Get-SubnetInformation

SYNOPSIS

Returns the information regarding a subnet that an IPv4 Address exists

SYNTAX

Prefix (Default)

```
Get-SubnetInformation -IPv4Address <String> [-Prefix <Int32>] [-NoPrivateAddressSpace]
[<CommonParameters>]
```

SubnetMask

```
Get-SubnetInformation -IPv4Address <String> -SubnetMask <String> [<CommonParameters>]
```

DESCRIPTION

Returns the information regarding a subnet that an IPv4 Address exists and returns information regarding Subnet ID, Broadcast Address, Subnet Mask, Network Prefix, First IP Address, Last IP Address, Total Hosts, and AWS related information.

EXAMPLES

EXAMPLE 1

```
Get-SubnetInformation -IPv4Address 192.168.1.120 -SubnetMask 255.255.254.0
```

SubnetId : 192.168.0.0
BroadcastAddress : 192.168.1.255
SubnetMask : 255.255.254.0
Prefix : 23
Subnet : 192.168.0.0/23
FirstIPv4Address : 192.168.0.1
LastIPv4Address : 192.168.1.254
TotalHosts : 510
AWSFirstIPv4Address : 192.168.0.4
AWSTotalHosts : 507
PrivateAddressSpace : True

EXAMPLE 2

```
Get-SubnetInformation -IPv4Address 8.8.0.0 -Prefix 21
```

SubnetId : 8.8.0.0
BroadcastAddress : 8.8.7.255
SubnetMask : 255.255.248.0
Prefix : 21
Subnet : 8.8.0.0/21
FirstIPv4Address : 8.8.0.1
LastIPv4Address : 8.8.7.254
TotalHosts : 2046
AWSFirstIPv4Address :
AWSTotalHosts :
PrivateAddressSpace : False

EXAMPLE 3

```
Get-SubnetInformation -IPv4Address 10.0.0.0 -Prefix 12
```

SubnetId : 10.0.0.0
BroadcastAddress : 10.15.255.255
SubnetMask : 255.240.0.0
Prefix : 12
Subnet : 10.0.0.0/12
FirstIPv4Address : 10.0.0.1
LastIPv4Address : 10.15.255.254
TotalHosts : 1048574
AWSFirstIPv4Address :
AWSTotalHosts :
PrivateAddressSpace : True

EXAMPLE 4

```
Get-SubnetInformation -IPv4Address 10.0.0.0 -Prefix 28 -NoPrivateAddressSpace
```

SubnetId : 10.0.0.0
BroadcastAddress : 10.0.0.15
SubnetMask : 255.255.255.240
Prefix : 28
Subnet : 10.0.0.0/28
FirstIPv4Address : 10.0.0.1

LastIPv4Address : 10.0.0.14
TotalHosts : 14
AWSFirstIPv4Address :
AWSTotalHosts :
PrivateAddressSpace :

PARAMETERS

-IPv4Address

The IPv4 Address

```
Type: System.String
Parameter Sets: (All)
Aliases: IPAddress

Required: True
Position: Named
Default value: None
Accept pipeline input: True (ByValue)
Accept wildcard characters: False
```

-NoPrivateAddressSpace

This switch omits the reporting of Private Address Space for the subnet and any associated AWS information

```
Type: System.Management.Automation.SwitchParameter
Parameter Sets: Prefix
Aliases:

Required: False
Position: Named
Default value: False
Accept pipeline input: False
Accept wildcard characters: False
```

-Prefix

The network prefix

```
Type: System.Int32
Parameter Sets: Prefix
Aliases:

Required: False
Position: Named
Default value: 24
Accept pipeline input: False
Accept wildcard characters: False
```

-SubnetMask

The subnet mask of the network

```
Type: System.String
Parameter Sets: SubnetMask
Aliases: Mask

Required: True
Position: Named
Default value: None
Accept pipeline input: False
Accept wildcard characters: False
```

CommonParameters

This cmdlet supports the common parameters: -Debug, -ErrorAction, -ErrorVariable, -InformationAction, -InformationVariable, -OutVariable, -OutBuffer, -PipelineVariable, -Verbose, -WarningAction, and -WarningVariable. For more information, see about_CommonParameters.

INPUTS

OUTPUTS

System.Management.Automation.PSObject

NOTES

This function will only return results for AWS if the subnet has a prefix greater or equal to 16 and less than or equal 28 and resides in the Private Address Space.

RELATED LINKS

http://www.github.com/roberttoups/IPv4Toolbox