



# 128T 4.3 Release Notes

## Release 4.3.12

### Resolved Issues

- **I95-39167 IP violations caused by un-natted packets:** Resolved an issue where ICMP unreachables on an LTE interface are generating IP violations causing an unexpected disconnect.

## Release 4.3.11

### WARNING

SSH Root Login is not permitted.

Before upgrading, ensure that there is at least one user on each 128T system that has sudo privileges. Failure to do so may result in the loss of remote management connectivity to the 128T Networking Platform. Please see the [Installation Overview](#) for additional information.

### Resolved Issues

- **I95-35164 Concurrent upgrade and download activity causes invalid upgrade.** The download of a new software image during an upgrade has been blocked.
- **I95-35354 Unlikely race condition during asynchronous upgrade and download causes premature termination of upgrade.** The possibility of asynchronous download and upgrade/install has been removed and the race condition resolved.
- **I95-35567, I95-37833 Weak Password Policy.** New restrictions on password properties have been added to ensure strong passwords.

- **I95-37211 Webserver Quickstart Integration.** Several improvements have been made to the Quickstart process during the OTP ISO installation, including a significantly shorter run time.
- **I95-37225 Routers disconnect from their Conductors.** Improved the handling of clock drift between multiple worker cores within the datapath.
- **I95-37642 A user cannot change their password from the 128T GUI.** A user can now change their 128T password from the web application GUI.
- **I95-37644/I95-37809 Analytics backend requests do not adhere to a strict schema.** This vulnerability has been addressed, and fixes put in place to prevent SQL injection attacks.
- **I95-37645 Restriction of excessive authentication attempts.** [The user is now locked out after six failed login attempts.](#)
- **I95-37646 Password Change does not require current password.** The password change process has been strengthened, and now requires the current password.
- **I95-37647 Server-Sent-Events pass values in the clear for some internal request URIs.** Vulnerabilities identified with server sent events have been resolved.
- **I95-37651 Unrestricted File Upload.** [Restrictions are in place](#) that make it impossible to import or upload files that do not match tar.gz format.
- **I95-37652 SSH Follows Weak Security Practices.** [Several fixes have been put in place to harden SSH access.](#) Please see the warning regarding SSH Root Login at the top of this page.

 NOTE

As part of the SSH hardening process, inactive SSH sessions will be logged out after 60 minutes. Please see [Access Management](#) for additional information.

- **I95-37666 Excessive ARPs from Broadband modem causing a Link Down condition.** The per-pipe restrictions have been lifted and distributions for the application scheduler have been rebalanced.
- **I95-37777 Adding SNMP configuration may cause webserver to be inaccessible.** This issue has been resolved; adding SNMP configurations no longer impacts the Webserver.
- **I95-37800 Apply MSS Clamping on SYN/SYN+ACK packets.** MSS enforcement has been enabled on SYN-ACK packets.
- **I95-37819 Ensure rsyslog default file permissions are configured.** The default file permissions for log files created by rsyslog are set.
- **I95-37822 Ensure the noexec option is set on the /dev/shm partition.** The shared memory partition /dev/shm is configured with the noexec mount option during initialization.
- **I95-37823 Ensure the "sticky bit" is set correctly on all world-writable directories.** The bit is set to protect all world-writable directories.
- **I95-37824 Ensure that AIDE (Advanced Intrusion Detection Environment) is installed.** The AIDE package is installed and is a 128T dependency.
- **I95-37828 Ensure core dumps are restricted.** Coredump tuning has been updated with the latest security settings, and will not be collected on processes with privilege escalation.
- **I95-37830 Ensure permissions on /etc/crontab and related cron files are configured.** The permissions on cron files have been updated with the latest security settings.
- **I95-37831 The default umask setting on user-created files must be more restrictive.** The default umask setting has been updated to be more restrictive.

- **I95-37841 Sessions would not revert back when at least one is configured for outbound-only.** Resolved an error condition where a session would not revert back to a preferred path when at least one of the paths was configured for outbound-only.

**Symptoms:** When this condition has been encountered, message(s) similar to the following can be seen in the highway.log

```
Error serializing local interface <port>.<vlan> to global-interface-id
```

- **I95-37843 Require username and password when updating environmental configuration.** The initializer has been updated to require both a username and password when installing 128T and configuring it as the second peer in an HA configuration.
- **I95-37908 The routingEngine.log is not rotated.** Log rotation has been updated to rotate the routingEngine log file.
- **I95-38008 Automated Provisioner race condition.** Resolved an issue causing a race condition when multiple events arrived at the same time.
- **I95-38078 CVE updates.** Addressed latest CVEs.

## Release 4.3.10

### Resolved Issues

- **I95-34650** In a multihop SVR scenario, the system may incorrectly attribute incoming packets as coming from a different peer path. This results in packet loss until the load-balancer learns of the loss and migrates the session.

**Symptom:** `show peers` will show the physically disconnected peer as UP while in this state.

- **I95-35927** When deleting a VLAN network interface and simultaneously assigning its VLAN ID to the only other remaining network interface on the same device interface, future operational state changes

on that interface may be ignored.

- **I95-36341** Race condition can occur when receiving a BGP packet destined for the 128T during startup without a fully populated FIB, causing a system fault.
- **I95-36564** Higher pinned core count may result in large packet latency on session setup, when a burst of new sessions are being setup.
- **I95-36672** Deleting all session-capture filters on a *device-interface* with active traffic can cause the highway process to restart.
- **I95-36727** A non-forwarding, external (i.e. management) interface configured in 128T does not obtain a DHCP IP upon disconnecting and reconnecting the cable.
- **I95-36770** Salt minion log file was not being properly rotated.
- **I95-36780** SNMP Traps are incorrectly sent for routers in maintenance mode when peer path goes down.
- **I95-36841** TCP RST can cause the highway process to fault on a SVR path performing UDP transform.
- **I95-36850** An asset's available and downloaded versions are incorrectly cleared when an upgrade or rollback is initiated.
- **I95-36873** Alarms generated by a router in an authority are incorrectly sent as SNMP traps from all other routers in the authority.
- **I95-36927** A race condition exists that can cause a fault in the highway process during session setup and configuration changes, that will remove the BGP service route path.

- **I95-37021, I95-37026** Configuring overlapping session-types could cause the highway process to ignore the configuration change.
- **I95-37042** 128T process `prank` journal logs were incorrectly excluded from output of `save tech-support-info`.
- **I95-37168** Race condition can cause system fault when creating candidate configuration.
- **I95-37197** Configuration validation will now fail if you configure overlapping session-type ranges within the same protocol.
- **I95-37304** Automatic installation recovery procedure can inadvertently terminate an in-process upgrade resulting in a 128T system not being able to boot.
- **I95-37338** When connection resiliency is enabled, the salt-minion on managed routers can intermittently disconnect.
- **I95-37341** Support for Azure Accelerated Networking MT27710 ConnectX-4 LX Virtual Function device.
- **I95-37402** The output of `show stats` is missing from tech-support-info.
- **I95-37442** The summary is missing from PCLI `ping` and `service-ping`.
- **I95-37457** `show rib` and `show bgp` do not support more than one pagination session.
- **I95-37513** Network interface cards that do not respond to physical stats may result in system lockup.
- **I95-37577** LDAP authentication fails for users that contain a '`'` in their name.

- **I95-37588** Value for `configure > authority > router > system > software-update > repository > address` uses the first lexicographically sorted router for all other routers in authority instead of using a unique value per router.
- **I95-37650** The 128T web UI incorrectly supports being embedded as an iFrame within another page.
- **I95-37660** Outdated python-pip package exposes vulnerability to sniffing, cross-origin redirect, or injection attacks.
- **I95-37680** nodeMonitor process may fault on shutdown of 128T.

## Release 4.3.9

### Resolved Issues

- **I95-18807** Innocuous error produced in journal due to imudp module loaded by rsyslog daemon  
**Symptoms:** The following message can be seen in the journal

```
rsyslogd[1337]: imudp: module loaded, but no listeners defined - no input will be gathered [v8.24.0 try http://www.rsyslog.com/e/2212 ]
```
- **I95-32298** KNI interfaces created by the IPsec plugin do not transition to "operationally down" when being set to "administrative down"
- **I95-33471** Adaptive encryption counters are incorrectly incremented when encryption is disabled and adaptive-encryption is enabled
- **I95-33594** Changing the `neighbor-as` of an existing BGP neighbor prevents it from connecting

Until the system is upgraded to 4.3.9, this issue can be mitigated by restarting the 128T or by removing and recreating the BGP configuration

- **I95-33989** Incorrect error message reported within PCLI when trying to execute `validate` after a previous `validate` was terminated with `CTRL+c`

**Symptom:** The following can be seen in the PCLI output:

```
* Validating...
% Error: Candidate configuration is invalid:
1. A request of type validate is already in progress. The first request was
started 13 seconds ago
```

Until the system is upgraded to 4.3.9, this issue will resolve itself after the background tasks have completed

- **I95-35111** `No active NTP server` alarm erroneously generated when 128T can successfully reach a provisioned NTP server

**Conditions:** When multiple NTP servers are configured, at least one is reachable and at least one is not reachable

- **I95-35331** A custom chart that contains multiple line charts selects the incorrect graph when clicking on the corresponding legend
- **I95-35544** LTE SIM number (ICCID) is absent from the output of `show device interface` on LTE interfaces
- **I95-35873, I95-35679** Asset stuck in a connected state as a result of a corrupted Linux rpmdb. The issue requires the system be updated to the 128T-installer version 2.6.1 (see [IN-267](#)). If the conductor is used to upgrade systems, the latest installer will be updated from the repository being used. If the systems do not have access to the 128T public repositories, the repository being used should be updated with the 128T-installer 2.6.1 version. With the correction of this issue, the PCLI command `send command yum-cache-refresh` has been updated to perform the rpmdb repair if the rpmdb is corrupted.

Until the system is upgraded to 128T 4.3.9 and 128T-installer 2.6.1, the issue can be mitigated by running the following Linux commands:

```
rm -f /var/lib/rpm/___*  
rpm --rebuilddb
```

- **I95-35793** Large responses from a DNS server may be rejected by 128T. When this happens, provisioned FQDNs remain unresolved.

**Conditions:** The following log message can be seen:

```
Jun 16 06:09:25.272 [DNS |DNSR] WARN (dnsManagerTP ) Failed to parse  
Ipv4Host (1) response for edge-global.plcm.vc: Message too long
```

- **I95-35799** When a dynamic route is removed that exactly matches the prefix of a configured service, the route is removed from the RIB but it may remain in the FIB and still be used for establishing new sessions
- **I95-35933** `show device-interface` displays incorrect values for speed and duplex for PPPoE interfaces
- **I95-35935** Configuring the same value for `router > conductor-address` on different routers will generate invalid configuration
- **I95-36012** `show device-interface` displays incorrect values for speed and duplex for LTE interfaces
- **I95-36109** Sessions may not reestablish properly on a fail-over between different routers to the same destination router (e.g., Session originates on R1 to R2. Later, the same session fails over to traverse R3 to R2)
- **I95-36149** Committing a configuration change to a device-interface capture-filter when actively capturing traffic on that interface can cause the highway process to fault
- **I95-36246** IMSI and MSISDN are absent from the output from `show platform` on systems with LTE interfaces

- **I95-36283** The 128T router asset state is stuck on its current state

**Conditions:** The following log message can be seen:

```
TypeError: heap argument must be a list
```

Until the system is upgraded to 4.3.9, this issue can be mitigated by restarting the salt-minion service by executing `systemctl restart salt-minion` on the Linux shell. If not manually restarted, the salt-minion watchdog will also restart the salt-minion after one hour.

- **I95-36356** Loading a configuration that changes the BGP graceful-restart restart-time may cause a highway process fault if a subsequent graceful-restart timeout occurs
- **I95-36394** Auto-generated conductor service names that include a ':' will fail to commit configuration

**Conditions:** Conductor version is on  $\geq 4.5$  and router version is  $< 4.5$

- **I95-36574** After a HA interface fail over, a session collision can occur between the recovered flow and an existing reverse flow. The recovered flow does not get setup properly and can cause the highway process to fault upon session expiry.

**Conditions:** Symmetrical services must be configured that match both forward and reverse flows

- **I95-36632** Empty office365 metadata file results in HTTP 400 bad request error
- **I95-36638** Polling SNMP OID 1.3.6.1.2.1.1.2 returns `NET-SNMP-TC: :linux` instead of `T128-MIB::t128NetworkingPlatform (1.3.6.1.4.1.45956.1)`

## Release 4.3.8

### ! INFO

The minimum 128T-installer version of 2.6.0 is required for the 4.3.8 update. (rpm package: 128T-installer-2.6.0-1.x86\_64.rpm)

## Resolved Issues

- **I95-34649** `best-effort` path handling for `proportional` load balancing is not honored by service-policy
- **I95-35313** Startup delay of 128T when many peer paths exist
- **I95-35406** Shutdown race condition may cause improper DHCP server clean up, causing DHCP server to fail on next start of 128T

Until the system is upgraded to 4.3.8, this issue can be mitigated by restarting the 128T.

- **I95-35563** Startup race condition can lead to LTE initialization failure

Until the system is upgraded to 4.3.8, this issue can be mitigated by restarting the 128T.

- **I95-35636** SNMP query for `ifIndex` of interface incorrectly returns

```
No Such Object available on this agent at this OID
```

- **I95-35655** New metrics - RSRP, RSRQ, Active Band and Active Channel were added to (the existing) show device-interface PCLI command and lte-state script output for LTE interface.
- **I95-35694** A `service-route` of type `host` results in an invalid service path during session establishment
- **I95-35701** Configuration validation incorrectly rejects valid config when a `service-route` references a service with both `applies-to` `authority` and `router-group` not matching the router of that service-route
- **I95-35781** Rare race condition during `rotate logs` PCLI command may cause applications to fault

- **I95-35866** Addressed latest CVEs (this requires the latest installer see I95-36033 below)
- **I95-35885** Systems with two LTE interfaces would appear to have three LTE interfaces in Linux

Until the system is upgraded to 4.3.8, the issue can be mitigated by using the interface `wwp0s21u3i8`.

The interface `wwp0s21u3i10` should not be used and will no longer be present after upgrading to 4.3.8.

## Release 4.3.7

### Resolved Issues

- **I95-24681** Grammatical improvements to HA initialization, providing more clarity around the use of specific IP addresses
- **I95-26276** Enabled OSPF authentication in configuration
- **I95-30610** RTP is not properly classified for subsequent 128T routers
- **I95-35172** Adding DHCP server instances requires a software restart
- **I95-35401** SVR traffic would be dropped as a result of tenant members source type being incorrectly classified.

**Conditions:** When the interface has an adjacency and tenant members are applied via neighborhoods and/or child tenants. The tenant table will show the source type as `PUBLIC` for that entry when it should show as `HYBRID`, resulting in traffic being dropped.

- **I95-35602** The command `show network-interface` may result in a `Unhandled TypeError` in the PCLI when a PPPoE interface is down
- **I95-35633** The GUI performance has been improved for configuration edit operations
- **I95-35644** Added support for `bgp route-reflector allow-outbound-policy`

# Release 4.3.6

## Resolved Issues

- **I95-35377** Additional metrics added to realize active traffic engineering behavior
- **I95-35394** salt-minion may fault during an upgrade or rollback operation. This issue does not impact the upgrade or rollback operations.

# Release 4.3.5

## Resolved Issues

- **I95-33842** Race condition on 128T startup, causing DHCP server to fail to start

**Conditions:** DHCP server is not running. The following log message can be seen:

```
init[5720]: [dh00000001 | dhcp-server-ns-1:1073742075] Running command [/usr/sbin/ip, 'netns', 'set', 'dhcp-server-ns-1', '1073742075']
init[5720]: [dh00000001 | dhcp-server-ns-1:1073742075] Command "/usr/sbin/ip netns set dhcp-server-ns-1 1073742075" failed: RTNETLINK answers: No space left on device
```

Until the system is upgraded to 4.3.5, this issue can be mitigated by restarting the 128T.

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- **\*\*I95-34053\*\*** When configured to use LDAP, locally created user credentials and access are not honored for those users that already exist in LDAP.

Until the system is upgraded to 4.3.5, this issue can be mitigated by restarting the 128T.

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- **\*\*I95-34629\*\*** During the initial window of a router connecting to its HA peer, or its connection to the Conductor while a connection outage occurs, configuration commits may fail silently. Candidate configuration will remain uncommitted.

Until the system is upgraded to 4.3.5, this issue can be mitigated by attempting the commit again.

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- **\*\*I95-34716\*\*** Fixed a rare race condition crash on startup of the Automated Provisioner

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- **\*\*I95-34744\*\*** highway process can fault when a DHCP server assigns the IP address 0.0.0.0 to the 128T router

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- **\*\*I95-34790\*\*** Dual node HA routers with large numbers of peer paths (>500) may see some flows get blackholed after a node failover occurs.

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- **\*\*I95-34842\*\*** The configuration attribute `authority > router > node > device-interface > vrrp` has been removed from configuration in the GUI as the capability does not exist

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- **\*\*I95-34961\*\*** Using a QuickStart file to provision a router fails if the ZScaler plugin is installed on the Conductor.

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- **\*\*I95-34968\*\*** Self-signed certificates created during initial installation of 128T are invalid

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- **\*\*I95-35035\*\*** Significantly improved the performance of populating the FIB from configuration and dynamic routes

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- **\*\*I95-35062\*\*** Non-permanent LTE failures are incorrectly displayed as a failure context in `show device-interface`

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- **\*\*I95-35082\*\*** When a 128T is deployed behind a NAT firewall and has path MTU (PMTU) discovery enabled, SVR sessions established for outbound-only connections are set up with the configured interface MTU, not the discovered PMTU.

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- **\*\*I95-35093\*\*** `show asset <asset-id>` incorrectly continues to show `Currently Upgrading` version after completion of an upgrade.

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- **\*\*I95-35099\*\*** Removing a 128T user does not remove its Linux credentials, allowing the user to still login to Linux.

Until the system is upgraded to 4.3.5, this issue can be mitigated by disabling rather than deleting the user.

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- **\*\*I95-35115\*\*** Aggregate bandwidth charts may not display data accurately

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- **\*\*I95-35155\*\*** `show device-interface` output did not include duplex mode

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- **\*\*I95-35188\*\*** Adding a tenant or changing the order of tenants in the configuration can lead to traffic being dropped upon session recovery

**\_\*\*Conditions:\*\*\_** Configuration change is made to tenants while one node of a HA pair is offline. After the configuration change, the node that was offline takes over as the primary for existing sessions.

Until the system is upgraded to 4.3.5, if the tenant configuration has changed and a HA node has taken over as active, the traffic that is being dropped can be cleared by performing a simultaneous reboot of both nodes.

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- \*\*I95-35205\*\* LTE interfaces do not honor MTU settings set in the network

Until the system is upgraded to 4.3.5, the learned MTU value can be directly set within Linux

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- \*\*I95-35303\*\* `persistentDataManager` process can fault on shutdown of 128T

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- \*\*I95-35323\*\* BGP over SVR does not work if both sides of the routers have VLAN tagged interfaces

Until the system is upgraded to 4.3.5, configure the outgoing SVR interfaces without vlans. At least one side of the BGP over SVR routers should not utilize VLAN tagging.

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- \*\*I95-35395\*\* Enabled BGP router reflector `cluster-id` in configuration

## Release 4.3.4

### Resolved Issues

- \*\*I95-35138\*\* A vulnerability in the SaltStack code allows for unauthenticated salt-minions to execute any script on the salt-master.

:::info

This fix is required only on the 128T Conductor.

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- \*\*I95-31618\*\* Upon initial plugin installation on a 128T, configuration for the plugin is not honored.

Until the system is upgraded to 4.3.4, this issue can be mitigated by committing the configuration again.

## Release 4.3.3

### New Features and Improvements

- \*\*I95-22789\*\* Dual LTE Support

For information on how to configure the 128T with two LTE interfaces, please read the [How To: LTE](/docs/howto\_lte) guide.

## Release 4.3.2

### ### Resolved Issues

- \*\*I95-18857\*\* Support for automatic loopback has been added to Sangoma T1 devices

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- \*\*I95-27764\*\* `write log snapshot` does not work for process highway

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- \*\*I95-28190\*\* Addressed issue causing PPPoE passwords to be incorrectly changed to `(removed)`.

\_\*\*Symptom:\*\*\_ `device-interface > pppoe > password` gets converted to `(removed)` upon changing `device-interface > name`.

\_\*\*Conditions:\*\*\_ Changing the object's key, in this case `device-interface > name` causes secure fields to be incorrectly converted to `(removed)`.

Until the system is upgraded to 4.3.2, this issue can be mitigated by deleting the existing `device-interface` object and recreate it.

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- \*\*I95-30011\*\* HA router nodes may take upwards of 40 seconds to achieve quorum.

\_\*\*Symptom:\*\*\_ SVR traffic may be dropped while a redundant node is restarting.

\_\*\*Conditions:\*\*\_ The hostname of the platform cannot be resolved

Until the system is upgraded to 4.3.2, this issue can be mitigated by setting the hostname of the node to a value that can be resolved or add an address for the system in `/etc/hosts`

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- \*\*I95-31597\*\* Configuring a static ARP entry within a `neighbor` configuration is not honored

\_\*\*Symptom:\*\*\_ Dynamic ARP entries take precedence over statically configured ARP entries

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- \*\*I95-32244\*\* Cannot upgrade after software download completes

\_\*\*Conditions:\*\*\_ Managed router being upgraded via Conductor can intermittently fail due to transient network conditions, 4.3.2 will now perform multiple attempts to verify the download completed.

Until the system is upgraded to 4.3.2, this issue can be mitigated by performing the Download operation again.

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- **I95-32509** Generated configuration objects are shown by default in GUI and PCLI

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- **I95-32660** `saltMaster.log` files rotate once daily with a maximum of 25 rotated files, consuming a large amount of disk space. This has been changed to rotate hourly, with a maximum of 25 rotated files.

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- **I95-33024** Specifying a `metric` value within `advertise-default` of OSPF causes advertisements to be withdrawn

Until the system is upgraded to 4.3.2, this issue can be mitigated by remove `metric` value from `advertise-default` configuration

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- **I95-33174** Some LTE cards do not use the correct wireless bands for the AT&T network

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- **I95-33432** Path MTU discovery could be fooled by a (bad acting) network element that fragments large packets in spite of the do-not-fragment (DF) flag

**Symptom:** Sessions utilizing large packets (like those in some print jobs) may result in failed attempts

**Conditions:** in-path network element fragments packets with DF bit set.

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- **I95-33485** Upgrading a HA node of a 128T router can result in traffic being dropped

**Symptom:** Existing traffic for some services are blackholed during upgrade

Until the system is upgraded to 4.3.2, this issue can be mitigated by completing the upgrade of both nodes or restart non-upgraded 128T

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- **I95-33506** File descriptors can leak upon incorrectly configuring a non-existent namespace within an interface type of `host`.

**Symptom:** 128T application will fail to run network scripts and other applications

**Conditions:** Setting `network-namespace` to a value that does not exist on the host platform after committing configuration

Until the system is upgraded to 4.3.2, this issue can be mitigated by removing the invalid configuration.

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- **I95-33535** Interface name incorrectly allows for prefixed whitespace in configuration, resulting in failure to create interface.

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- \*\*I95-33556\*\* 128T may drop inbound SVR traffic when destination service address and port overlaps with interface (waypoint) address and waypoint.

\_\*\*Conditions:\*\*\_ `address` on a service matches that of the `network-interface` that participates in SVR AND `tenant` on the service matches the `tenant` on the `network-interface` depending on the service scope AND the `port-range` defined on the `network-interface` overlaps with `port-range` of the service.

Until the system is upgraded to 4.3.2, this issue can be mitigated by changing the `port-range` on the neighborhood to a range that does not overlap with the service. In 4.3.2 a configuration validation has been added to detect such overlap and provide user with appropriate error message.

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- \*\*I95-33559\*\* `send command download router all <version>` will report `%Error: Failed to execute the 'download-software' RPC: Request failed with error: TIMEOUT` even though the command completes successfully.

\_\*\*Conditions:\*\*\_ Execute download command from Conductor with >25 managed assets.

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- \*\*I95-33634\*\* 128T unable to bind to `device-interface`

\_\*\*Symptom:\*\*\_ Interface will be administratively up but operationally down

\_\*\*Conditions:\*\*\_ highway process faults can leave an interface unbound to any driver, resulting in the inability for the system to rebind to the interface.

Until the system is upgraded to 4.3.2, this issue can be mitigated by issuing a `reboot` on the impacted system.

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- \*\*I95-33655\*\* GUI Ping and Service Ping do not report incremental ICMP response messages; only the summary is produced when the command has completed.

Until the system is upgraded to 4.3.2, this issue can be mitigated by using the PCLI versions of the same command.

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- \*\*I95-33668\*\* Peer path fails to meet (default) SLA, triggering BGP prefix flapping

\_\*\*Symptom:\*\*\_ Advertised routes are withdrawn and subsequently re-advertised with a new route metric.

\_\*\*Conditions:\*\*\_ When a service with no `service-policy` configured, therefore utilizing system defaults, traverses a path below SLA.

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- \*\*I95-33683, I95-33951\*\* When 128T Networking Platform is configured to use LDAP for authentication, login will fail if the user is a member of both `128t-user` and `128t-admin`

\_\*\*Symptom:\*\*\_ User is unable to login.

Until the system is upgraded to 4.3.2, this issue can be mitigated by removing the user from one of the two LDAP groups.

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- \*\*I95-33710\*\* Working configuration fails to validate after upgrade

\_\*\*Symptom:\*\*\_ Validation of the configuration will fail with the message `%Error: Candidate configuration is invalid: 1. name is required`.

\_\*\*Conditions:\*\*\_ `device-interface` of type `host` will fail validation if a `management-vector` does not exist.

Until the system is upgraded to 4.3.2, this issue can be mitigated by configuring a `management-vector` on the `network-interface`s that exist within the `device-interface`.

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- \*\*I95-33759\*\* GUI DHCP Client Lease table reports no leases while DHCP server has active client leases.

Until the system is upgraded to 4.3.2, this issue can be mitigated by using the PCLI version of the same command: `show network-interface application node <node-name> name <interface-name>`

-----

- \*\*I95-33789\*\* Forwarding core count incorrectly reported in GUI under Router -> Node -> Platform Information

Until the system is upgraded to 4.3.2, this issue can be mitigated by using the PCLI version of the same command: `show platform cpu`

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- \*\*I95-33793\*\* SVR fails to recover session on multi-hop inter-node failure

\_\*\*Symptoms:\*\*\_ Security lookup failure and packet drops.

\_\*\*Conditions:\*\*\_ This scenario occurs only with multi-hop SVR, where an intermediate node WAN link fails, and the target alternate path is `outbound-only`. This only affects existing sessions. New sessions will be unaffected.

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- \*\*I95-33845\*\* security package updates

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- \*\*I95-33857, I95-33643\*\* Short OTP QuickStart DHCP server lease time results in an initial OTP QuickStart failure.

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```
- **I95-33938** REST API missing documentation reference for the command to delete configuration backups. The missing and supported API is `DELETE /api/v1/config/export/:filename`
```

```
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```

```
- **I95-33979** Custom Reports in the GUI created with peer path metrics for jitter, latency, or loss are rendered as a line chart instead with a single value instead of one per path
```

```
_**Conditions:**_ Custom Reports rendering data from peer paths when multiple peer paths exist
```

```
-----
```

```
- **I95-34015** nginx process does not properly restart during a rollback of 128T
```

```
_**Symptom:**_ systemd continually attempts to restart nginx process
```

```
_**Conditions:**_ 128T software is being downgraded to version 4.2.0 <= version <= 4.2.4
```

```
-----
```

```
- **I95-34061** Linux command equivalent of the PCLI `connect` command: `connect128t --router <router-name> --node <node name>` produces the cosmetic error:
```

```
/usr/lib/128technology/par/connect128t.par/subpar/runtime/support.py:117: UserWarning: Unable to extract to requested directory '/usr/lib/128technology/unpar/connect128t', falling back to tmp dir
```

```
There is no impact to the functionality of `connect128t`
```

```
-----
```

```
- **I95-34068** SVR sessions fail to establish due to waypoint allocation failures after HA node failover.
```

```
_**Symptom:**_ The following warning log is generated:
```

```
Mar 03 09:25:10.813 [HWMC| - ] WARN (icmpManager ) Base Exception: failed to allocate ports for WayPoint; intf=5.0; local=192.0.2.100; remote=198.51.100.128
```

```
Until the system is upgraded to 4.3.2, this issue can be mitigated by removing the corresponding adjacency configuration and adding it back.
```

```
-----
```

```
- **I95-34090** A network-interface configured with multiple neighborhoods, where one of the neighborhoods defines a port range, will result in traffic
```

being dropped on the defined range

`_**Symptoms:**_ SVR traffic is dropped when destined for a port range configured on its peer 128T router's neighborhood`

`-----`

`- **I95-34092** `rotate log` command does not rotate `fastLane.log`, `serviceArea.log` and `flpp.log`.`

`-----`

`- **I95-34113** DHCP lease management in the GUI shows no client leases exist`

`_**Conditions:**_ firewall is running on the host 128T platform`

Until the system is upgraded to 4.3.2, this issue can be mitigated by adding the interface `veth` to the `TRUSTED` firewall zone

`-----`

`- **I95-34135** CVE-2020-8597: A buffer overflow flaw was found in the ppp package`

`-----`

`- **I95-34158** Modifying a port-range configuration value to include an overlapping range results in a list with an incorrect range.`

`_**Conditions:**_ An existing range list is modified to include an overlapping range`

Until the system is upgraded to 4.3.2, this issue can be mitigated by entering a unique range of values that do not overlap.

`-----`

`- **I95-34160** Standby node can leak traffic out of its redundant interface when the shared MAC is set to the same MAC as the physical MAC`

`-----`

`- **I95-34164** Load balancer occasionally returns standby paths during packet duplication flow setup`

`-----`

`- **I95-34173** The loss of power for the routing manager standby node in a HA router configuration may lead to temporary BGP traffic drops on the primary node.`

`-----`

`- **I95-34174** Added configuration `negotiate-capabilities` for BGP neighbor to optionally suppress sending the Capabilities Optional Parameter in the BGP OPEN message.`

`-----`

`- **I95-34186** PPPoE interface is disconnected upon changing `device-interface` name`

`-----`

`- **I95-34200** Influx database corruption resulting in `show entitlement` or displaying Event history from the Conductor UI to produce an error`

`-----`

- \*\*I95-34209\*\* Incorrect Zscaler plugin installed when installed via the Conductor GUI

-----

- \*\*I95-34249\*\* Time scale selector in upper right hand of Top 10 Sessions only shows the last hour of data, regardless of what value is selected.

-----

- \*\*I95-34310\*\* Secure fields from the 128T configuration are in the commit audit events from config diff operations.

-----

- \*\*I95-34328\*\* asset fails to set high-state and provides errors in `show asset summary`

\_\*\*Symptoms:\*\*\_ show asset summary provides errors for an asset and does not perform high-state operations. The error `error: db5 error` would be seen in `/var/log/salt/minion.log` file

\_\*\*Conditions:\*\*\_ When the SSR-0S rpmdb has been corrupted.

Until the system is upgraded to 4.3.2, run the following commands on the target asset `mv /var/lib/rpm/\_\_.db\* /tmp; yum clean all; dnf clean all`

-----

- \*\*I95-34371\*\* Large FIBs can take excess of 30 seconds to load, causing the highway process to fault and restart

\_\*\*Symptom:\*\*\_ System would appear to take a long time to load its FIB

\_\*\*Conditions:\*\*\_ System running at TRACE log level may induce this problem

Until the system is upgraded to 4.3.2, this issue can be mitigated by ensuring the system is configured at log level INFO, and if necessary, reduce the size of the service configuration.

-----

- \*\*I95-34397\*\* ARP caching and reverse MAC learning is not triggered when an ARP response takes longer than 1 second

-----

- \*\*I95-34407\*\* Renaming a configuration list item can result in factory default values being populated in the renamed object.

-----

- \*\*I95-34408\*\* When creating/renaming a device-interface, prefix-delegation configuration was blocked until dhcp is explicitly disabled

-----

- \*\*I95-34421\*\* Lenovo onboard Intel X722 NIC is not recognized by 128T and cannot be used as a forwarding interface

-----

- \*\*I95-34498\*\* Erroneous yum4 errors in `/var/log/salt/minion` log file

```
_**Symptom:**_ Log messages appear in salt minion file
```

```
2020-03-25 17:59:37,893 [salt.loader.12.230.70.246.int.module.cmdmod][[ERROR ]][18140] stdout: package yum4 is not installed
```

```
_**Conditions:**_ Automated Provisioner performs a software version query
```

```
-----
```

```
- **I95-34577** Interface never becomes active when `shared-phys-address` is configured to be the same as the physical MAC
```

```
-----
```

```
- **I95-34645** Swagger API for "clone" and "move" operations are incorrect. They are `/config/{configStore}/authority/district/{district}/clone` when they should be `/config/{configStore}/authority/district/clone`
```

```
-----
```

```
- **I95-34653** SNMP IF-MIB does not display correctly when a non-forwarding management interface is present
```

```
-----
```

```
## Release 4.3.1
```

```
### Resolved Issues
```

```
- **I95-34058, I95-34064** Session setup fails for outbound only when first packet exceeds MTU
```

```
## Release 4.3.0
```

```
### New Features and Improvements
```

```
- **I95-10004** Proxy ARP
```

```
- **I95-10058** SNMPv2 Request/Response
```

```
- **I95-20708** PCLI logout on upgrade/rollback
```

```
- **I95-22221** Support Different IPs for Conductor-Hosted Services
```

```
- **I95-23822** GUI: Service Ping
```

```
- **I95-25111** Metrics for 128T processes
```

```
- **I95-25913** Address Latest CVEs
```

- \*\*I95-26271\*\* Hugepage Calculator
- \*\*I95-27263\*\* GUI: DHCP Lease Management
- \*\*I95-27784\*\* Configuration Processing Performance Improvements
- \*\*I95-28744\*\* GraphQL API for Service Ping
- \*\*I95-29273\*\* Quick-Connect: Button to remote login to 128T router from Conductor
- \*\*I95-29972\*\* Duration added to asset state
- \*\*I95-30226\*\* MT2880 - ConnectX-5 EN 2x100Gbps NIC Support
- \*\*I95-30389\*\* Peer Path Metric Distinction
- \*\*I95-31340\*\* Extended Firewall Pinhole Capabilities
- \*\*I95-31615\*\* Encryption Alignment Avoidance
- \*\*I95-31939\*\* Salt Minion Watchdog
- \*\*I95-32010\*\* GUI: Processing Indicators added to configuration operations
- \*\*I95-32145\*\* LTE Certification Enhancements
- \*\*I95-32456\*\* Reverse Packet ARP Handling

### ### Issues Fixed

- \*\*I95-14559\*\* Adding a device-interface in the GUI incorrectly produces an error that type is not set to PPPoE  
-----
- \*\*I95-30084\*\* Empty BGP neighbor/transport/local-address prevents configuration from being committed  
-----
- \*\*I95-31492\*\* Peer path uptime in `show peers detail` is incorrect  
-----
- \*\*I95-31611\*\* Left navigation pane is improperly rendered when filter slideout is opened  
-----
- \*\*I95-31661\*\* GUI incorrectly shows state as `Unknown` for management interfaces  
-----
- \*\*I95-31920\*\* Browser page refresh is required after Conductor upgrade in order to login

-----  
- **\*\*I95-32022\*\*** `dhcp release` has been renamed to `release dhcp` to properly match verb syntax  
-----  
- **\*\*I95-32108\*\*** Header is poorly rendered in GUI when browser width is small  
-----  
- **\*\*I95-32244\*\*** Download of software upgrade may fail and not provide feedback  
-----  
- **\*\*I95-32334\*\*** Session count sparkline value is 2x of the actual value  
-----  
- **\*\*I95-32463\*\*** DHCP server rejects packets larger than 500 bytes  
-----  
- **\*\*I95-32579\*\*** Edit config header overlaps with Task Panel in GUI  
-----  
- **\*\*I95-32583\*\*** Custom charts with session-count can be incorrect in a HA configuration  
-----  
- **\*\*I95-32625\*\*** service-route/host configuration results in invalid route, dropping packets  
-----  
- **\*\*I95-32754\*\*** DHCP Server can flood the journal with monitoring messages  
-----  
- **\*\*I95-32843\*\*** System can fault when routing loop is created with OSPF  
-----  
- **\*\*I95-32902\*\*** LTE APN name not displayed correctly  
-----  
- **\*\*I95-32957\*\*** The LTE reset command did not handle some error cases resulting in a failure  
-----  
- **\*\*I95-33122\*\*** Configuration now enforces non-forwarding-fabric interfaces must be in the same subnet as its HA pair  
-----  
- **\*\*I95-33148\*\*** Non-forwarding interfaces could not come up if a manually created bridge interface existed with the same IP address with that of another 128T provisioned interface  
-----  
- **\*\*I95-33149\*\*** Changing a HA non-forwarding interface address will fail to reestablish the connection between nodes  
  
\_\*\*Corrective Action:\*\*\_ Restart 128T on the node that did not receive the config change  
-----  
- **\*\*I95-33161\*\*** Interfaces that are DHCP enabled within linux (128T not running), returning it from being managed by 128T will result in the error: `dhclient(pid) is already running - exiting`. The interface, as a result will not be able to acquire any IP, until the interface is restarted.

\_\*\*Corrective Action:\*\*\_ Invoke `ifdown` on the interface being converted by 128T

-----

- \*\*I95-33170\*\* `show system connectivity internal` incorrectly shows interprocess communication connections status as disconnected

-----

- \*\*I95-33216\*\* Interfaces that are DHCP enabled that are "returned" to linux after 128T shutdown will result in the dhclient process being killed. This results in the interface being unable to renew its dhcp lease after it expires.

\_\*\*Corrective Action:\*\*\_ Create a `oneshot` service to be invoked by 128T at `ExecStopPost` so that the `control-group` is separate from 128T service.

-----

- \*\*I95-33264\*\* Race condition exists for HA shared LAN interfaces wherein if the primary node is restarted, the primary interface may not take over after the restart, causing traffic to be blackholed

-----

- \*\*I95-33277\*\* Traceroute using TCP does not work if udp-transform is enabled.

\_\*\*Corrective Action:\*\*\_ Traceroute over UDP should be used as a workaround

-----

- \*\*I95-33278\*\* End of log messages were being truncated when sent to syslog

-----

- \*\*I95-33279\*\* Path MTU discovery unresolvable when no ICMP is generated

-----

- \*\*I95-33296\*\* Removing a redundant interface and its corresponding redundancy-group within the same commit would terminate the commit

-----

- \*\*I95-33441\*\* Changing node name can cause the 128T to fault on shutdown due to a rare race condition

-----

## ## Special Considerations

If upgrading from 4.1 consult the [4.2.3 release notes Special Considerations] (/docs/release\_notes\_128t\_4.2#special-considerations) section

- \*\*I95-36525\*\* TLS 1.0 is no longer supported

## ## Caveats

- \*\*I95-29592\*\* Conductor UI and/or PCLI may not update the asset software version correctly

\_\*\*Symptom:\*\*\_ The Conductor UI and/or the PCLI may not correctly reflect the software version running on the asset

**\_\*\*Conditions:\*\*\_** After the asset has been upgraded

**\_\*\*Corrective Action:\*\*\_** If the asset is not updated after ~5 minutes after an upgrade is performed, the salt-minion will need to be restarted on the respective node. This is done with the following command on the node as the root Linux user:

## systemctl restart salt-minion

-----

- **\*\*I95-27808\*\*** `sync peer addresses router force` from Conductor may not trigger router to send address information from peer

**\_\*\*Symptom:\*\*\_** When performing the following command on the Conductor PCLI, `sync peer addresses router force` the router may not provide the peer address information

**\_\*\*Conditions:\*\*\_** Unknown

**\_\*\*Corrective Action:\*\*\_** Perform the PCLI command on the router to update the information on the Conductor.

-----

- **\*\*I95-32789\*\*** Peer stats in Conductor UI not provided during upgrade

**\_\*\*Symptom:\*\*\_** When upgrading a node from pre 4.3 to 4.3, the peer node will not provide general stats in the conductor UI until the peer is also upgraded.

**\_\*\*Conditions:\*\*\_** When nodes of a router or conductor pair are on different versions (for routers this is the short transition where the first node is upgraded and the second node is in the process of upgrading but still operational)

**\_\*\*Corrective Action:\*\*\_** NA, when both nodes are operational and on the 4.3 version the stats information on the router dialog will be provided. Stats can still be retrieved from the PCLI of the node while it is running.

-----

- **\*\*I95-36033\*\*** 4.3.8 does not enforce the 128T-installer-2.6.0 version that deprecates rpms for CVE corrections

**\_\*\*Symptom:\*\*\_** Deprecated RPM's installed by base SSR-05 that may have CVE corrections will not be removed.

**\_\*\*Conditions:\*\*\_** When the 128T-installer is not updated to 2.6.0.

**\_\*\*Corrective Action:\*\*\_** If manually installing, ensure the system is updated

with the latest 128T-installer package. If upgrading via Conductor, ensure the conductor has access to the latest 128T-installer package.