

Achieving Faster App Development and Increased Governance

MarkLogic World presentation

CoE framework

Governance®

Aetna use cases

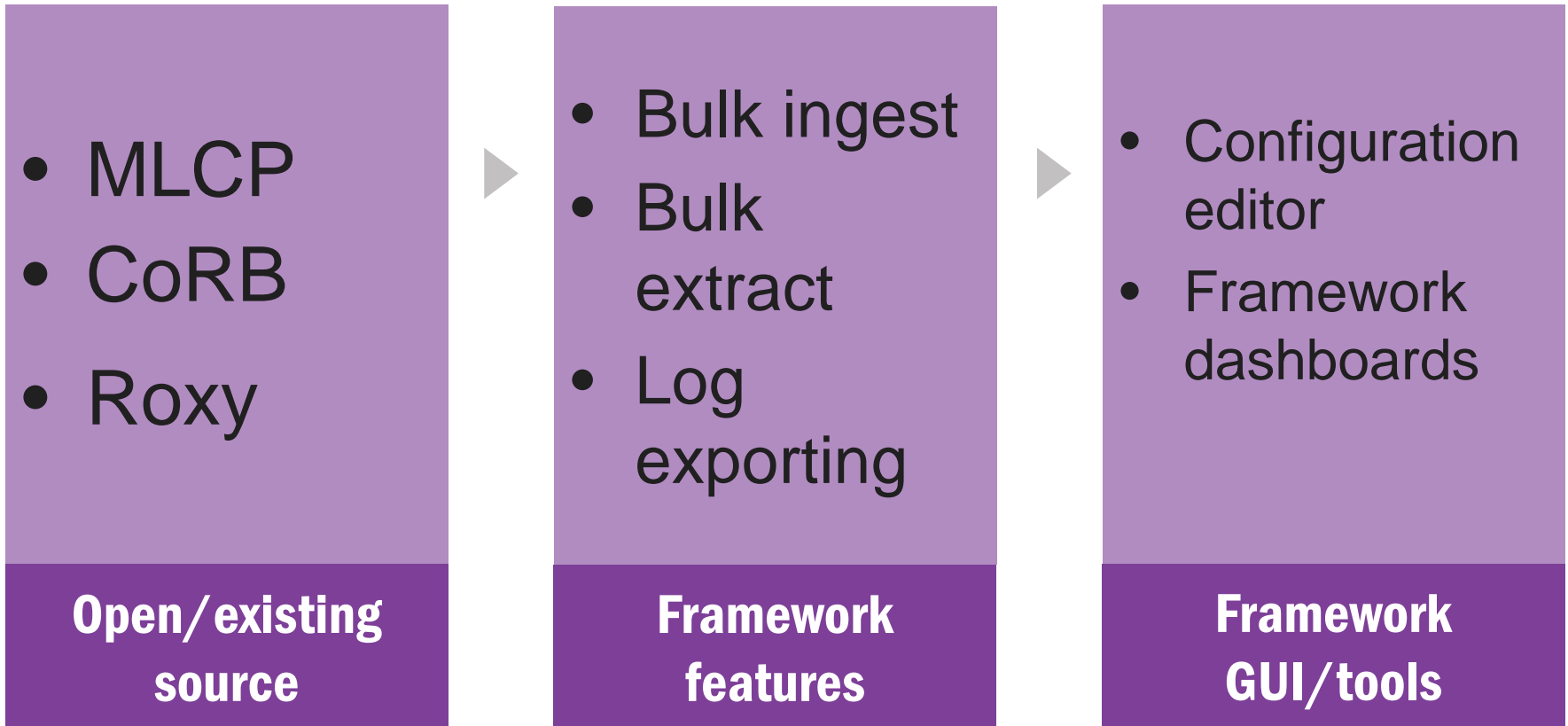
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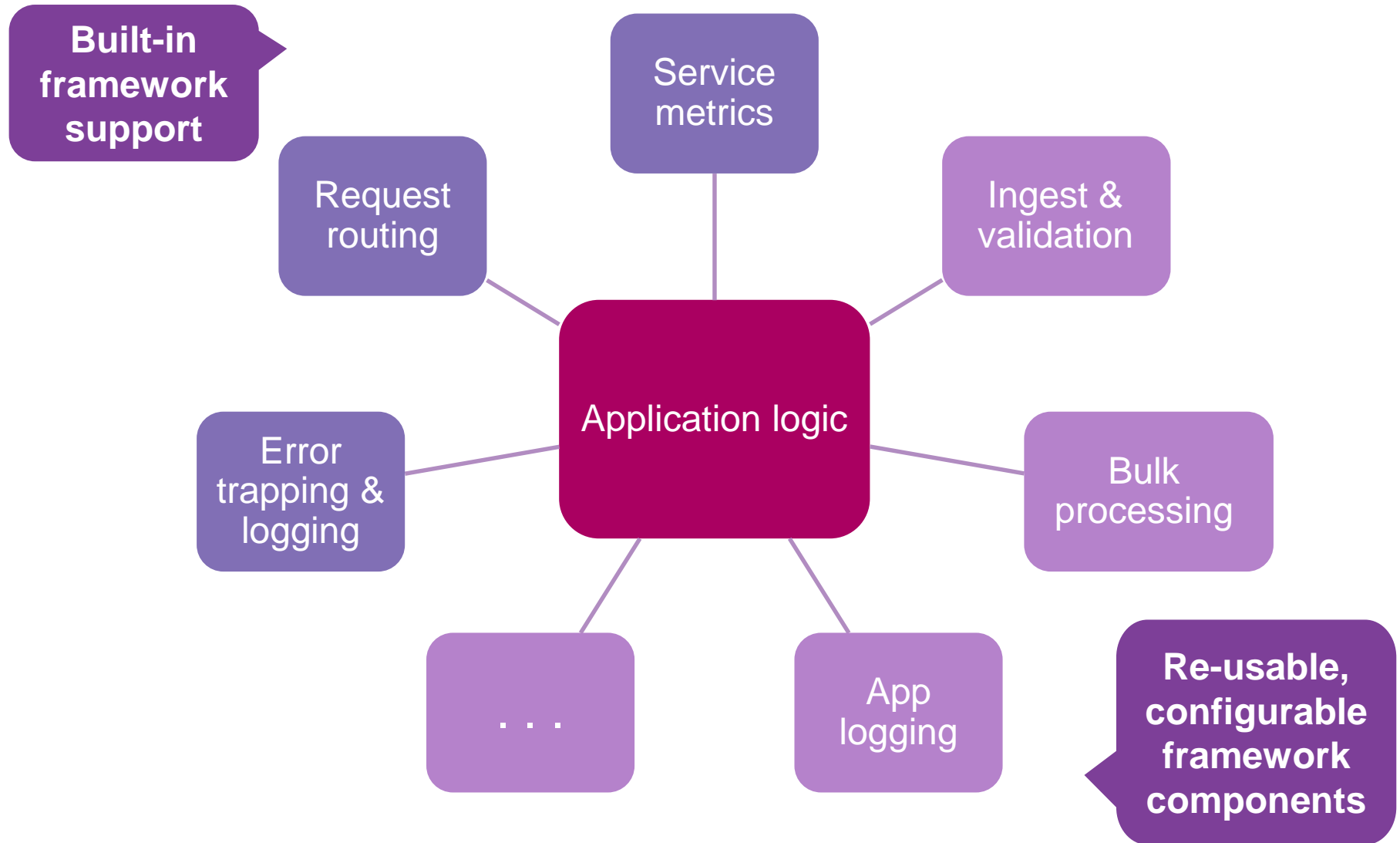
aetna

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Framework Components



Example of *Faster* App Development



Data Integration

Envelope pattern

Provenance

Transformation

Versioning

Real time vs batch

Validation

Configurability

Governance

Goals

Compliance

Ensuring apps are doing what they should

- and -

Not doing what they shouldn't

Visibility

Across apps and data types

Shared resources, reduce waste

Consistency

Easier to troubleshoot and recognize trends

Consistent error handling, logging, ingest, egress

Why MarkLogic®

Business/Architecture goals

Changing Data Models / Semi-structured Data

ACID compliant

Government-grade security

Highly Scalable

Fast random access

Low total cost of ownership

Other considerations

- Scarce availability of skilled resources



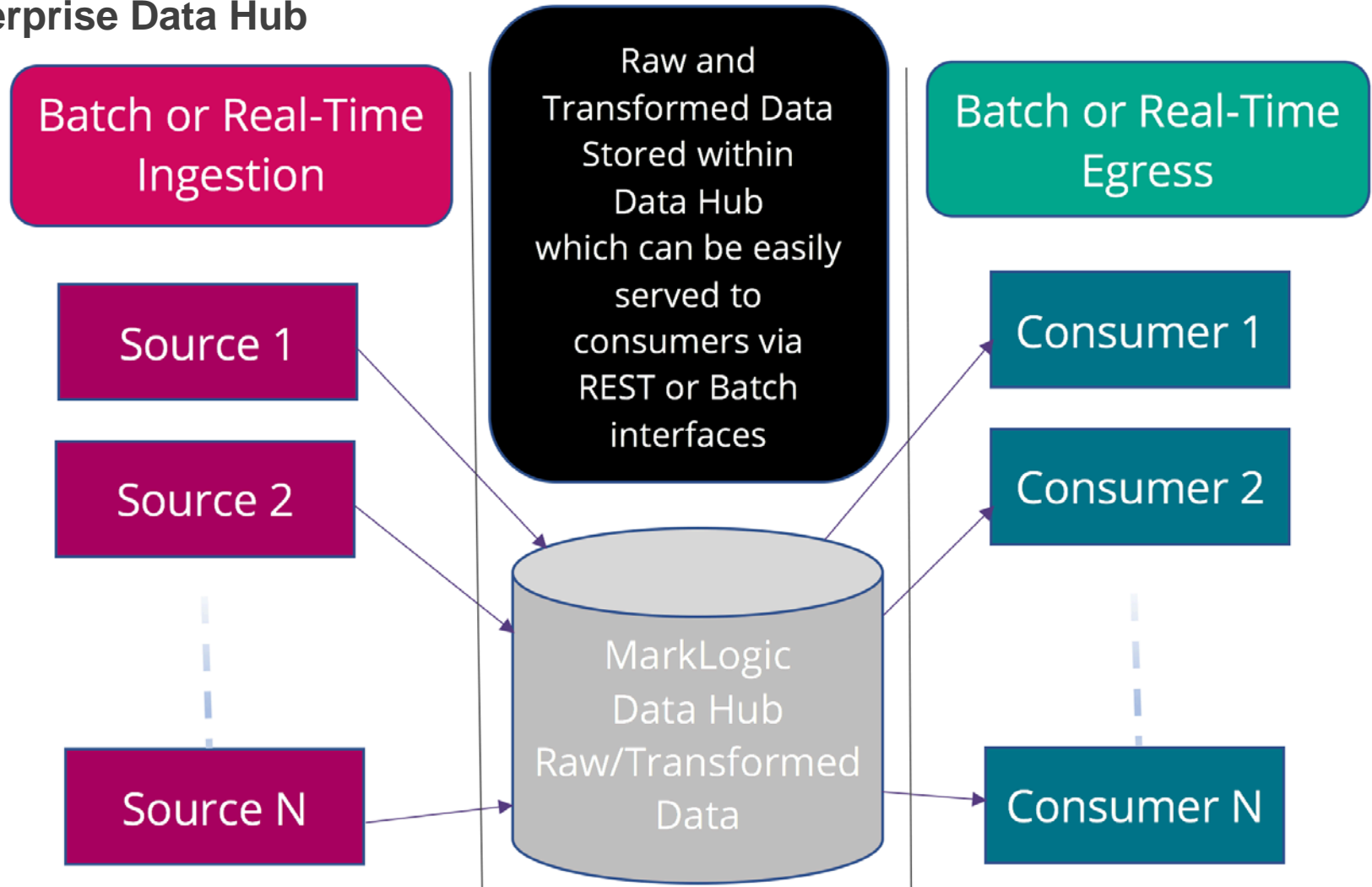
MarkLogic 9 to the rescue

- JSON JavaScript support
- More skilled resources



How MarkLogic is Used at Aetna

Enterprise Data Hub



How MarkLogic is Used at Aetna

Data hub NOT data lake

Most
common
usage
pattern

Multiple
domain data
sets

Single point
of integration

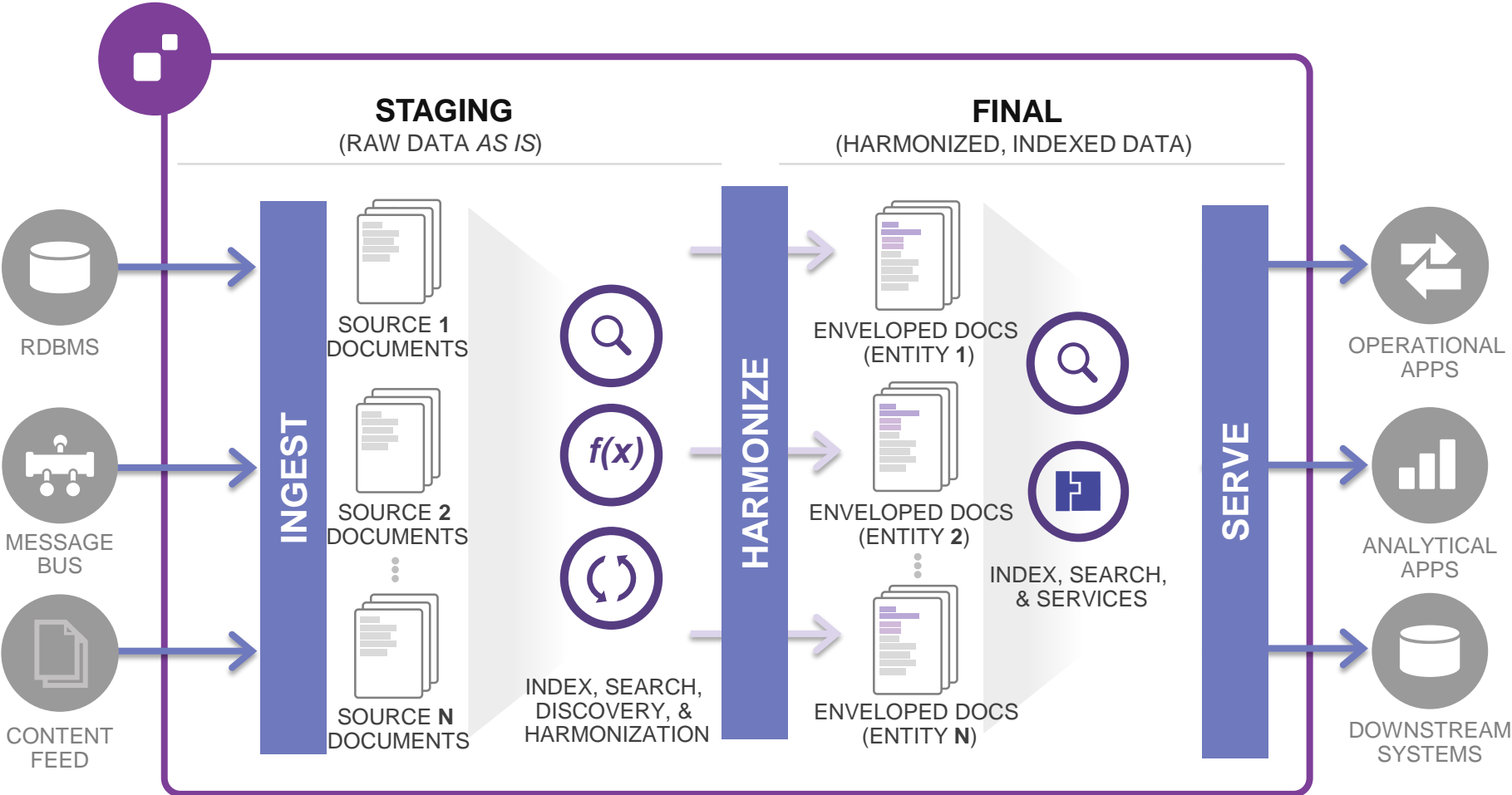
Persistent
cache

Book of
record
(BOR)

80%
Cache

20%
BOR

The MarkLogic Data Hub Framework



How MarkLogic is Used at Aetna

Data versioning

Updates	Searches	Use Cases	Bi-temporal
<ul style="list-style-type: none">• Creates new document version• Not internal ML updates	<ul style="list-style-type: none">• Use recent version	<ul style="list-style-type: none">• Historical searching• Auditing	<ul style="list-style-type: none">• Not currently built-in• But portable

Data archiving and purging

Archival <ul style="list-style-type: none">• Built-in• Data lake• Batch use cases	Purging <ul style="list-style-type: none">• Built-in• Obsolete versions	Governance <ul style="list-style-type: none">• Handled by framework• Config-driven
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80%

Versioned
Archived
Purged

20%

No versioning
No archival
No purging

How MarkLogic is Used at Aetna

Near—real time processing

Business Need	Implementation	Advantages
<ul style="list-style-type: none">• Consistent views	<ul style="list-style-type: none">• Events based• CORB2	<ul style="list-style-type: none">• Asynchronous processing• Decoupled

Batch processing

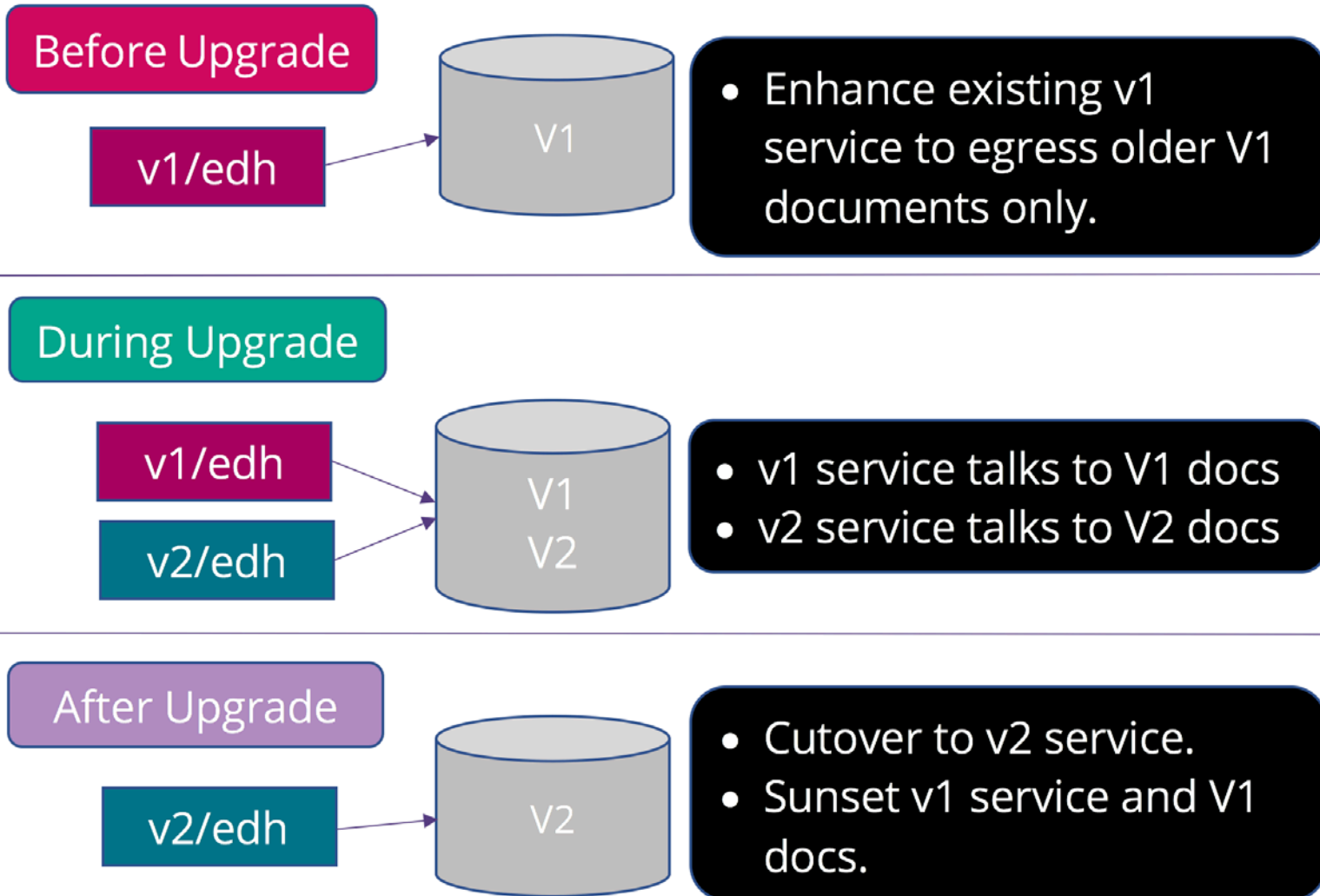
Business Need	Implementation	Advantages
<ul style="list-style-type: none">• Daily updates• Legacy migration	<ul style="list-style-type: none">• MLCP• CORB2	<ul style="list-style-type: none">• Faster• Driven by configurations• Decoupled

80%
Real-time updates

20%
Batch updates

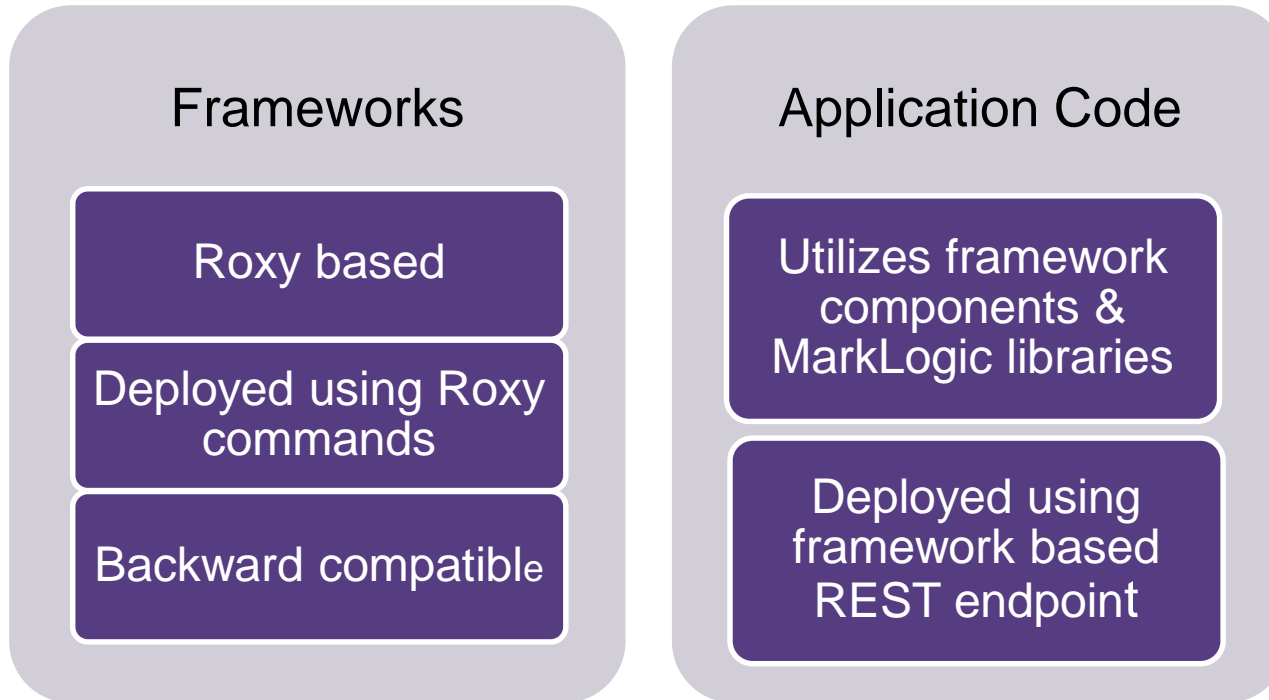
How MarkLogic is Used at Aetna

Bulk upgrade



Development and Deployment

How we develop and deploy at Aetna



Benefits

- Faster delivery
- Parallel development

100%
Framework components are generic and re-usable

Tools Utilized

Roxy
MLCP
CORB2

Closing

Overall visibility

Traceability

Faster delivery

Questions?

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Thank you

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