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Getting Data in More Efficiently Using the Splunk® Edge Processor

PLA1870A

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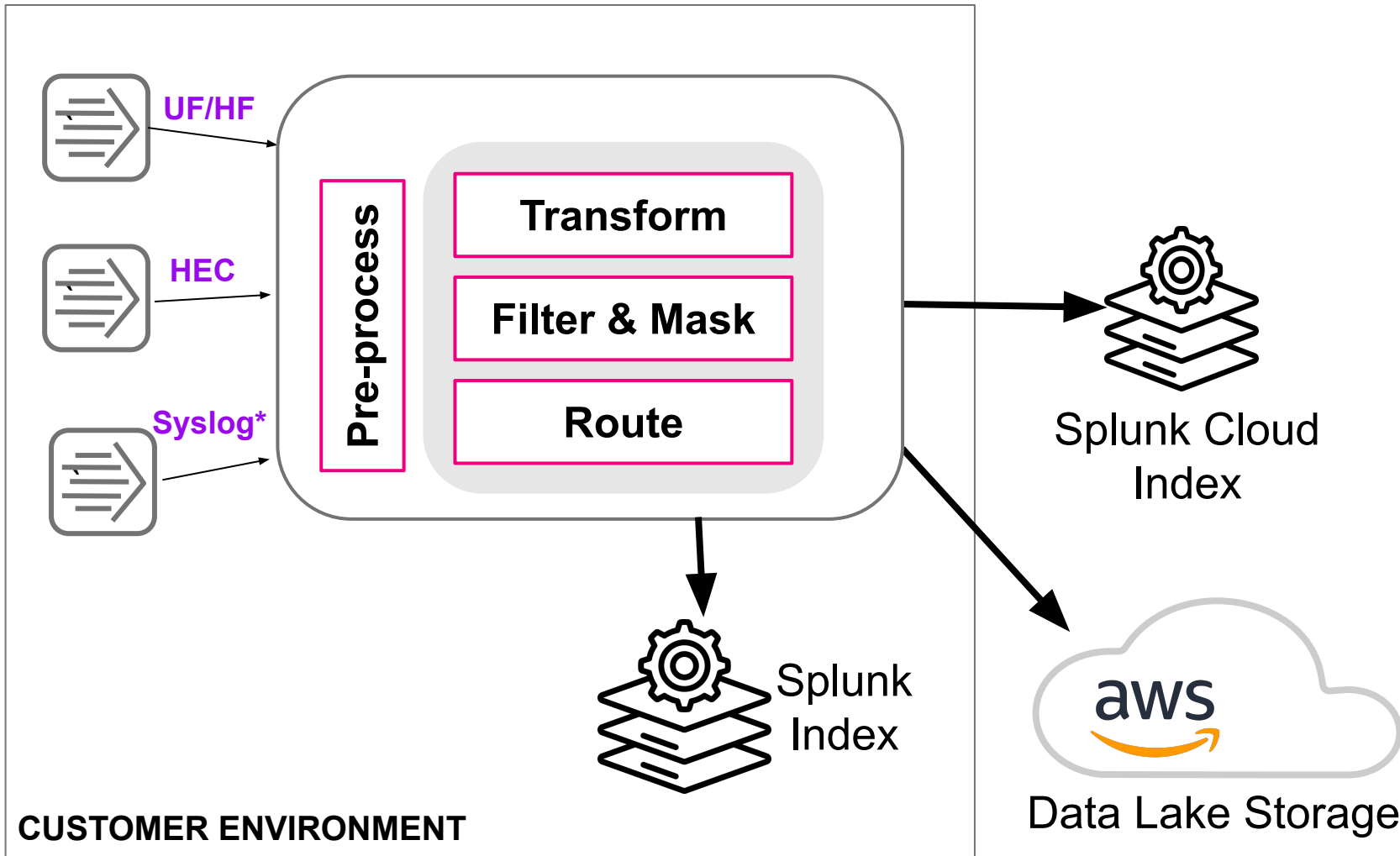
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Principal Financial Group



Yogesh Sontakke

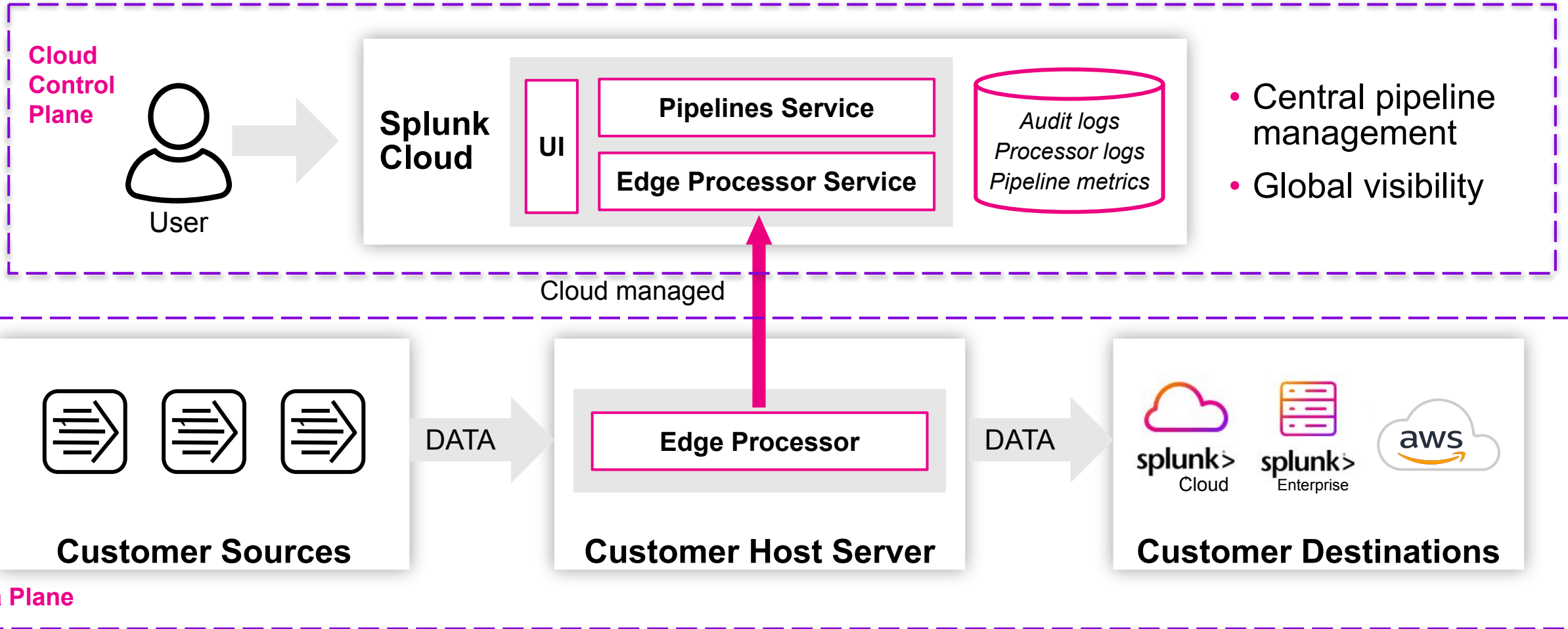
Director, Product Management | Splunk

Edge Processor Overview



- **Filter** verbose or low-value sources, like DEBUG logs or other **noisy data**
- **Extract** just the **critical data**
- **Route** different “slices” of data to desired destinations

Edge Processor Architecture



Who is Edge Processor for?

Admins and Architects

Administer and Manage Edge Processor nodes/clusters and overall deployments across multiple regions from a one-stop-shop Data Management Console

Edge Processors

Global settings + New Edge Processor

All instances: 170

Instances with Error: 3

Instances with Warning: 0

Instances with Disconnected: 164

Instances with Healthy: 3

Filter by name

Search by Edge Processor name. Separate each value with a comma.

Name ↑	Number of instances ↓	Instance health	Number of pipelines ↓
ACIES-3191-test-tls	1	<div style="width: 100%;"></div>	1
DD_per_EP_test	0	n/a	0
DMX-446-test-0	0	n/a	0
DMX-446-test-1	0	n/a	0
DMX-446-test-2	0	n/a	0
DMX-446-test-4	0	n/a	0
DMX-466-test-3	1	<div style="width: 100%;"></div>	2
Demo123	0	n/a	0
DemoEP123	1	<div style="width: 100%;"></div>	1
Dorons-EP	0	n/a	0
EP_Node_1	0	n/a	0
ExxTest	0	n/a	0

Manage Instances

View and manage instances in cluster1

Instances 3 Install/uninstall

Enter search terms All statuses

Search by hostname, separating each value with a comma, and filter by instance status

Hostname ↓	CPU usage ↑	Memory usage ↑
ip-172-31-4-79	0.06 cores / 1.5%	158.39 MB / 1%
ip-172-31-9-183	0.04 cores / 1%	165.48 MB / 1%
ip-172-31-10-45	0.05 cores / 1.3%	159.56 MB / 1%

Received data

View information about the data that this Edge Processor received in the last 30 minutes.

13 pipelines

View information about the pipelines applied to this Edge Processor

Source type ↓	Inbound data ↑	Name ↓	Outbound data ↑
splunkd_latency_tracker	45 B / 1 events	canary_syslog_masking	No data available
splunkd	9.66 MB / 2.17K events	palo_alto_xdr_incident	539 KB / 616 events
splunkd_telemetry	0 B / 0 events	palo_alto_aperture	309.07 KB / 900 events
panxdr_incident	793.85 KB / 900 events	palo_alto_iot_alert	223.15 KB / 273 events
paniot_alert	736.34 KB / 900 events	internal_passthrough	9.66 MB / 2.17K events
panfirewall	1.22 MB / 900 events	wineventsystem_truncate_msg_ec	1.31 KB / 4 events
panaperture	318.79 KB / 900 events	json_basic	186.54 KB / 17 events
f5telemetryjson	1.25 MB / 900 events	json_basic_cloudtrail	49.37 KB / 55 events
f5bigip.syslog	484.54 KB / 900 events	f5_telemetry_rating	640.38 KB / 451 events
f5bigip.asm.syslog	638.58 KB / 900 events	f5_firewall_logs	275.3 KB / 388 events
_jsoncloudtrail	382.51 KB / 328 events	f5_afm_syslog	165.39 KB / 309 events
_json	1.75 MB / 163 events	palo_alto_firewall_logs	1.23 MB / 900 events
WinEventLog:System	1.31 KB / 4 events		

Last updated: A few seconds ago

Who is Edge Processor for?

Subject Matter Expert/SPL2 Content Creator

Author, test (in real-time) and share SPL2 content from the Data Management Console before deploying to your Edge Processor nodes

The screenshot shows the Splunk Edge Processor interface. The main editor displays a pipeline script with the following content:

```

1 /* TEMPLATE DESCRIPTION
2 This is a sample pipeline that takes syslog data and masks IP addresses from the hostname field.
3 */
4
5 $pipeline = | from $source
6
7 /* PIPELINE BASICS
8 Every pipeline starts with "$pipeline = | from $source". This syntax defines a pipeline that receives
9 data from the source dataset specified in the pipeline settings.
10
11 Every pipeline ends with "| into $destination;". This syntax sends the data from the pipeline to the
12 destination dataset specified in the pipeline settings.
13 */
14
15 | eval _raw=replace(_raw, /<(?!priority>.*>{?<month>[A-z]{3})\s{?<date>[0-9]{2}?\s{?<time>[0-9]+:
16 [0-9]+:[0-9]+\s{?<hostname>(( [0-9] | [1-9] [0-9] | [10-9] {2} | 2 [0-4] [0-9] | 25 [0-5] ) . ) {3} ( [0-9] | [1-9] [0-9] | 1
17 [0-9] {2} | 2 [0-4] [0-9] | 25 [0-5] ) ) \s{?<daemon>[A-z]+} {?<pid>[0-9]+} * : \s{?<body>.*} / , "<\1> \2 \3
18 \4 x.x.x.x \9\10: \11")
19
20 /* MASKING IP ADDRESSES
21 In order to mask sensitive information in your data, this template uses the "eval" command to detect
22 and replace IP addresses in the hostname field with the string "x.x.x.x."
23 */
24
25 | into $destination;
  
```

The right-hand panel shows the pipeline configuration options, including a 'Mask' action with the pattern `<(?!priority>.*>{?<month>[A-z]{3}`.

The screenshot shows the Splunk Edge Processor interface displaying the execution results of the pipeline. The main editor shows the pipeline script with the following content:

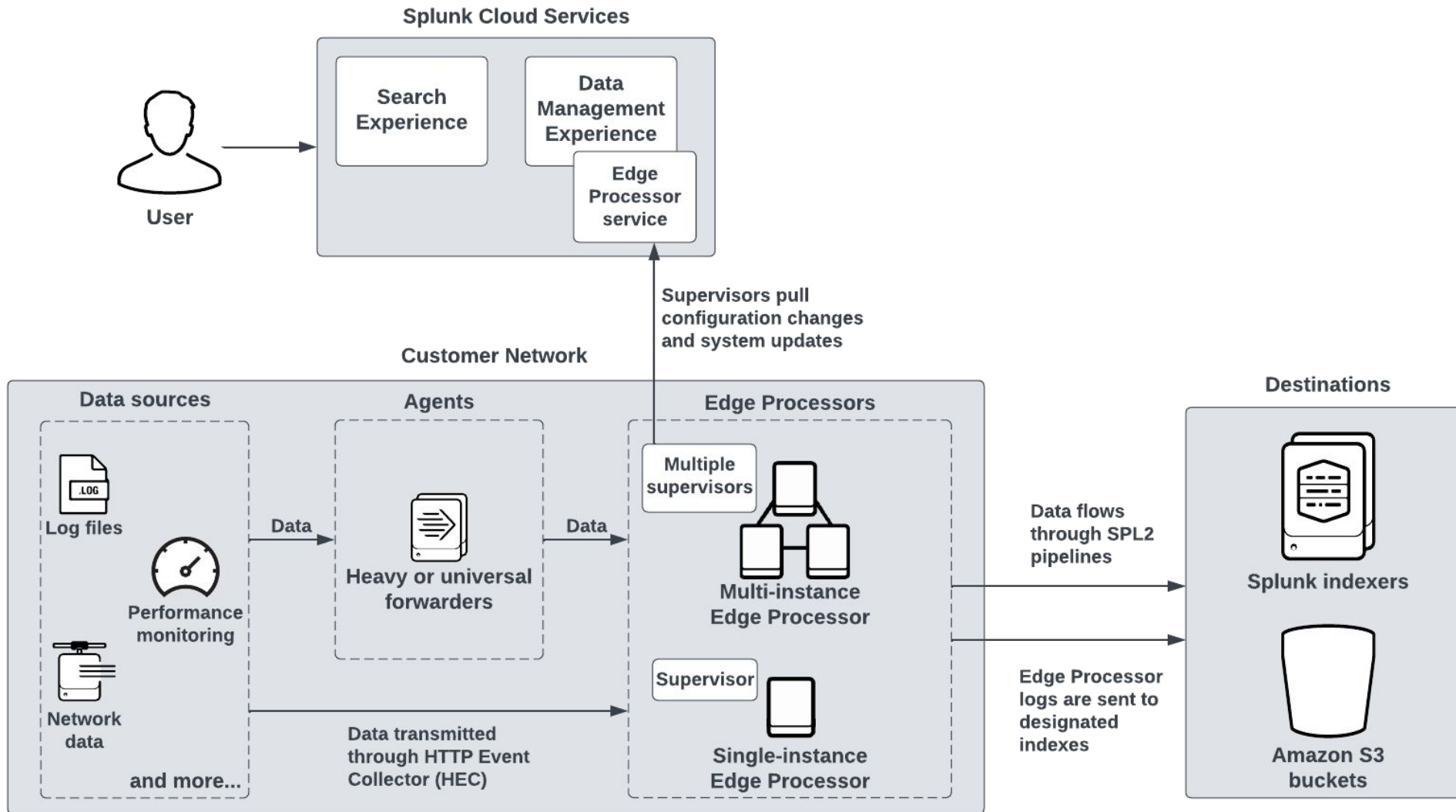
```

9
10 Every pipeline ends with "| into $destination;". This syntax sends the data from the pipeline to the
11 destination dataset specified in the pipeline settings.
12 */
13
14 | eval _raw=replace(_raw, /<(?!priority>.*>{?<month>[A-z]{3})\s{?<date>[0-9]{2}?\s{?<time>[0-9]+:
15 [0-9]+:[0-9]+\s{?<hostname>(( [0-9] | [1-9] [0-9] | [10-9] {2} | 2 [0-4] [0-9] | 25 [0-5] ) . ) {3} ( [0-9] | [1-9] [0-9] | 1
16 [0-9] {2} | 2 [0-4] [0-9] | 25 [0-5] ) ) \s{?<daemon>[A-z]+} {?<pid>[0-9]+} * : \s{?<body>.*} / , "<\1> \2 \3
17 \4 x.x.x.x \9\10: \11")
  
```

The right-hand panel shows the execution results, including a table of results:

Result ID	Timestamp	Message
1	<19> Jul 26 09:47:37 x.x.x.x	gravity: Run `planet enter` and check journalctl for details
2	<9> Jul 26 09:47:37 x.x.x.x	systemd: Created slice User Slice of root.
3	<21> Jul 26 09:47:37 x.x.x.x	systemd: Created slice User Slice of root.
4	<15> Jul 26 09:47:37 x.x.x.x	dhclient[3209]: DHCPREQUEST on eth0 to 10.234.1.1 port 67 (xid=0x5b9566d8)
5	<20> Jul 26 09:47:37 x.x.x.x	rsyslogd: [origin software="rsyslogd" swVersion="8.24.0-41.el7_7" x-pid="3426" x-info="http://www.rsyslog.com"] rsyslogd was HUPed
6	<21> Jul 26 09:47:37 x.x.x.x	gravity: Run `planet enter` and check journalctl for details

Deployment with Edge Processor



Demo - Overview





Questions?

splunk> .conf23

Filtering and Routing with Splunk Edge Processor

Security Engineer:

Filter excessive firewall and load balancer logs, in the event of a rule change or during period of bursts, to reduce storage and compute costs and route only relevant events to Splunk



Recreating Raw Events with Splunk Edge Processor

Application Owner:

Drop unnecessary fields from Windows Application log events, to trim down event size and reduce time to identify relevant information quickly



Masking with Splunk Edge Processor

Security Engineer:

Mask sensitive data, such as PII, to be compliant with legal and regulatory requirements



Use Cases

Filtering

Application Owner:
Filter info and debug messages to Splunk, resulting in quicker problem identification

Security Engineer:
Filter out excessive noise from firewall and load balancers to reduce Splunk's storage and compute cost

Masking

Security Engineer:
Mask sensitive data to be compliant with legal and/or regulatory requirements

Cloud Migration

Splunk Admin:
Easy and smooth migration from On-prem to Cloud

Monitoring

Splunk Admin:
Single pane of glass to track and monitor all Edge Processor nodes

Questions?



Still on the Fence?

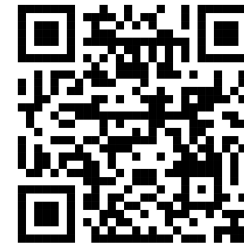
Edge Processor is a great addition to any Splunk deployment. It allows you to achieve a higher signal-to-noise ratio which yields the following benefits:

- 1) Lower storage costs of data
- 2) Lower ingest-time processing costs
- 3) Lower search-time processing costs
- 4) Lower query execution times in turn returning faster results
- 5) Quicker and easier identification of key signals and the 'needle' in the haystack

And many more...

Resources

- 1) Go to <https://px.scs.splunk.com/<your tenant name>/data-management/> to try out Edge Processor (or contact edgeprocessor@splunk.com if you'd like it activated in your tenant)
- 2) Geek out on SPL2™ at **PLA1430A Workshop at 3pm PT** on Tuesday, 18th July
- 3) Check out the **Edge Processor (Getting Data In) Booth**
- 4) Edge Processor doc to get started. **Scan here!**
- 5) Reach out to me - asaboowala@splunk.com, if you are interested in learning more about Edge Processor



Thank You

