[SSIS IR] Support Traffic Routing to Virtual Network Appliance for IR join VNet

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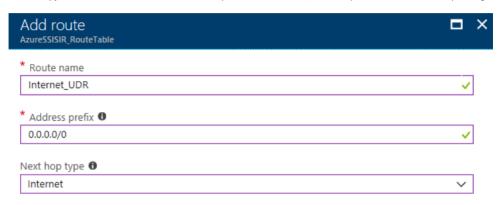
[SSIS IR] Support Traffic Routing to Virtual Network Appliance for IR join VNet

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Problem Statement

Customer need to route all traffic originated from his Vnet subnet to VNA (Virutal Network Appliance or Azure Firewall) or Express Route with force tunneling enabled for auditing purpose.

When they join Azure-SSIS IR into subnet, we now require UDR with 0.0.0.0/0 next hop INTERNET which is complicating with VNA requirement which need UDR 0.0.0.0 next hop VNA IP.



Solution

1. Setup UDR to route proper traffic

UDR requirement is to make sure inbound traffic from Batch Management service can talk with Azure-SSIS IR node successfully. So instead of setting up UDR of 0.0.0.0/0 with next hop type INTERNET, we can setup UDR with batch management service ip range:

e.g. if customer is using Azure-SSIS IR located at UK South,

They can setup UDR for below ip range with next hop type INTERNET

"51.105.66.224/27",
"51.105.74.224/27",
"51.140.148.160/27",
"51.140.184.59/32",
"51.140.184.61/32",
"51.140.184.63/32"

RouteToBatch_UK1 51.140.184.63/32 Internet RouteToBatch_UK2 51.140.184.61/32 Internet RouteToBatch_UK3 51.140.184.59/32 Internet RouteToBatch_UK4 51.140.148.160/27 Internet RouteToBatch_UK5 51.105.74.224/27 Internet RouteToBatch_UK6 51.105.66.224/27 Internet			
RouteToBatch_UK3 51.140.184.59/32 Internet RouteToBatch_UK4 51.140.148.160/27 Internet RouteToBatch_UK5 51.105.74.224/27 Internet	RouteToBatch_UK1	51.140.184.63/32	Internet
RouteToBatch_UK4 51.140.148.160/27 Internet RouteToBatch_UK5 51.105.74.224/27 Internet	RouteToBatch_UK2	51.140.184.61/32	Internet
RouteToBatch_UK5 51.105.74.224/27 Internet	RouteToBatch_UK3	51.140.184.59/32	Internet
	RouteToBatch_UK4	51.140.148.160/27	Internet
RouteToBatch_UK6 51.105.66.224/27 Internet	RouteToBatch_UK5	51.105.74.224/27	Internet
	RouteToBatch_UK6	51.105.66.224/27	Internet

Above ip range is under service tag **BatchNodeManagement.UKSouth** from https://www.microsoft.com/en-us/download/details.aspx?id=56519

```
"name": "BatchNodeManagement.UKSouth",
"id": "BatchNodeManagement.UKSouth",
"properties": {
```

```
"changeNumber": 1,
"region": "luksouth",
"platform": "Azure",
"systemService": "BatchNodeManagement",
"addressPrefixes": [
"51.105.66.224/27",
"51.105.74.224/27",
"51.140.184.60/27",
"51.140.184.61/32",
"51.140.184.63/32"
]
}
```

Then customer can still use UDR 0.0.0.0/0 with next hop to NVA IP and all traffic excluding BatchManagement service will go through NVA for auditing.

NAME	Ťψ	ADDRESS PREFIX	Τψ	NEXT HOP
RouteToAzureFw		0.0.0.0/0		12.0.1.4

Right now network team commit that

• If there is new IP, it will show up in download link (updated weekly) above first and have minimum 4 weeks to take actual effect in cloud

If you want to expose this solution to external customer, please ask customer that they will need to check download link every month to capture any new IP added and add into UDR rule set

Please also be aware that the in the future, Azure Network will support UDR with service tag (Work in progress without ETA right now), then customer can specify service tag with UDR instead of taking care of IP address.

2. Make sure NVA or Azure Firewall allow required outbound traffic

Right now, Azure-SSIS IR require below outbound traffic:

a. Allow outbound destination AzureCloud with port 443 i. For Azure Firewall, you can use AzureCloud service tag, e.g.

Service Tags

name	Protocol	Source Addresses	Service Tags	Destination Ports
Port 443	TCP	*	AzureCloud	443

ii. For other NVA, customer will have to allow destination all with port 443

b. Allow outbound destination Internet with port 80

<If NVA like Azure Firewall support FQDN filter, you can further filter below FQDN>

- o crl.microsoft.com:80
- o mscrl.microsoft.com:80
- o crl3.digicert.com:80
- o crl4.digicert.com:80
- o ocsp.digicert.com:80
- o cacerts.digicert.com:80

e.g.

Target FQDNs

name	Source Addresses	Protocol:Port	Target FQDNs
Port 80	*	Http:80	crl.microsoft.com,mscrl.microsoft.com,

c. Allow outbound destination Azure SQL with port 1433, 11000-11999
<Only needed if use SSIS DB and also SQL Service Endpoint is not enabled on Subnet>

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