

Access to Server 2016 Nano_RDP SSH

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Tags

[cw.TSG](#)[cw.RDP-SSH](#)

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Symptoms

1. Screenshot of the VM shows the following:



2. RDP to a VM running Windows Server 2016 Nano and fails with the generic error that the machine is offline

Remote Desktop Connection



Remote Desktop can't connect to the remote computer for one of these reasons:

- 1) Remote access to the server is not enabled
- 2) The remote computer is turned off
- 3) The remote computer is not available on the network



Make sure the remote computer is turned on and connected to the network, and that remote access is enabled.

3. On ASC you will find the SKU is **2016-Nano-Server**

| | |
|-----------|------------------------|
| OS | Windows |
| Publisher | MicrosoftWindowsServer |
| Offer | WindowsServer |
| Skus | 2016-Nano-Server |

Root Cause Analysis

Nano Server is a stripped version of the Windows Server where GUI is removed, no 32 bit support, no MSI, No RDP support, and no local logon support as well. Alternatively you may use WMI, Powershell, WinRM, or even Azure Server Management Tools to manage Nano Server VMs however that needs extra configuration to enable the access.

References

- [Exploring Nano Server for Windows Server 2016](#)

Tracking close code for this volume

| Root Cause | Product | Support Topic | Cause Tracking code | Bug |
|------------|----------------------------------|---|---|-----|
| 1 | Azure Virtual Machine Windows | Routing Azure Virtual Machine V3\Cannot Connect to my VM\Failure to connect using RDP or SSH port | Root Cause - Windows Azure\Virtual Machine\Administration\HowTo:Powershell - Customer needed instruction or correction to complete action | |

To know how to flag a bug on a case please refer to [How to do Proper Case Coding](#)

Customer Enablement

N/A

Mitigation

1. By design the machine is only going to be reachable via Powershell but to do so, you need to ensure the Network Security Group, ACL, or endpoints are properly setup. To do so you may want to check the following TSGs and HowTos articles:
 1. [Incorrect NSG Configuration](#)
 2. [Incorrect Endpoint configuration](#)
 3. [Recreating RDP NSG rule](#) **Note:** All the article above are written around the RDP port 3389 but in this article, you need to follow its logic for the Powershell ports 5985 and 5986
2. Once you ensure that the Powershell traffic is enabled, you may follow the article [Azure/Virtual Machine/Can't RDP-SSH/HowTo/Access thru PSession and InvokeCommand](#)

Examples

1. Example of accessing/managing a Nano Server VM remotely via Powershell:

```
Set-Item wsman:\localhost\Client\TrustedHosts "51.140.190.51" -Concatenate -Force
Enter-PSession -ComputerName "51.140.190.51" -Credential (Get-Credential)
```

Where the IP address is the VIP of the Nano Server VM.


2. Example of accessing/managing a Nano Server VM remotely via WMI:

```
$cim = New-CimSession -Credential (Get-Credential) -ComputerName "51.140.190.51"
Get-CimInstance -CimSession $cim -Query "SELECT * from Win32_Process"
```

3. Example of accessing/managing a Nano Server VM remotely via WinRM:

```
winrm quickconfig
winrm set winrm/config/client @{TrustedHosts="51.140.190.51"}
chcp 65001
winrs -r:51.140.190.51 -u:waddahs -p:#Eh123#123 dir c:\
```

Need additional help or have feedback?

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