How to Implement Microservices Centralized Logging

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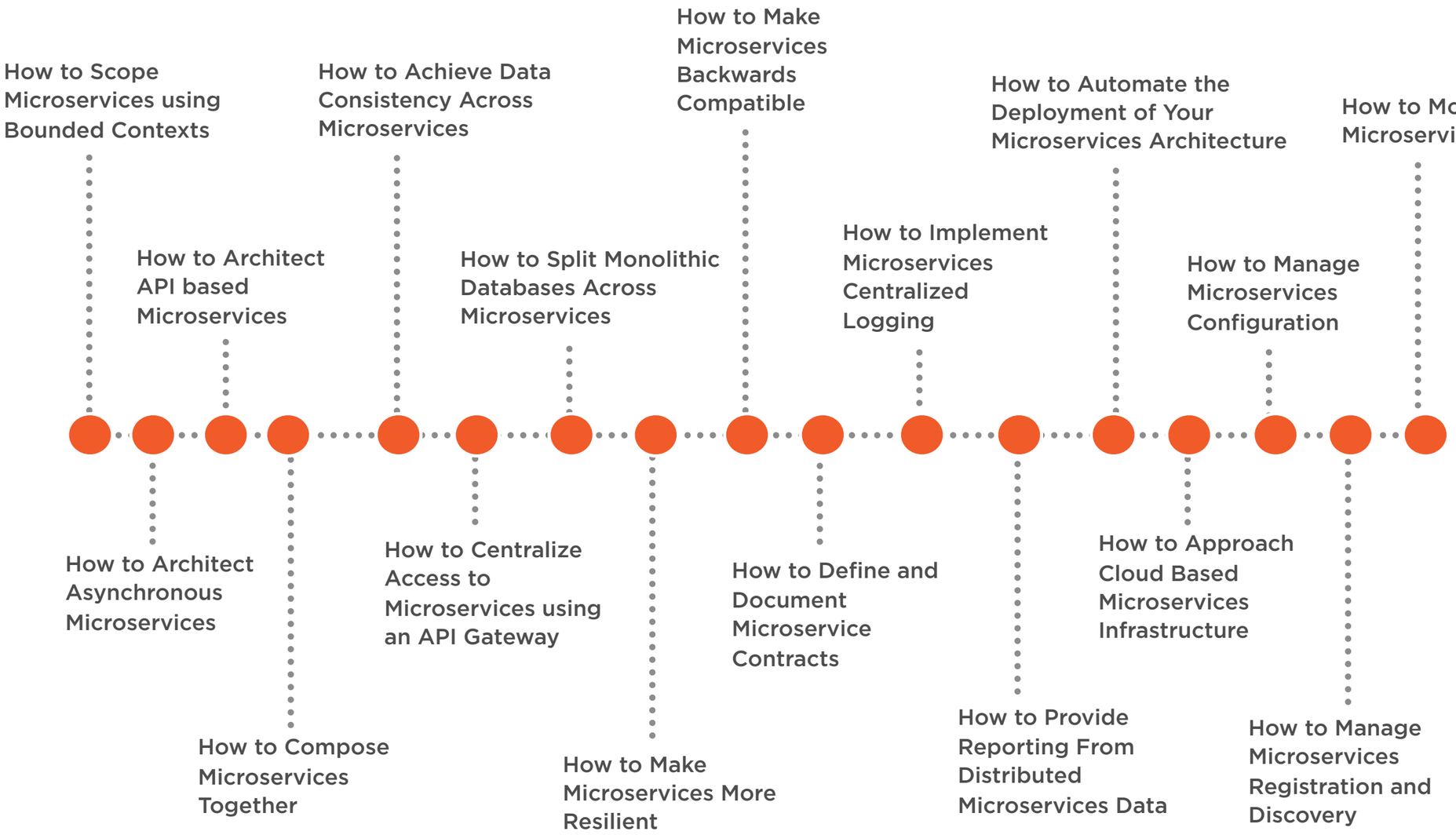
Microservices Architectural Design Patterns Playbook



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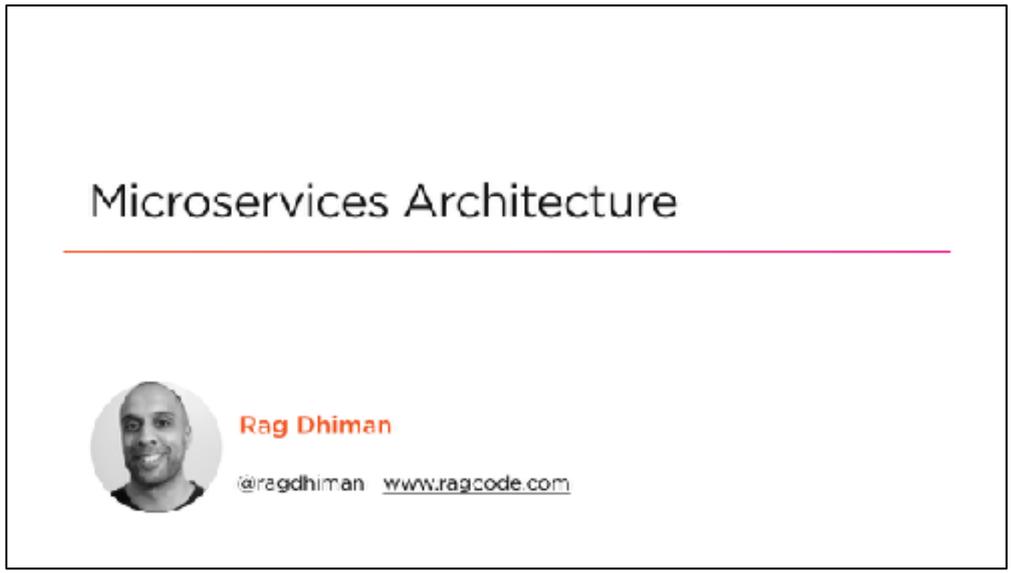


Overview

Centralized Logging

Consistent Logging Format

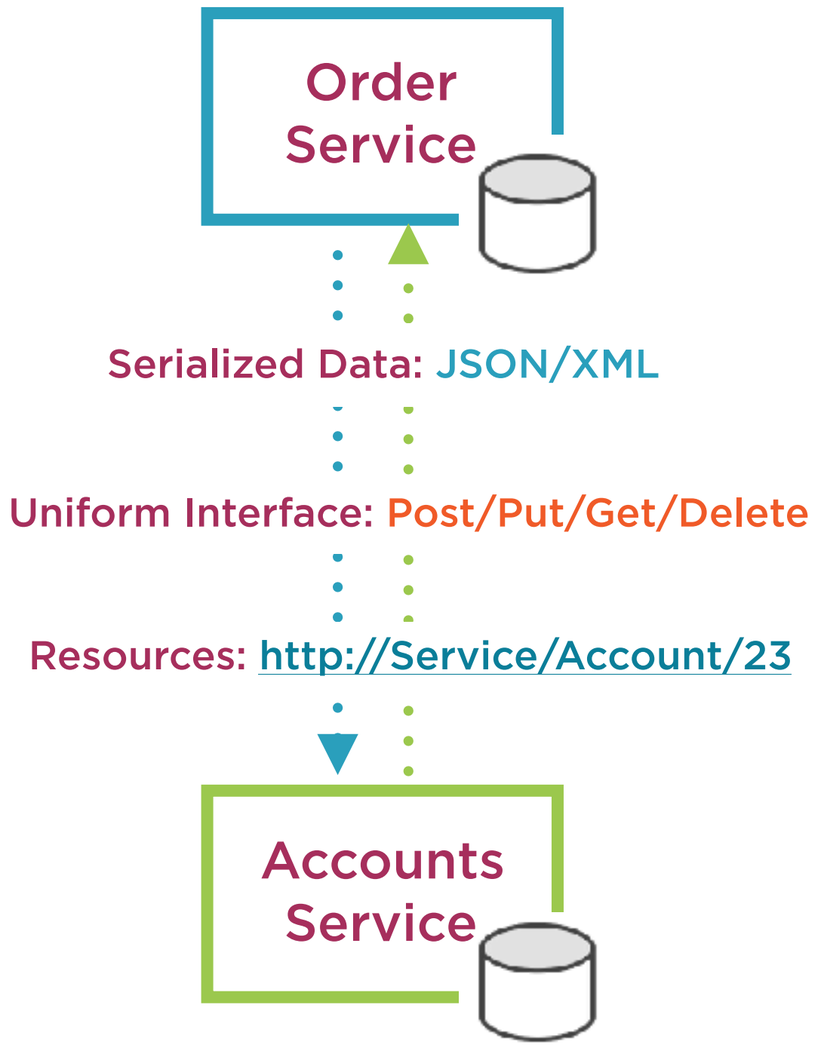
Logging Levels

Transaction Transparency

Centralized Logging Demo

Centralized Logging

Introduction



Distributed architecture

Centralized logging

Consistent format

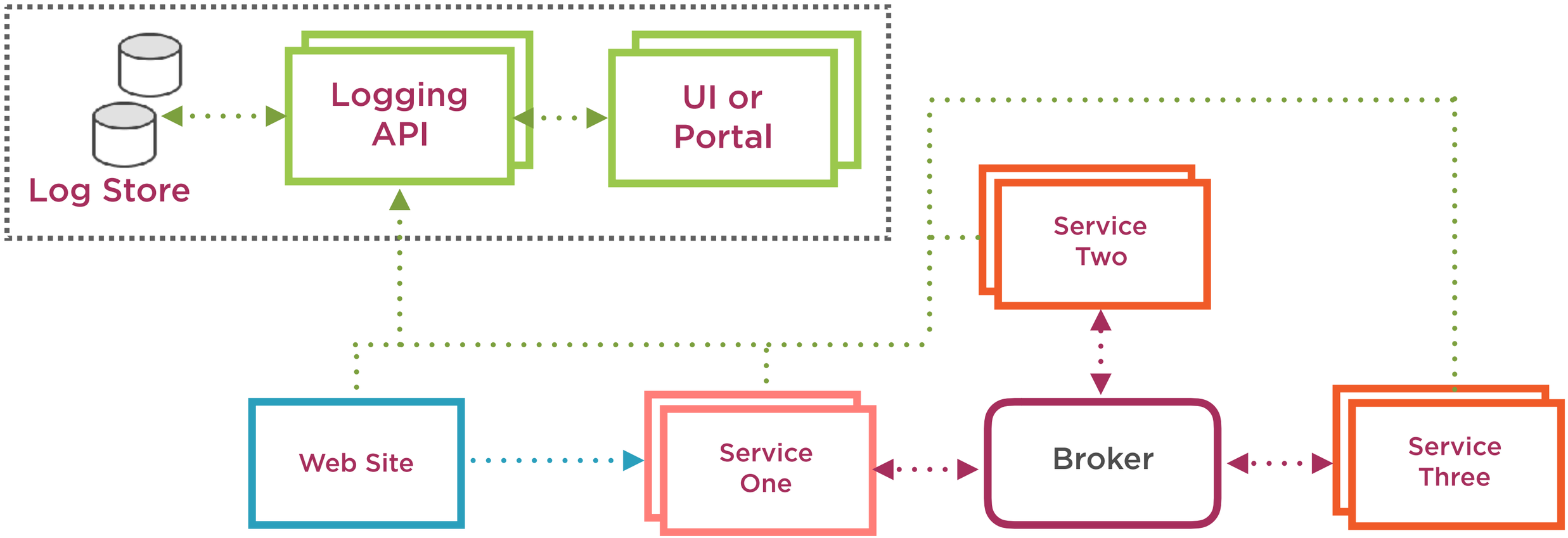
- Structured logging
- Shared libraries

Logging levels

Importance of transaction transparency

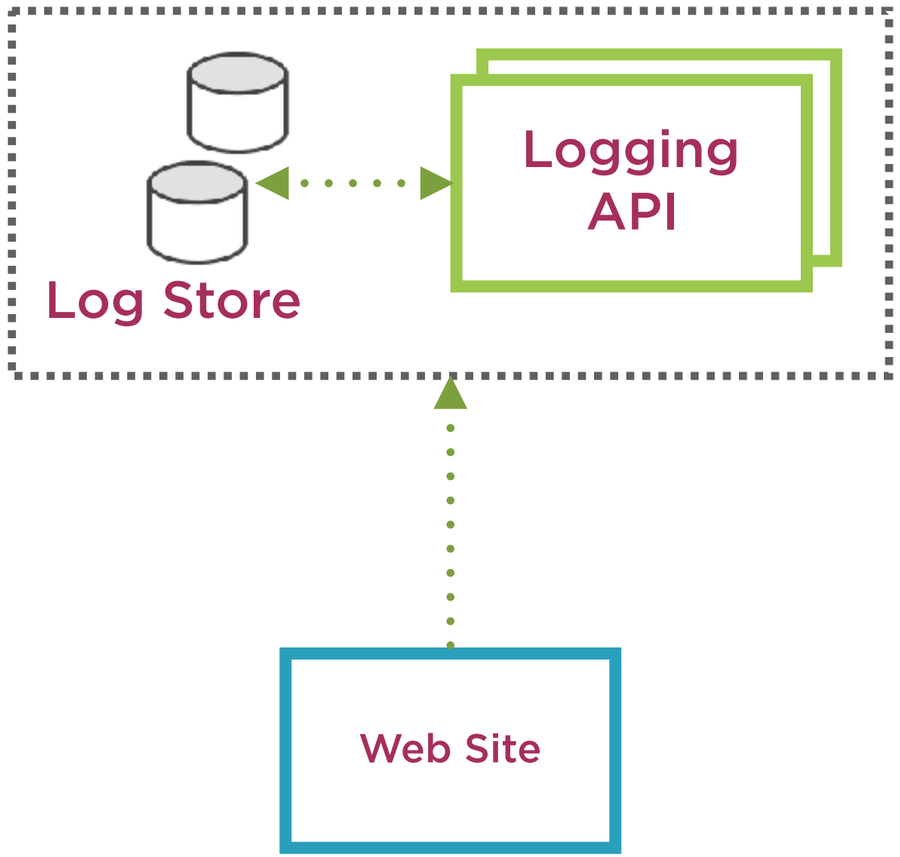
- Use of Correlation ID

Centralized Logging



Consistent Logging Format

Consistent Logging Format



Across the architecture

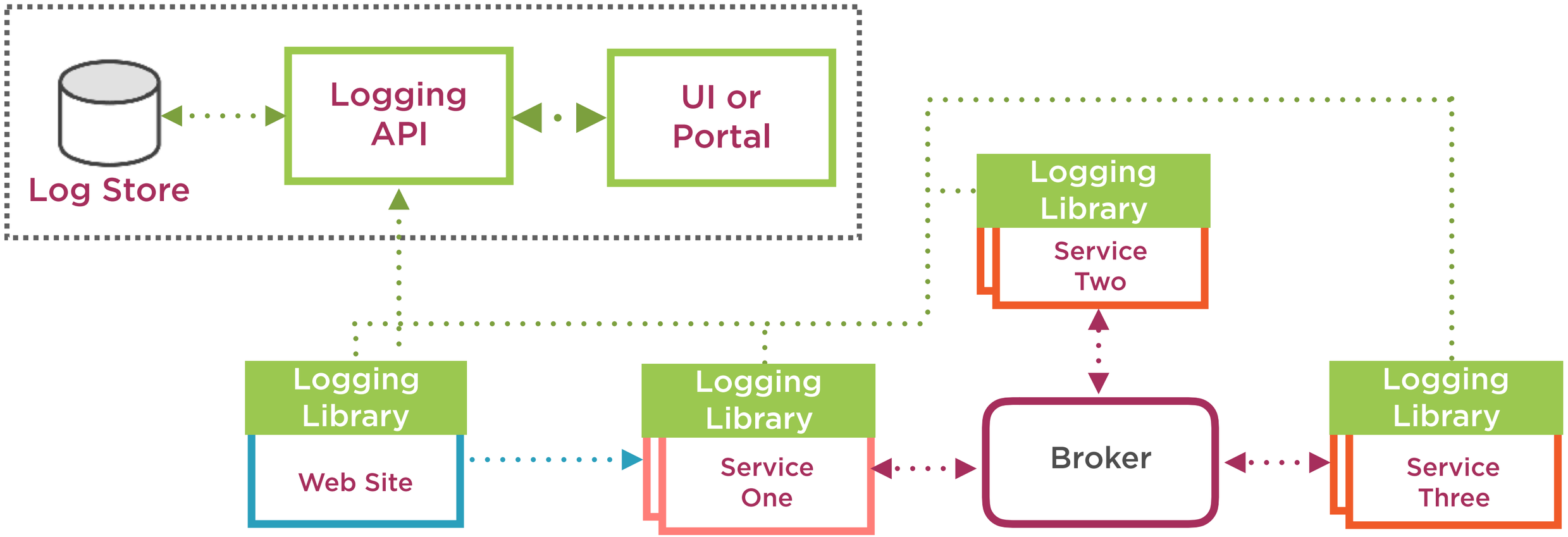
Structured format

- Levels
- Date and time
- Correlation ID
- Host and app information
- Message

Shared library

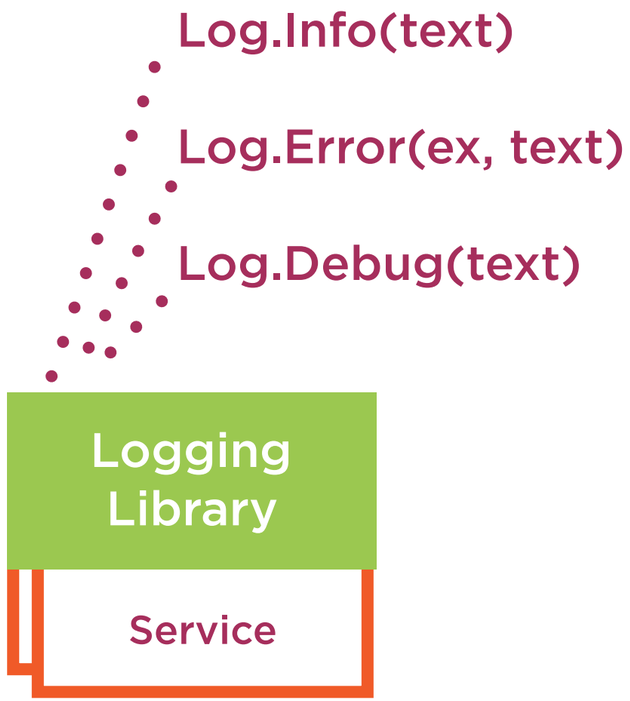
Decoupled from implementation

Consistent Logging Format



Logging Levels

Logging Levels



Information level

- Non-technical descriptive message
- Simple enough for entire business
- Key transaction milestones

Debug level

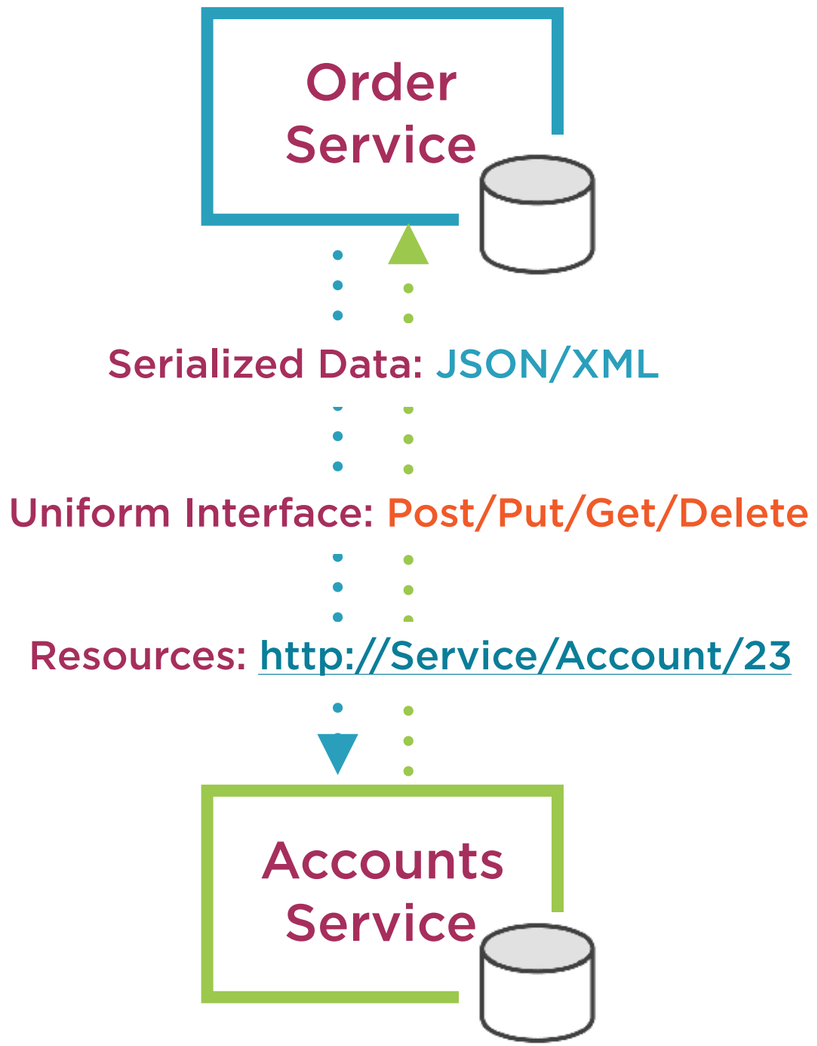
- Technical milestones
- Calls and parameters
- Response times and timeout stats

Error level

- Information on exceptions raised
- Error information and number
- Call stack

Transaction Transparency

Transaction Transparency



Consistent meta data part of the log

- Correlation ID
- Date and time

Live view of transaction

- Avoid log buffering
- Logs in sequence
- Date to support sequence
- Performance test logging frequency

Secure logging

- Controlled access to database and portal
- HTTPS logging connections
- In-line with data retention policies

Summary

- Centralized Logging
- Consistent Logging Format
- Logging Levels
- Transaction Transparency
- Centralized Logging Demo

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