

## LanDB use cases

**OpenSearch DataStreams, component templates** 

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### LanDB use cases

| <ul> <li>Access logs</li> <li>Ingested through Filebeat/Logstash</li> </ul>                         | 915+M docs<br>1.5Tb  |
|---|----------------------|
| <ul> <li>Application logs</li> <li>Ingested through Filebeat/Logstash</li> </ul>                    | 900+M docs<br>1.3Tb  |
| <ul> <li>Live network scan data</li> <li>Ingested via Java client (legacy Elasticsearch)</li> </ul> | 21.5+B docs<br>1.7Tb |
| <ul> <li>Call logs</li> <li>Ingested through Logstash</li> </ul>                                    | 350+M docs<br>100Gb  |



## **Migration to DataStreams**

- Why?
  - Operational burden of managing individual indices with write alias
  - Too much information in Kibana (time-based indices)

#### Create new DataStreams

• Review index policies from time based (daily/monthly) to size based

#### • Minimal code change in the ingestion pipelines

- Remove time based indices
- Change op\_type to create
- Reindex everything...



### **Migration to DataStreams**

| Data streams                  | Actions                   | Actions $\checkmark$ Create data stream |                       |            |
|-------------------------------|---------------------------|---|-----------------------|------------|
| Q Search                      |                           |   |                       |            |
| Data stream name $ \psi $     | Status                    | Template                                | Backing indexes count | Total size |
| production-netlive-wifi-user  | • Green                   | netlive-wifi-user                       | 11                    | 711.8gb    |
| production-netlive-vrrp       | • Green                   | netlive-vrrp                            | 1                     | 63.1kb     |
| production-netlive-topology   | • Green                   | netlive-topology                        | 1                     | 416b       |
| production-netlive-system     | • Green                   | netlive-system                          | 1                     | 3gb        |
| production-netlive-poe        | • Green                   | netlive-poe                             | 1                     | 106.8kb    |
| production-netlive-ospf       | • Green                   | production-netlive-ospf                 | 1                     | 416b       |
| production-netlive-mac        | • Green                   | netlive-mac                             | 6                     | 344.9gb    |
| production-netlive-iftable    | • Green                   | netlive-iftable                         | 5                     | 235.2gb    |
| production-netlive-dhcp-lease | <ul> <li>Green</li> </ul> | netlive-dhcp-lease                      | 1                     | 111.9gb    |
| production-netlive-bgp        | • Green                   | netlive-bgp                             | 1                     | 416b       |
| production-netlive-arp        | • Green                   | netlive-arp                             | 4                     | 219.4gb    |
| production-filebeat           | • Green                   | logging-filebeat                        | 17                    | 1.3tb      |
| production-access-logs        | • Green                   | logging-access-logs                     | 24                    | 1.5tb      |
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| State managem               | nent policies (2) Delete Edit  | Create policy     |  |
|-----------------------------|--|-------------------|--|
| Q Search                    |  |                   |  |
| $\Box$ Policy $\downarrow$  | Description  | Last updated time |  |
| production-netlive-rollover | Policy to rollover NetLive datastreams   | 04/11/24 10:10 am |  |
| production-logging          | Policy for managing Logging infrastructure datastreams (access logs, filebeat) | 04/02/24 12:44 pm |  |
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### **Component templates**

- Take profit of the migration to review index templates
- Avoid configuration duplication
- Templates map to actual code



#### **Component templates**

| Templates<br>Index templates let you initialize new indexes or data stre | ams with predefined mappings and settings. Learn mo | ore 🖒                               |          | Actions ~ Create               | template |
|--|---|-------------------------------------|----------|--------------------------------|----------|
| Q  |   |                                     |          |                                | 8        |
| □ Template name ↓  | Template type                                       | Index patterns                      | Priority | Associated component templates | Action   |
| netlive-wifi-user-active   | Indexes   | production-netlive-wifi-user-active | 0        | 4                              | の 官      |
| netlive-wifi-user  | Data streams  | production-netlive-wifi-user        | 0        | 4                              | の 官      |
| netlive-vrrp   | Data streams  | production-netlive-vrrp             | 0        | 1                              | (1) (1)  |
| netlive-topology   | Data streams  | production-netlive-topology         | 0        | 1                              | (1) (1)  |
| netlive-system   | Data streams  | production-netlive-system           | 0        | 1                              | の 宦      |
| netlive-poe  | Data streams  | production-netlive-poe              | 0        | 1                              | の 官      |
| netlive-ospf-active  | Indexes   | production-netlive-ospf-active      | 0        | 4                              | の 宦      |
| netlive-mac-active   | Indexes   | production-netlive-mac-active       | 0        | 5                              | 00 官     |
| netlive-mac  | Data streams  | production-netlive-mac              | 0        | 5                              | 00 宦     |
| netlive-bgp-active   | Indexes   | production-netlive-bgp-active       | 0        | 4                              | 00 官     |
| netlive-bgp  | Data streams  | production-netlive-bgp              | 0        | 4                              | 00 官     |
| netlive-arp-active   | Indexes   | production-netlive-arp-active       | 0        | 5                              | 四 官      |
| netlive-arp  | Data streams  | production-netlive-arp              | 0        | 5                              | 00 官     |
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#### Conclusion

- Migration to DataStreams is easy
- Drastic improvement of operations
- Thanks to OpenSearch service team!



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# **Questions?**

