

LOGZILLA DOCUMENTATION

Forwarder and Deduplication Overview

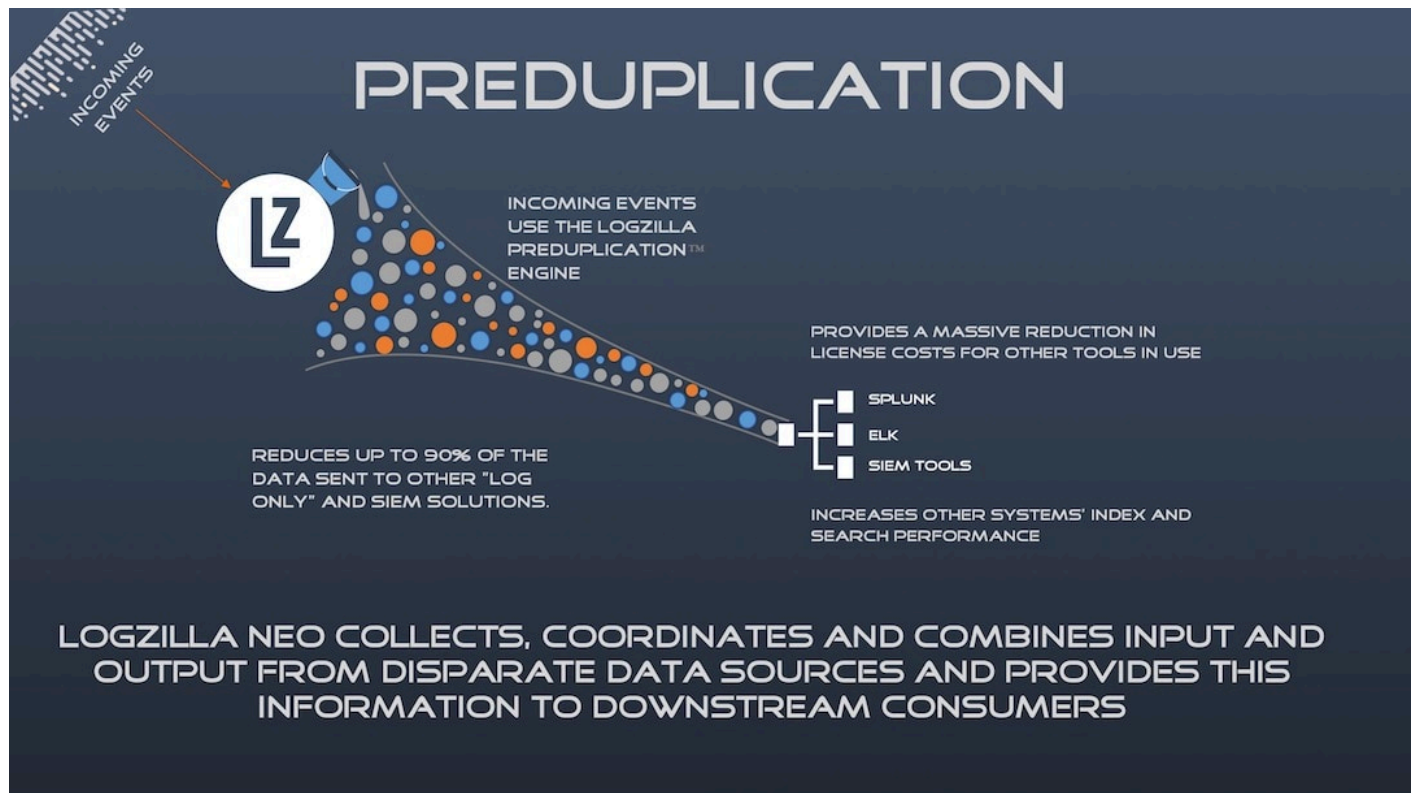
LogZilla collapses repeated events at ingest through deduplication windows, then forwards the reduced stream to syslog, file, Splunk HEC, or SNMP receivers

Forwarding To Downstream Receivers · Generated April 27, 2026 · logzilla.ai/docs/forwarding-module/dedup-forwarder-introduction

Deduplication and Forwarder Overview

LogZilla performs deduplication at ingest to collapse repeated events into a single forwarded event per window, with a count of occurrences. This reduces downstream CPU, storage, and licensing impact during event storms, while preserving the signal needed for operations.

Deduplication process



In large environments, devices may emit the same event repeatedly (for example, during a link flap or authentication failure). Deduplication at ingest ensures downstream receivers handle a small, meaningful set of events rather than an overwhelming flood.

Event storm example

WHAT JUST HAPPENED?

LOGZILLA NOTIFICATIONS TASKS TRIGGERS REPORTS SETTINGS HELP Total: 737.7m events, 93% duplicate events Avg. Disk Usage 41.20%

Today: 42m events

Query Search in message Severity Host Facility Program Mnemonic Time range Type Source IP Source Port Destination IP More Reset Search

SHOWING 1-11

Almost 1 Billion events were generated in a short time, but LogZilla reduced it by 93%

Severity	Message	First seen	Last seen	Counter
WARNING	role="branch" 040196: Apr 7 14:13:15.929 UTC: %CDP-4-DUPLEX_MISMATCH: duplex mismatch discovered on GigabitEthernet0/0 (not full duplex), with FastEthernet4/26 (full duplex).	2018-04-07 10:13:16.9690	2018-04-07 10:13:16.9690	1
WARNING	role="branch" 040197: Apr 7 14:14:16.012 UTC: %CDP-4-DUPLEX_MISMATCH: duplex mismatch discovered on GigabitEthernet0/0 (not full duplex), with FastEthernet4/26 (full duplex).	2018-04-07 10:14:50.1330	2018-04-07 10:14:50.1330	1
NOTICE	role="branch" 040198: Apr 7 14:14:49.094 UTC: %SYS-5-CONFIG_I: Configured from console by [redacted] on vty1	2018-04-07 10:14:50.1330	2018-04-07 10:14:50.1330	1
NOTICE	role="branch" 040199: Apr 7 14:14:52.112 UTC: %SYS-5-CONFIG_I: Configured from console by [redacted] on vty1	2018-04-07 10:14:53.1330	2018-04-07 10:14:53.1330	1
WARNING	role="branch" 040200: Apr 7 14:15:16.007 UTC: %CDP-4-DUPLEX_MISMATCH: duplex mismatch discovered on GigabitEthernet0/0 (not full duplex), with FastEthernet4/26 (full duplex).	2018-04-07 10:15:17.0300	2018-04-07 10:15:17.0300	1
WARNING	role="branch" 040201: Apr 7 14:16:16.011 UTC: %CDP-4-DUPLEX_MISMATCH: duplex mismatch discovered on GigabitEthernet0/0 (not full duplex), with FastEthernet4/26 (full duplex).	2018-04-07 10:16:17.0330	2018-04-07 10:16:59.9990	70822
WARNING	role="branch" 040201: Apr 7 14:16:16.011 UTC: %CDP-4-DUPLEX_MISMATCH: duplex mismatch discovered on GigabitEthernet0/0 (not full duplex), with FastEthernet4/26 (full duplex).	2018-04-07 10:17:00.0040	2018-04-07 10:17:59.9990	90320
WARNING	role="branch" 040201: Apr 7 14:16:16.011 UTC: %CDP-4-DUPLEX_MISMATCH: duplex mismatch discovered on GigabitEthernet0/0 (not full duplex), with FastEthernet4/26 (full duplex).	2018-04-07 10:17:00.0040	2018-04-07 10:17:59.9990	62198
WARNING	role="branch" 040201: Apr 7 14:16:16.011 UTC: %CDP-4-DUPLEX_MISMATCH: duplex mismatch discovered on GigabitEthernet0/0 (not full duplex), with FastEthernet4/26 (full duplex).	2018-04-07 10:17:00.0040	2018-04-07 10:17:59.9990	85302

Engineering team pushes network changes

Software bug causes a massive event storm, generating almost 100,000 identical events from the same system every minute

In the scenario above, hundreds of thousands of duplicate events could be reduced to just a handful, with a counter indicating how many times each unique event occurred.

Forwarding options

LogZilla can forward events as a log or a trap, regardless of how the event was received (syslog, HTTP receiver, traps, or app inserts). The module applies deduplication first, then applies any forwarder rules, and finally delivers to the configured destination(s).

Forwarder matching and rules

Forwarders use the same `match` structure as rewrite rules to decide which events to send to a destination. Each forwarder can include an optional `match` list; only events that satisfy all match entries are forwarded.

For a full description of `match` semantics, common fields, and supported operators, see [Rewrite Rules](https://www.logzilla.ai/docs/data-transforms/rewrite-rules) (<https://www.logzilla.ai/docs/data-transforms/rewrite-rules>).

Regex matching example

Use regular expressions for complex matching against the message text:

```
# /etc/logzilla/forwarder.d/interface-monitoring.yaml
match:
  - field: message
    op: "=~"
    value: "Interface .* is (up|down)"
  type: syslog
  target: central-log-collector:514
  name: "Interface State Change Forwarder"
```

This forwards events where the `message` indicates an interface state change, regardless of whether it transitioned up or down.

Configuration locations and workflow

- `/etc/logzilla/forwarder.yaml` (or `.json`): Global forwarder file. It is created automatically on first use with sane defaults (`window_size: 60, fast_forward_first: true`). Most users should not modify this file directly.
- `/etc/logzilla/forwarder.d/`: Recommended location. Place individual forwarders here, one forwarder per file (YAML or JSON). This keeps configurations modular and easier to manage.

After adding or changing forwarders:

```
# Inspect the merged forwarder configuration (useful for syntax checks)
logzilla forwarder print

# Reload the forwarder to apply changes
logzilla forwarder reload
```

To enable the Forwarder module feature flag:

```
logzilla settings update FORWARDER_ENABLED=true
```

For full CLI usage, refer to:

- [System commands](https://www.logzilla.ai/docs/command-line-tools/system-commands) (https://www.logzilla.ai/docs/command-line-tools/system-commands)
- [Data commands \(forwarder\)](https://www.logzilla.ai/docs/command-line-tools/data-commands) (https://www.logzilla.ai/docs/command-line-tools/data-commands)