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# 🔄 Migration to OpenPipeline
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> **Series:** OPLOGS | **Notebook:** 2 of 8 | **Created:** December 2025
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Planning and Executing Your Log Migration

This notebook guides you through assessing your current log environment and planning migration to OpenPipeline v2.0.

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Prerequisites

- ✅ Access to a Dynatrace environment with log data
- ✅ Completed OPLOGS-01 fundamentals
- ✅ Knowledge of your current log sources and volumes

1. Migration Assessment

Before migrating, you need to understand your current log landscape.

Key Questions to Answer:

1. **What log sources do I have?** (OneAgent, API, OTLP)
2. **What is my log volume?** (records/hour, GB/day)
3. **Which logs need parsing?** (unstructured content)
4. **What sensitive data exists?** (PII, credentials)
5. **What can be dropped?** (debug, health checks)

```
```python
// Assessment Query 1: Log sources inventory
fetch logs, from: now() - 24h
| summarize {
 log_count = count(),
 unique_hosts = countDistinct(dt.entity.host)
}
```

```

 }, by: {dt.openpipeline.source, log.source}
| sort log_count desc
| limit 20
...

```python
// Assessment Query 2: Log volume by hour (capacity planning)
fetch logs, from: now() - 24h
| makeTimeseries {log_count = count()}, interval: 1h
...

```python
// Assessment Query 3: Log level distribution
fetch logs, from: now() - 24h
| summarize {
 total = count(),
 errors = countIf(loglevel == "ERROR" OR status == "ERROR"),
 warnings = countIf(loglevel == "WARN" OR status == "WARN"),
 info = countIf(loglevel == "INFO" OR status == "INFO"),
 debug = countIf(loglevel == "DEBUG" OR status == "DEBUG"),
 none = countIf(loglevel == "NONE" OR status == "NONE")
}
| fieldsAdd debug_pct = round((toDouble(debug) / toDouble(total)) * 100,
decimals: 1)
| fieldsAdd none_pct = round((toDouble(none) / toDouble(total)) * 100,
decimals: 1)
...

```python
// Assessment Query 4: Identify logs that need parsing (loglevel = NONE)
fetch logs, from: now() - 1h
| filter loglevel == "NONE" OR status == "NONE"
| fieldsAdd content_preview = substring(content, from: 0, to: 80)
| summarize {count = count()}, by: {content_preview, dt.openpipeline.source}
| sort count desc
| limit 15
...

```python
// Assessment Query 5: Potential drop candidates (health checks, heartbeats)
fetch logs, from: now() - 24h
| summarize {
 total = count(),
 health_checks = countIf(matchesPhrase(content, "health") OR
matchesPhrase(content, "healthcheck")),
 heartbeats = countIf(matchesPhrase(content, "heartbeat")),
 debug_logs = countIf(loglevel == "DEBUG" OR status == "DEBUG")
}

```

```
| fieldsAdd droppable = health_checks + heartbeats + debug_logs
| fieldsAdd savings_pct = round((toDouble(droppable) / toDouble(total)) *
100, decimals: 1)
...
```

## ## 2. Migration Paths

### ### Path A: Automatic Migration (Recommended)

If you're using OneAgent for log collection, most data automatically flows through OpenPipeline.

#### \*\*Steps:\*\*

1. Verify `dt.openpipeline.source` = `oneagent` in your logs
2. Configure custom pipelines for specific processing needs
3. Update queries to use OpenPipeline fields

### ### Path B: API Migration

If using the Log Ingest API:

#### \*\*Steps:\*\*

1. Continue using `/api/v2/logs/ingest` endpoint
2. Logs automatically route through OpenPipeline
3. Configure processing rules as needed

### ### Path C: OTLP Migration

For OpenTelemetry-based logging:

#### \*\*Steps:\*\*

1. Point OTLP exporters to `/api/v2/otlp/v1/logs`
2. Logs flow through OpenPipeline automatically
3. Configure pipelines for OTLP-specific processing

```
```python
// Check which data sources are already using OpenPipeline
fetch logs, from: now() - 1h
| filter isNotNull(dt.openpipeline.pipelines)
| summarize {count = count()}, by: {dt.openpipeline.source}
| sort count desc
```
```

## ## 3. Planning Your OpenPipeline Configuration

### ### Pipeline Strategy

| Use Case | Pipeline Configuration |

```

|-----|-----|
| **Default Processing** | Use built-in Default Pipeline |
| **Custom Parsing** | Create pipeline with DPL parse rules |
| **PII Masking** | Add masking stage before processing |
| **Cost Reduction** | Add drop rules for noise |
| **Custom Routing** | Route to specific buckets |

Bucket Strategy






Log Type	Bucket	Retention
Production Errors	`prod_errors`	90 days
Application Logs	`default_logs`	35 days
Debug/Verbose	Drop or 7 days	Minimal
Audit/Compliance	`audit_logs`	365+ days

```python
// Analyze current bucket usage
fetch logs, from: now() - 24h
| summarize {
    log_count = count(),
    error_count = countIf(loglevel == "ERROR" OR status == "ERROR")
}, by: {dt.system.bucket}
| fieldsAdd error_rate = round((toDouble(error_count) / toDouble(log_count))
* 100, decimals: 2)
| sort log_count desc
```

```

#### ## 4. Migration Validation

After configuring OpenPipeline, validate that:

1.  All expected log sources are present
2.  Log counts are consistent
3.  Parsing rules extract expected fields
4.  Masking rules are applied correctly
5.  Routing sends logs to correct buckets

```

```python
// Validation Query 1: Confirm all sources are flowing
fetch logs, from: now() - 1h
| summarize {
    total = count(),
    has_pipeline = countIf(isNotNull(dt.openpipeline.pipelines)),
    has_source = countIf(isNotNull(dt.openpipeline.source)),
    has_bucket = countIf(isNotNull(dt.system.bucket))
}
| fieldsAdd pipeline_coverage = round((toDouble(has_pipeline) /

```

```
toDouble(total)) * 100, decimals: 1)
```
```

```
```python
// Validation Query 2: Check log volume consistency (compare hours)
fetch logs, from: now() - 4h
| makeTimeseries {log_count = count()}, by: {dt.openpipeline.source},
interval: 1h
```
```

```
```python
// Validation Query 3: Verify entity context is preserved
fetch logs, from: now() - 1h
| summarize {
    total = count(),
    with_host = countIf(isNotNull(dt.entity.host)),
    with_process = countIf(isNotNull(dt.entity.process_group)),
    with_k8s_cluster = countIf(isNotNull(dt.entity.kubernetes_cluster)),
    with_k8s_namespace = countIf(isNotNull(k8s.namespace.name))
}
```
```

## ## 5. Common Migration Patterns

```
![Migration Patterns]
(data:image/svg+xml;base64,PHN2ZyB4bWxucz0iaHR0cDovL3d3dy53My5vcmcvMjAwMC9zdmciIHZpZXRCb3g9IjAgMCA4MDAgMzAwIj4KICA8ZGVmcz4KICAgaIDxsaw5lYXJHcmFkaWVudCBpZD0icGF0dGVyblBhcnNlR3JhZCIgeDE9IjAlIiB5MT0iMCUiIHgyPSIxMDAlIiB5Mj0iMTAwJSI+CIAgaIDxzdG9wIG9mZnNldD0iMCUiIHNoeWxlPSJzdG9wLWVnbG9y0iMzYjgyZjY7c3RvcC1vcGFjaXR50jEiIC8+CIAgaIDxzdG9wIG9mZnNldD0iMTAwJSIgc3R5bGU9InN0b3AtY29sb3I6IzI1NjNlYjtzdG9wLW9wYWNpdHk6MSIgLz4KICAgaIDwvbnGluZWYyR3JhZGllbnQ+CIAgaICA8bGluZWYyR3JhZGllbnQgaWQ9InBhdHRlcm5Ecm9wR3JhZCIgeDE9IjAlIiB5MT0iMCUiIHgyPSIxMDAlIiB5Mj0iMTAwJSI+CIAgaIDxzdG9wIG9mZnNldD0iMCUiIHNoeWxlPSJzdG9wLWVnbG9y0iNlZjQ0NDQ7c3RvcC1vcGFjaXR50jEiIC8+CIAgaIDxzdG9wIG9mZnNldD0iMTAwJSIgc3R5bGU9InN0b3AtY29sb3I6I2RjMjYyNjtzdG9wLW9wYWNpdHk6MSIgLz4KICAgaIDwvbnGluZWYyR3JhZGllbnQ+CIAgaICA8bGluZWYyR3JhZGllbnQgaWQ9InBhdHRlcm5Sb3V0ZUdyYWQiIHgyPSIxwJSIgeTE9IjAlIiB4Mj0iMTAwJSIgeTI9IjEwMCUiPgogICAgaICA8c3RvcCBvZmZzZXQ9IjAlIiBzdHlsZT0ic3RvcC1jb2xvcm9jMTBiOTgxO3N0b3Atb3BhY2l0eToxIiAvPgogICAgaICA8c3RvcCBvZmZzZXQ9IjEwMCUiIHNoeWxlPSJzdG9wLWVnbG9y0iMwNTk2Njk7c3RvcC1vcGFjaXR50jEiIC8+CIAgaICA8L2xpbmVhckdyYWRpZW50PgogICAgaIPGZpbHRlciBpZD0icGF0dGVyblNoYWRvdyI+CIAgaIDxmZURyb3BtaGFkb3cgZG9IjEiIGR5PSIxIiBzdGREZXZpYXRpb249IjIiIGZsb29kLW9wYWNpdHk6IjAuMTUuLz4KICAgaIDwvZmlsdGVyPgogICAgaIPG1hcmtlciBpZD0icGF0dGVybkFycm93IiBtYXJrZXJXaWR0aD0iMTAiIG1hcmtlcckhlaWdodD0iNyIgcmlldD0iOStIgcmlldD0iMy41IiBvcmlldD0iImF1dG8iPgogICAgaICA8cG9seWdvbiBwb2ludHM9IjAgMCAwMTAgMy41LCAwIDciIGZpbGw9IiM2NDc0OGIiLz4KICAgaIDwvbnG9wY2VpPgogICAgaIDwvZGVmcz4KICAgaIDwvPCEtLSBCYWNrZ3JvdW5kIC0tPgogIDxyZWNoIHdpZHRoPSI4MDAiIGhlaWdodD0iMzAwIiBmaWxsPSIjZjhmOwZHIiByeD0iMTAiLz4KICAgaIDwvPCEtLSBUaXRzZSAuLT4KICA8dGV4dCB4PSI0MDAiIHk9IjIiBmb250LWZhbWlseT0iQXJpYWwsIHhbnMtc2VyaWYiIGZvbntc2l6ZT0iMTgiIGZvbntc2VpZ2h0PSJib2xkiBmaWxsPSIjMzMzIiB0ZXh0LWFuY2hvcj0i
```

bWlkZGxLIj5Db21tb24gTWlncmF0aW9uIFBhdHRlcm5zPC90ZXh0PgogIDx0ZXh0IHg9IjQwMCIgeT0iNDgiIGZvbnQtZmFtaWx5PSJBcmllhbCwgc2Fucy1zZXJpZiIgZm9udC1zaXplPSIxMSIgZmlsbD0iIzY2NiIgdGV4dC1hbmNob3I9Im1pZGRsZSI+VGhyZWUgZXNzZW50aWFsIE9wZW50aXBlbGluZSBwcm9jZXNzb3IgcGF0dGVybnM8L3RleHQ+CGogIDwhLS0gUGF0dGVybiAx0iBQYXJzZSAAtLT4KICA8cmVjdCB4PSIzMCigeT0iNzAiIHdpZHRoPSIyMzAiIGhlaWdodD0iMjEwIiByeD0iMTAiIGZpbGw9IiNmZmYiIHNo0cm9rZT0iIzNiODJmNiIgc3Ryb2tLLXdpZHRoPSIyIi8+CiAgPHJlY3QgeD0iMzAiIHk9IjcwIiB3aWR0aD0iMjMwIiBoZWlnaHQ9IjM1IiByeD0iMTAiIGZpbGw9InVybcGjcGF0dGVybLBhcnNlR3JhZCkiLz4KICA8dGV4dCB4PSIxNDUiIHk9IjklIiBmb250LWZhbWlseT0iQXJpYWwSIHNhbnMtc2VyaWYiIGZvbnQtc2l6ZT0iMTAiIGZvbnQtd2VpZ2h0PSJib2xkIiBmaWxsPSJ3aGl0ZSIgdGV4dC1hbmNob3I9Im1pZGRsZSI+UGFyc2UgTG9nIExldmVsczwwdGV4dD4KCIAGPHJlY3QgeD0iNTAiIHk9IjExNSIgd2lkdGg9IjE5MCIgaGVpZ2h0PSIzNSIgcng9IjYiIGZpbGw9IiNlMmU4ZjAiLz4KICA8dGV4dCB4PSIxNDUiIHk9IjEz0CIgZm9udC1mYW1pbHk9IkFyaWFsLCBzYW5zLXNlcmllIiBmb250LXNpemU9IjEwIiBmaWxsPSIjMzMiIiB0ZXh0LWFuY2hvcj0ibWlkZGxLIj5SYXcgTG9nIElucHV0PC90ZXh0PgoKICA8cGF0aCBkPSJNMTQ1LDE1MCMMTQ1LDE2NSIgc3Ryb2tLPSIjNjQ3NDhiIiBzdHJva2Utd2lkdGg9IjIiIGZpbGw9Im5vbmUiIG1hcmtdlcil1bmQ9InVybcGjcGF0dGVybKfycm93KSIvPgoKICA8cmVjdCB4PSI1MCigeT0iMtc1IiB3aWR0aD0iMTkwIiBoZWlnaHQ9IjUwIiByeD0iNiIgZmlsbD0idXJsKCNwYXR0ZXJuUGFyc2VHcmFkKSIGZmlsdGVyPSJ1cmwoI3BhdHRlcm5TaGFkb3cpIi8+CiAgPHRleHQgeD0iMTQ1IiB5PSIx0TUiIGZvbnQtZmFtaWx5PSJBcmllhbCwgc2Fucy1zZXJpZiIgZm9udC1zaXplPSIxMSIgZm9udC13ZWlnaHQ9ImJvbGQiIGZpbGw9IndoaXRlIiB0ZXh0LWFuY2hvcj0ibWlkZGxLIj5EUEwgUHJvY2Vzc29yPC90ZXh0PgogIDx0ZXh0IHg9IjE0NSIgeT0iMjE1IiBmb250LWZhbWlseT0ibW9ub3NwYWwSIiBmb250LXNpemU9IjEwIiBmaWxsPSJyZ2JhKDI1NSwyNTUsMjU1LDAuOSkiIHRleHQYw5jaG9yPSJtaWRkbGUlPlPUKQ6bG9nbGV2ZWwgJyAnIExEPC90ZXh0PgoKICA8cGF0aCBkPSJNMTQ1LDIyNSBMMTQ1LDI0MCIgc3Ryb2tLPSIjNjQ3NDhiIiBzdHJva2Utd2lkdGg9IjIiIGZpbGw9Im5vbmUiIG1hcmtdlcil1bmQ9InVybcGjcGF0dGVybKfycm93KSIvPgoKICA8cmVjdCB4PSI1MCigeT0iMjUwIiB3aWR0aD0iMTkwIiBoZWlnaHQ9IjI1IiByeD0iNiIgZmlsbD0iI2QxZmFlnSIvPgogIDx0ZXh0IHg9IjE0NSIgeT0iMjY3IiBmb250LWZhbWlseT0iQXJpYWwSIHNhbnMtc2VyaWYiIGZvbnQtc2l6ZT0iMTAiIGZpbGw9IiMwNDc4NTciIHRleHQYw5jaG9yPSJtaWRkbGUlPmxvZ2xldmVsIGZpZWxkIGV4dHJhY3RlZDwwdGV4dD4KCIAGPCEtLSBQYXR0ZXJuIDI6IERyb3AgLS0+CiAgPHJlY3QgeD0iMjg1IiB5PSI3MCIgd2lkdGg9IjIzMCIgaGVpZ2h0PSIyMTAiIHJ4PSIxcMCIgZmlsbD0iI2ZmZiIgc3Ryb2tLPSIjZWY0NDQ0IiBzdHJva2Utd2lkdGg9IjIiLz4KICA8cmVjdCB4PSIyODUiIHk9IjcwIiB3aWR0aD0iMjMwIiBoZWlnaHQ9IjM1IiByeD0iMTAiIGZpbGw9InVybcGjcGF0dGVybKfRyb3BHcmFkKSIVPgogIDx0ZXh0IHg9IjQwMCIgeT0i0TUiIGZvbnQtZmFtaWx5PSJBcmllhbCwgc2Fucy1zZXJpZiIgZm9udC1zaXplPSIxMiIgZm9udC13ZWlnaHQ9ImJvbGQiIGZpbGw9IndoaXRlIiB0ZXh0LWFuY2hvcj0ibWlkZGxLIj5Ecm9wIERlYnVnIExvZ3M8L3RleHQ+CGogIDxyZWNoIHg9IjMwNSIgeT0iMTE1IiB3aWR0aD0i0DUiIGhlaWdodD0iMzUiIHJ4PSI2IiBmaWxsPSIjZTJlOGYwIi8+CiAgPHRleHQgeD0iMzQ3IiB5PSIxMzgiIGZvbnQtZmFtaWx5PSJBcmllhbCwgc2Fucy1zZXJpZiIgZm9udC1zaXplPSIxMCIgZmlsbD0iIzZmZmYiIgdGV4dC1hbmNob3I9Im1pZGRsZSI+QWxsIExvZ3M8L3RleHQ+CGogIDxyZWNoIHg9IjQxMCIgeT0iMTE1IiB3aWR0aD0i0DUiIGhlaWdodD0iMzUiIHJ4PSI2IiBmaWxsPSIjZDFmYWU1Ii8+CiAgPHRleHQgeD0iNDUyIiB5PSIxMzgiIGZvbnQtZmFtaWx5PSJBcmllhbCwgc2Fucy1zZXJpZiIgZm9udC1zaXplPSIxMCIgZmlsbD0iIzA0Nzg1NyIgdGV4dC1hbmNob3I9Im1pZGRsZSI+S2VldDwwdGV4dD4KCIAGPHBhdGggZD0iTTM0NywxNTAgTDQwMwCwX0TAiIHNo0cm9rZT0iI2VmNDQ0NCIgc3Ryb2tLLXdpZHRoPSIyIiBmaWxsPSJub25lIiBtYXJrZXItZW5kPSJ1cmwoI3BhdHRlcm5BcnJvdykiLz4KICA8cGF0aCBkPSJNNDUyLDE1MCMNDAwLDE5MCIgc3Ryb2tLPSIjMTBi0TgxIiBzdHJva2Utd2lkdGg9IjIiIGZpbGw9Im5vbmUiIG1hcmtdlcil1bmQ9InVybcGjcGF0dGVybKfYcm93KSIvPgoKICA8cmVjdCB4PSIzMDUiIHk9IjE3NSIgd2lkdGg9IjE5MCIgaGVpZ2h0PSI1MCIgcng9IjYiIGZpbGw9InVybcGjcGF0dGVybKfRyb3BHcmFkKSIGZmlsdGVyPSJ1cmwoI3BhdHRlcm5TaGFkb3cpIi8+CiAgPHRleHQgeD0iNDAwIiB5PSIx0TUiIGZvbnQtZmFtaWx5PSJBcmllhbCwgc2Fucy1zZXJpZiIgZm9udC1zaXplPSIxMSIgZm9udC13ZWlnaHQ9ImJvbGQiIGZp

### Pattern 1: Parse Log Levels from Content

```
Processor Configuration:
```



- **\*\*Type:\*\* DQL**
- **\*\*Matcher:\*\*** `loglevel == "NONE"`
- **\*\*Statement:\*\*** `parse content, "'[' LD:parsed\_level ']' | fieldsAdd loglevel = parsed\_level`

### ### Pattern 2: Drop Debug Logs

Reduce storage costs by dropping DEBUG-level logs before storage.

**\*\*Processor Configuration:\*\***

- **\*\*Type:\*\* Drop**
- **\*\*Matcher:\*\*** `loglevel == "DEBUG"`

### ### Pattern 3: Route Errors to Dedicated Bucket

Send error logs to a dedicated bucket with longer retention for compliance.

**\*\*Bucket Routing Configuration:\*\***

- **\*\*Matcher:\*\*** `loglevel == "ERROR"`
- **\*\*Bucket:\*\*** `error\_logs`
- **\*\*Retention:\*\*** 90 days

```
```python
// Simulate parsing log levels from content
fetch logs, from: now() - 1h
| filter loglevel == "NONE" OR status == "NONE"
| parse content, "'[' LD:parsed_level ']"
| filter isNotNull(parsed_level)
| fields timestamp, content, parsed_level
| limit 10
```
```

```
```python
// Identify logs that would be dropped (DEBUG + health checks)
fetch logs, from: now() - 24h
| filter loglevel == "DEBUG"
      OR matchesPhrase(content, "healthcheck")
      OR matchesPhrase(content, "health check")
| summarize {would_drop = count()}, by: {dt.openpipeline.source}
| sort would_drop desc
```
```

## ## 6. Migration Checklist

### ### Pre-Migration

- [ ] Document current log sources and volumes
- [ ] Identify logs requiring custom parsing
- [ ] List sensitive data patterns to mask



- [ ] Define drop rules for noise reduction
- [ ] Plan bucket strategy and retention

### ### During Migration

- [ ] Configure OpenPipeline settings
- [ ] Create custom pipelines as needed
- [ ] Set up masking rules
- [ ] Configure bucket routing
- [ ] Test with sample data

### ### Post-Migration

- [ ] Validate all log sources flowing
- [ ] Verify volume consistency
- [ ] Confirm parsing rules working
- [ ] Test masking is applied
- [ ] Update dashboards and alerts
- [ ] Update saved queries to use new fields

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## ## 📄 Summary

In this notebook, you learned:

- ✅ **Assessment queries** to understand your current log environment
- ✅ **Migration paths** for OneAgent, API, and OTLP sources
- ✅ **Pipeline planning** strategies for processing and routing
- ✅ **Validation queries** to confirm successful migration
- ✅ **Common patterns** for parsing, dropping, and routing

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## ## ➡️ Next Steps

Continue to **0PLOGS-03: Querying & Parsing** to learn DQL syntax and DPL parsing patterns.

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## ## 📖 References

- [OpenPipeline Documentation](<https://docs.dynatrace.com/docs/discover-dynatrace/platform/openpipeline>)
- [Log Ingest API](<https://docs.dynatrace.com/docs/dynatrace-api/environment-api/log-monitoring-v2/post-ingest-logs>)
- [OTLP Log Ingestion](<https://docs.dynatrace.com/docs/extend-dynatrace/opentelemetry/getting-started/logs>)