

# Connecting to Windows Hosts Using Ansible

**Presented by:**

Phil Cornelius - Ansible Specialist

ANSIBLE

## Why use ansible on Windows hosts?

- Managing services
- Running PowerShell scripts and cmdlets
- Install and manage software packages
- Run or manage updates
- Configuring servers/workstations
- Create/delete users
- Most other stuff you do on servers & workstations

# ANSIBLE

## Basic requirements to connect

### Control Machine:

- Linux able to run ansible
- Latest ansible
- Latest pywinrm

```
pip install pywinrm
```

### Windows Targets:

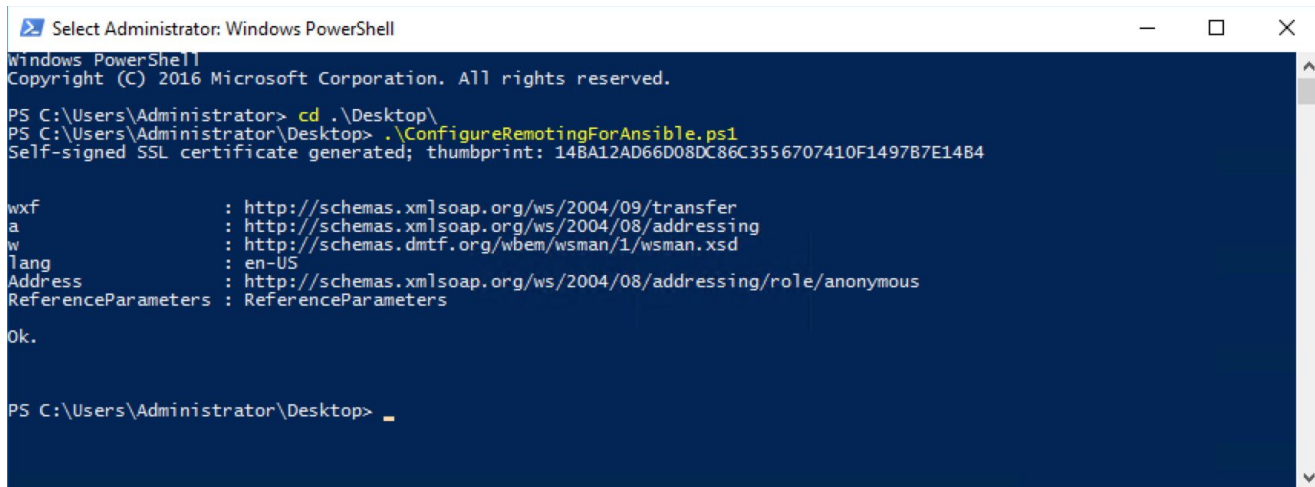
- Win 7 SP1 or Win Server 2008 SP1 (or later)
- WinRM connections allowed (by the Control Machine at least)

# ANSIBLE

## Remote Management must be enabled

WinRM ships with Windows but remote management isn't enabled by default. There's a PowerShell script to enable remote management on a host (must be run as admin):

<https://raw.githubusercontent.com/ansible/ansible/devel/examples/scripts/ConfigureRemotingForAnsible.ps1>



```
Select Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) 2016 Microsoft Corporation. All rights reserved.

PS C:\Users\Administrator> cd .\Desktop\
PS C:\Users\Administrator\Desktop> .\ConfigureRemotingForAnsible.ps1
Self-signed SSL certificate generated; thumbprint: 14BA12AD66D08DC86C3556707410F1497B7E14B4

wxf          : http://schemas.xmlsoap.org/ws/2004/09/transfer
a            : http://schemas.xmlsoap.org/ws/2004/08/addressing
w           : http://schemas.dmtf.org/wbem/wsman/1/wsman.xsd
Lang        : en-US
Address     : http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous
ReferenceParameters : ReferenceParameters

Ok.

PS C:\Users\Administrator\Desktop> _
```

# ANSIBLE

## Windows connection variables

### Required:

`ansible_connection: winrm`

### Additional variables:

`ansible_winrm_server_cert_validation: [ignore, validate]`

`ansible_port: [WinRM is usually 5986]`

`ansible_winrm_transport: [basic, certificate, kerberos, ntlm, credssp]`

`ansible_winrm_scheme: [http or https]`

Other keyword arguments supported by `winrm.Protocol` are available. Read more:

[https://docs.ansible.com/ansible/2.3/intro\\_windows.html#inventory](https://docs.ansible.com/ansible/2.3/intro_windows.html#inventory)

# ANSIBLE

## Set Win host variables in your Inventory file

Example inventory file for two Windows hosts using vagrant

```
[win]
172.16.2.5
172.16.2.6

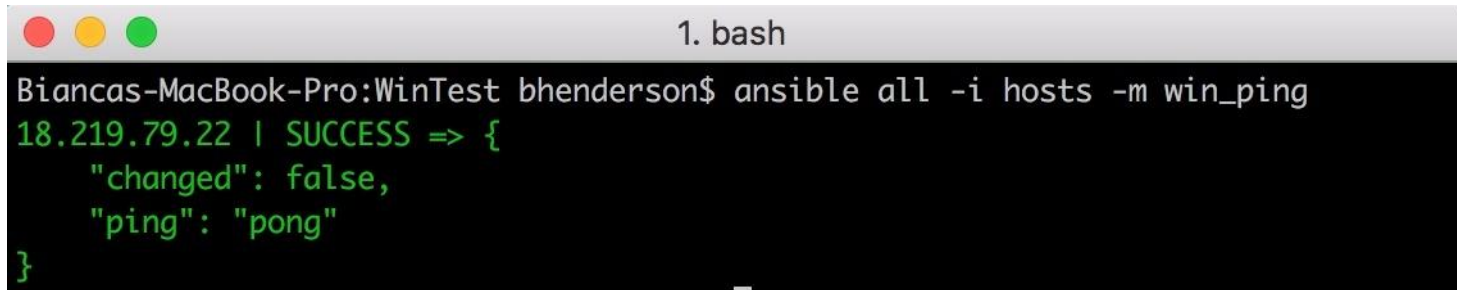
[win:vars]
ansible_user=vagrant
ansible_password=password
ansible_connection=winrm
ansible_winrm_server_cert_validation=ignore
```

# ANSIBLE

## Test your connection

From the terminal on the Control Machine, type:

```
ansible [host_group_name_in_inventory_file] -i hosts -m win_ping
```

A terminal window titled "1. bash" with a dark background. The prompt is "Biancas-MacBook-Pro:WinTest bhenderson\$". The command entered is "ansible all -i hosts -m win\_ping". The output is displayed in green text: "18.219.79.22 | SUCCESS => {" followed by a JSON object: "changed": false, ping": "pong" followed by a closing brace "}".

```
1. bash
Biancas-MacBook-Pro:WinTest bhenderson$ ansible all -i hosts -m win_ping
18.219.79.22 | SUCCESS => {
  "changed": false,
  "ping": "pong"
}
```

# ANSIBLE

## Helpful Resources

### Windows host requirements:

[https://docs.ansible.com/ansible/latest/user\\_guide/windows\\_setup.html#host-requirements](https://docs.ansible.com/ansible/latest/user_guide/windows_setup.html#host-requirements)

[https://docs.ansible.com/ansible/devel/user\\_guide/windows\\_setup.html#common-winrm-issues](https://docs.ansible.com/ansible/devel/user_guide/windows_setup.html#common-winrm-issues)

### WinRM:

[https://docs.ansible.com/ansible/latest/user\\_guide/windows\\_winrm.html](https://docs.ansible.com/ansible/latest/user_guide/windows_winrm.html)

<https://docs.microsoft.com/en-us/windows/desktop/WinRM/about-windows-remote-management>

### FAQ & More Info:

[https://docs.ansible.com/ansible/latest/user\\_guide/windows\\_faq.html](https://docs.ansible.com/ansible/latest/user_guide/windows_faq.html)

[https://docs.ansible.com/ansible/latest/user\\_guide/windows.html](https://docs.ansible.com/ansible/latest/user_guide/windows.html)