

Modernizing .NET Framework Apps with Docker

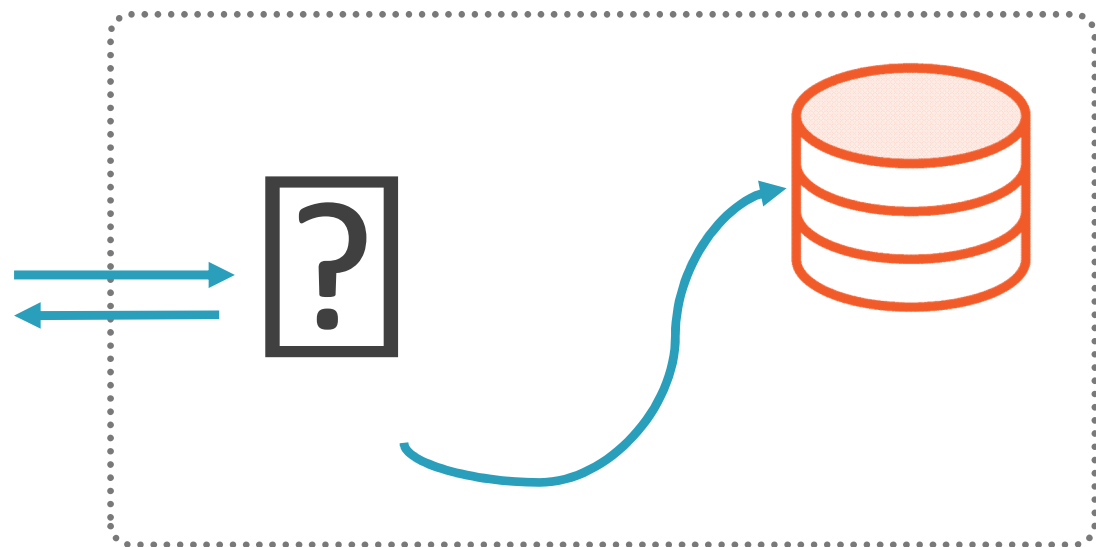
PACKAGING ASP.NET APPS IN DOCKER

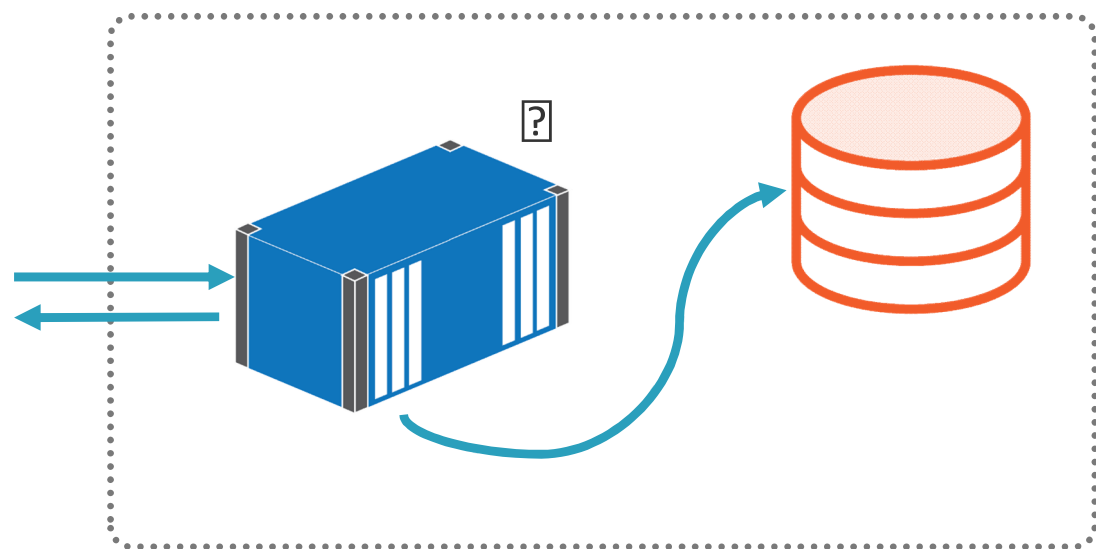


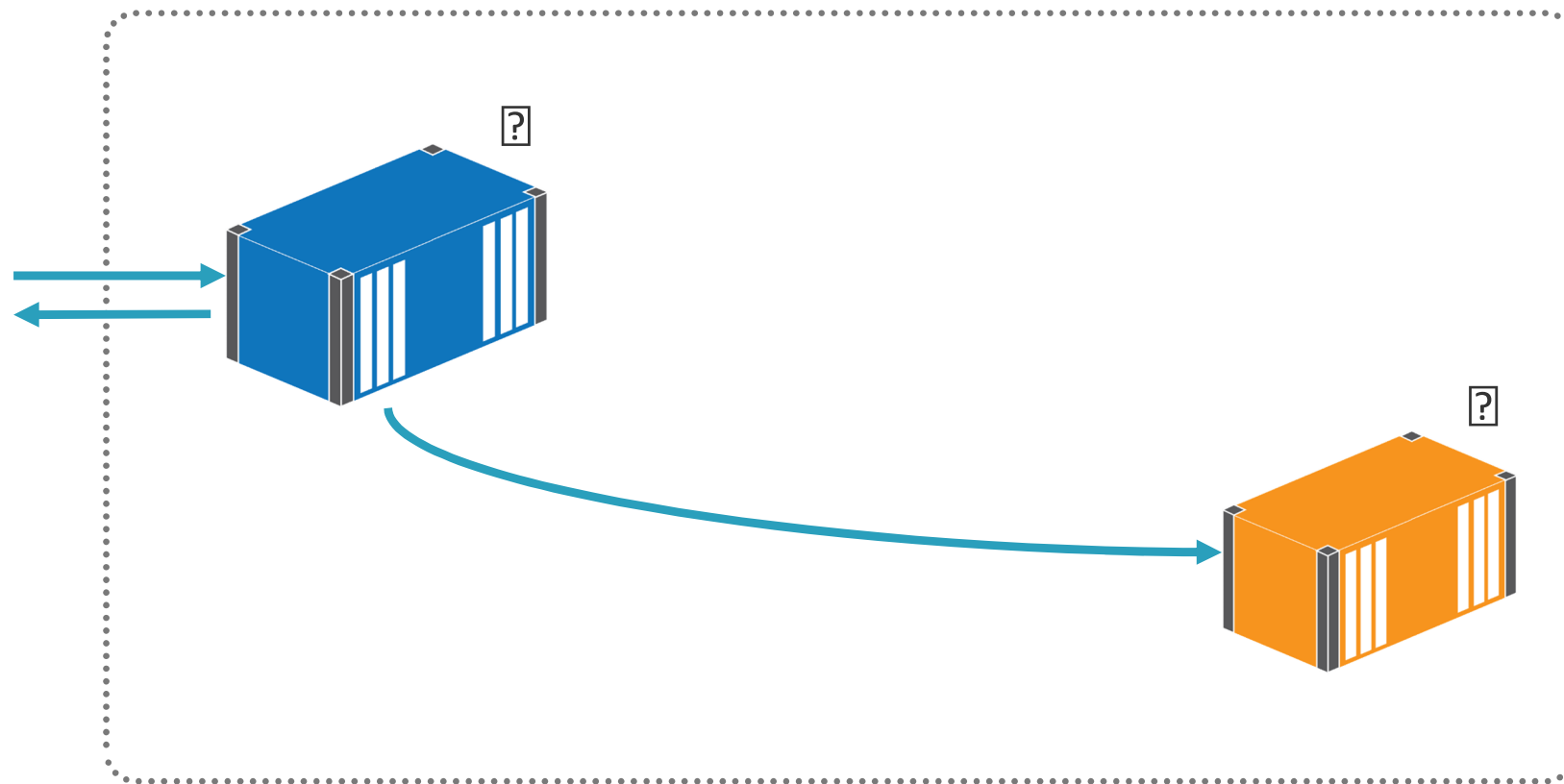
Elton Stoneman

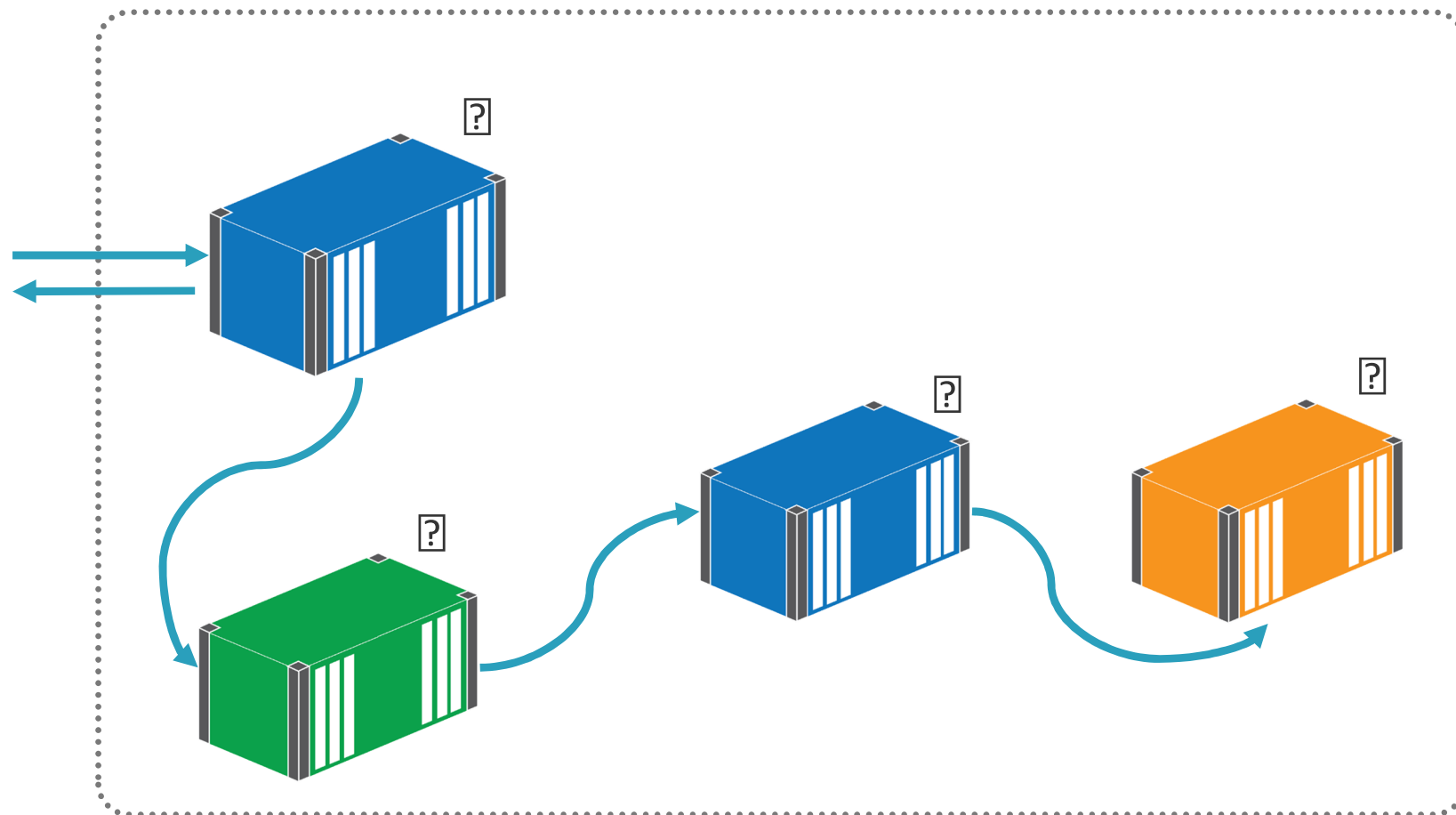
DEVELOPER ADVOCATE

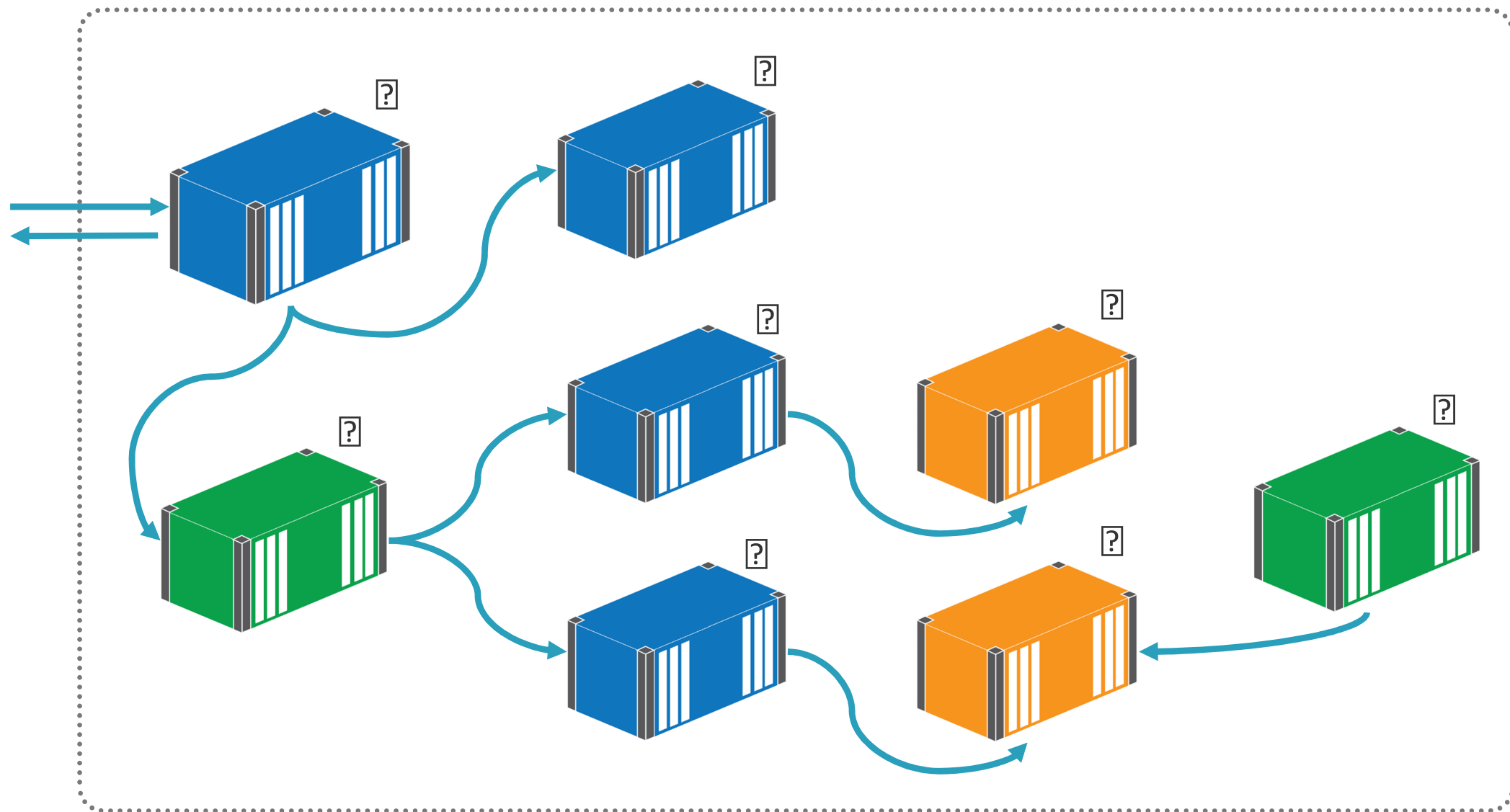
@EltonStoneman <https://blog.sixeyed.com>



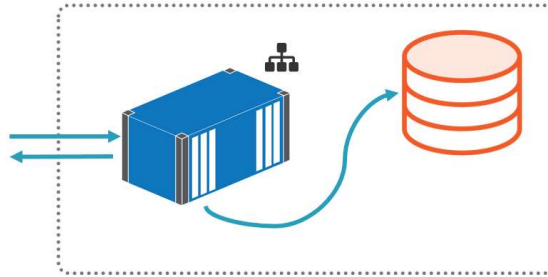




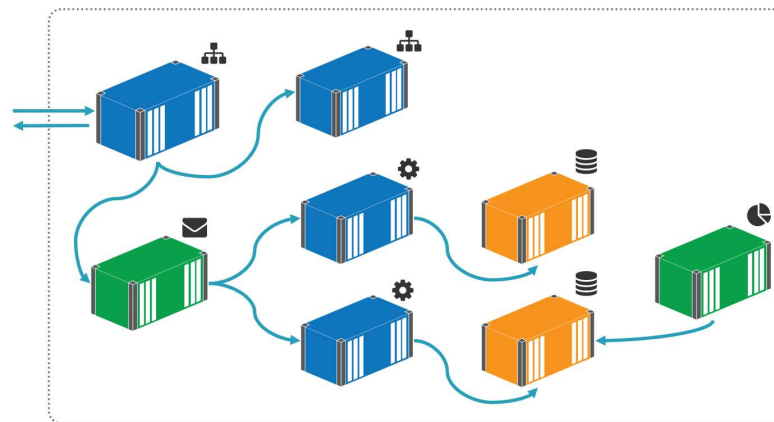
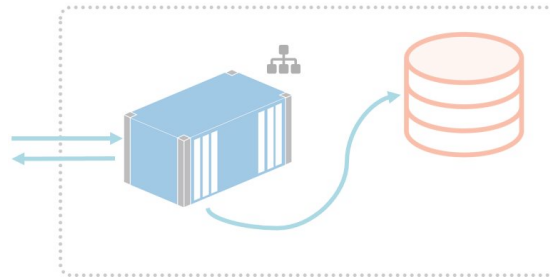




Packaging ASP.NET Running in Docker



Packaging ASP.NET
Running in Docker



The Path to Production
HA with Docker Swarm



Dockerfiles



Images



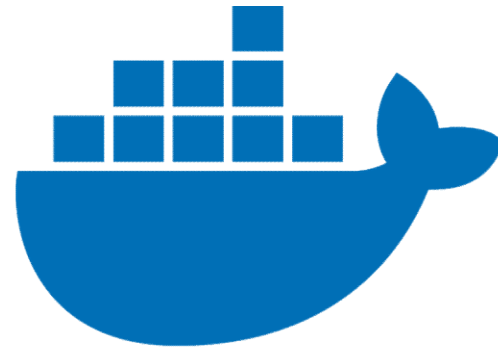
Containers



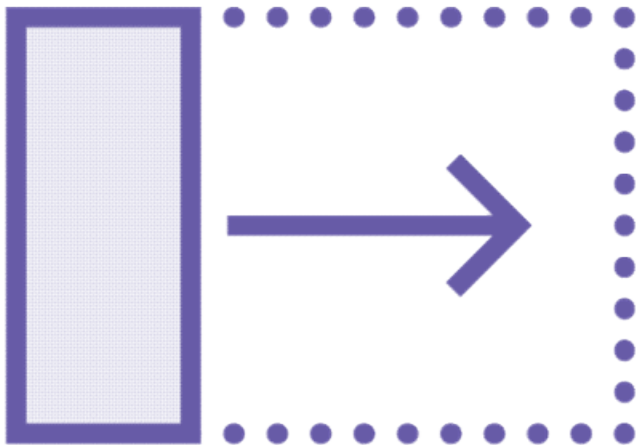
Registries



Swarms



docker



Modernization is a spectrum

- From migration
- To re-architecture



Docker is part of your toolkit

- Containers mix well
- Connecting to external services



Container-first design

- Registries of packaged apps
- Drop-in instead of build



Environmental consistency

- Tools, processes and artifacts
- Consistent from dev to prod

Packaging ASP.NET
Running in Docker

Scaling performance
Async messaging

Self-service content
CMS in containers

Path to production
Docker swarm

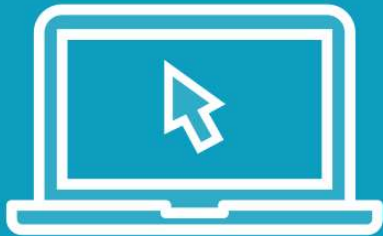


SQL Server in containers
Integrating the database

Self-service analytics
Document database

Managing and monitoring
Multi-container solutions

Demo



Packaging ASP.NET apps in Docker

Writing the Dockerfile

- Using an MSI

Building the Docker image

Running the app in a container

```
FROM microsoft/aspnet:windowsservercore
```

```
COPY output/SignUp.msi .
```

```
RUN powershell Start-Process .\SignUp.msi -Wait
```

Dockerfile for ASP.NET

Deploying an MSI using PowerShell


```
docker image build `
  --tag webinar-app:v1 .
```

Building the Docker image

Executing the steps in the Dockerfile

```
docker container run `
  --detach --publish 80 `
  webinar-app:v1
```

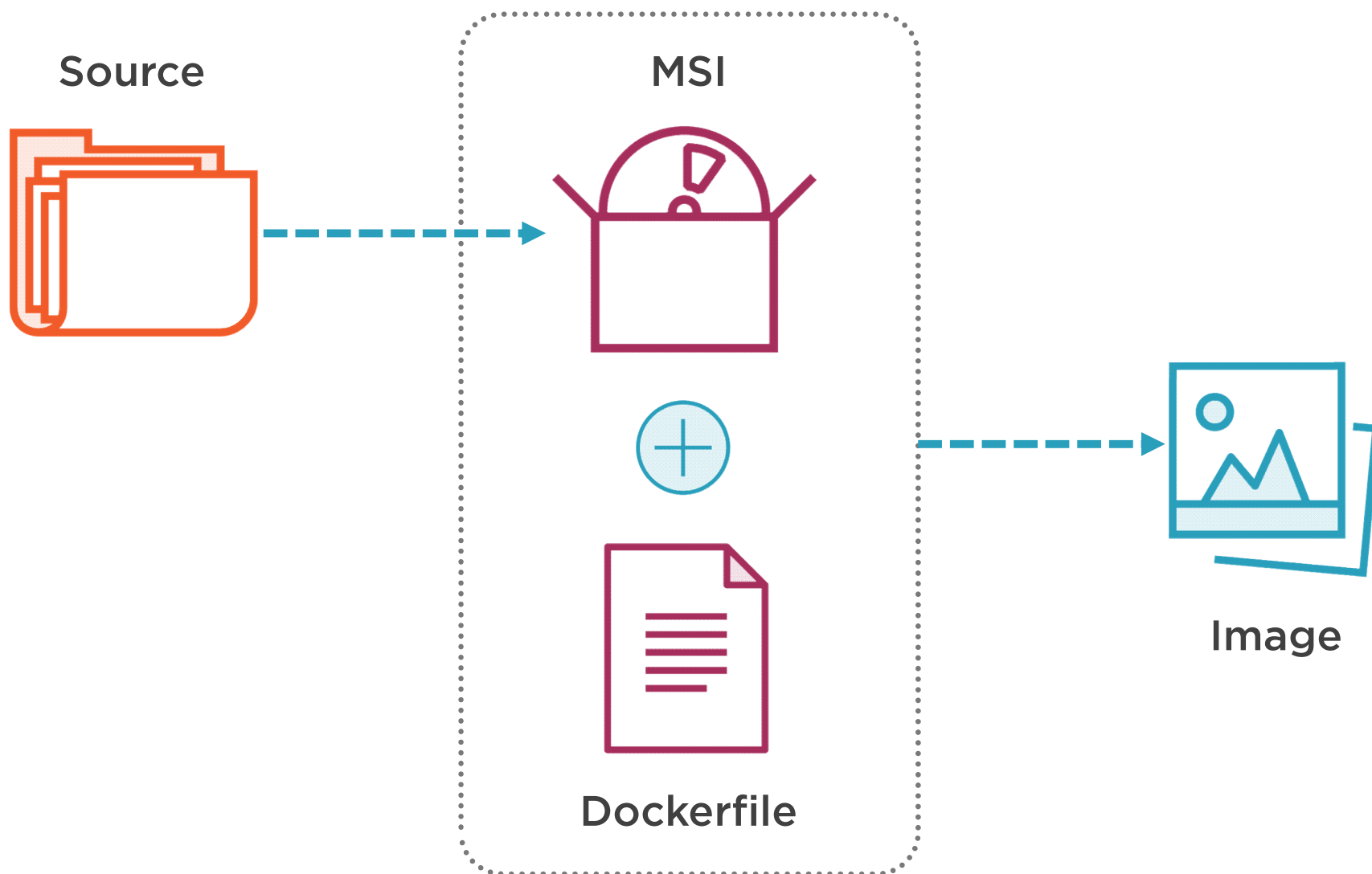
Running the app in Docker

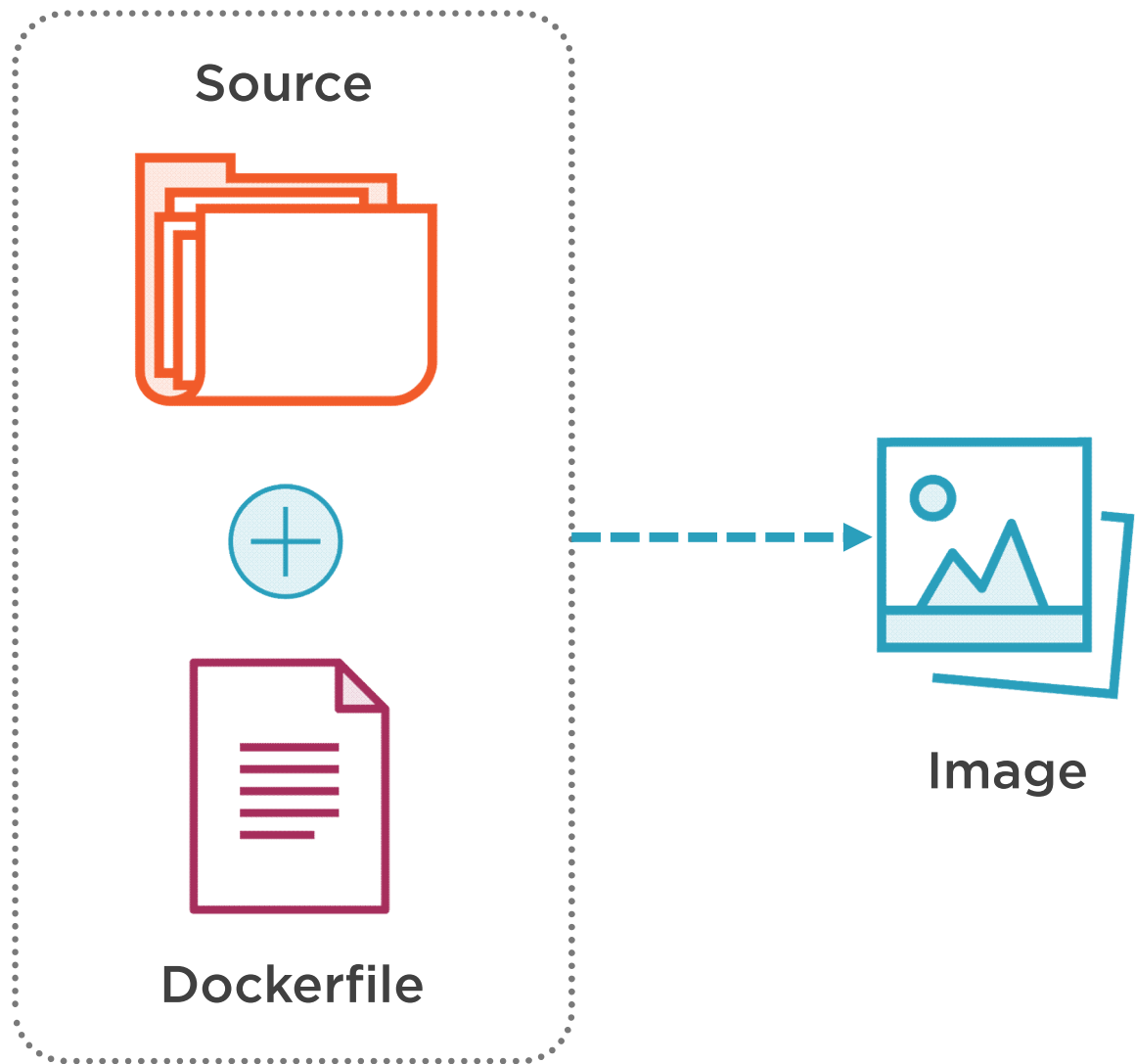
Starting a container from the image

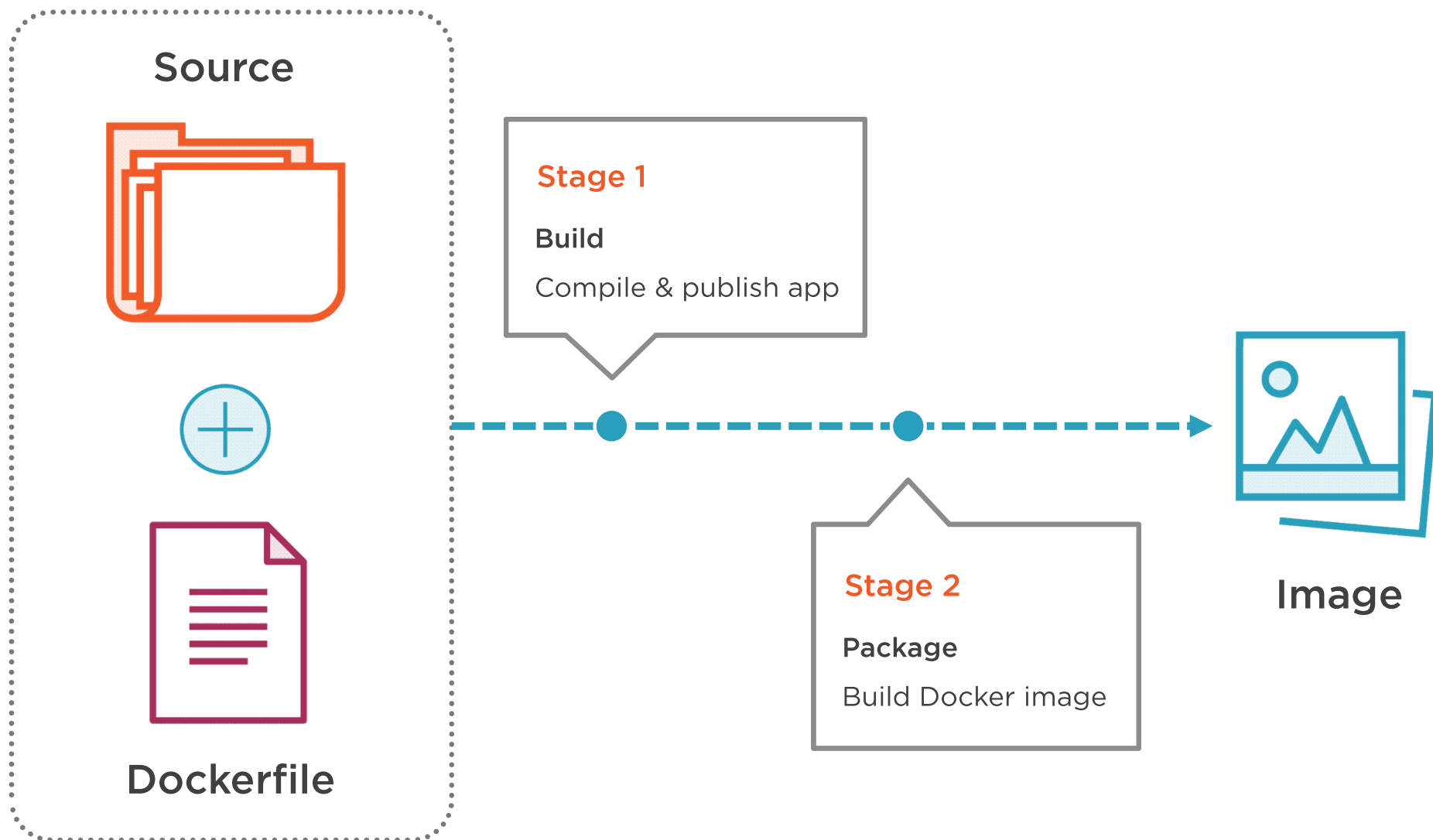
```
FROM microsoft/aspnet:windowsservercore
```

```
COPY output/SignUp.msi .
```

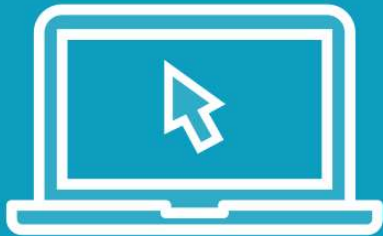
```
RUN powershell Start-Process .\SignUp.msi -Wait
```







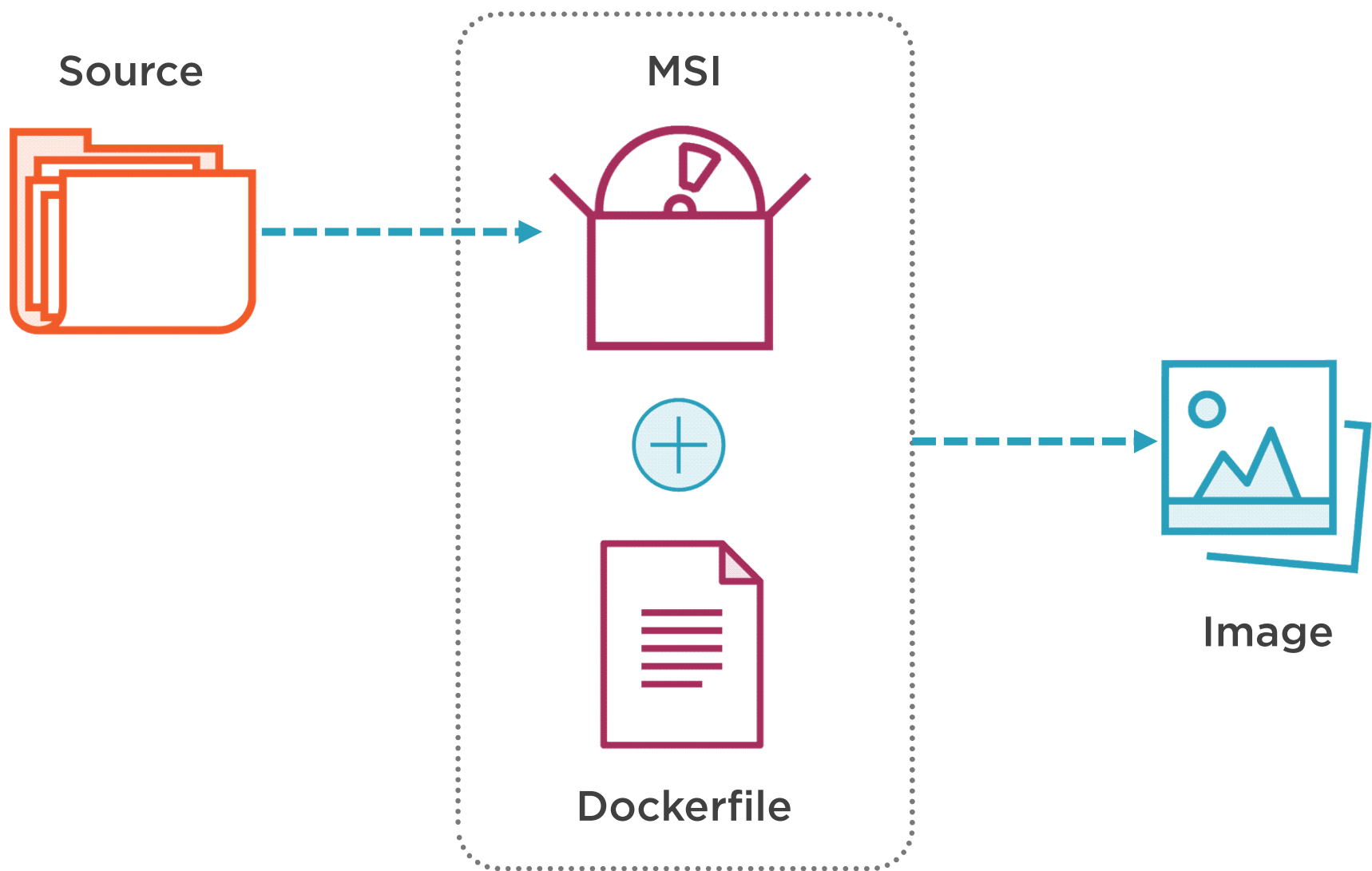
Demo



Packaging ASP.NET apps in Docker

Multi-stage Dockerfile

- Compile from source
- Package in Docker



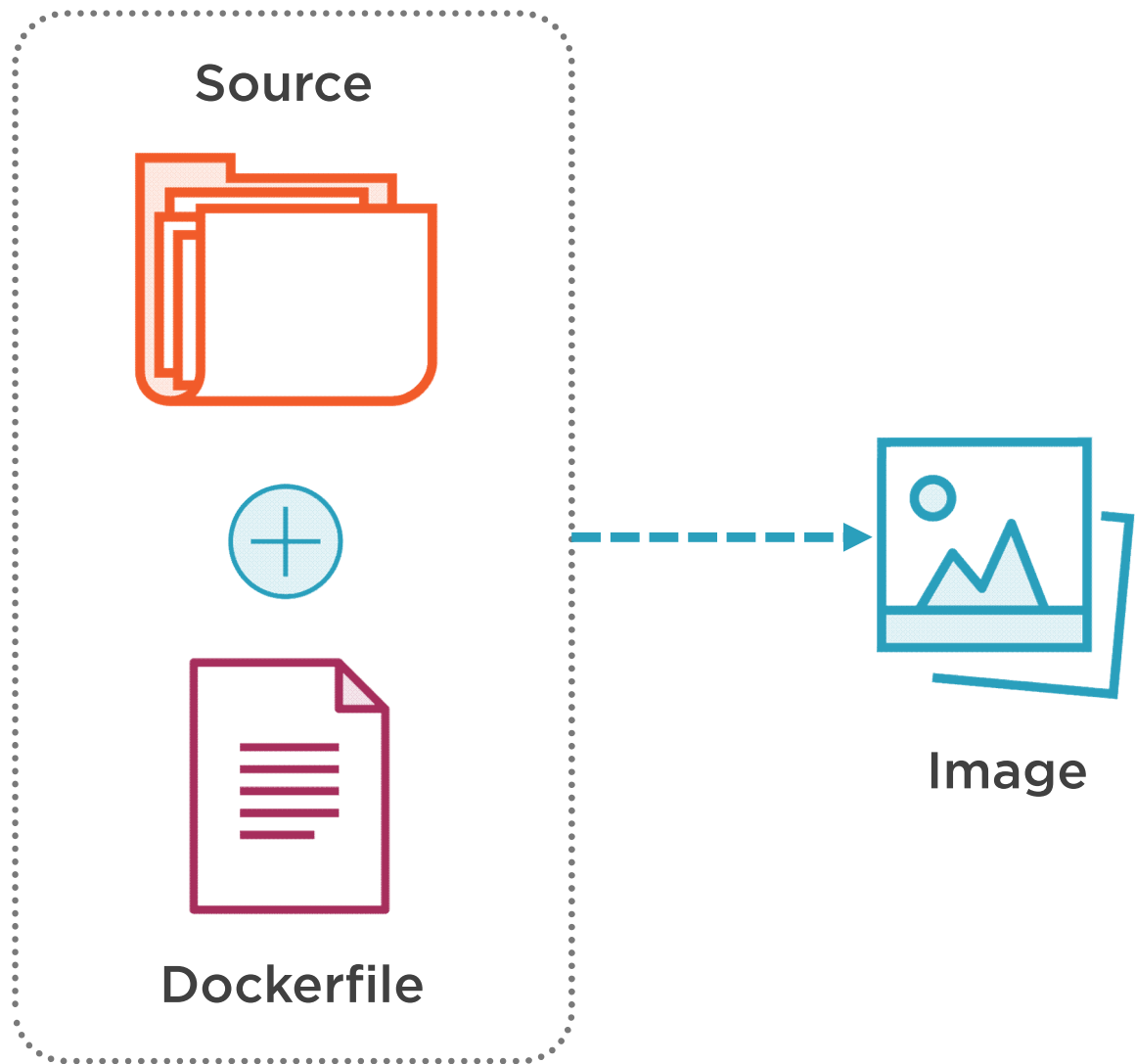
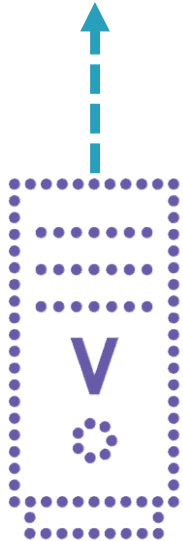


Image2Docker



Content



Dockerfile



Image

Image2Docker

<https://is.gd/image2docker>

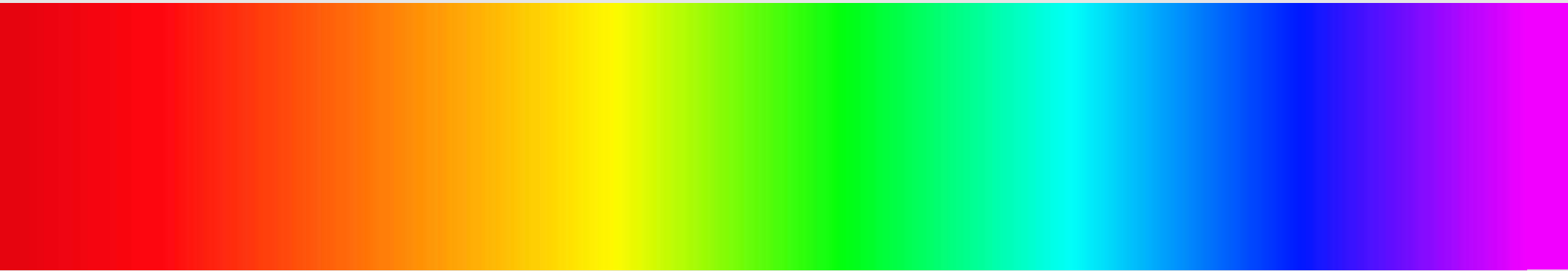
Migrate
as-is

Adopt
platform idioms

Adapt
to new runtime

Extract
key features

Rebuild
and renew



* https://is.gd/about_mta

- Image2Docker
- MSI-based Dockerfiles

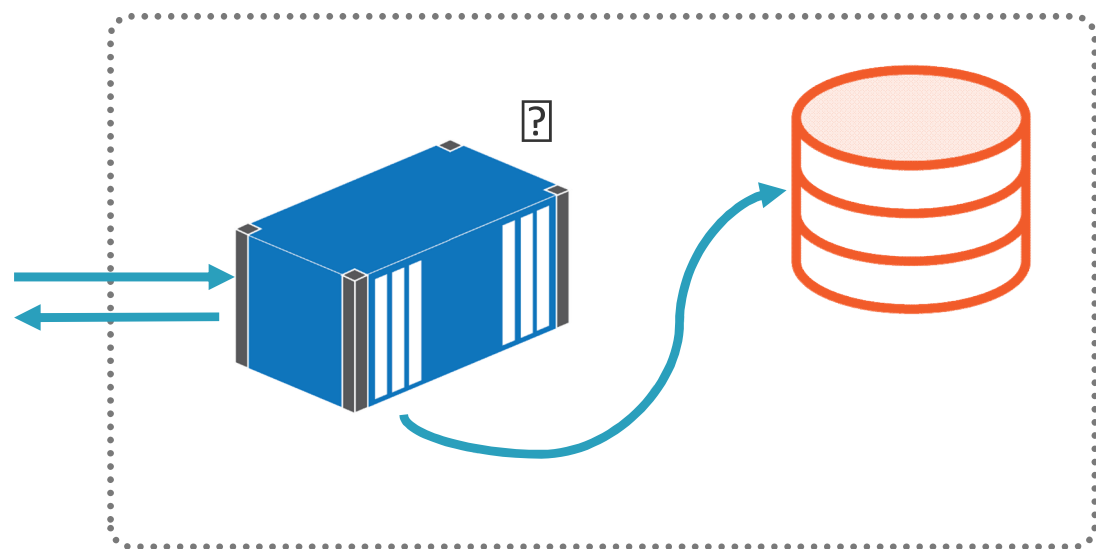


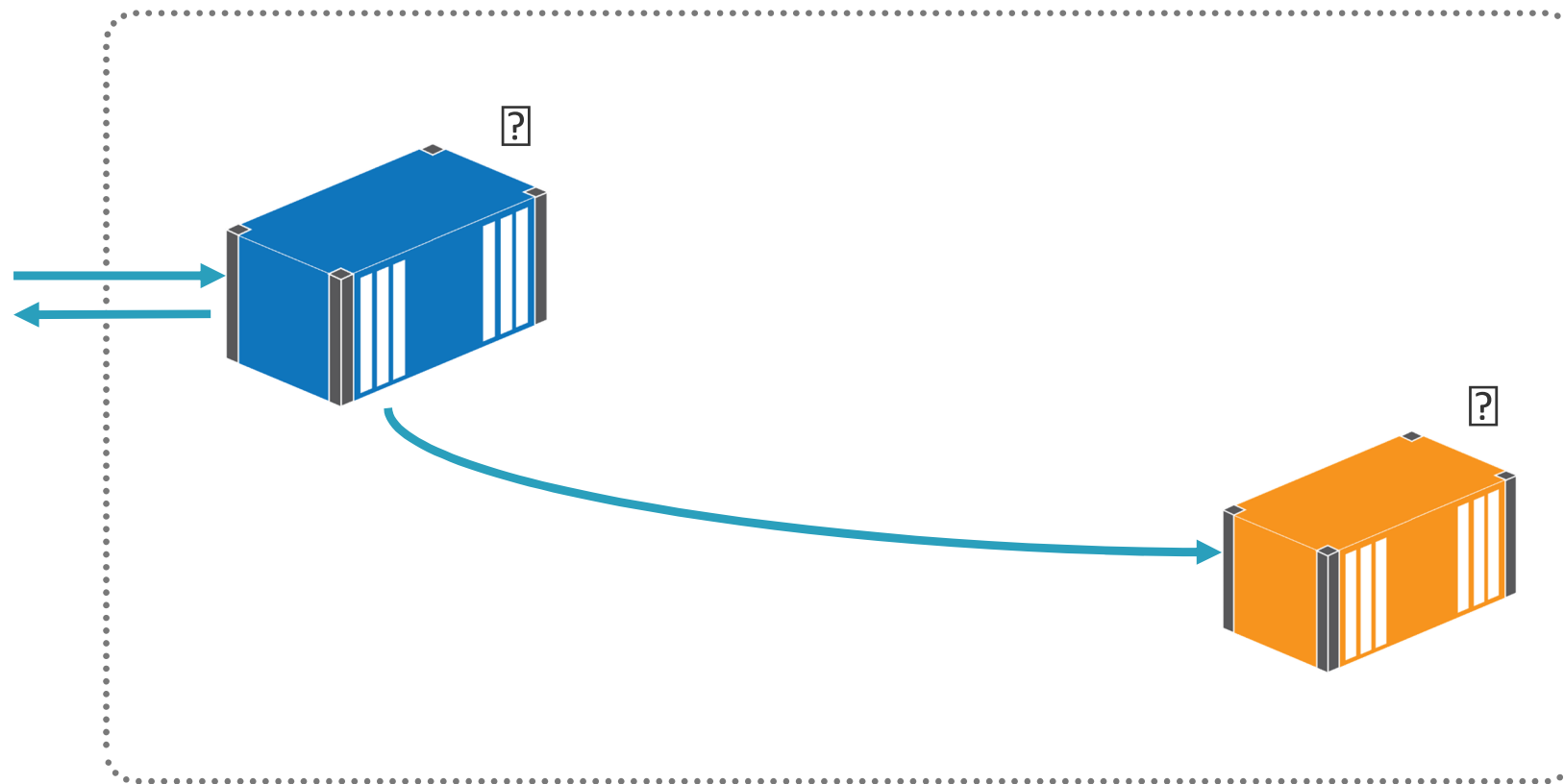
Portability | Security | Efficiency



Docker is part of your toolkit

- Containers mix well
- Connecting to external services





Coming Next



SQL Server in Docker

- Packaging schemas in images
- Running databases in containers
- Using containers as deployment tools