PCDATA)>
<!ELEMENT perf-end-time-sec (#PCDATA)>
<!ELEMENT perf-end-time-usec (#PCDATA)>
<!ELEMENT perf-start-time-sec (#PCDATA)>

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<!ELEMENT perf-start-time-usec (#PCDATA)>  
<!ELEMENT remote-pe (#PCDATA)>  
<!ELEMENT route-flood-group-index (#PCDATA)>  
<!ELEMENT route-flood-group-name (#PCDATA)>  
<!ELEMENT route-prefix (#PCDATA)>  
<!ELEMENT route-type (#PCDATA)>  
<!ELEMENT rtb-mac-count (#PCDATA)>  
<!ELEMENT rtb-name (#PCDATA)>  
<!ELEMENT unicast-bytes (#PCDATA)>  
<!ELEMENT unicast-packets (#PCDATA)>
```