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**What is Azure Notification Hubs?**

Azure Notification Hubs is a cloud-based service that helps you send notifications to mobile devices, such as iOS, Android, and Windows devices. It's a scalable and secure way to send push notifications to your app users.

**Why Use Azure Notification Hubs?**

1. **Scalability:** Notification Hubs can handle a large volume of notifications, making it perfect for apps with millions of users.
2. **Security:** Azure Notification Hubs provides secure authentication and encryption to ensure that your notifications are delivered safely.
3. **Multi-platform support:** You can send notifications to multiple platforms, including iOS, Android, and Windows, from a single hub.
4. **Easy integration:** Notification Hubs integrates easily with your existing app and backend infrastructure.

**Key Concepts**

1. **Notification Hub:** A notification hub is a container that holds your notification settings and credentials.
2. **Registration:** A registration is a unique identifier for a device that wants to receive notifications.
3. **Tags:** Tags are used to categorize registrations and target specific groups of devices.
4. **Notifications:** Notifications are the actual messages sent to devices.

**How Does it Work?**

Here's a high-level overview of how Azure Notification Hubs works:

1. **Device registration:** A device (e.g., a mobile phone) registers with the notification hub, providing a unique identifier and platform-specific credentials.
2. **Tagging:** The device is assigned one or more tags, which help you target specific groups of devices.
3. **Notification creation:** You create a notification in your app backend, specifying the target tags and notification content.
4. **Notification sending:** The notification is sent to the notification hub, which then forwards it to the targeted devices.
5. **Device receives notification:** The device receives the notification and displays it to the user.

**Features**

1. **Scheduled notifications:** Send notifications at a scheduled time or interval.
2. **Rich notifications:** Send notifications with rich content, such as images, videos, or custom layouts.
3. **Personalization:** Use templates and placeholders to personalize notifications for individual users.
4. **Analytics:** Track notification delivery, opens, and clicks to measure the effectiveness of your notifications.
5. **Security:** Use authentication and encryption to ensure secure notification delivery.

**Pricing**

Azure Notification Hubs offers a free tier, as well as several paid tiers, depending on the number of notifications you need to send. The free tier includes:

* 1 million notifications per month
* 100 active devices
* 10 tags

**Common Use Cases**

1. **News and media apps:** Send breaking news alerts or personalized content to users.
2. **Gaming apps:** Send in-game notifications, such as score updates or special offers.
3. **E-commerce apps:** Send personalized promotions, order updates, or abandoned cart reminders.
4. **Health and fitness apps:** Send workout reminders, fitness goals, or health tips.

**Getting Started**

To get started with Azure Notification Hubs, follow these steps:

1. **Create an Azure account:** Sign up for a free Azure account if you haven't already.
2. **Create a notification hub:** Go to the Azure portal and create a new notification hub.
3. **Install the SDK:** Install the Azure Notification Hubs SDK for your preferred platform (e.g., iOS, Android, or Windows).
4. **Register devices:** Register devices with the notification hub using the SDK.
5. **Send notifications:** Start sending notifications to your registered devices!