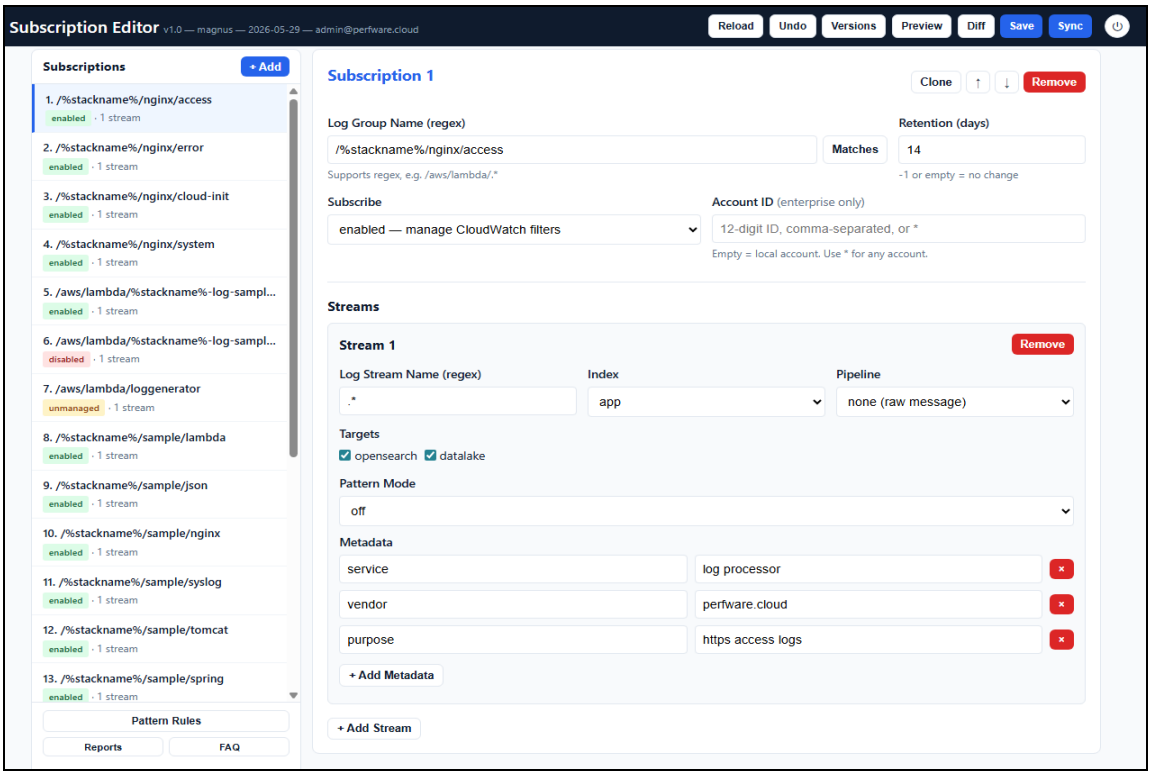
Subscription Editor Guide

The Subscription Editor is a built-in web UI for managing log subscriptions without editing JSON directly. It is available on essential tier and above at: `https://<dashboards-domain>/editor`

The editor is protected by the same Cognito authentication as OpenSearch Dashboards.



Accessing the Editor

1. Open your Dashboards URL and log in with your Cognito credentials
2. Navigate to `/editor` (or replace `/_dashboards` with `/editor` in the URL)
3. The editor loads your current subscriptions from S3 automatically

Note: A landing page has been provided with links to the editor and OpenSearch (`https://<dashboards-domain>`).

Toolbar Buttons

The toolbar is fixed at the top of the page and contains:

- **Reload** – Reload subscriptions from S3, discarding any unsaved changes in the editor
- **Undo** – Revert all unsaved changes to the last saved version
- **Versions** – View S3 version history. Preview any version or rollback with one click
- **Preview** – Show the raw JSON that will be saved
- **Diff** – Show a diff of your changes against the last saved version (additions in green, removals in red)
- **Save** – Validate and save subscriptions to S3. The Lambda picks up changes on its next invocation (within 15 minutes), or click Sync Now.
- **Sync** – Trigger immediate subscription processing. Invokes the log processor Lambda to apply your saved changes right away instead of waiting for the next scheduled run (1–15 minutes).

Jump To Navigation

Below the toolbar is a dropdown that lists all subscriptions by log group name, stream count, and status. Select one and click **Go** to scroll directly to it.

Managing Subscriptions

Adding a Subscription

Click **+ Add Subscription**. A new empty subscription card appears with one default stream.

Subscription Fields

- **Log Group Name** – CloudWatch log group name or regex pattern (e.g. `/aws/lambda/sample.*`). Patterns are evaluated in order; first match wins.
- **Retention (days)** – CloudWatch Logs retention policy. Leave empty or set to `-1` to leave unchanged. Snaps to the nearest valid CloudWatch value.
- **Subscribe** – Controls CloudWatch subscription filter management:
  - `enabled` – Create and maintain a subscription filter (local groups)
  - `disabled` – Remove the subscription filter, stop ingesting events (local groups)
  - `unmanaged` – Does not manage filters; match events only. Used for cross-account log ingestion

where the remote account creates its own subscription filter.

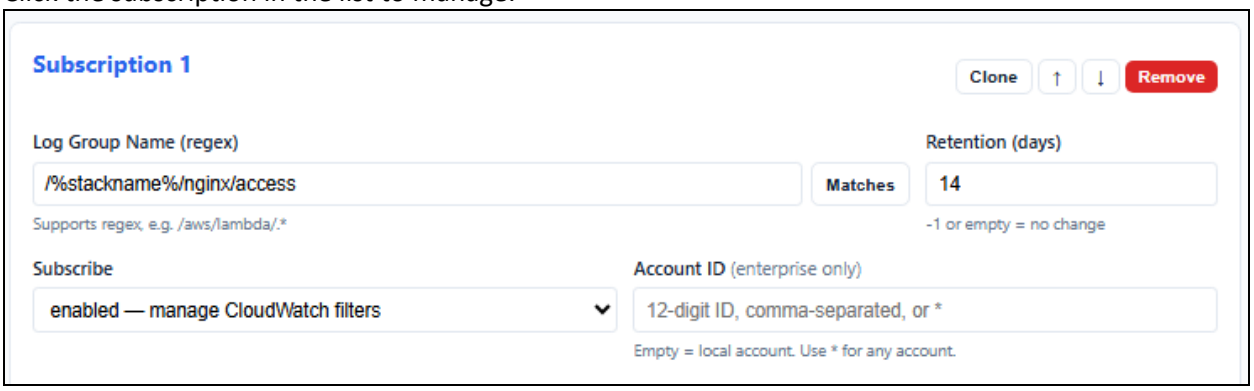
- **Account ID** (enterprise only) – Restrict matching to events from specific AWS accounts. Options:
  Empty – local account only
  * – match any account
  Comma-separated 12-digit account IDs – match specific accounts

Subscription Actions

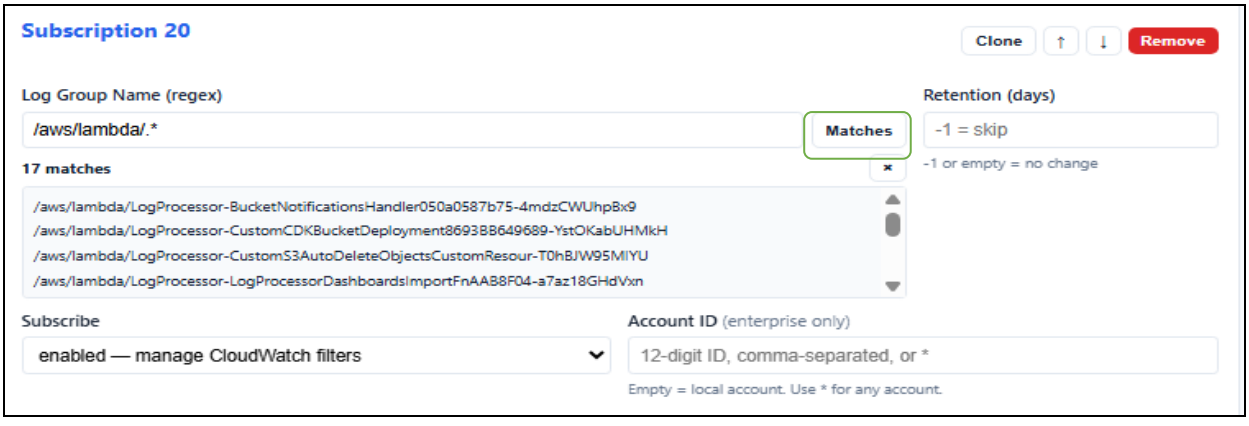
Each subscription card has buttons in the header:

- **Clone** – Duplicate this subscription (log group name is cleared) below. Useful for creating similar entries.
- ↑ / ↓ – Move the subscription up or down in the list. Order matters – first match wins.
- **Remove** – Delete this subscription (with confirmation)

Click the subscription in the list to manage:



For enabled subscriptions you can retrieve the matching log groups by clicking Matches, click x to close. For the example below all logs emitted by current and future lambda functions will be forwarded to the specified targets (OpenSearch and/or Athena Datalake).



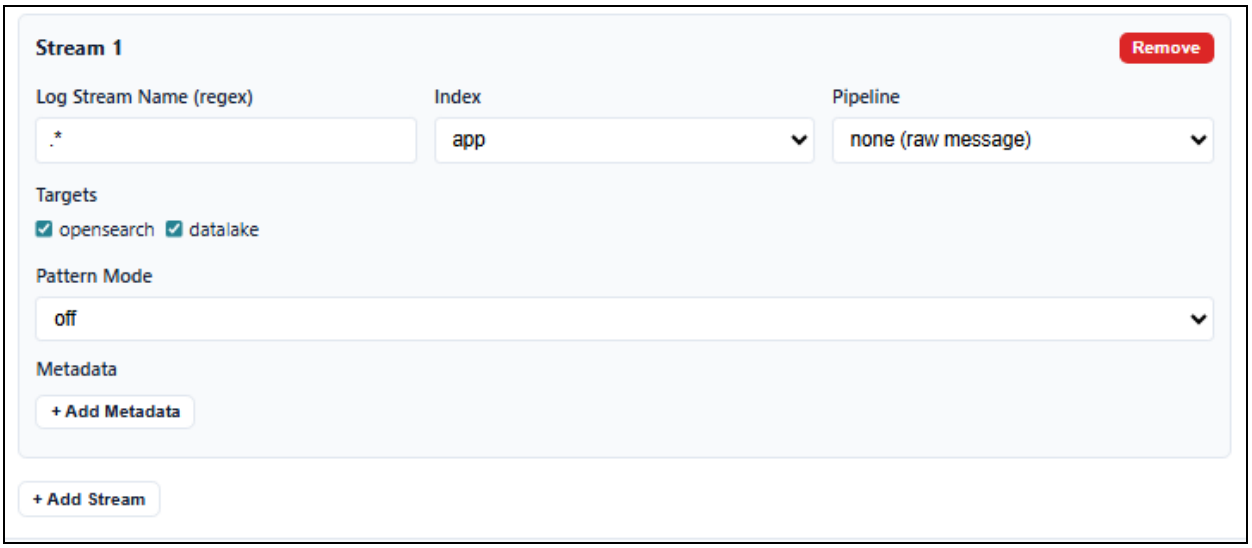
Managing Streams

Each subscription has one or more stream routing rules. Streams control how matched log events are processed.

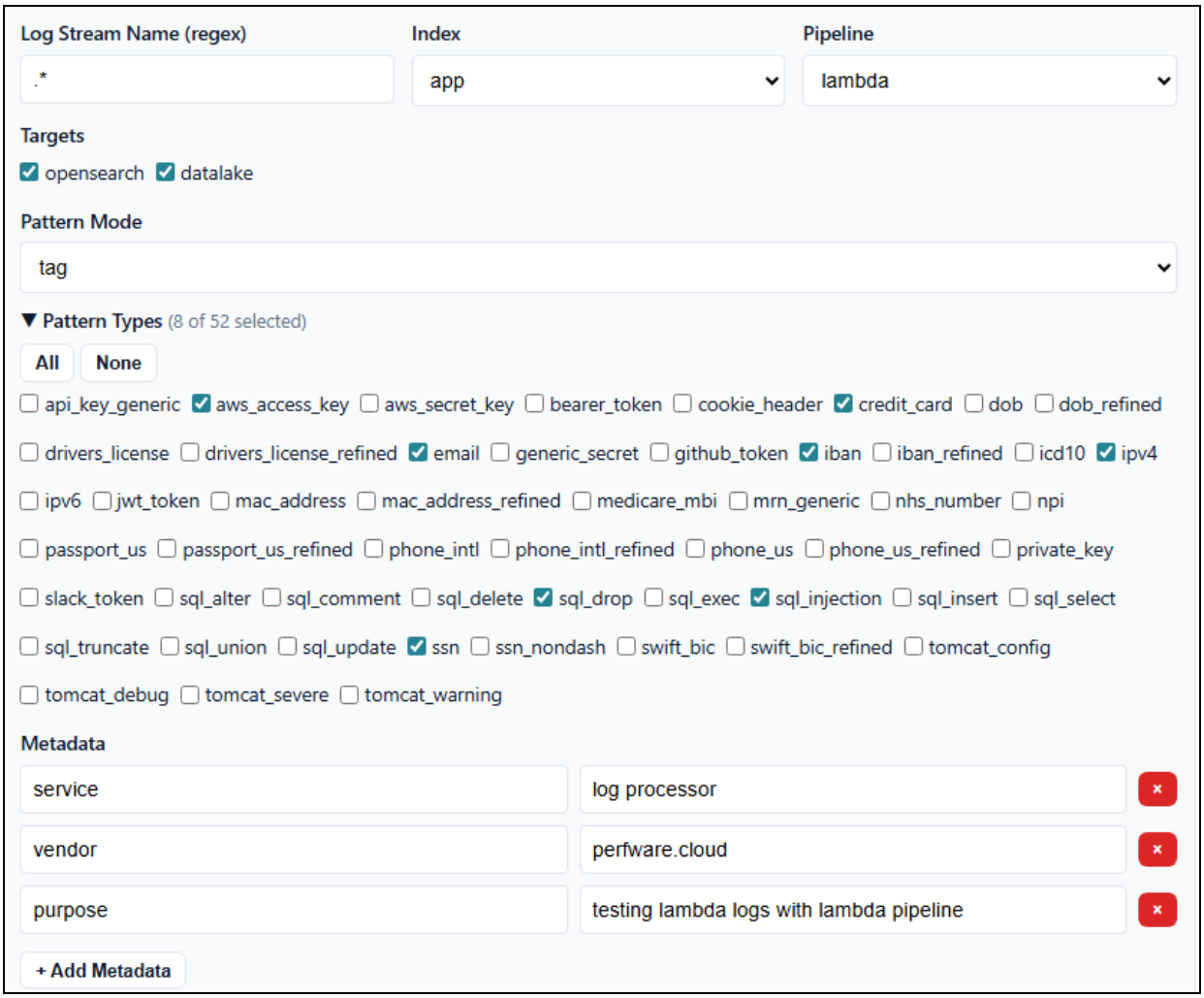
Stream Fields

- **Log Stream Name** – Regex pattern to match CloudWatch log stream names. Default `.*` matches all streams. First match wins.
- **Index** – OpenSearch index type: `app` (application logs) or `audit` (audit/compliance logs). Each has independent retention policies.
- **Pipeline** – Each subscription stream can specify a pipeline name (e.g. "lambda", "nginx", "json"). When events are indexed into OpenSearch, the pipeline runs server-side and extracts structured fields from the raw message — request IDs, log levels, IP addresses, HTTP status codes, query times, etc. The original message is always preserved alongside the parsed fields (refer to IngestPipelinesGuide.rtf for more information).
- **Targets** – Where to send events:
  - `opensearch` – Index into OpenSearch for search and dashboards
  - `datalake` – Write to S3 datalake for Athena queries
- **Pattern Mode** – PII/pattern detection mode:
  - `off` – No pattern scanning (default)
  - `redact` – Replace matched patterns with a placeholder (e.g. `[SSN:REDACTED]`)
  - `filter` – Drop events that contain matched patterns
  - `tag` – Add metadata tags to events with detected patterns
- **Pattern Types** – Which patterns to scan for (shown when mode is not `off`). Built-in types: `ssn`, `credit_card`, `email`, `phone`, `aws_key`, `sql`. Custom patterns also appear here.
- **Metadata** – Key/value pairs added to every event in this stream. Searchable in OpenSearch and Athena. Use for tagging (e.g. `service=auth`, `environment=prod`).

Click **+ Add Stream** to add another routing rule. Click **Remove** on a stream to delete it.

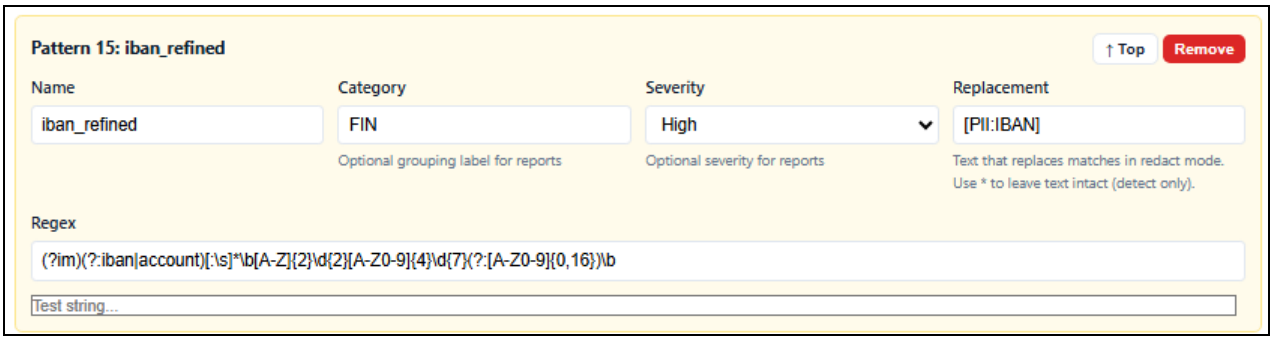


Patterns Mode varies by tier, add metadata name value pairs to decorate your logs:

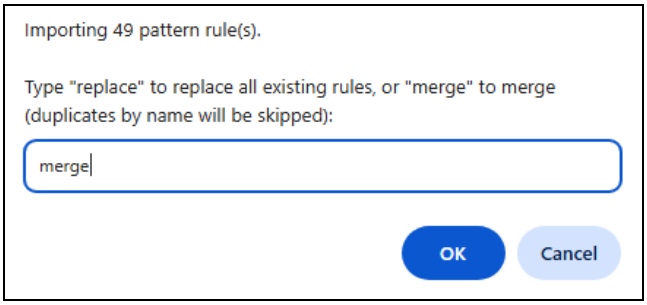


Custom Pattern Rules

The Custom Pattern Rules section (collapsed by default) lets you define your own regex patterns for detection. We've provided some examples.



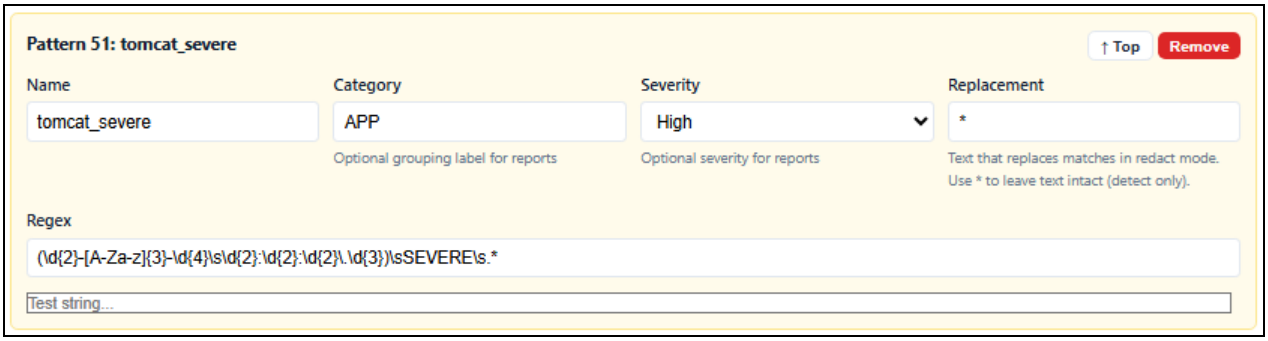
Pattern rules are the most reusable part of the config, use Export|Import — share detection libraries (e.g. "HIPAA patterns", "PCI patterns", "custom SQL injection rules", "Errors", "Limit Violations", "Application Errors") with others on your team or with the community. Import allows you to 'replace' or 'merge':



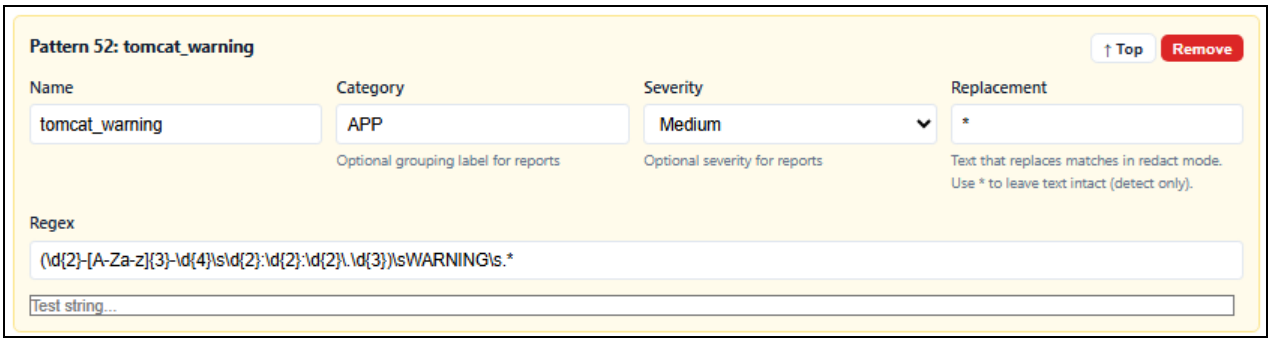
Pattern Rule Fields

- **Name** – Unique identifier for the pattern. Appears in the Pattern Types checkboxes on streams. If the name matches a built-in type, it overrides it.
- **Category** – Detection category (e.g. PHI, PII, FIN, ERRORS, EXCEPTIONS).
- **Severity** – Detection severity (e.g. -, Low, Medium, High, Critical).
- **Regex** – Regular expression to match. Validated in real-time.
- **Replacement** – Text that replaces matches in redact mode (e.g. `[PII:CUSTOM]`, `*` leave intact on redact).
- **Test** – Enter a test string to verify your regex matches. Use the Presets dropdown for common test values (SSN, credit card, email, SQL injection, etc.).

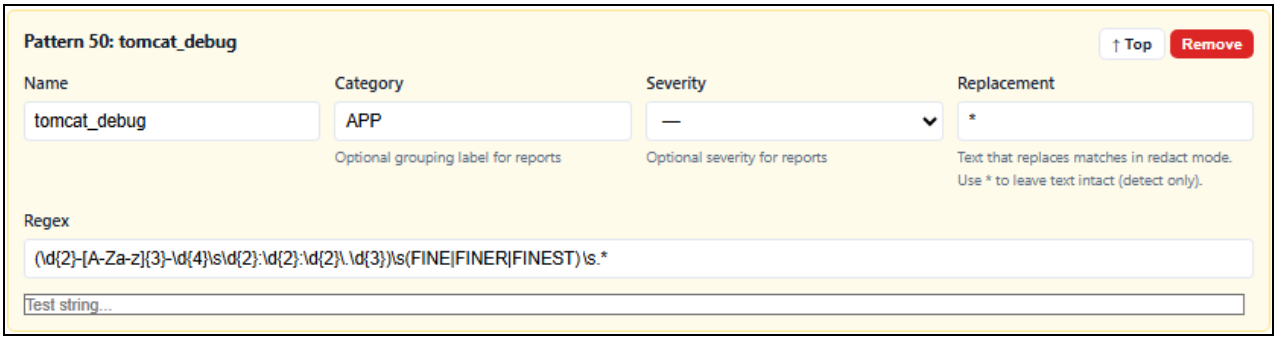
You can also use pattern detection to track, and alert on application behavior.
For example you may want to track significant errors coming from tomcat, e.g. error storms:



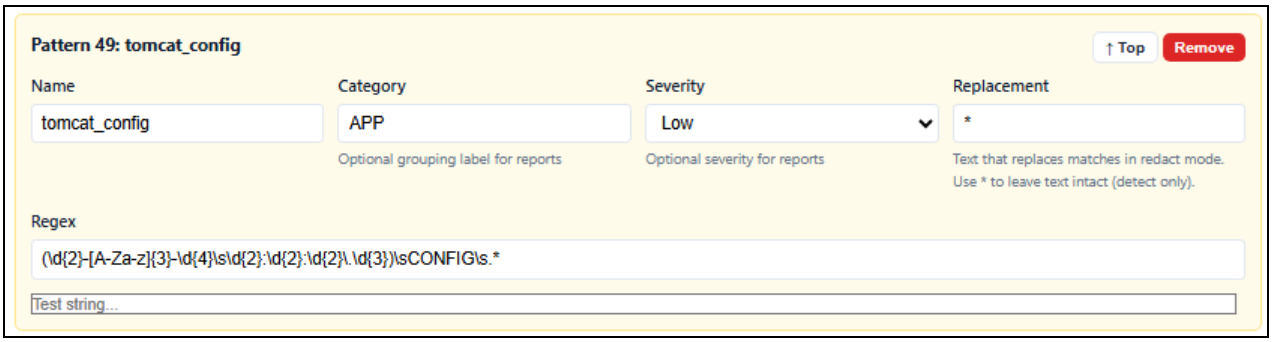
Ditto for warnings:



Or if you happen to leave debugging on:



Or possibly emitting sensitive internal configuration information:



Version History

Click **Versions** in the toolbar to view the S3 version history of your subscriptions file. S3 versioning tracks every save.

- **Preview** – View the raw JSON of any previous version
- **Diff** – Compare selected to current version
- **Rollback** – Restore a previous version (saves it as the new current version)

The current version is highlighted with a blue badge. A maximum number of versions is supported, after which old versions are automatically deleted (Basic: 3 versions/30 days; Essential: 15/120 days; Advanced: 15/365 days; Enterprise: 25/365 days).

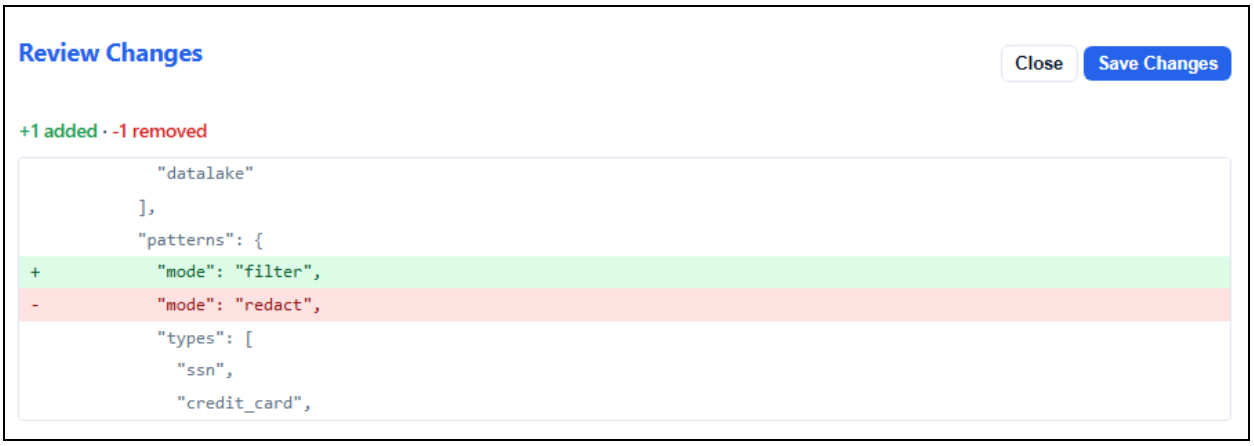
Note: If your session expires with pending edits, you may be presented with a prompt to load the last saved draft. You can choose to cancel, where the draft is lost, or load where you can inspect the changes, undo or save.

Diff (Review Changes)

Click **Diff** before saving to see exactly what changed:

- Lines in green are additions
- Lines in red are removals
- Unchanged context lines are shown around each change
- A summary shows total additions and removals

Click **Save Changes** from the diff view to save, or **Close** to continue editing.



Preview (JSON Preview)

Click **Preview** to view current:

Saving and Validation

When you click **Save**, the editor:

1. Collects all fields from the form
2. Sends the data to the server for validation
3. The server validates:
   - Log group names and stream names are valid regex
   - Subscribe values are `enabled`, `disabled`, or `unmanaged`
   - Account IDs are 12 digits, comma-separated, blank, or *
   - Each stream has an index and at least one target
   - Pattern regex is valid
4. If validation passes, the file is saved to S3
5. The Lambda picks up the new file on its next invocation (within 15 minutes), or click Sync Now to apply in real-time

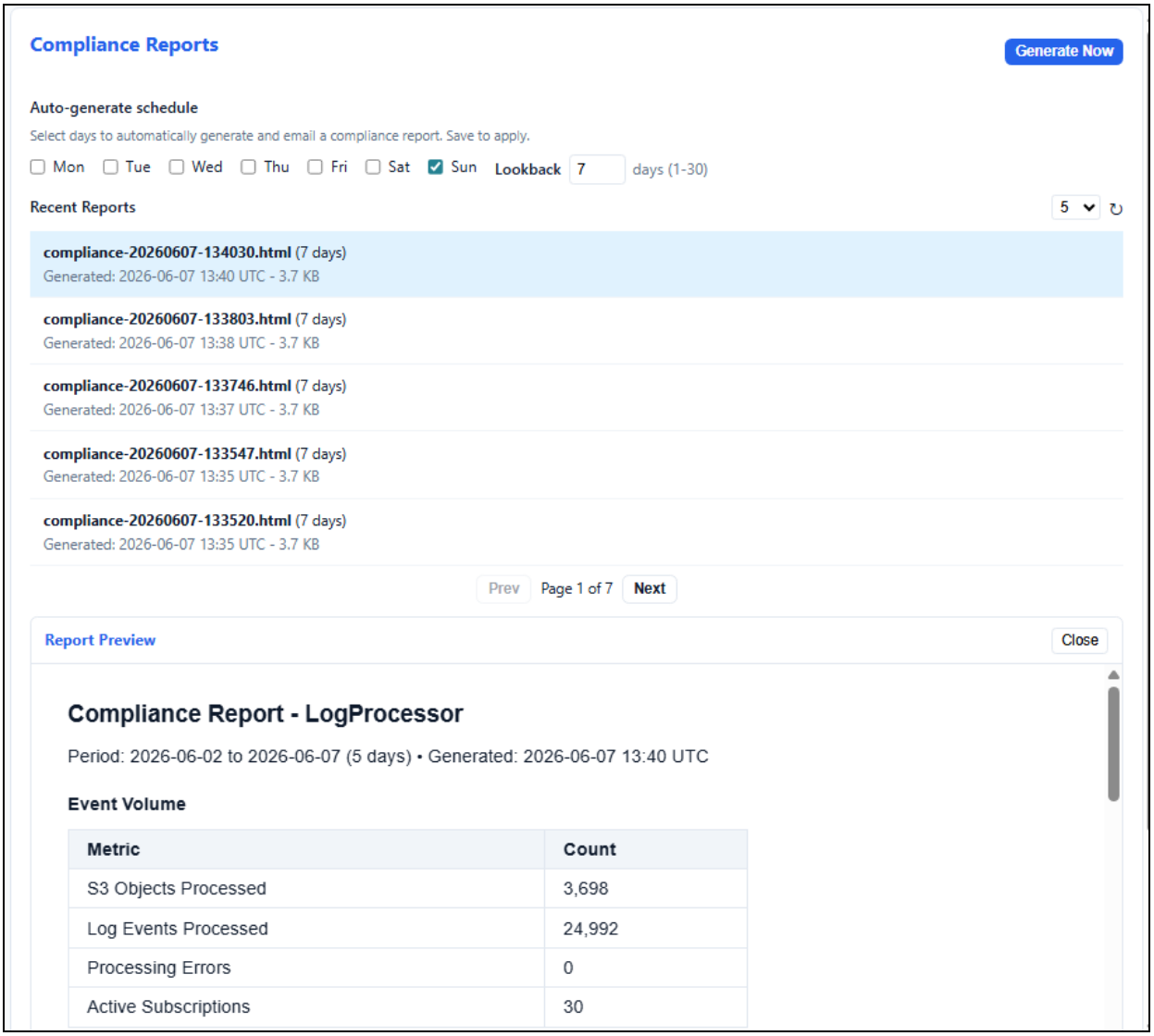
If validation fails, error messages are displayed at the top of the page. Fix the issues and save again.

Tips

- **Order matters** – Subscriptions are evaluated top to bottom. Place specific log group names before broad regex patterns. To assist you, metadata contains a key named _sub specifying the editor subscription #, e.g. _sub: 1.
- **Use Clone** – When adding similar subscriptions, clone an existing one and change the log group name.
- **Review before saving** – Always use Review Changes to verify your edits. A mistake in the subscriptions file can break log ingestion.
- **Use Versions for safety** – If something goes wrong, rollback to a previous version immediately.
- **Metadata for filtering** – Add metadata like `service`, `team`, or `environment` to make logs easier to filter in Athena and OpenSearch Dashboards.
- **Test patterns** – Always test custom pattern regex using the built-in test field before saving.

Reporting

Users on the 'advanced' tier and above can click on the Reports to access to Automated and Dynamic Compliance Reporting:



Cross-Account Log Ingestion

Centralize logs from multiple AWS accounts using the 'enterprise' tier.
Note: Leveraging provided (**.cmd/.sh)** scripts.

Step 1 - When deploying the CloudFormation enterprise stack specify your external accounts in the CrossAccountIds (comma separated):

Step 1 – Run get-destination.cmd <stack> on the target account to get the destination ARN:

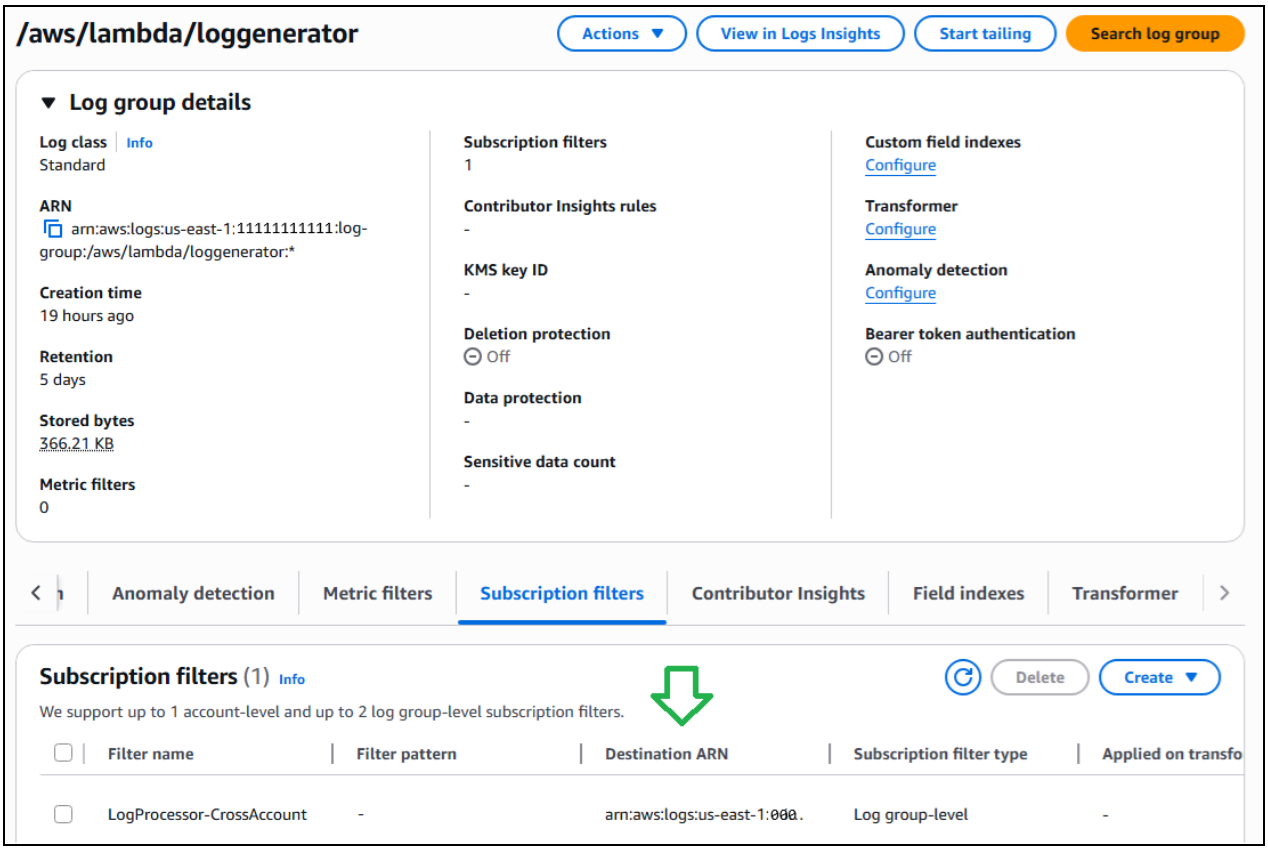
```
get-destination.cmd LogProcessor
arn:aws:logs:us-east-1:000000000000:destination:log-dest-LogProcessor-000000000000-us-east-1
```

Step 2 – Run setup-cross-account.cmd <log-group> <destination-arn-from-step-1> on the source account:

```
setup-cross-account.cmd setup /aws/lambda/loggenerator
arn:aws:logs:us-east-1:000000000000:destination:log-dest-LogProcessor-000000000000-us-east-1
Setting up cross-account subscription ...
   Log Group:      /aws/lambda/loggenerator
   Destination:
arn:aws:logs:us-east-1:000000000000:destination:log-dest-LogProcessor-000000000000-us-east-1
   Filter:         ""
   Region:         us-east-1

Done. Logs from /aws/lambda/loggenerator will now flow to the LogProcessor destination.
They will appear in OpenSearch and Athena within a few minutes.
```

You will see the subscription applied to the source log group:

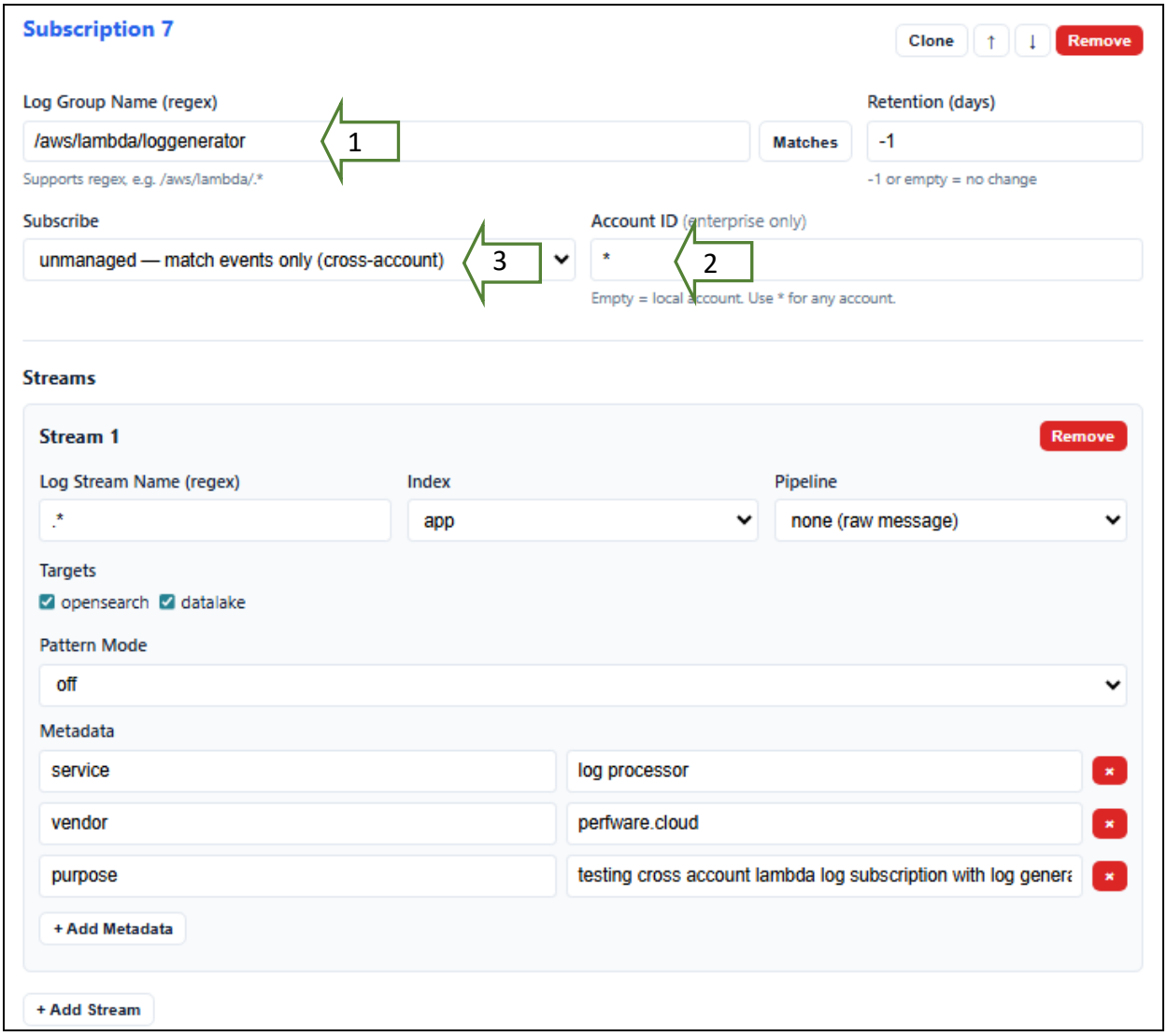


Step 3 – Add a new subscription using the Editor

1 - Add the log group (literal or using regular expression)

2 – You can specify the external account e.g. 111111111111 or wild card *

3 – Select unmanaged



You will find these logs in Athena and/or OpenSearch (depending on your targeting) e.g.

Time	@timestamp	accountId	logGroup	logStream	message
May 7, 2026 @ 07:59:03.429	May 7, 2026 @ 07:59:03.429	111111111111	/aws/lambda/loggenerator	2026/05/07/[$LATEST]b2ce79e1ff974f68965a4ab561a50be9	END RequestId: efbe2946-9f19-4e60-99e7-2249fda9a518
May 7, 2026 @ 07:59:03.429	May 7, 2026 @ 07:59:03.429	111111111111	/aws/lambda/loggenerator	2026/05/07/[$LATEST]b2ce79e1ff974f68965a4ab561a50be9	REPORT RequestId: efbe2946-9f19-4e60-99e7-2249fda9a518 Duration: 17.34 ms B MB Init Duration: 117.90 ms
May 7, 2026 @ 07:59:03.395	May 7, 2026 @ 07:59:03.395	111111111111	/aws/lambda/loggenerator	2026/05/07/[$LATEST]b2ce79e1ff974f68965a4ab561a50be9	[INFO] 2026-05-07T11:59:03.395Z efbe2946-9f19-4e60-99e7-2249fda9a518 Period

Appendix

Pattern Detection Test Samples

Each section contains sample strings that should trigger the corresponding pattern detector. Use these to verify detection in the editor's regex test field or in log output.

api_key_generic
- api_key: sk_live_4eC39HqLyjWDarjtT1zdp7dc
- apikey=ABCDEFGHIJ1234567890abcd
- secret: my_super_secret_key_12345
- password: P@ssw0rd_Very_Secure_123

aws_access_key
- AKIAIOSFODNN7EXAMPLE
- ASIAJEXAMPLEXEG2JICE

aws_secret_key
- wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY

bearer_token
- Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIn0.dozjgNryP4J3jVmNHl0w5N_XgL0n3I9PlFUP0THsR8U

cookie_header
- Set-Cookie: session_id=abc123def456; Path=/; HttpOnly; Secure

credit_card
- 4111 1111 1111 1111
- 5500000000000004
- Note: Luhn validation required – random digits will not match

dob
- 1990-05-15
- 2001/12/31
- 1985-01-01

dob_refined
- dob: 1990-05-15
- birth: 2001/12/31
- born: 1985-01-01

drivers_license
- D1234567
- A12345678901

drivers_license_refined
- dl: D1234567
- license: A12345678

email
- user@example.com
- john.doe+test@company.co.uk
- admin@perfware.cloud

generic_secret
- password: MyS3cur3P@ss!

api_key="abcdef1234567890"
access_token: ghp_xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

github_token
ghp_ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghij
gho_ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghij

iban
GB29NWBK60161331926819
DE89370400440532013000
FR7630006000011234567890189

iban_refined
iban: GB29NWBK60161331926819
account: DE89370400440532013000

icd10
A01.0
J18.9
M54.5
E11.65

ipv4
192.168.1.1
10.0.2.100
172.16.0.12

ipv6
2001:0db8:85a3:0000:0000:8a2e:0370:7334
fe80:0000:0000:0000:0000:0000:0000:0001

jwt_token
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4gRG9lIn0.
SflKxwRJSMeKKF2QT4fwpMeJf36POk6yJV_adQssw5c

mac_address
00:1A:2B:3C:4D:5E
AA-BB-CC-DD-EE-FF

mac_address_refined
mac: 00:1A:2B:3C:4D:5E
hwaddr: AA-BB-CC-DD-EE-FF
ether: 11:22:33:44:55:66

medicare_mbi
1A00B00CD01
2B12C34DE56

mrn_generic
MRN: PAT-123456
MRN:ABC789012

nhs_number
943 476 5919
123-456-7890

npi
1234567890
1987654321

passport_us

A12345678
C98765432

passport_us_refined
passport: A12345678
ppn: C98765432

phone_intl
+1-555-123-4567
+44 7911 123456
+61 412345678

phone_intl_refined
phone: +1-555-123-4567
tel: +44 7911 123456
int: +61 412345678

phone_us
(555) 123-4567
555-123-4567
+1 555.123.4567

phone_us_refined
phone: (555) 123-4567
tel: 555-123-4567
cell: 555.123.4567
mobile: (800) 555-0199

private_key
-----BEGIN RSA PRIVATE KEY-----
-----BEGIN OPENSSH PRIVATE KEY-----
-----BEGIN EC PRIVATE KEY-----

slack_token
xoxb-1234567890-1234567890123-AbCdEfGhIjKlMnOpQrStUvWx
xoxp-1234567890-1234567890123-1234567890123-abcdef1234

sql_alter
ALTER TABLE users ADD COLUMN email VARCHAR(255)

sql_comment
-- DROP TABLE users
/* DELETE FROM orders WHERE 1=1 */

sql_delete
DELETE FROM sessions WHERE expired = true

sql_drop
DROP TABLE customers
DROP DATABASE production
DROP INDEX idx_users_email

sql_exec
EXEC sp_executesql @sql
EXECUTE dbo.UpdateInventory

sql_injection
' OR '1'='1
; DROP TABLE users

sql_insert

INSERT INTO users (name, email) VALUES ('test', 'test@example.com')

sql_select

SELECT * FROM users WHERE id = 1

SELECT name, email FROM customers ORDER BY created_at DESC

sql_truncate

TRUNCATE TABLE temp_data

sql_union

UNION SELECT username, password FROM admin_users

UNION ALL SELECT * FROM secrets

sql_update

UPDATE users SET password = 'newpass' WHERE id = 42

ssn

123-45-6789

987-65-4321

ssn_nondash

123456789

987654321

swift_bic

DEUTDEFF

BNPAFRPP

CHASUS33XXX

swift_bic_refined

swift: DEUTDEFF

bic: BNPAFRPP

tomcat_config

28-May-2026 14:44:29.461 CONFIG [main] org.apache.catalina.startup.VersionLoggerListener.log Server version

tomcat_debug

28-May-2026 14:44:29.461 FINE [http-nio-8080-exec-1] com.example.app.CacheManager.lookup Cache miss

28-May-2026 14:44:29.461 FINER [main] org.apache.catalina.core.StandardContext.startInternal Starting

tomcat_severe

28-May-2026 14:44:29.461 SEVERE [http-nio-8080-exec-5] com.example.app.PaymentGateway.processRequest Error

tomcat_warning

28-May-2026 14:44:29.461 WARNING [http-nio-8080-exec-3] org.apache.catalina.connector.CoyoteAdapter.service Session expired

Notes

- Patterns use Python regex with flags like (?im) for case-insensitive multiline matching
- The credit_card pattern includes Luhn algorithm validation
- Patterns with _refined variants require a keyword prefix for higher precision
- In tag mode, matches are annotated but not modified
- In redact mode, matched text is replaced with the replacement string
- In filter mode, the entire log event is dropped