Integrating with External Services Using Bindings

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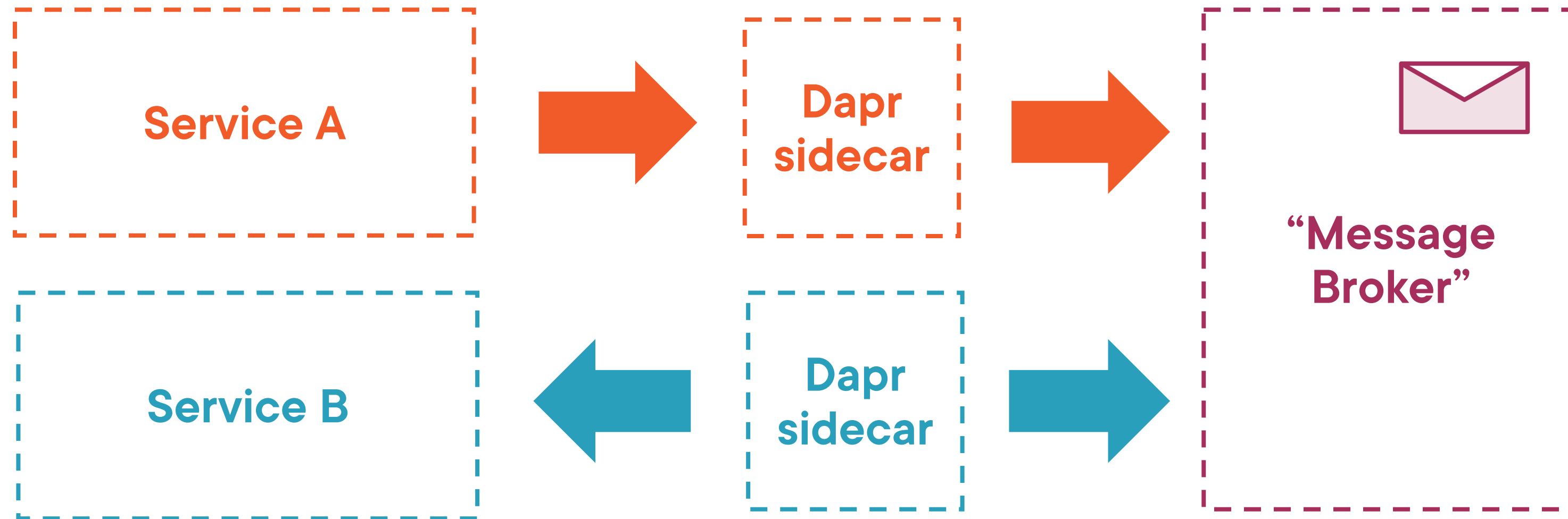
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Understanding Bindings

Pub sub recap:

Service A → Dapr sidecar → "Message Broker"

Service B ← Dapr sidecar → "Message Broker"

The Dapr sidecar can talk to external services on our behalf

The Dapr sidecar can notify us of events in an external service

Module Overview

Dapr bindings

- Input bindings
- Output bindings

Binding component configuration

Using bindings in GloboTicket

- SMTP output binding to send an email
- Cron input binding for scheduled task

Output bindings allow us to make requests to external services

Input bindings pass on notifications from external services

Interchanging Bindings

```
┌──────────────┐        ┌──────────┐        ┌────────────────────────────┐
│              │        │          │   →    │           Redis            │
│   Service    │   →    │   Dapr   │        └────────────────────────────┘
│              │        │  sidecar │        ┌────────────────────────────┐
│              │        │          │   →    │     Azure Blob Storage     │
└──────────────┘        └──────────┘        └────────────────────────────┘
```
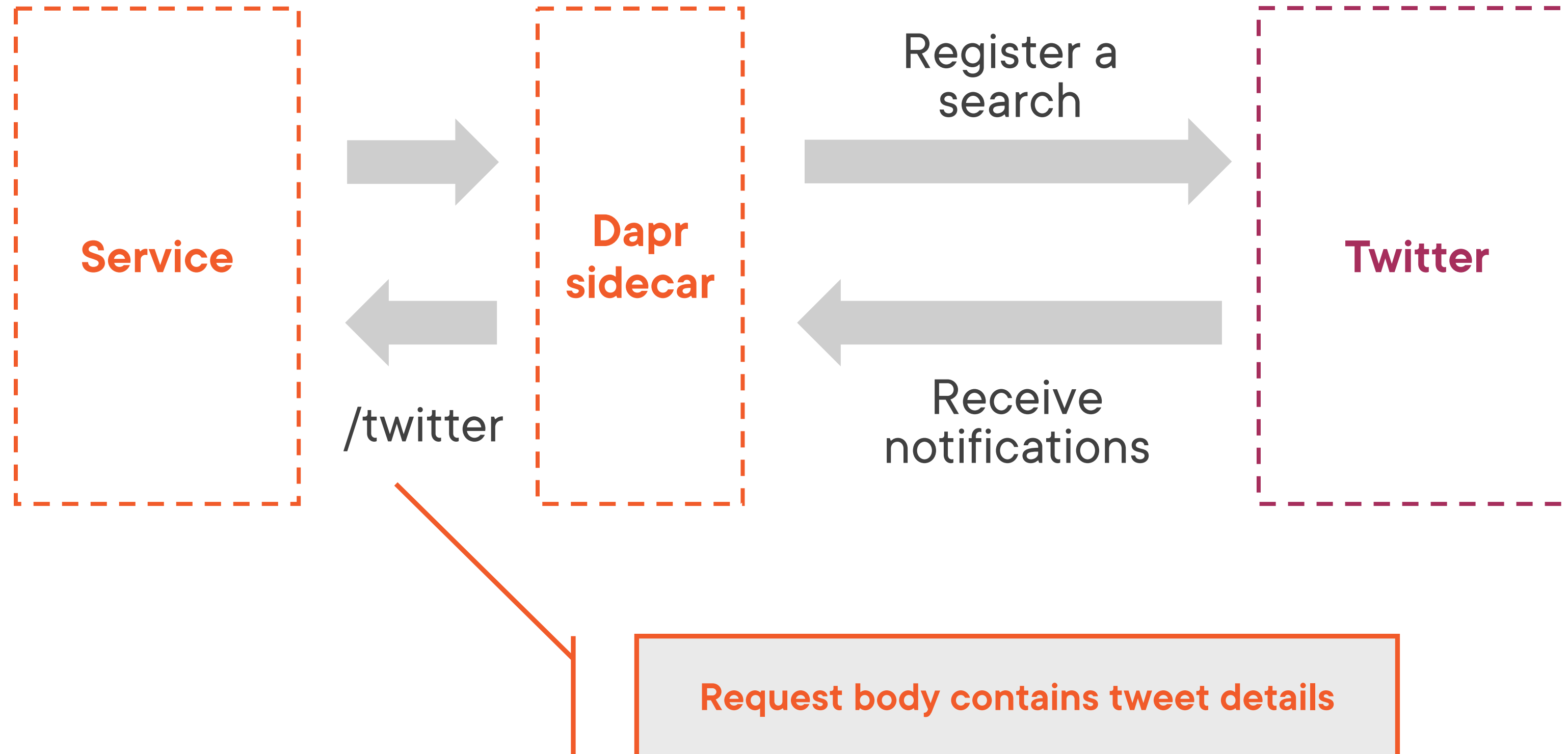
Interchanging Bindings

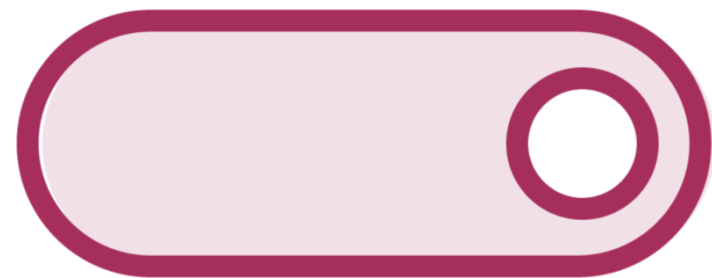**Not all external services support the same features**

Bindings simplify the code we write to connect to external services

Twitter Input Bindings

Dapr Bindings are Optional

Dapr bindings simplify connection to external services

Dapr bindings are optional

Dapr bindings may not expose the full feature set of the external service

Demo

Using a Dapr output binding to send email

- – SMTP binding
- – Send a confirmation email to the ticket purchaser

Demo

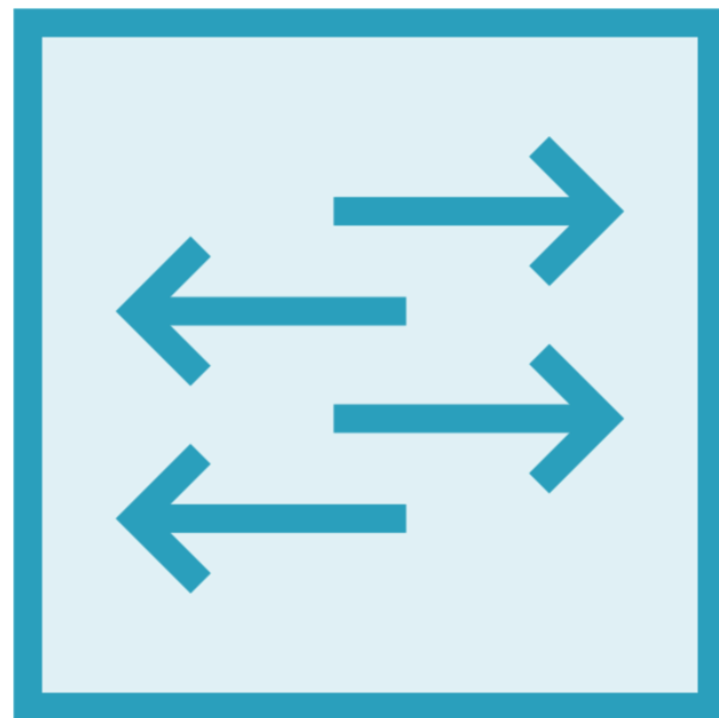**Test sending an email**
- View email in maildev
- Use maildev on Kubernetes

Switching Bindings for Production

Connect to a real SMTP server

Use the SendGrid binding

No code changes required!
- The component name (e.g. "sendmail") remains the same

Demo

Use the Dapr cron input binding

- Run a scheduled task
- Implement a "special offer" feature

Summary

Simplify communication with external services

Input bindings
- e.g. Twitter search, scheduled tasks

Output bindings
- e.g. SendGrid, SMTP

Many bindings are available
- And the list is growing

Up Next:
Monitoring in Production with Observability