Implement Azure Notification Hubs Solutions

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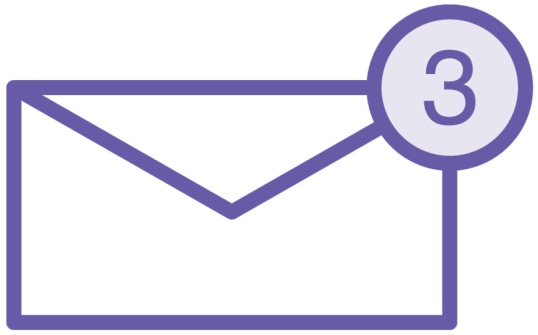
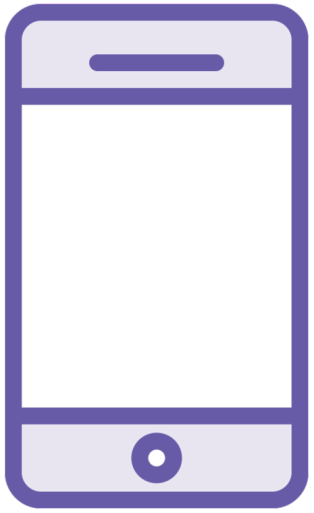
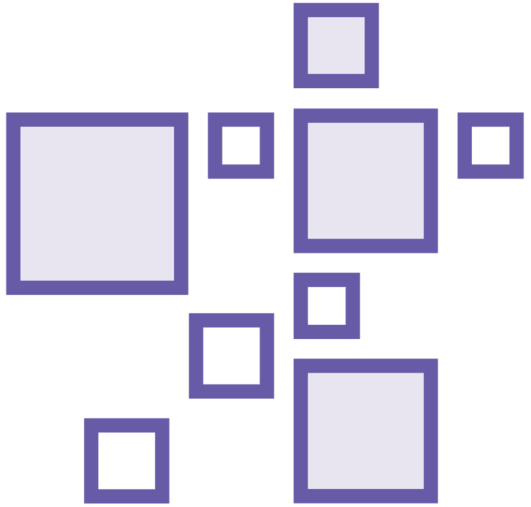
Azure Notification Hubs (ANH)



Send push notifications - app to user messages

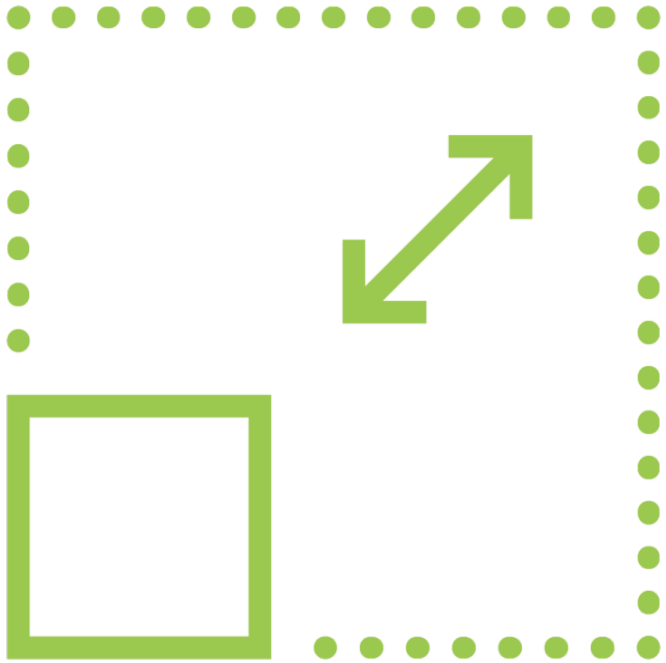


Send to multiple platforms - iOS, Android, and Windows



ANH provides abstraction over platform notification services

Azure Notification Hubs Features



Cross-platform

- Front-end and back-end

Multiple delivery formats

- Push to user
- Push to device
- Localization
- Silent push

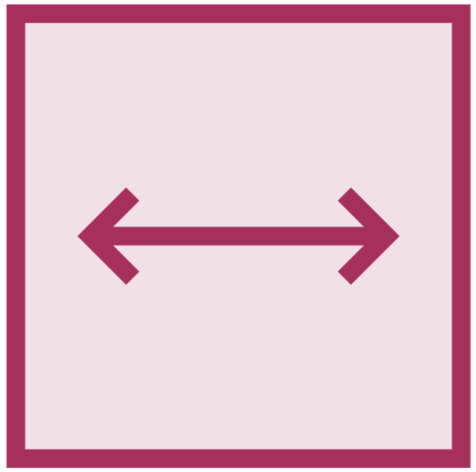
Telemetry

Scalable

Components

Platform notification service (PNS)

Vendor-specific



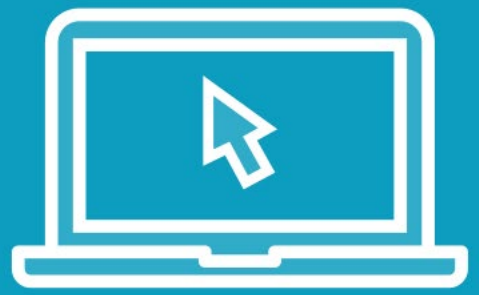
Notification hub

Communicates to PNS

Namespace

Regional collection of hubs

Demo



Create an Azure Notification Hub

- Portal
- Namespace
- Notification Hub

Explore Notification Hub

Notification Hubs and Namespaces

Namespace is a collection of Notification Hubs

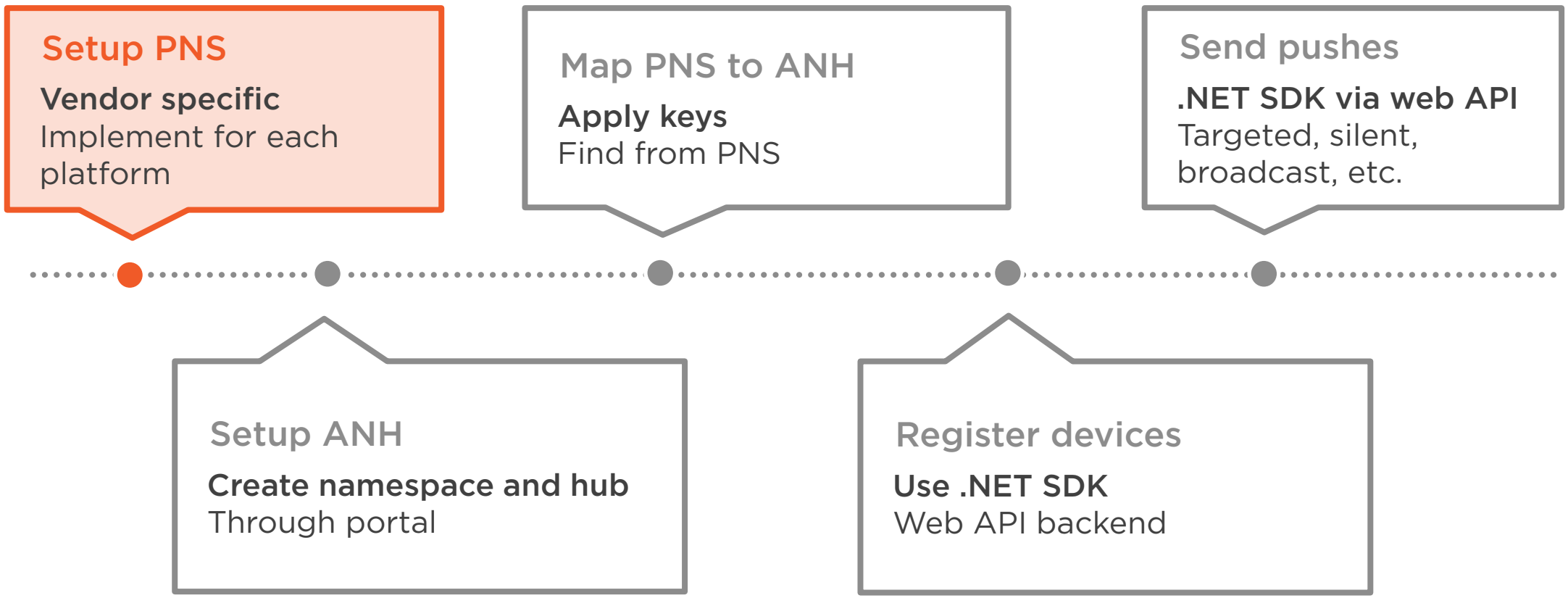
One namespace per application

One hub per application environment

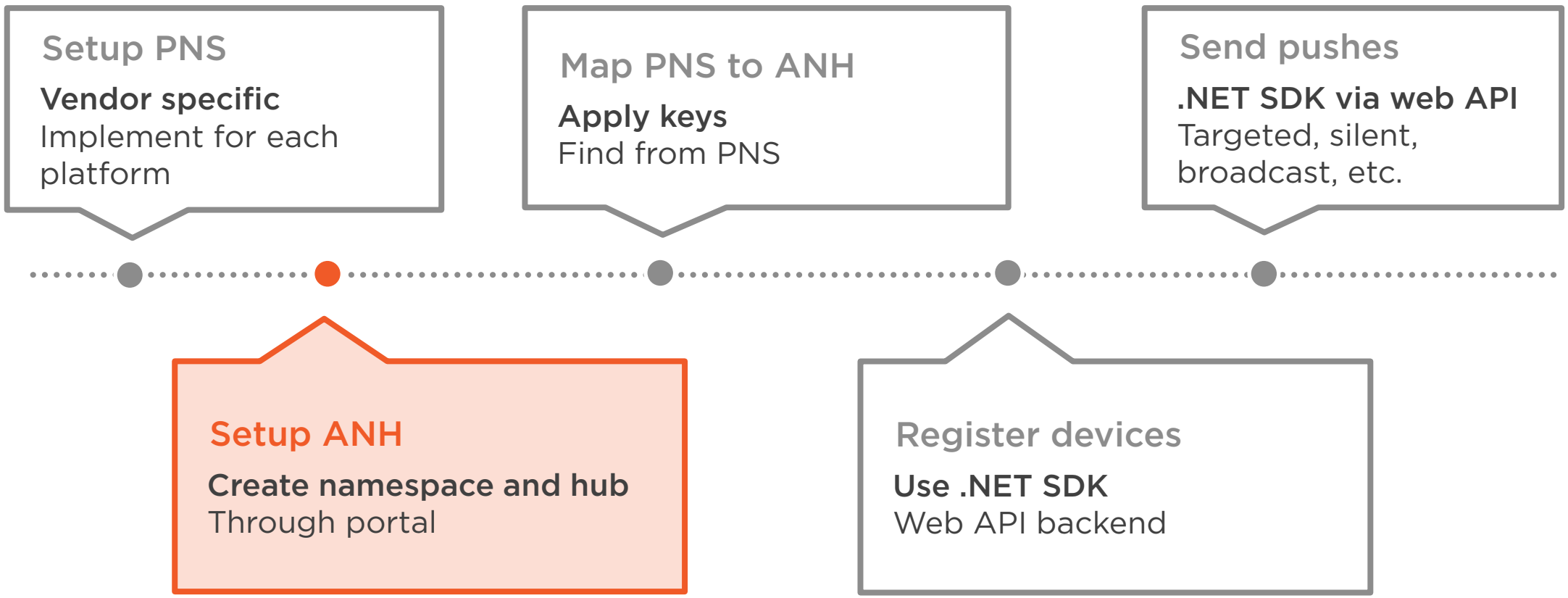
Credentials at namespace level

Billing at namespace level

Sending Notifications Workflow



Sending Notifications Workflow



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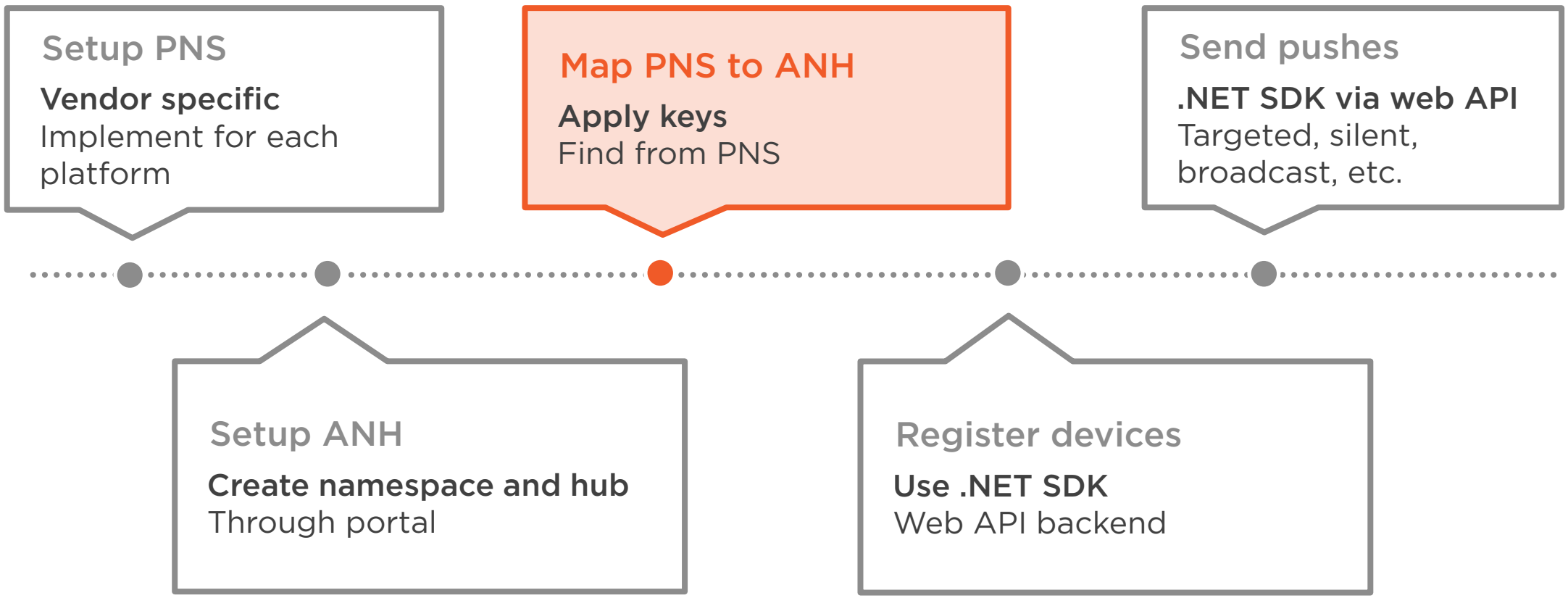
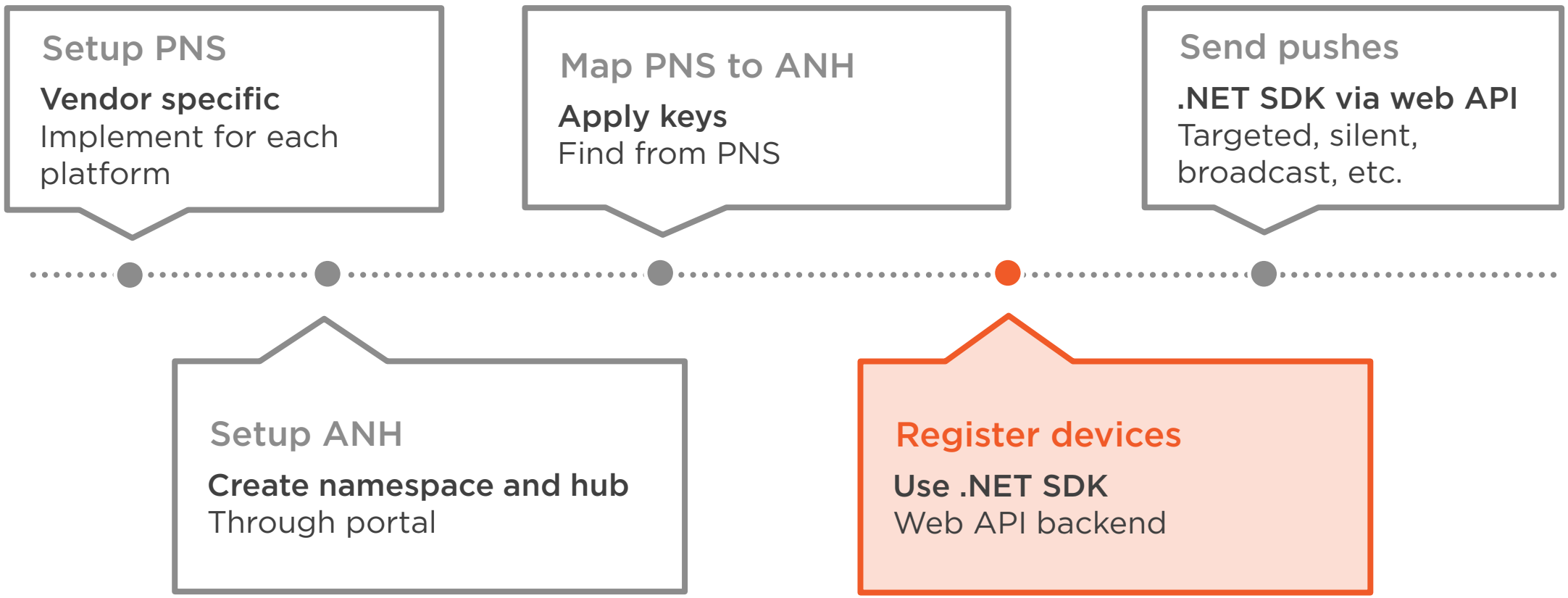
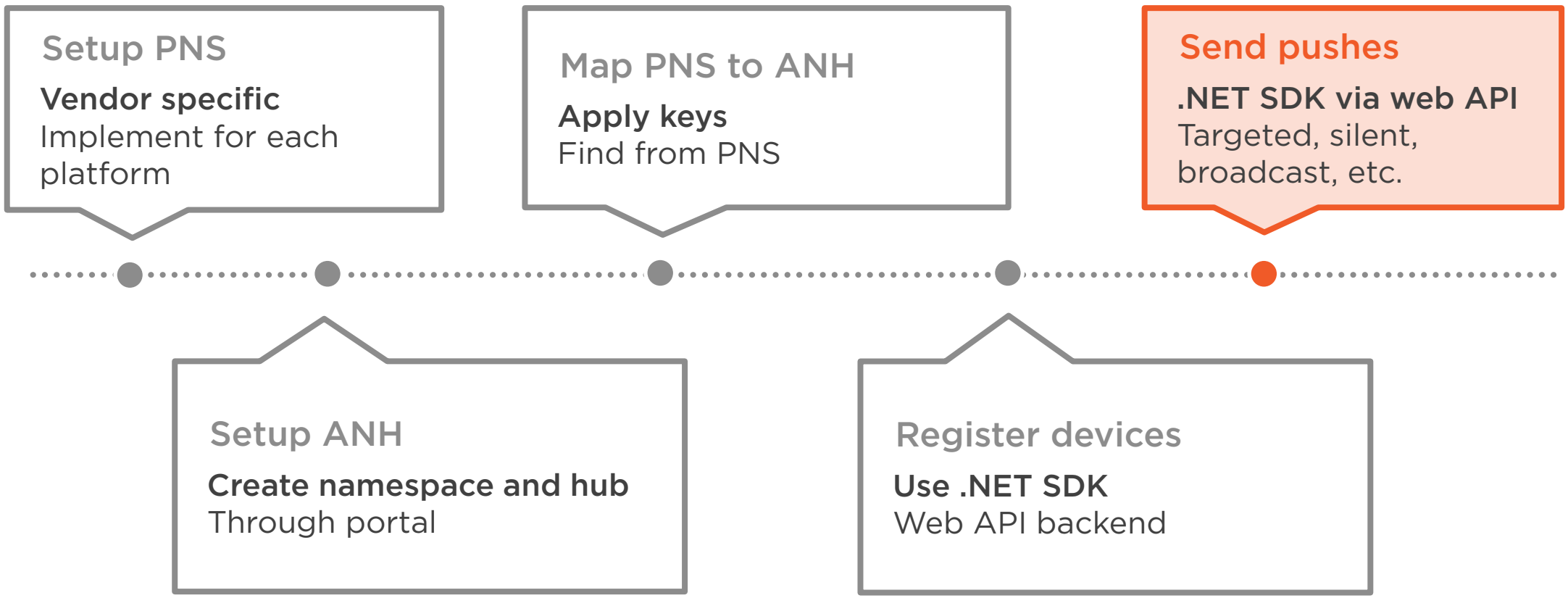


Sending Notifications Workflow



Sending Notifications Workflow



```
NotificationHubClient hubClient = new NotificationHubClient(conxString, name);
var installation = new Installation { InstallationId = “”, PushChannel = “” };
installation.Platform = NotificationPlatform.Apns; // could be others
await hubClient.CreateOrUpdateInstallationAsync(installation);
```

Register devices

Microsoft.Azure.NotificationHubs NuGet package

ASP.NET Core web API

```
var templateDictionary = new Dictionary<string, string>();

templateDictionary.Add("message", "hello world");

await hubClient.SendTemplateNotificationAsync(templateDictionary);
```

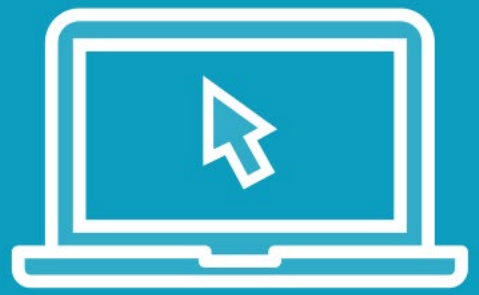
Send push notification

Send to all devices

Dictionary keys mapped to placeholders

Templates can be registered with devices

Demo



Register devices

Send push notifications

Summary

Push notifications are app to user messages

Many different platform notification services

Azure Notification Hubs abstracts complexities

- Multiple delivery patterns
- Telemetry
- Scalable

Namespaces organize hubs

- Map one per application

.NET SDK to send pushes

Course Summary

Pub/sub pattern

Events contain smallest feasible payload

Azure Event Grid

- Discrete event messages

Azure Event Hubs

- Big data series events

Azure Notification Hubs

- App to user messages