

Resiliency

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Resiliency in Container Apps

- Container Apps offer various mechanisms to improve resiliency and reliability
- Improve the reliability of the app
- Handle error and zonal failures

Availability Zones

- Container Apps can be deployed in multiple zones in a region
- Replicas will be distributed across the zones in the region
- Internal load balancer distributes traffic between zones
- When a zone goes down – replicas in other zones continue working
- Effective only if there are more than 1 replica
- Affects the cost

Availability Zones

- Availability Zones are configured on the environment level
- Cannot be changed once environment is deployed
- Require special VNet

Resiliency Policies

- Define behaviors of service-to-service communication
- Will not work when Dapr is enabled
- Define timeouts, retries and more
- Easy to configure
- Per container app

Dapr Resiliency Policies

- Dapr has its own resiliency policies for service invocation
- Cannot be configured in Container Apps

Dapr Resiliency Policies

Timeout

No timeout

Retries

Retry every 5 seconds, unlimited number of retries

Circuit Breaker

Only 1 request can pass through when the callee is in a failed state

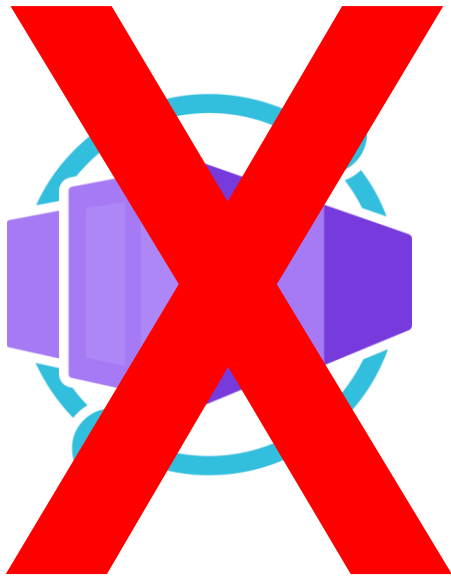
Implementing DR

- DR (disaster recovery) plan helps with a complete region shutdown
- If your system needs to work in this scenario a DR plan should be made

Implementing DR

- Container Apps is a regional service

West Europe

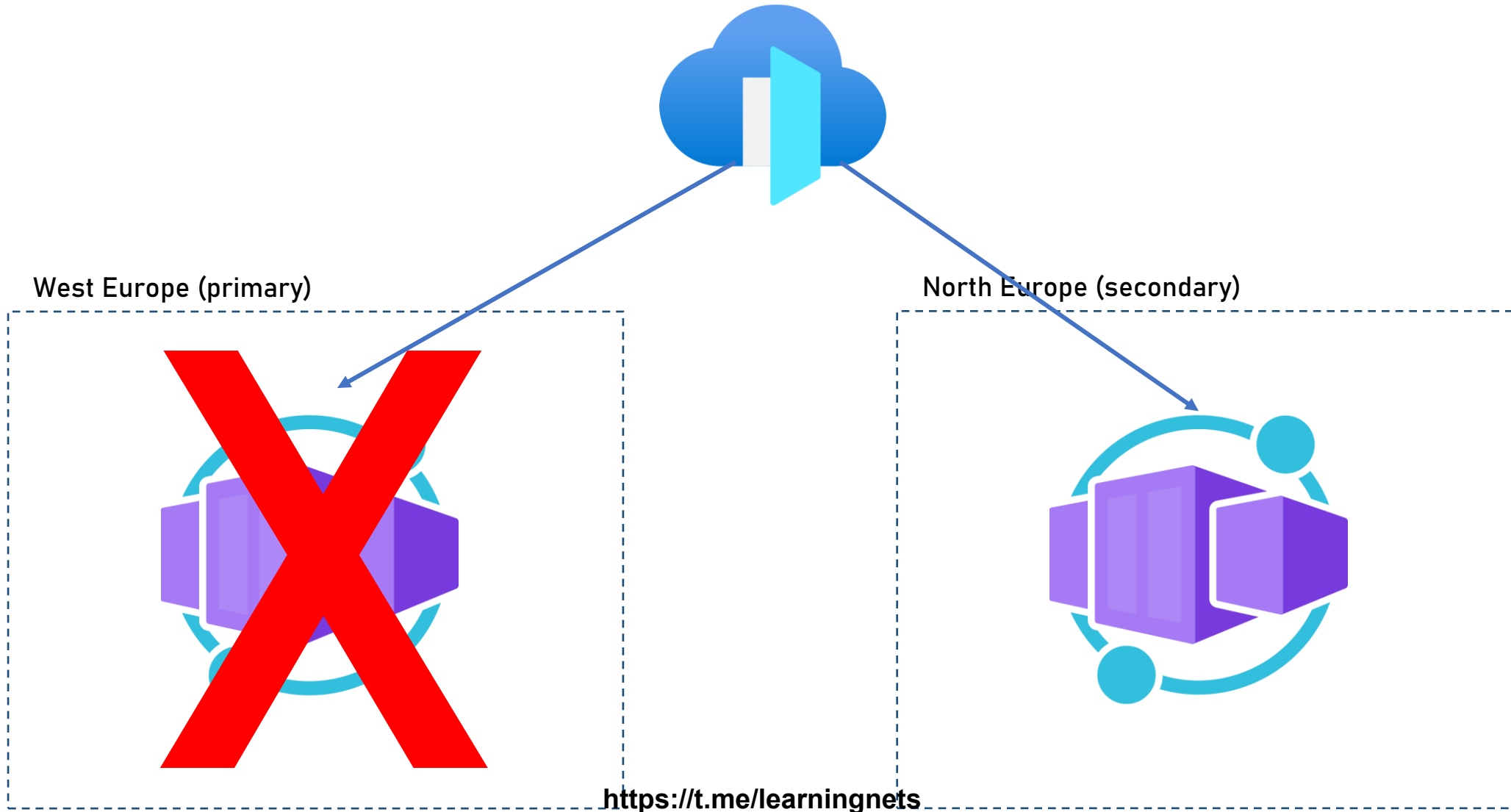


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Implementing DR

- Implementing DR with Container Apps:
 - Deploy the container app in two regions
 - Deploy Front Door in front of these regions
 - Set the first region to be primary
 - When the region fails Front Door will automatically route to the second region

Implementing DR



Implementing DR

- **Note: Double the cost of a single deployment + Front Door cost**