

SSIS-IR [SHIR] do not start in a VNet connected to Azure VHUB

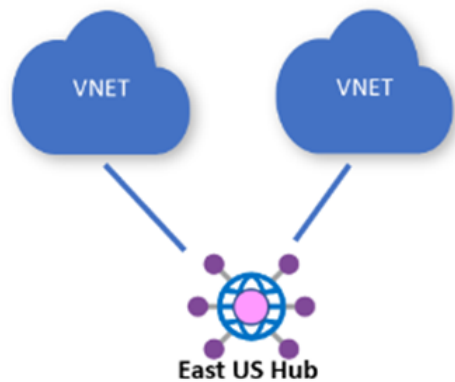
Last updated by | Anil K B | Oct 21, 2022 at 12:01 AM PDT

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Scenario

When a **VNet** is **directly connected to the Azure Virtual Hub**, and a **SHIR/SSIS-IR/Injection subnet** is **inside the same Vnet**, then all the traffic goes



directly from that VNet to the VHub because they are directly connected. Please see below:

Inside the East US V-Hub, there might be an **Azure Firewall** or an **NVA** with Network rules **blocking the traffic to the internet** and thus, to the Azure Services. See this configuration:

Save Discard

Configure virtual hub security. Updates will apply globally to all connections.

Internet traffic ⓘ (2)

Private traffic ⓘ

Azure Firewall Send via Azure Firewall Private traffic prefixes

Create, configure, and manage network connections on this Secured virtual hub in [Azure Virtual WAN](#).

Manage internet and private security configuration for hub connections. Internet security configuration can be updated selectively for individual connections. Private traffic security configuration must collectively secure all/no connections.

Refresh Secure internet traffic Remove internet traffic security (4) Secure private traffic

CONNECTIONS ↑↓	INTERNET TRAFFIC ↑↓	PRIVATE TRAFFIC ↑↓	CONNECTION TYPE ↑↓	ROUTING TABLE
<input type="checkbox"/> wl-l-ga-fews-prod-rg1	Secured by Azure Firewall	Secured by Azure Firewall	Virtual Network	default
<input type="checkbox"/> shared-services-vn	Secured by Azure Firewall	Secured by Azure Firewall	Virtual Network	default
<input checked="" type="checkbox"/> h-sa-analytics-test (1)	Secured by Azure Firewall (3)	Secured by Azure Firewall	Virtual Network	default
<input type="checkbox"/> Connection-fg-mow-ga-vpn1	Secured by Azure Firewall	Secured by Azure Firewall	VPN (Site to Site)	default

- In this case, we see that **h-sa-analytics-test VNet(1)** (where the SSIS-IR subnet resides or any other ADF component, like SHIR) lands, has a **Azure Firewall(2)** which is secured by the **firewall and Internet traffic (Secured by Azure Firewall (3))**.
- This setup does not allow for the SSIS-IR or SHIR to communicate with Azure Batch and we will not see any Routing tables or Network Security Groups associated with the SSIS-IR and SHIR Subnet.

TROUBLESHOOTING AND ANALYSIS

https://supportability.visualstudio.com/AzureDataFactory/_wiki/wikis/AzureDataFactory/744270/SSIS-IR-SHIR-do-not-start-in-a-VNet-connected-to-Azu...

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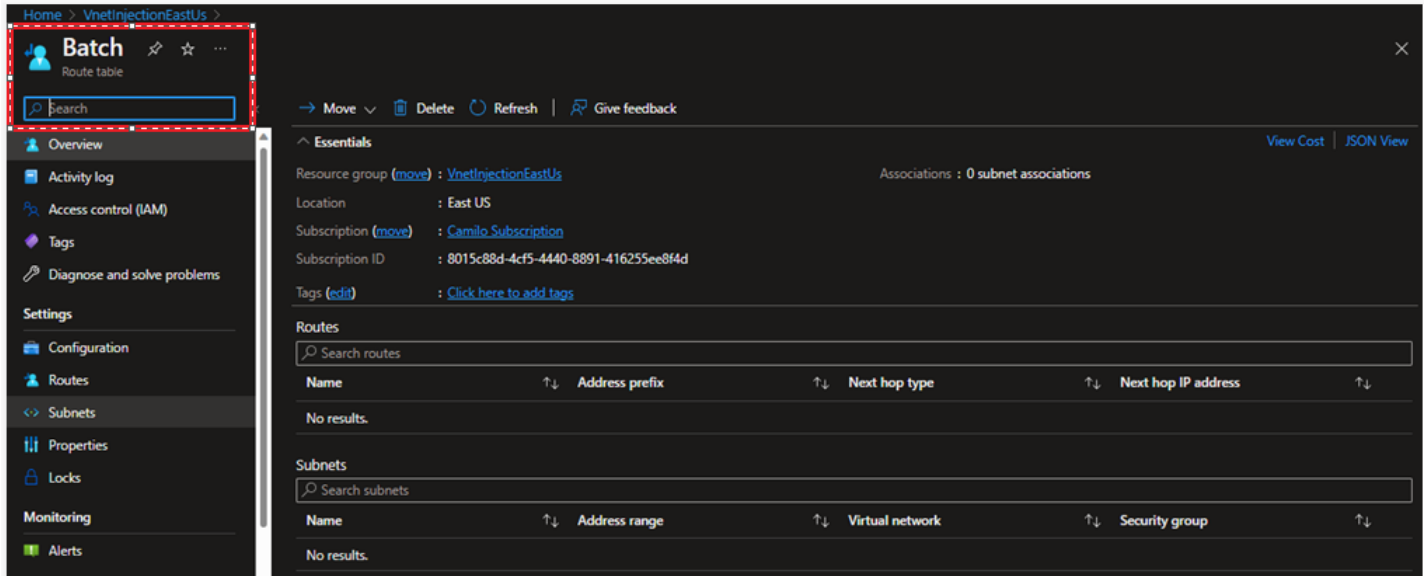
- Please refer to above picture:

1. Ask the customer if they can temporarily Remove the **Internet traffic security (4)** for the Vnet where SSIS-IR/SHIR lands (**in this case, h-sa-analytics-test (1)**) by **selecting the correct Vnet (5)**:
2. Ask the customer to start the SSIS-IR/SHIR.

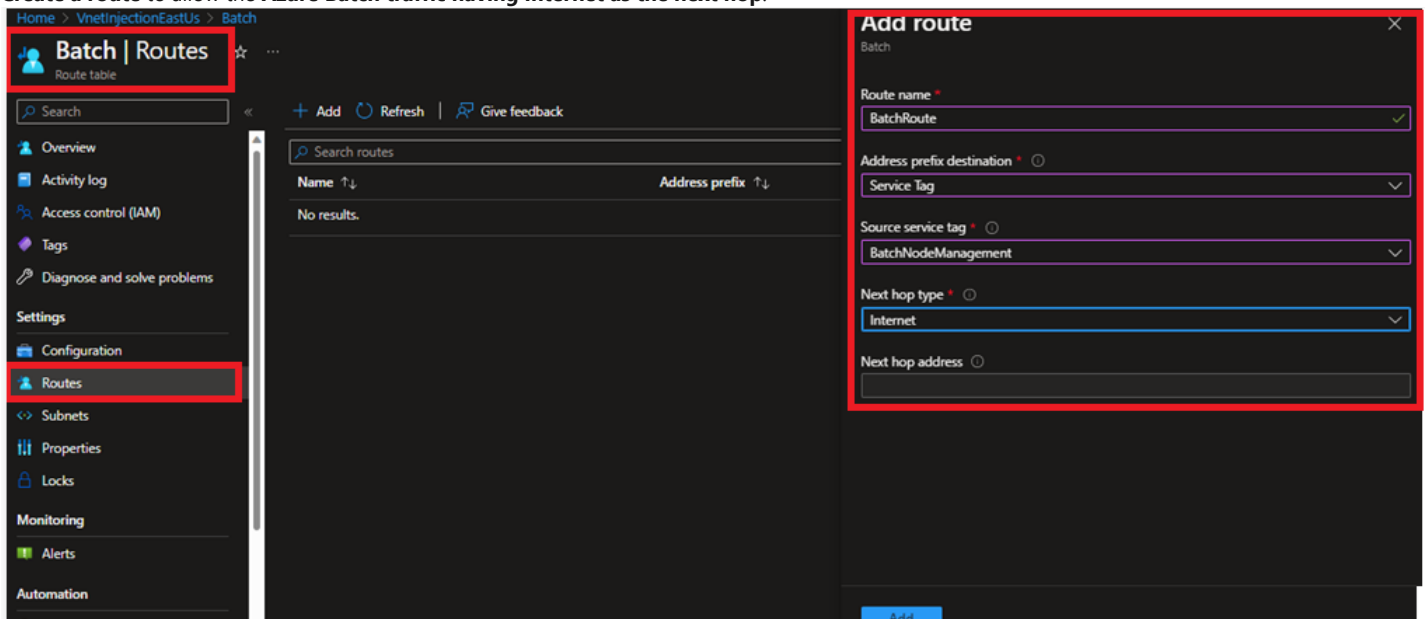
If it is successful, then the issue is from the **V-Hub configuration**.

RESOLUTION

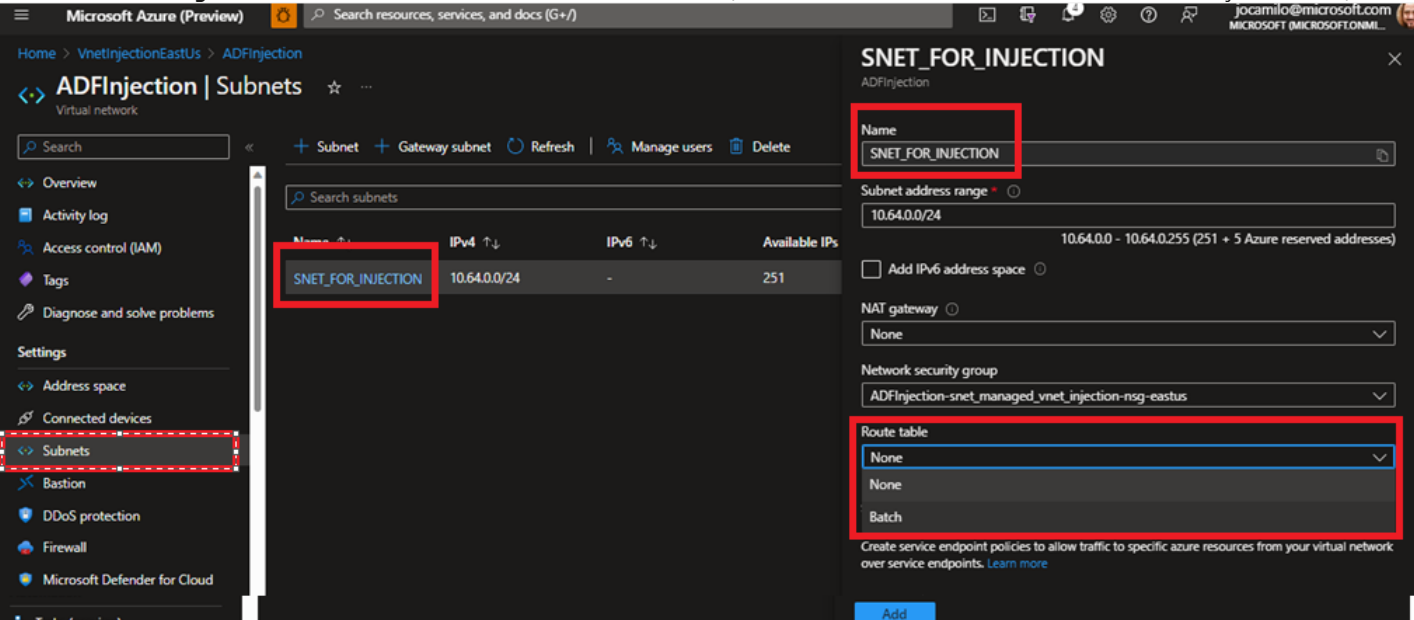
1. You will need to create a routing table - <https://learn.microsoft.com/en-us/azure/virtual-network/manage-route-table#create-a-route-table>, if not created yet:



2. Create a route to allow the **Azure Batch** traffic having **Internet** as the next hop:



3. Associate the routing table with the subnet where the SSIS-IR or SHIR are (in this case, SNET_for_INJECTION subnet in the ADFInjection VNET):



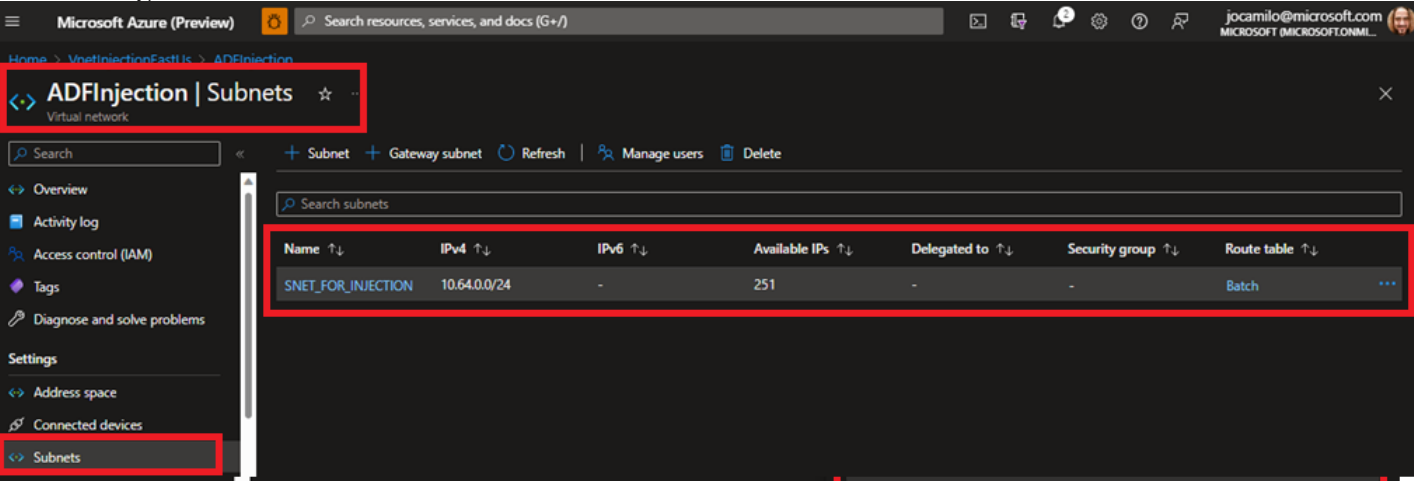
The screenshot shows the Azure portal interface for the 'ADFinjection' virtual network. The 'Subnets' blade is active, displaying a table of subnets. The 'SNET_FOR_INJECTION' subnet is highlighted. The configuration pane on the right shows the 'Route table' dropdown set to 'Batch'.

Name	IPv4	IPv6	Available IPs
SNET_FOR_INJECTION	10.64.0.0/24	-	251

Configuration details for SNET_FOR_INJECTION:

- Name: SNET_FOR_INJECTION
- Subnet address range: 10.64.0.0/24
- NAT gateway: None
- Network security group: ADFInjection-snet_managed_vnet_injection-nsg-eastus
- Route table: Batch

4. So that it can bypass the V-Hub (see route table column associated with the Batch route table):



The screenshot shows the Azure portal interface for the 'ADFinjection' virtual network. The 'Subnets' blade is active, displaying a table of subnets. The 'SNET_FOR_INJECTION' subnet is highlighted. The configuration pane on the right shows the 'Route table' dropdown set to 'Batch'.

Name	IPv4	IPv6	Available IPs	Delegated to	Security group	Route table
SNET_FOR_INJECTION	10.64.0.0/24	-	251	-	-	Batch

IMPORTANT

1. Most of the times, customers are reluctant in allow public IP address in their VNet resources. Their concern is related with security.

2. If that is the case, please inform the customer that by having Internet as the next hop it does not mean that the traffic goes to the internet. The Azure Public IP addresses for the services will have a different routing through the Microsoft backbone.

How good have you found this content?

