

Composable DevOps - Reliability at Lightspeed!

Rob Earlam

#sugcon



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Rob Earlam

Snr. Developer 🥑 - Sitecore

**Software Developer, Movie Lover, Music Listener,
Pizza Eater, Meat Smoker**

🇬🇧 living in 🇦🇺

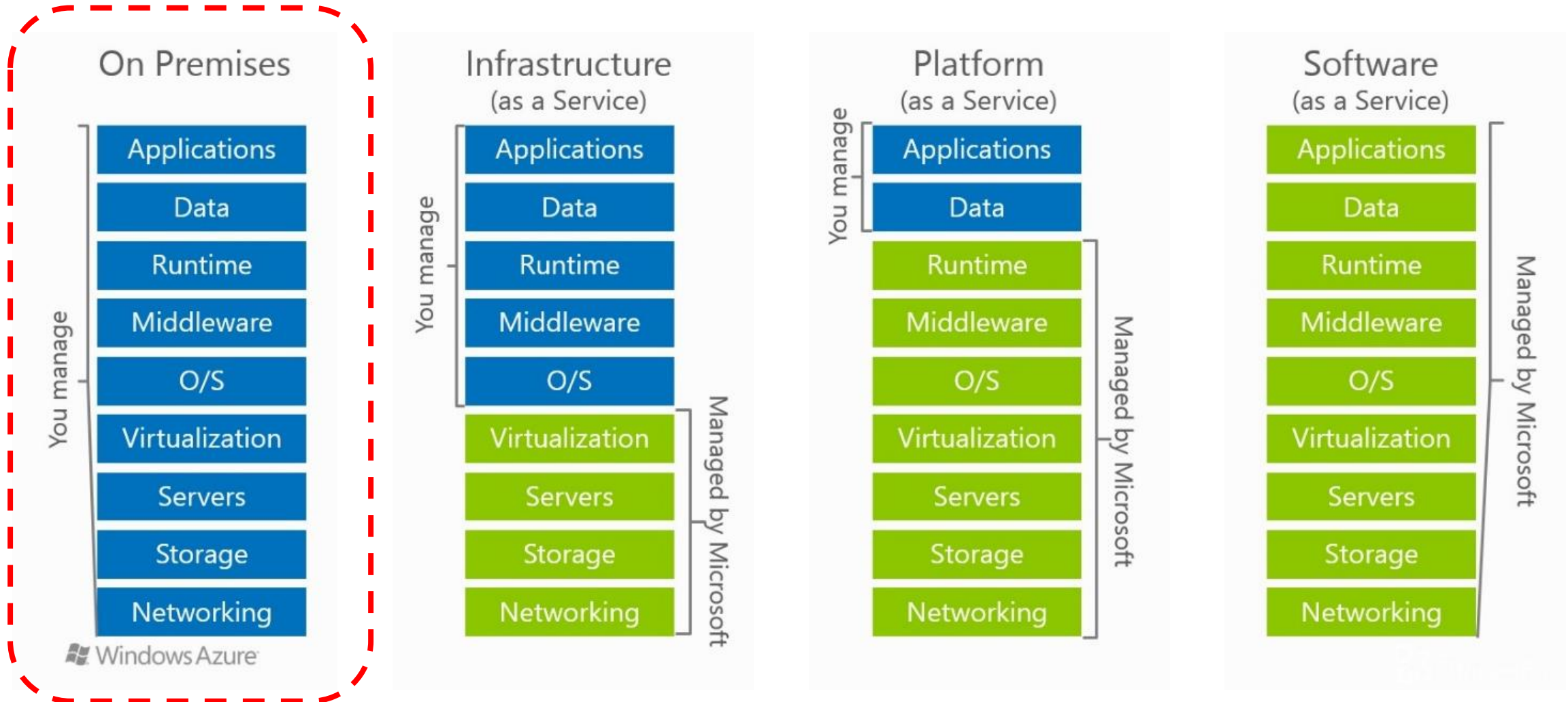
🐦 @RobEarlam

🌐 <https://robearlam.com>

The hosting journey....



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Sitecore® Experience Platform™



The next step in the journey...



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Platform



Composable



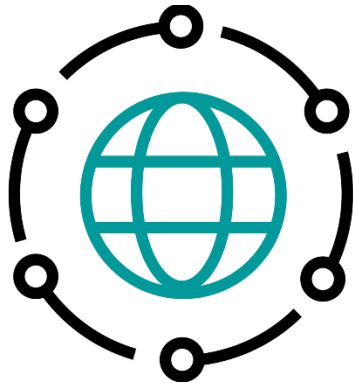
Giving up the data Layer



Giving up the data layer



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Environment
Provisioning /
Management



Data
Synchronisation

Environment Provisioning - Before



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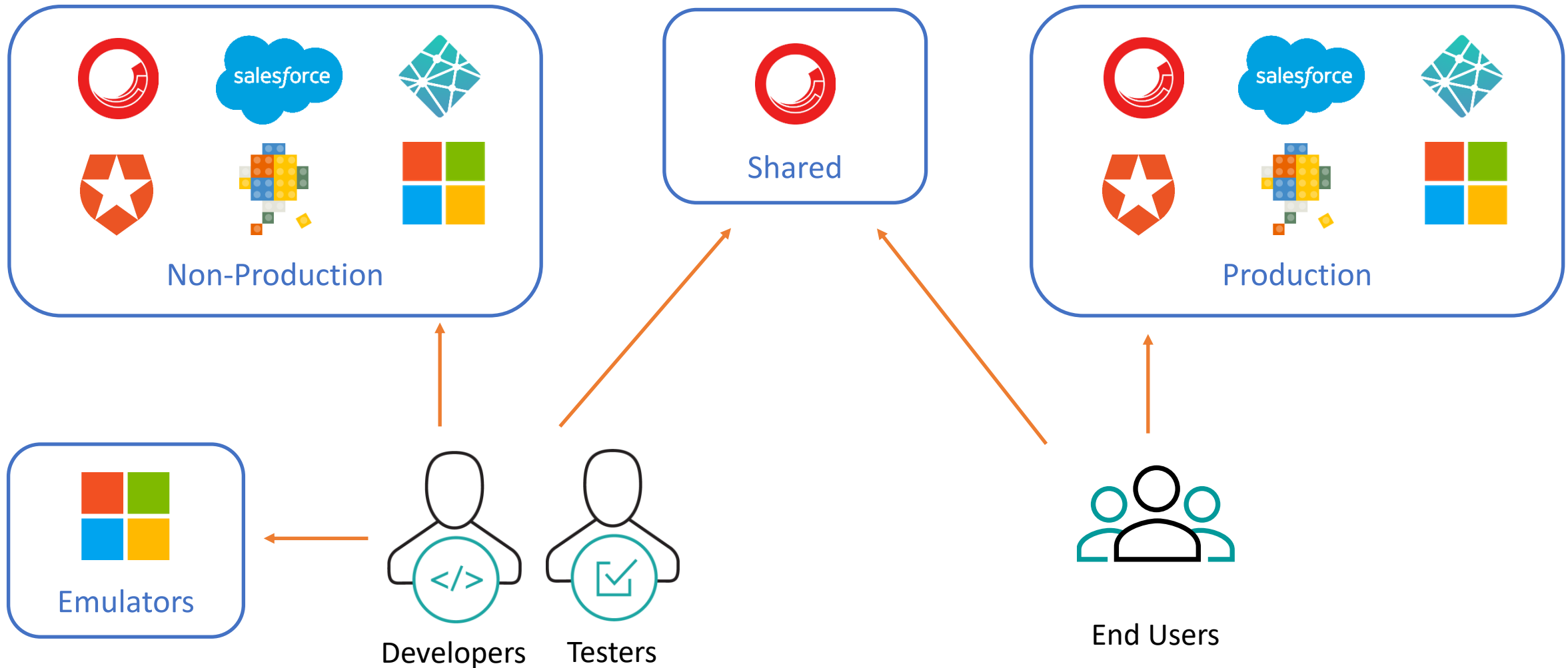
```
1 docker-compose.yml
2 services:
3   traefik:
4     isolation: ${TRAEFIK_ISOLATION}
5     image: ${TRAEFIK_IMAGE}
6     command:
7       - "--ping"
8       - "--api.insecure=true"
9       - "--providers.docker.endpoint=npipe:///pipe/docker_engine"
10      - "--providers.docker.exposedByDefault=false"
11      - "--providers.file.directory=C:/etc/traefik/config/dynamic"
12      - "--entryPoints.websecure.address=:443"
13      - "--entryPoints.websecure.forwardedHeaders.insecure"
14    ports:
15      - "443:443"
16      - "8079:8080"
17    healthcheck:
18      test: ["CMD", "traefik", "healthcheck", "--ping"]
19    volumes:
20      - source: \\.\pipe\docker_engine
21        target: \\.\pipe\docker_engine
22        type: npipe
23      - ./traefik:C:/etc/traefik
24    depends_on:
25      id:
26        condition: service_healthy
27      cd:
28        condition: service_healthy
29      cm:
30        condition: service_healthy
31    redis:
32      isolation: ${ISOLATION}
33      image: ${SITECORE_DOCKER_REGISTRY}sitecore-redis:${SITECORE_VERSION}
34    mssql:
35      isolation: ${ISOLATION}
36      image: ${SITECORE_DOCKER_REGISTRY}nonproduction/mssql-developer:2017-${SITECORE_VERSION}
37      environment:
38        SA_PASSWORD: ${SQL_SA_PASSWORD}
39        ACCEPT_EULA: "Y"
40      ports:
41        - "14330:1433"
42      volumes:
43        - type: bind
44          source: .\mssql-data
```

```
1 azuredeploy.json
2 {
3   "$schema": "http://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",
4   "contentVersion": "1.0.0.0",
5   "variables": {
6     "resourcesApiVersion": "2016-09-01"
7   },
8   "parameters": {
9     "standard": {
10       "type": "secureObject",
11       "defaultValue": {
12         "infrastructure": {
13           "siWebAppHostName": null
14         },
15         "deploymentId": null,
16         "location": null,
17         "sitecoreSKU": null,
18         "sitecoreAdminPassword": null,
19         "solrConnectionString": null,
20         "sqlServerName": null,
21         "sqlServerLogin": null,
22         "sqlServerPassword": null,
23         "coreSqlDatabaseName": null,
24         "masterSqlDatabaseName": null,
25         "webSqlDatabaseName": null,
26         "shardSqlDatabaseName": null,
27         "shardSqlDatabaseName": null,
28         "cdWebAppName": null,
29         "cmWebAppName": null,
30         "prcWebAppName": null,
31         "xcRefDataWebAppName": null,
32         "xcCollectWebAppName": null,
33         "xcSearchWebAppName": null,
34         "maOpsWebAppName": null,
35         "maRepWebAppName": null,
36         "authCertificateBlob": null,
37         "authCertificatePassword": null,
38         "useApplicationInsights": true
39       }
40     },
41     "extension": {
42       "type": "secureObject",
43       "defaultValue": {
44         "templateLinkAccessToken": "",
45       }
46     }
47   }
48 }
```

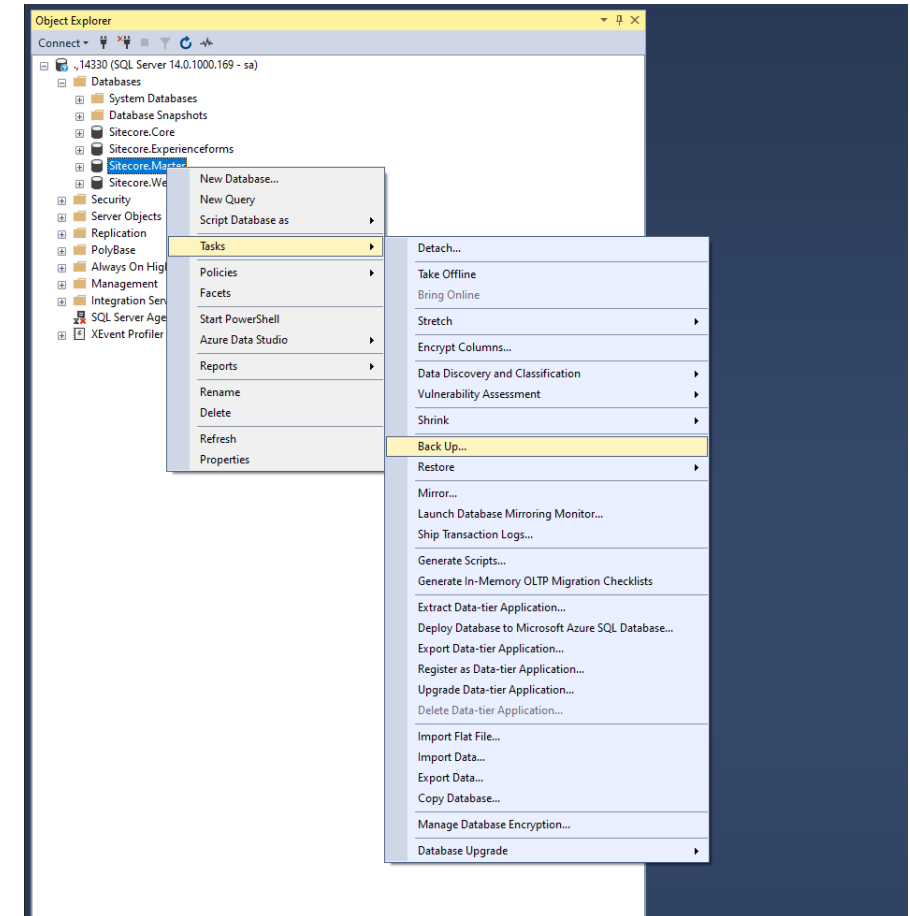

Environment Provisioning - Now



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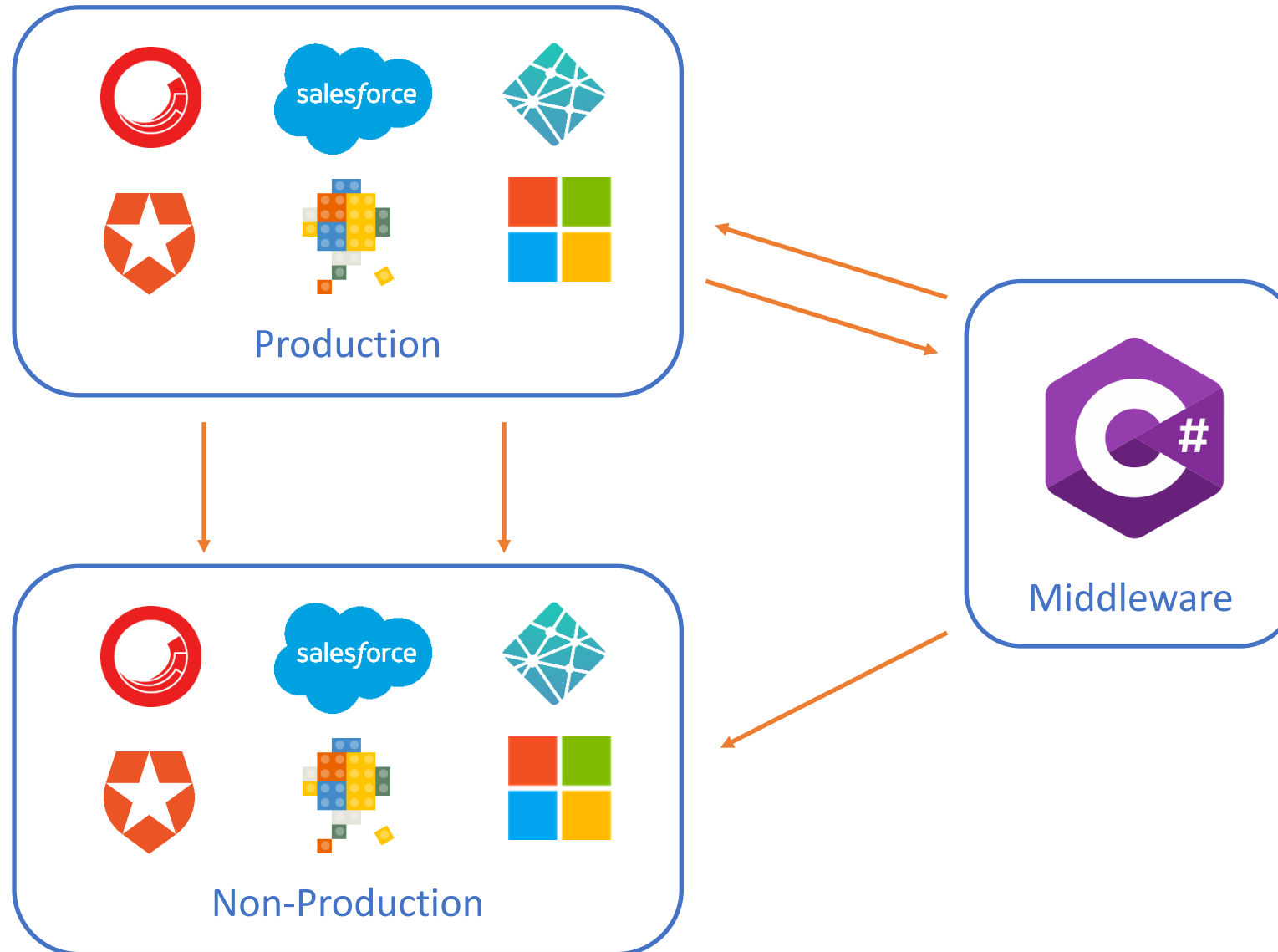
- Complete ownership of data layer
- Direct database access
- Import / export directly between database instances



Data Synchronisation - Now



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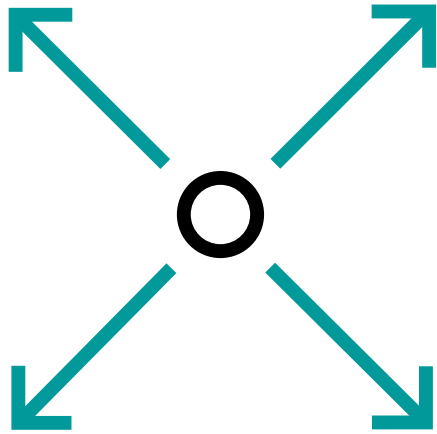


Giving up the delivery Layer

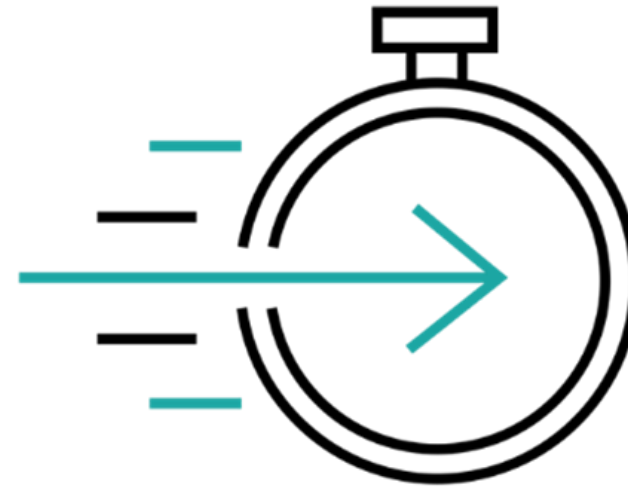
Giving up the delivery layer



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Deployments



Performance

Deployments - Before



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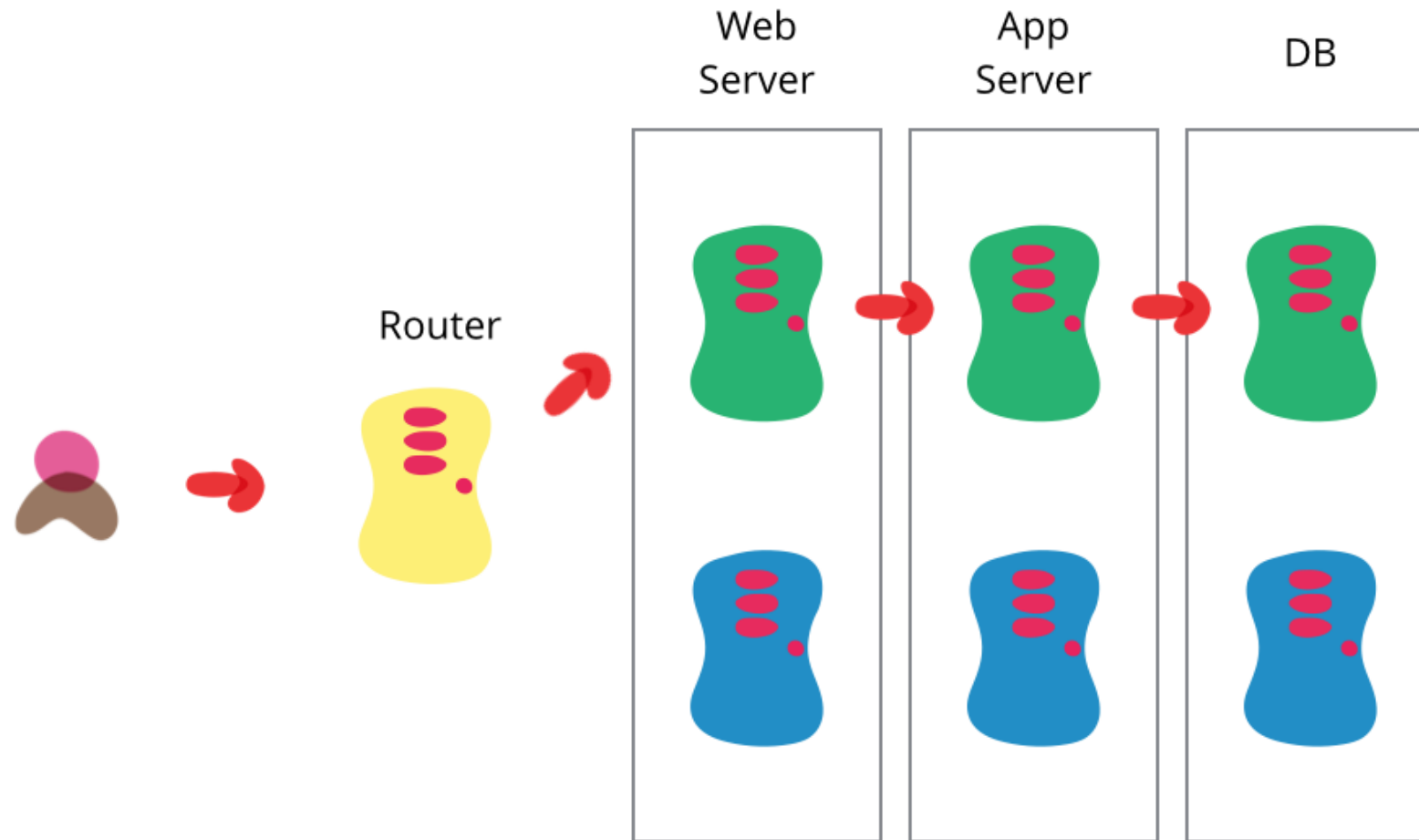
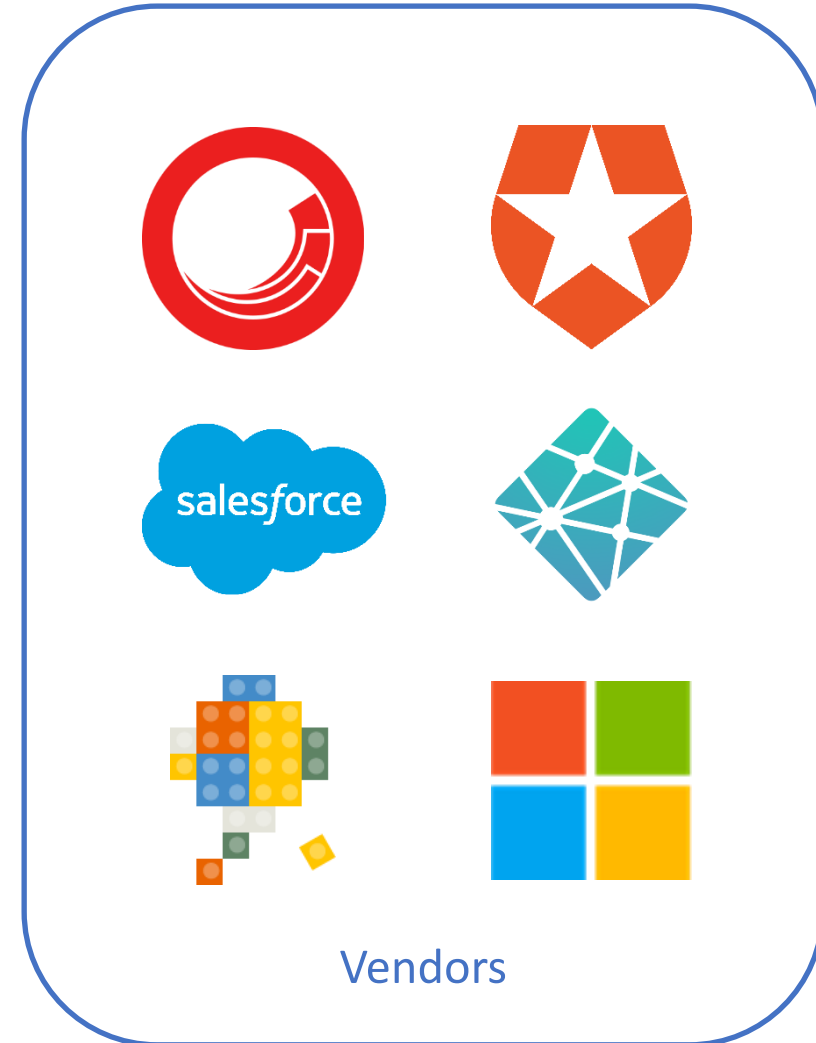


Image from <https://martinfowler.com/>

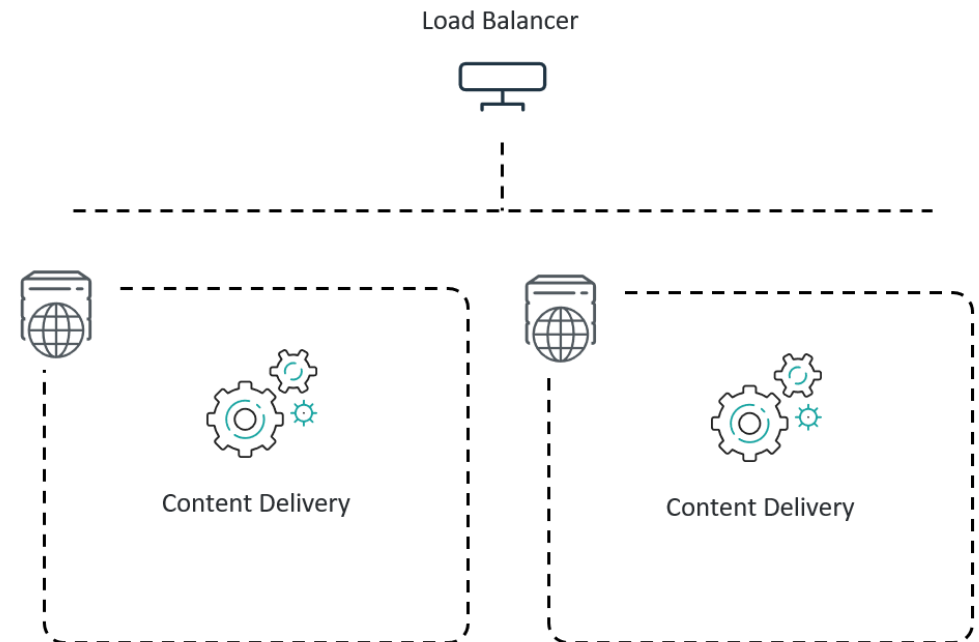
Deployments - Now

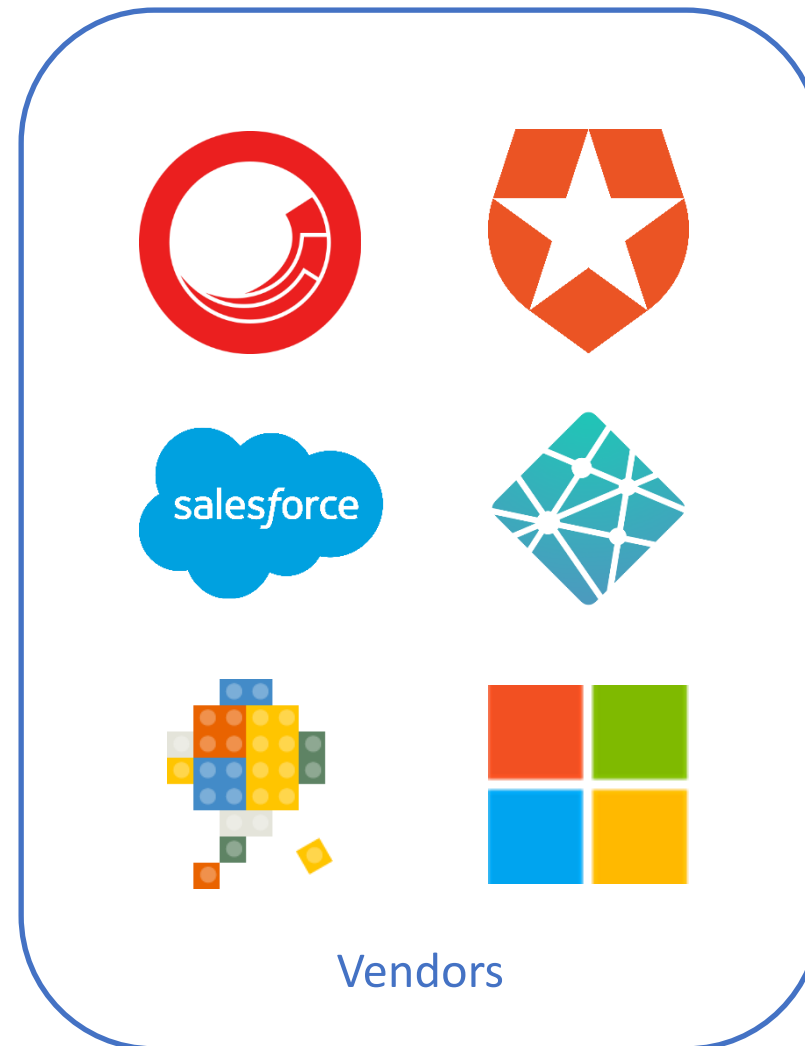


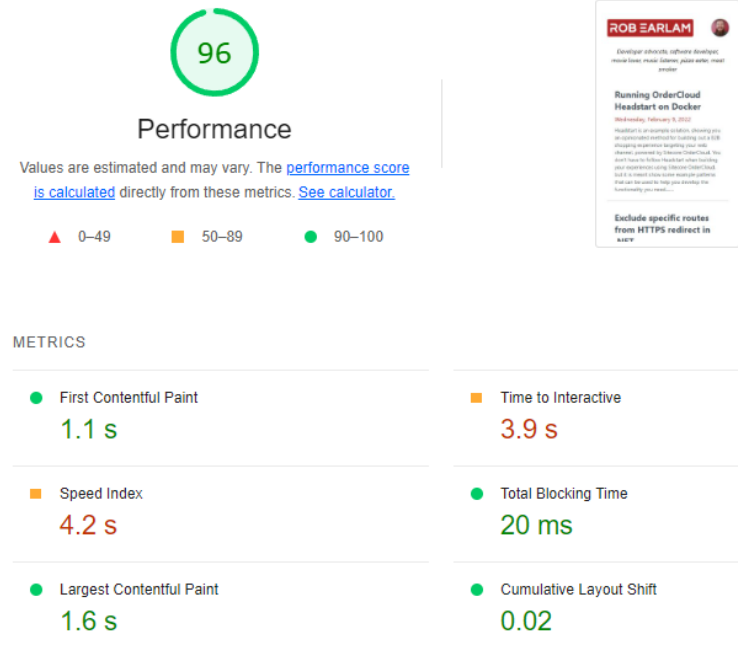
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- Scaling API throughput
- Scaling database throughput
- Scaling indexes
- Ensuring Geo-redundancy







- Time to first byte
- First Contentful Paint
- Largest Contentful Paint
- Time to interactive
- etc

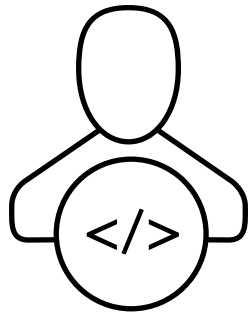
Shifting Responsibilities



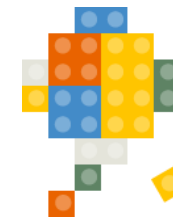
Shifting Responsibilities



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Developers /
Implementors



Vendors

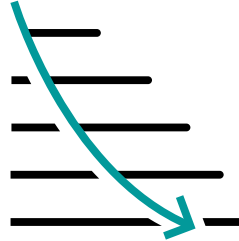
Give it up for reliability



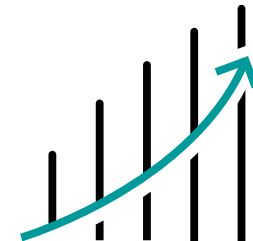
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Service Level
Agreements



Reduced
Implementer
Specialisation



Increased
Vendor
specialisation

Different Technologies



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netlify



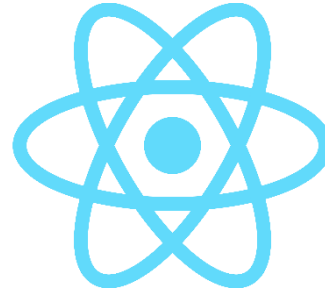
Google Cloud Platform

Which one to use?



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~~NEXT~~.JS



netlify



Azure

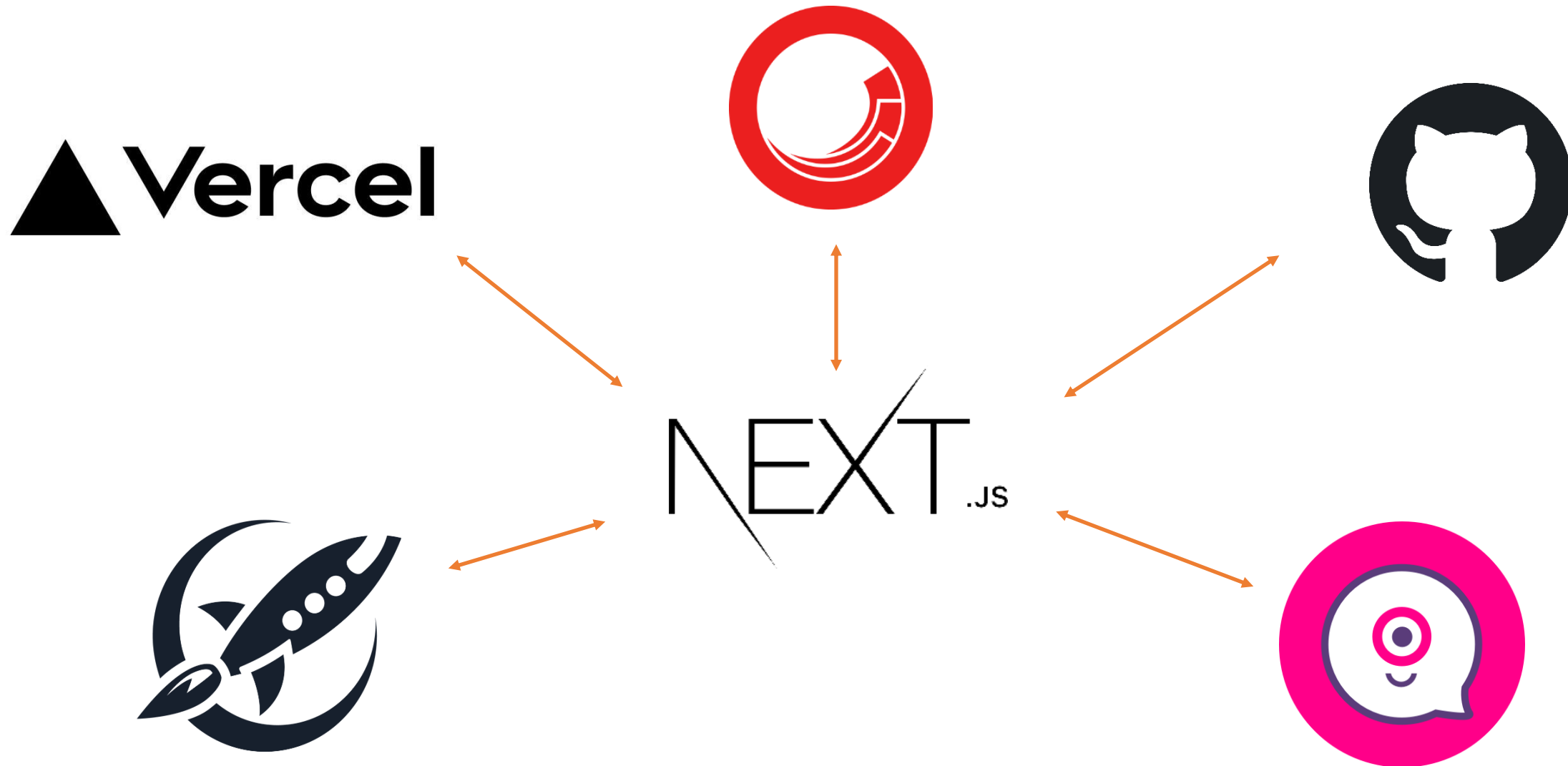


An example composable deployment process

A modern deployment process



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- Composable DXP reduces your DevOps footprint
- Your footprint is reduced by shifting responsibilities
- Reducing this footprint can increase reliability
- Reducing this footprint reduces your technology burden



Getting more for less = reliability
at lightspeed!

Questions?

*I am a proud community member!
Please contact me on the following handles:*



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@RobEarlam

twitter



SEARCHSTAX



americaneagle.com

sagittarius⁷



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SOLUTIONS

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EXPERIENCE ASSURED

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valtech

delaware



macaw
Challenge accepted.



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