CLOUD GATEWAY

CLOUD CONNECTIVITY

Microsoft Azure Admin Guide

V1.1

Issue Date: July 2022

Introduction

This document covers the steps required to configure your Microsoft Azure account for the Cloud Connectivity service.

This document shows you how to create an ExpressRoute circuit using the Azure portal and the Azure Resource Manager deployment model. You can also check the status, update, delete or deprovision a circuit.

You will need an Azure account with an active subscription before you start.

Create and provision an ExpressRoute circuit

Sign in to the Azure portal

From a browser, navigate to the Azure portal and sign in with your Azure account.

Create a new ExpressRoute circuit

Note: your ExpressRoute circuit is billed from the moment a service key is issued. Ensure that you perform this operation when the connectivity provider is ready to provision the circuit.

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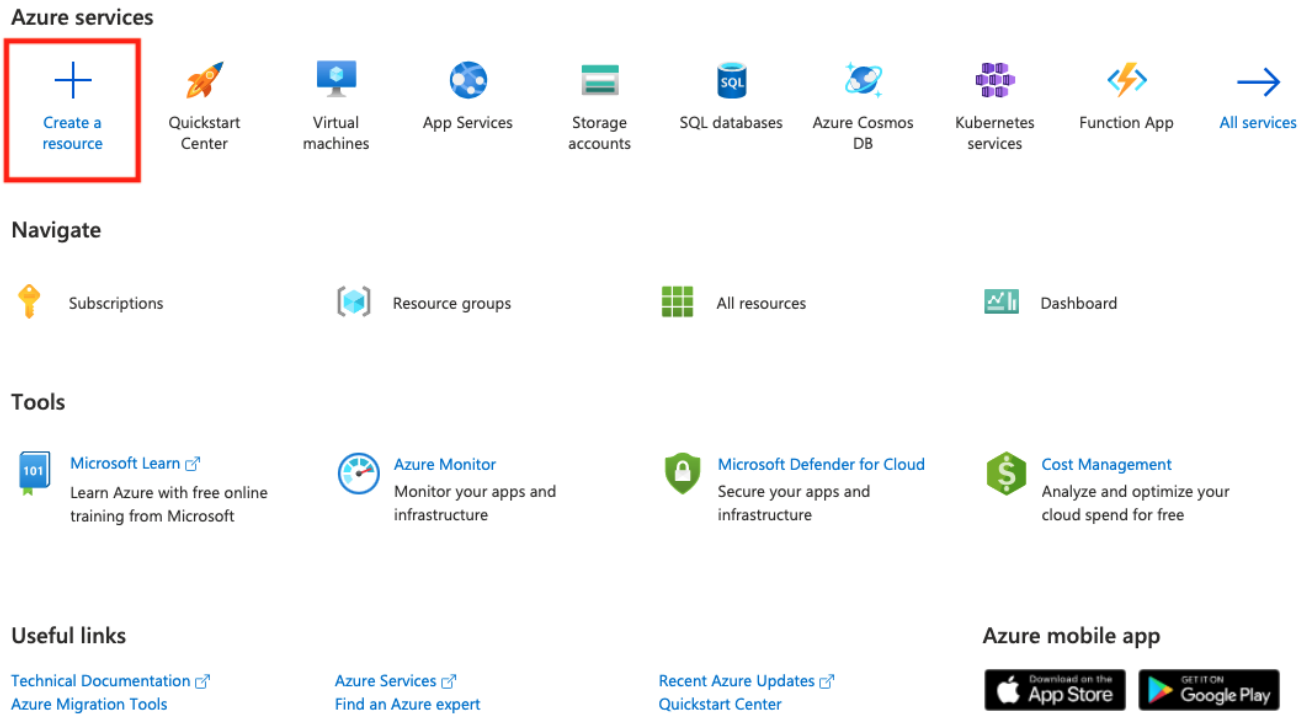
- On the Azure portal menu, select ‘Create a resource’:



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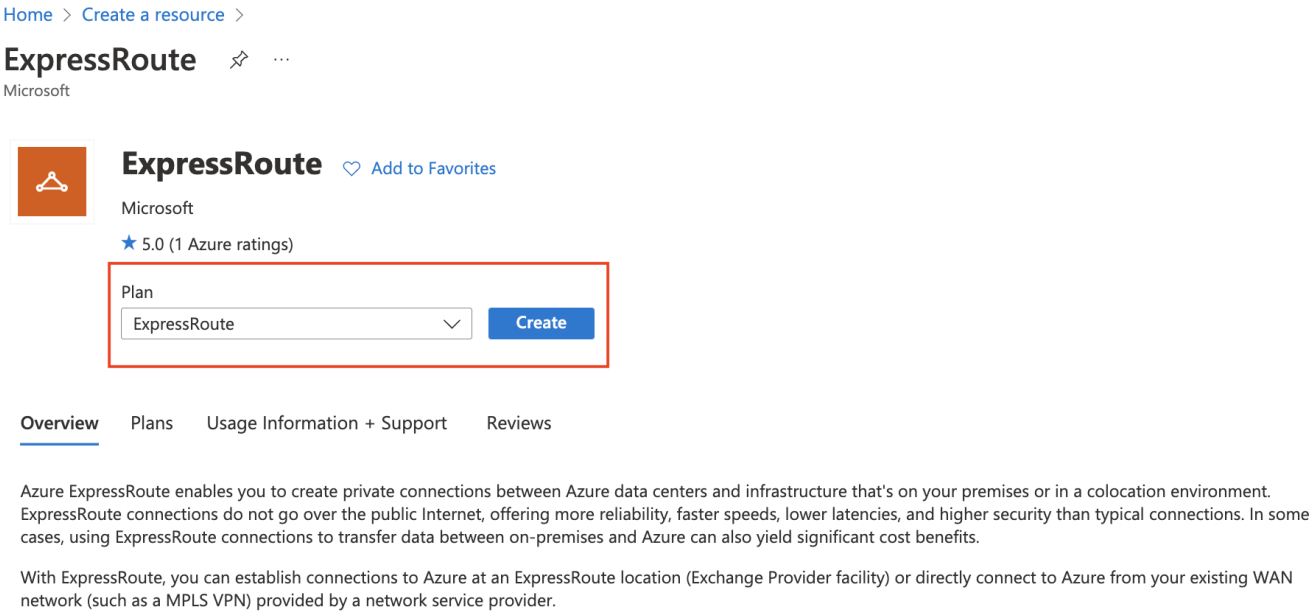
- In the search bar, enter ‘ExpressRoute’, select this service from the drop-down and then select ‘Create’:



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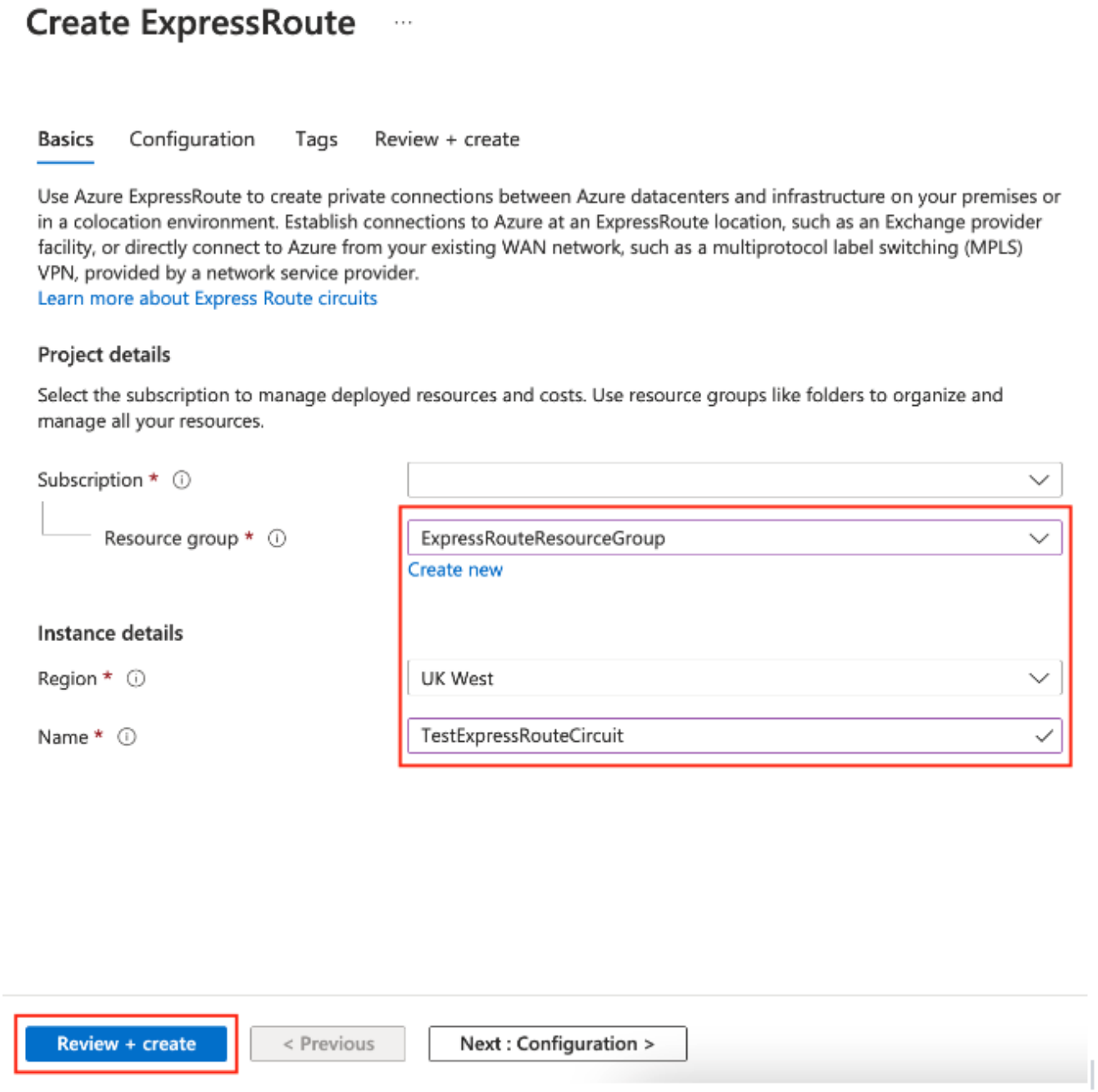
- On the 'Create ExpressRoute' page, select your Subscription from the drop-down, enter the Resource Group, Region and Name for the circuit. Then select 'Next: Configuration':



Note: the Name for your Instance must begin with a letter or number, end with a letter, number or underscore, and may contain only letters, numbers, underscores, periods, or hyphens, and between 1 and 80 characters.

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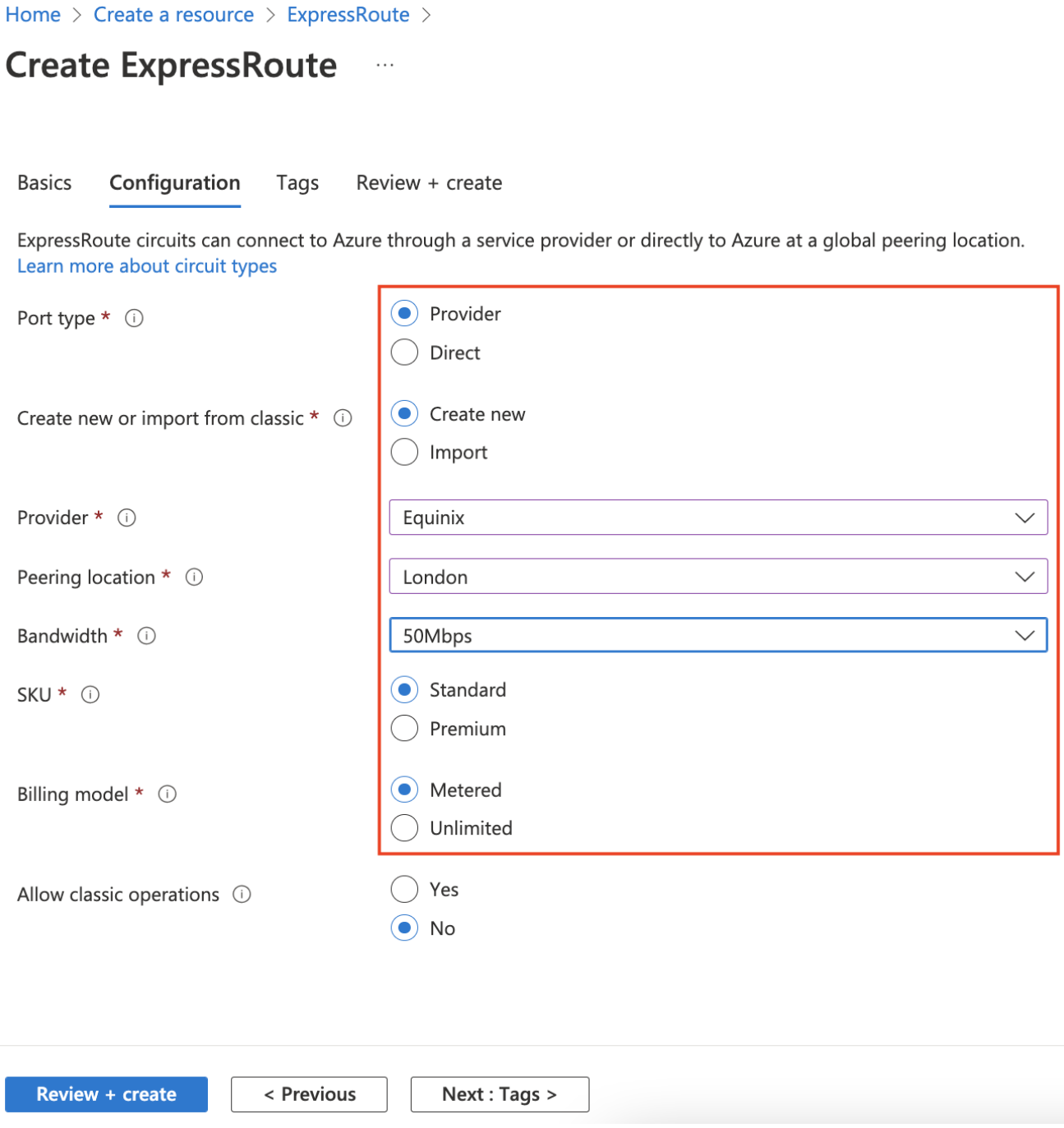
- When you are completing the details on the page below, make sure that you specify the correct SKU tier (Local, Standard or Premium) and data metering billing model (Unlimited or Metered):



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The following details should be used to complete this form:

- Port type: select ‘Provider’ to confirm that you will be connecting via Cloud Gateway rather than directly into Microsoft's global network.

- Create new or import from classic: select ‘Create new’ to confirm that you are creating a new circuit rather than migrating an existing circuit.

- Provider: select ‘Equinix’ as the internet service provider.

- Peering Location: select ‘London’ as the physical location where you're peering with Microsoft.

Note: the Peering Location indicates the physical location where you are peering with Microsoft. This is not linked to the "Location" property, which refers to the geography where the Azure Network Resource Provider is located. While they are not related, it is a good practice to choose a Network Resource Provider geographically close to the Peering Location of the circuit.

- **SKU**: select the SKU for the ExpressRoute circuit. You can specify Local to get the local SKU, Standard to get the standard SKU or Premium for the premium add-on. You can change between Standard and Premium but not to Local once created.

- **Billing model**: select the billing type for egress data charge. You can specify Metered for a metered data plan and Unlimited for an unlimited data plan. You can change the billing type from Metered to Unlimited but you can't change the type from Unlimited to Metered.

- **Allow classic operations**: leave this option defaulted to ‘**No**’.

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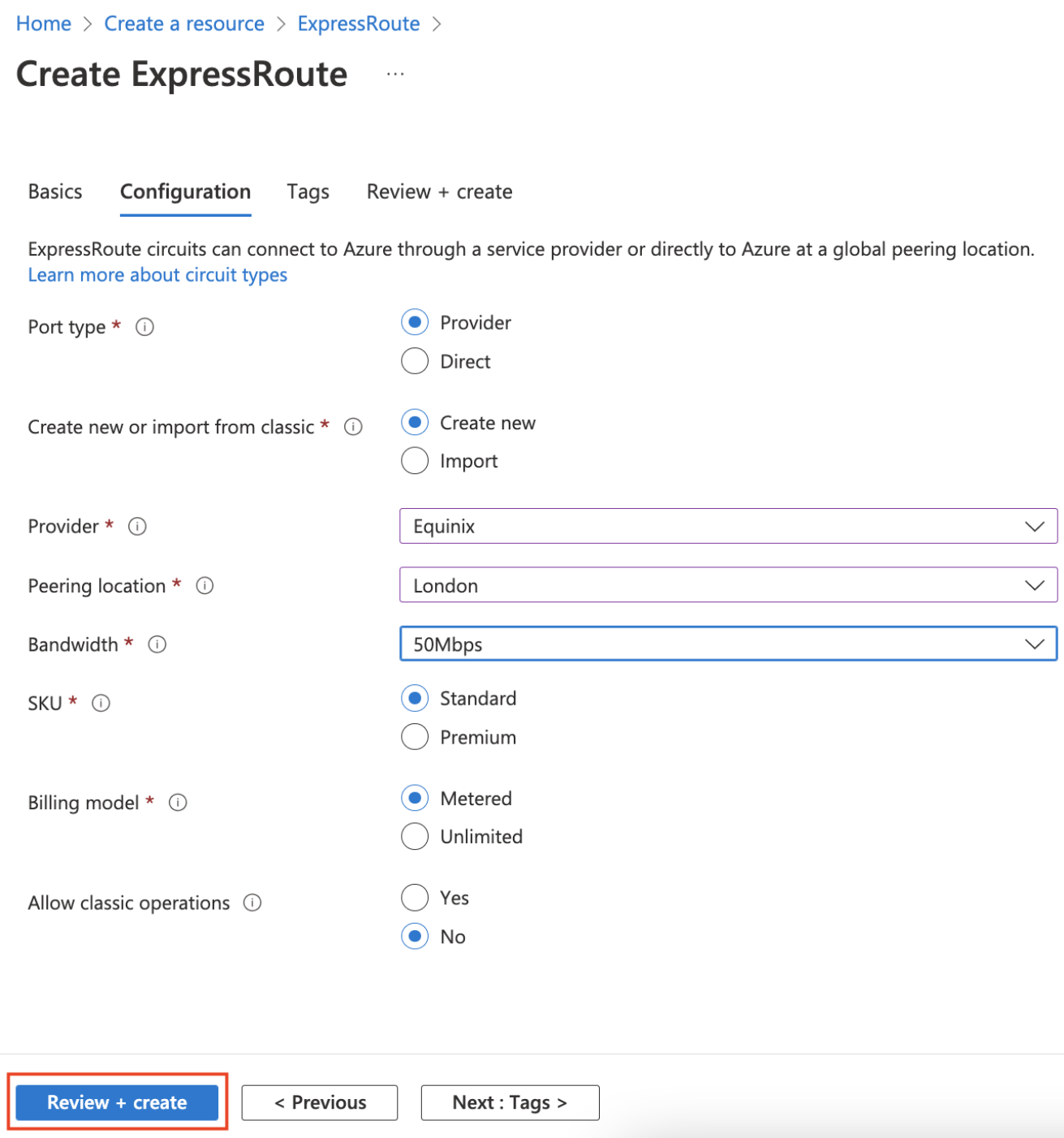
- Select ‘Review + create’ and then select ‘Create’ to deploy the ExpressRoute circuit:



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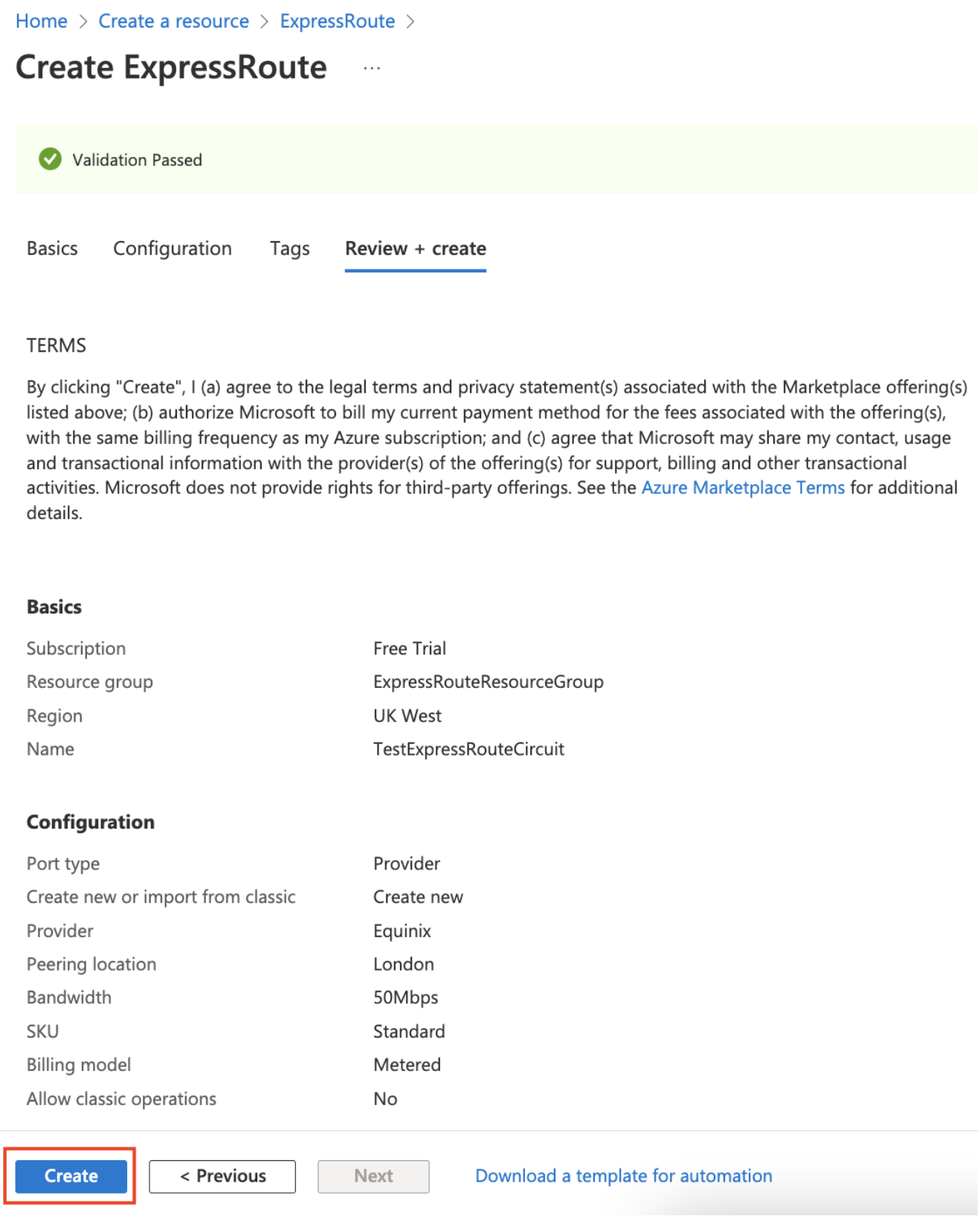
- You will then be asked to review Microsoft's terms, check the configuration details and select 'Create' to start the deployment process:



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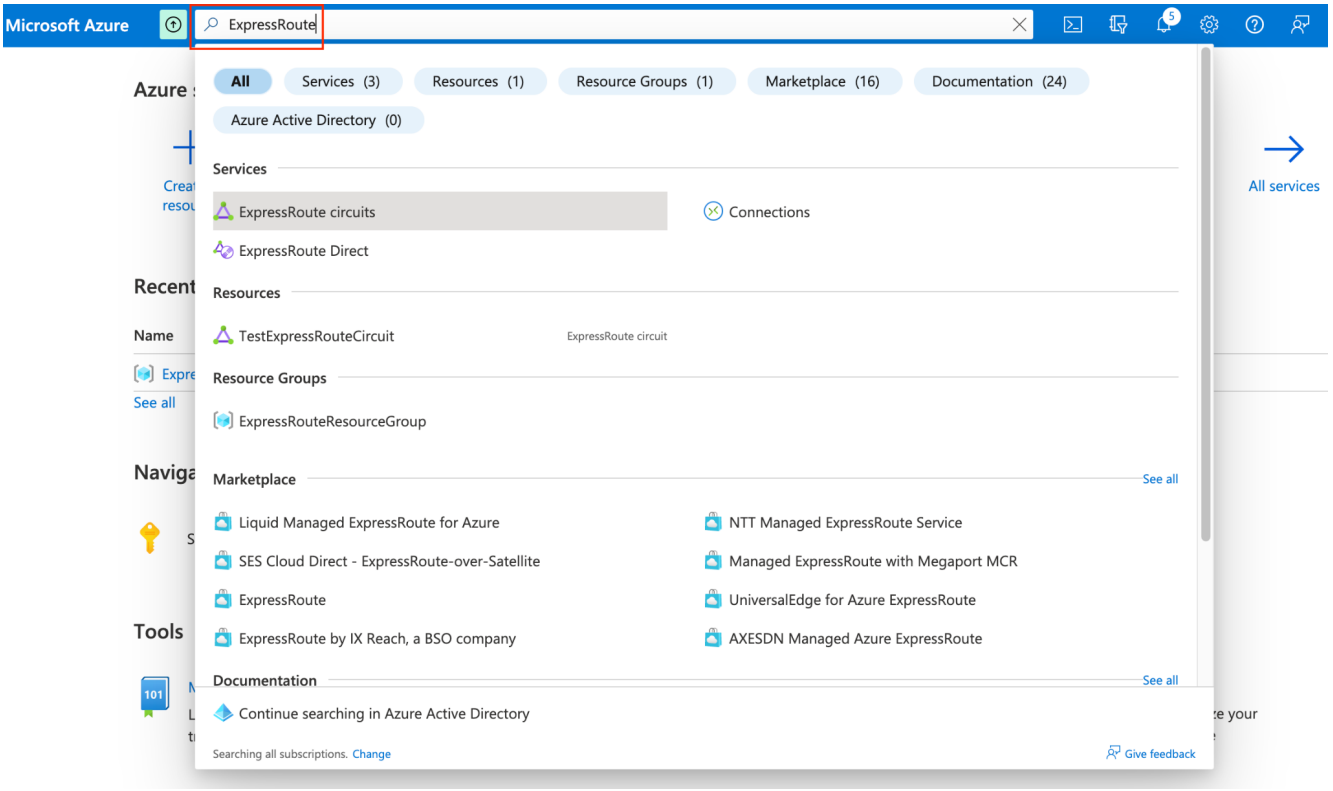
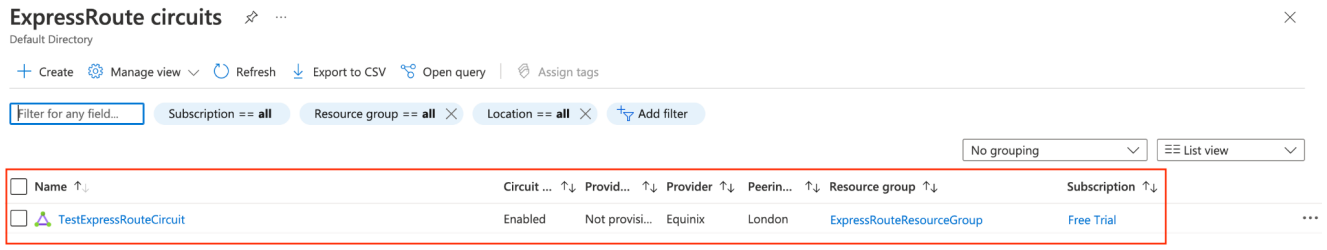
View the circuits and properties

View your circuits

- You can view all the circuits that you created by searching for 'ExpressRoute' circuits in the Azure portal search box:



- All ExpressRoute circuits created in the subscription will be listed:



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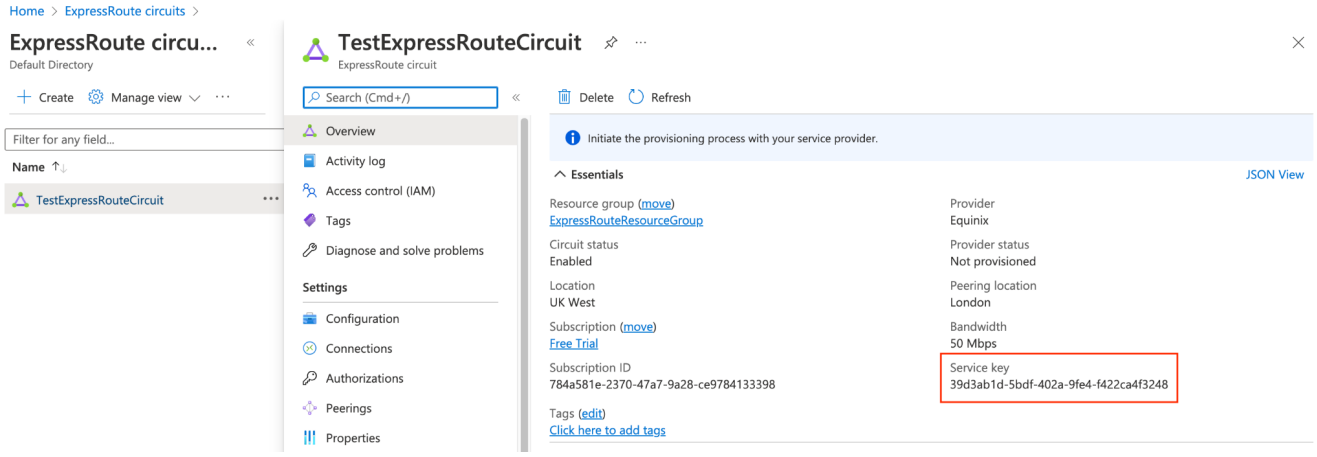
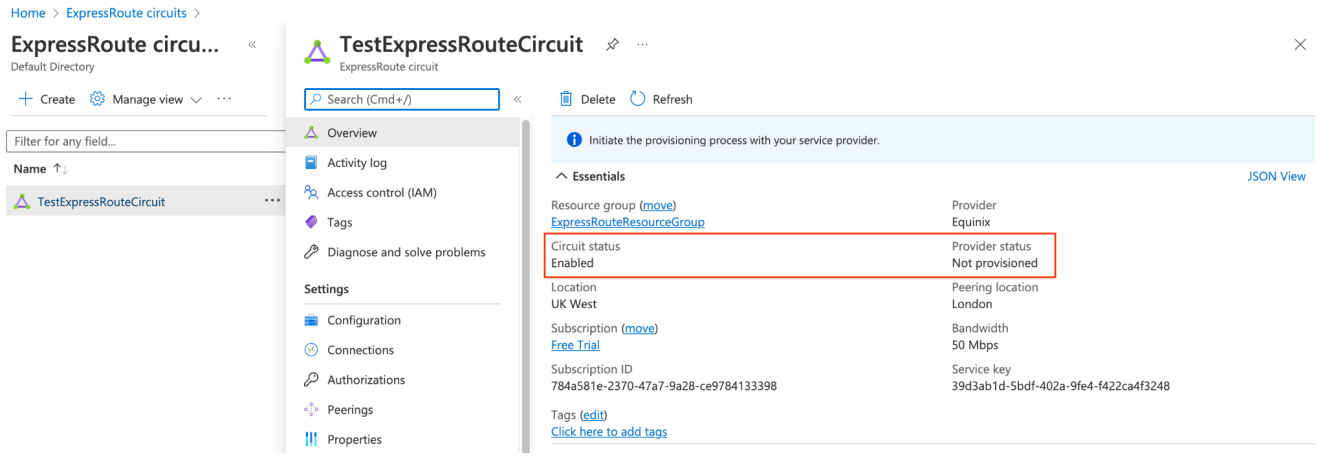
View circuit properties

- You can view the properties of a specific circuit by selecting it. On the 'Overview' page for your circuit, you will find the Service Key. The service key is unique to each circuit and you will need to send the service key to us in order to complete the provisioning process:



- 'Provider status' on the 'Overview' page shows the current state of provisioning, whereas 'Circuit status' shows you the state of provisioning on the Microsoft side.

- When you create a new ExpressRoute circuit, these should show: '**Provider status: Not provisioned**' and '**Circuit status: Enabled**':



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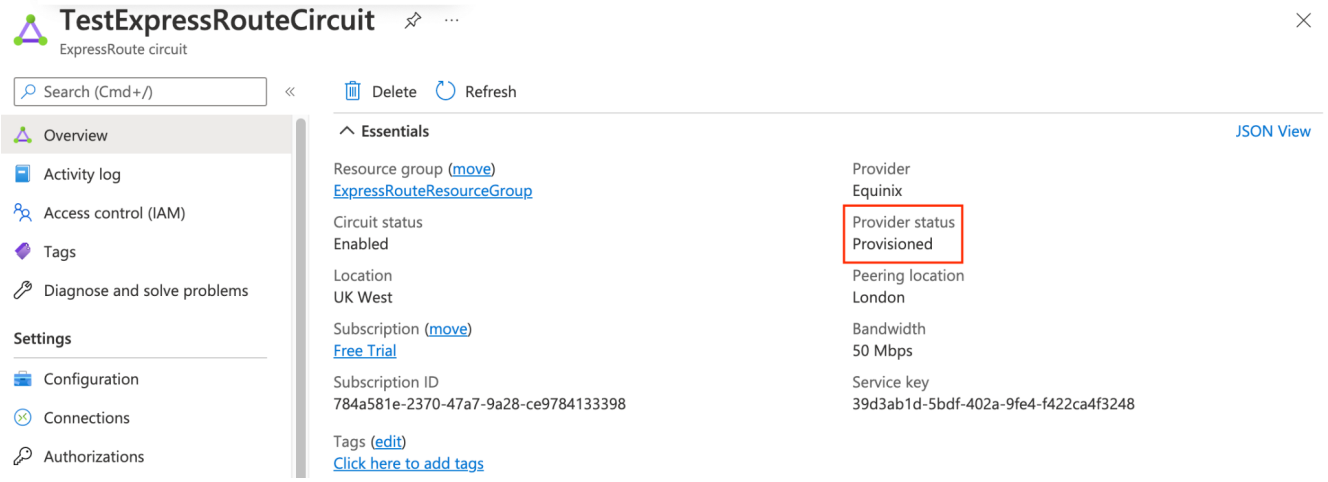
- The circuit changes to the following state when we have enabled it for you: '**Provider status: Provisioning**' and '**Circuit status: Enabled**'.

- To use the ExpressRoute circuit, it must be in the following state: '**Provider status: Provisioned**' and '**Circuit status: Enabled**'.

Check the circuit key status and state

- You can view the properties of the circuit by selecting it from the 'Overview' page. Check the 'Provider status' and ensure that it has moved to 'Provisioned' before you continue:



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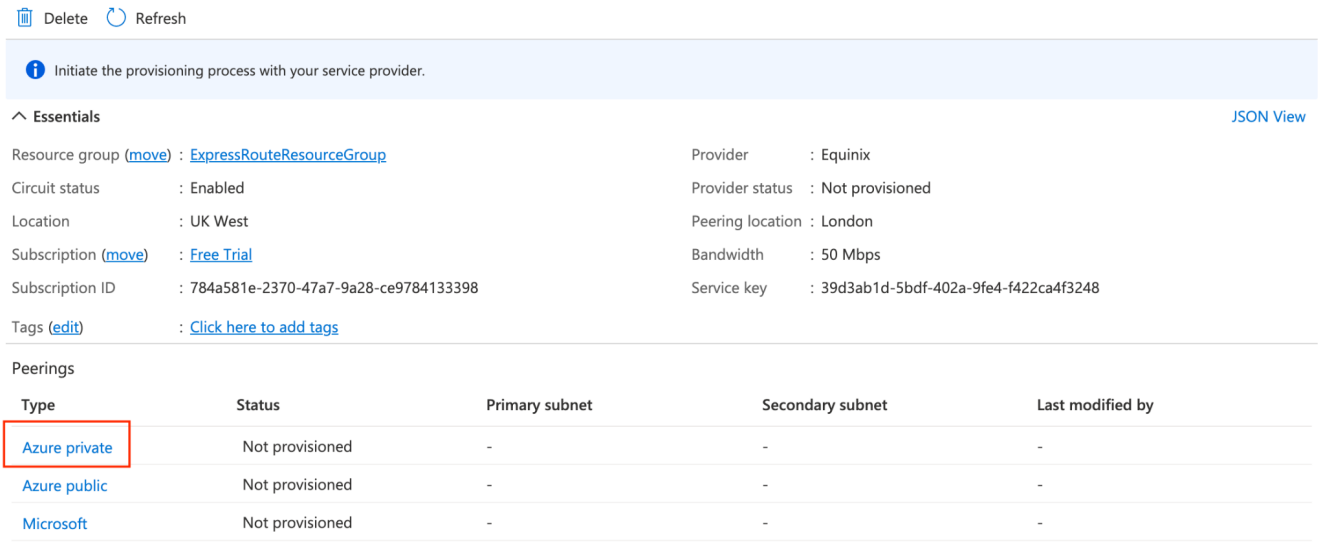
Configuring ExpressRoute

- You will need to configure ExpressRoute with some details - click 'Azure private' from the list of 'Peerings':



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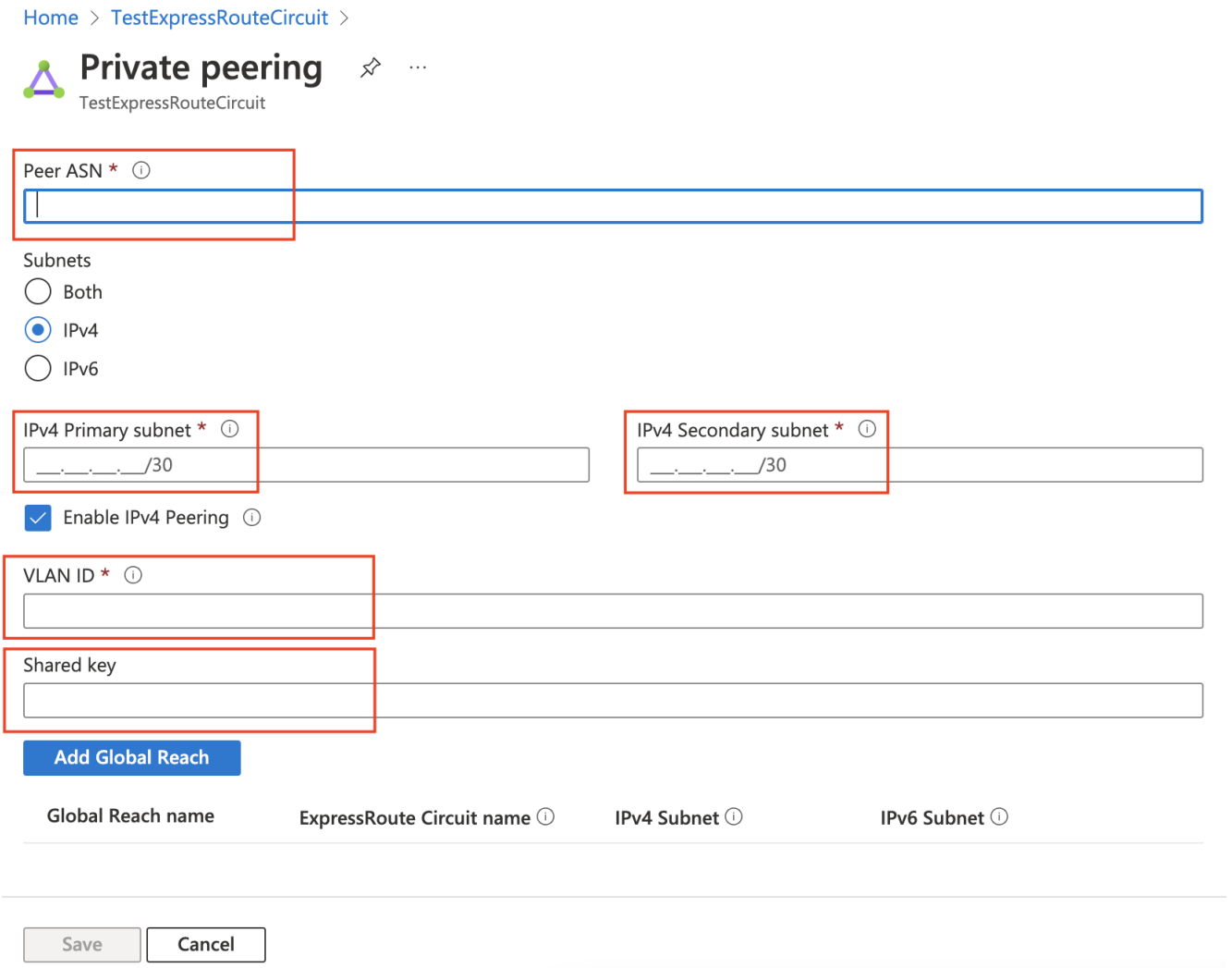
- You will be presented with the 'Private peering' page for the selected ExpressRoute circuit:



- The 'Peer ASN' will always be **205098** but the following details will be specific to your service:

  - Primary subnet
  - Secondary subnet
  - VLAN ID
  - Shared key

- These details will be sent to you via email and there will also be an opportunity to confirm them during our on-boarding call.

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- Once the mandatory details have been entered, click ‘Save’.

- You will now need to create a Virtual Network (Vnet) gateway and attach it to your ExpressRoute circuit.

Getting the status of an ExpressRoute circuit

- You can view the status of a circuit by selecting it and viewing the ‘Overview’ page:

Modifying an ExpressRoute circuit

- You can change certain properties of an ExpressRoute circuit without impacting connectivity. You can modify the bandwidth, SKU, billing model and allow classic operations on the ‘Configuration’ page. For information on limits and limitations, see the ExpressRoute FAQ.

- You can do the following tasks with no downtime:

    - Enable or disable an ExpressRoute Premium add-on for your ExpressRoute circuit. Note: changing the SKU from Standard/Premium to Local is not supported.

    - Increase the bandwidth of your ExpressRoute circuit, provided there's capacity available on the port. Note: downgrading the bandwidth of a circuit is not supported.

    - Change the metering plan from Metered Data to Unlimited Data. Note: changing the metering plan from Unlimited Data to Metered Data is not supported.

    - You can enable and disable Allow Classic Operations. Note: you may have to recreate the ExpressRoute circuit if there not enough capacity on the existing port. You cannot upgrade the circuit if there is no additional capacity available at that location. Although you can seamlessly upgrade the bandwidth, you cannot reduce the bandwidth of an ExpressRoute circuit without disruption. Downgrading bandwidth requires you to deprovision the ExpressRoute circuit and then reprovision a new ExpressRoute circuit. Disabling the Premium add-on operation can fail if you're using resources that are greater than what is permitted for the standard circuit.

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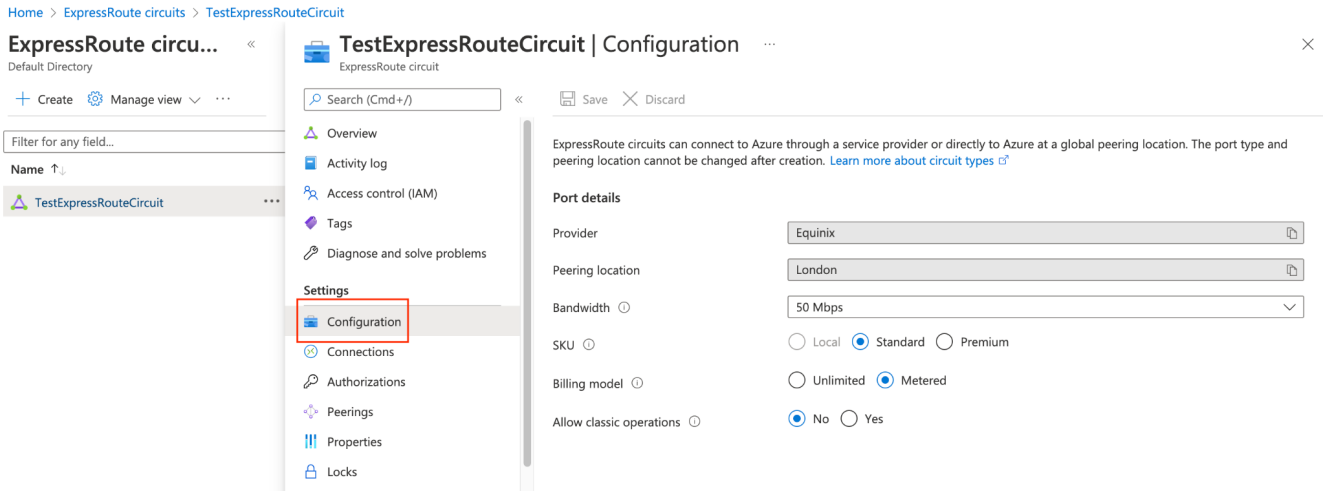
- To modify an ExpressRoute circuit, select ‘Configuration’:



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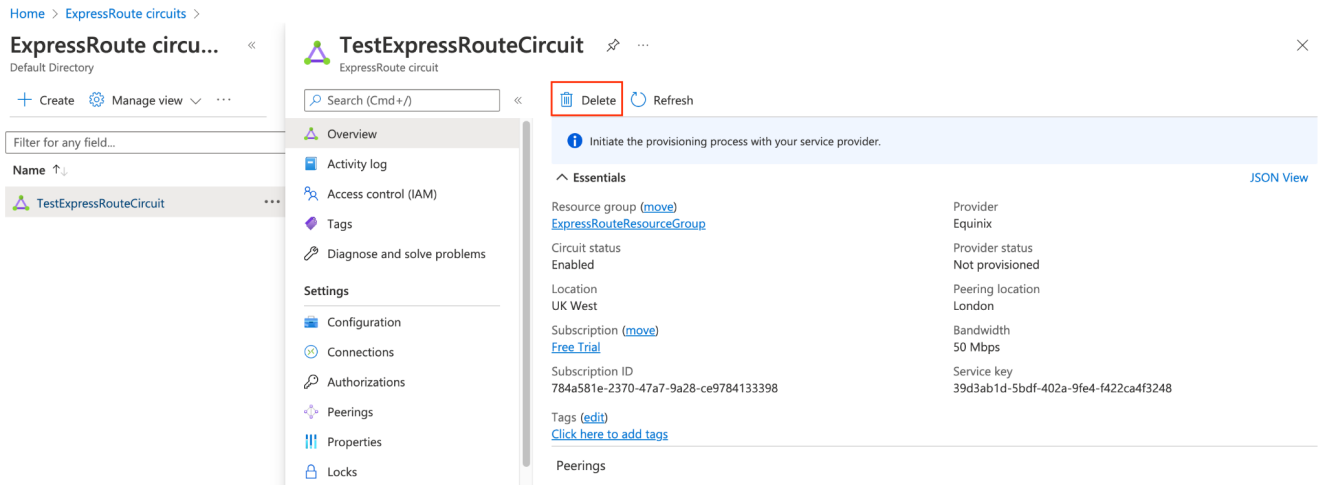
Deprovisioning an ExpressRoute circuit

If the ExpressRoute circuit 'Provider status' is Provisioning or Provisioned, we will take care of deprovisioning the circuit if required. Microsoft will continue to reserve resources and bill you until we complete deprovisioning the circuit and notify them.

Note: you must unlink all virtual networks from the ExpressRoute circuit before deprovisioning. After we have deprovisioned the circuit, shown by the 'Provider status' provisioning state set to 'Not provisioned', you will be able to delete the circuit. Only at this point will billing stop for the circuit.

Clean up resources

- You can delete your ExpressRoute circuit by selecting 'Delete'. Ensure the 'Provider status' is 'Not provisioned' before proceeding:



- You will be prompted to confirm the circuit deletion then returned to the 'Azure services' page.

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