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10 Things I Hate About You: Manage Windows like Linux with Ansible

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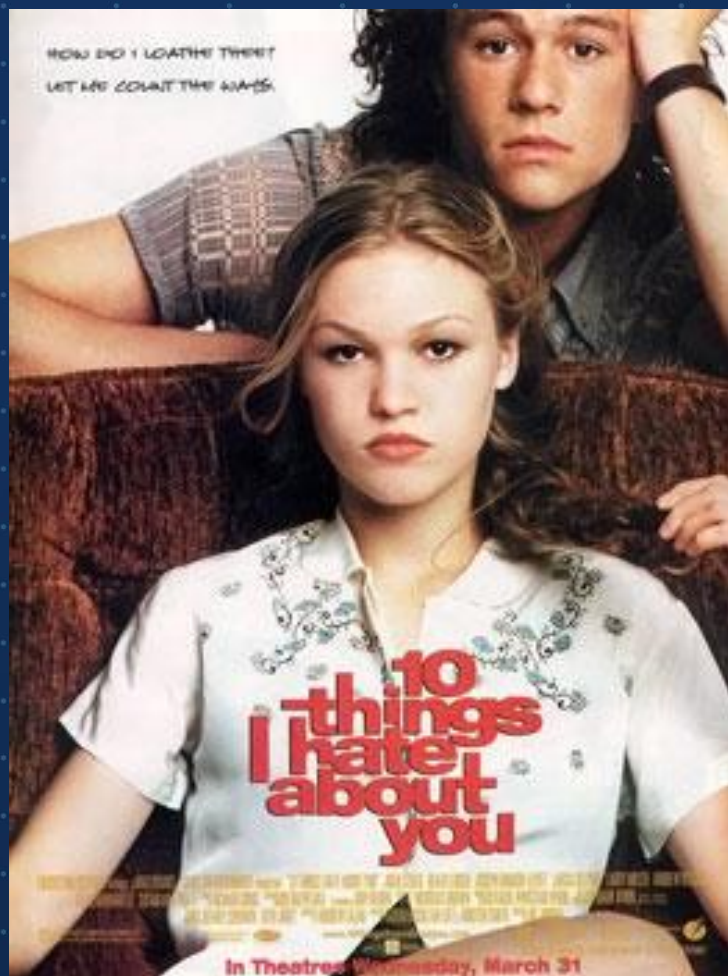
I LOVE WINDOWS

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Who am I?



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Not SSH

- WinRM (HTTP-based remote shell protocol)
- Non-interactive logon
- Different connection plugin
- What about Microsoft OpenSSH?

DEMO: WinRM Connectivity

Powershell

- Unlike Python, "just there" on modern Windows
- We can use .NET
- Powershell 3+, Windows 7/Server 2008+
 - Experimental PS Core/6/7 support
- Access to the DSC universe via `win_dsc`

Powershell / DSC

- win_psmodule: # install xDNSServer DSC module on target
name: xDnsServer
- win_dsc: # create DNS zone
resource_name: xDnsServerPrimaryZone
name: createdbyansible.com
- win_dsc: # create DNS record
resource_name: xDnsRecord
name: test
zone: createdbyansible.com
target: 1.2.3.4
type: ARecord

App Install/Maintenance

- win_chocolatey !
- win_package if you must
- ~~shell: c:\temp\setup.exe /quiet /dostuff~~

DEMO: win_chocolatey module

Reboots, oh the reboots...

- win_reboot action makes managed reboots trivial
- wait_for_connection is just the second half

Windows Update

- Basic, synchronous updates
- Uses configured source (Windows Update/WSUS)
- Transparent SYSTEM + auto reboot

Windows Update

- win_updates:
 - category_names: CriticalUpdates
 - reboot: yes
 - blacklist:
 - KB4056892

IIS

- Modules for managing websites, webapps, apppools, virtual dirs, etc.

IIS

- win_iis_website:
 - name: Default Web Site
 - physical_path: C:\Inetpub\WWWRoot
- win_iis_webapp:
 - site: Default Web Site
 - name: OrchardCMS
 - physical_path: C:\Inetpub\WWWRoot\Orchard

Registry

- Manage individual key/value (win_regedit)
- Manage idempotent bulk import (win_regmerge)

Registry

- win_regedit:
 - path: HKLM\Software\Microsoft\Windows
 - name: SomeValueName
 - value: 0x12345
- win_regmerge:
 - path: ComplexRegData.reg

Services

- win_service looks/acts like Linux service module
- Provides fine control over complex service behavior config in Windows SCM (who/what/when/how)

Services

```
# ensure IIS is running
```

```
- win_service:  
    name: W3Svc  
    state: running
```

```
# ensure firewall service is stopped/disabled
```

```
- win_service:  
    name: MpsSvc  
    state: stopped  
    start_mode: disabled
```

Domains

- Windows' way of doing enterprise identity
- Makes auth complex
- Ansible can do "throwaway" domains easily
- Promote/depromote DCs
- Joining/leaving domain is simple
- Manage basic domain objects

Domains

```
# create a domain
- win_domain:
    dns_domain_name: mydomain.local
    safe_mode_password: ItsASecret

# add a domain user
- win_domain_user:
    name: somebody
    upn: somebody@mydomain.local
    groups:
      - Domain Admins
```

DEMO: Domain Join/Unjoin

ACLs

- More granular than Linux permissions
- SDDL?!
- More like SELinux ACLs

ACLs

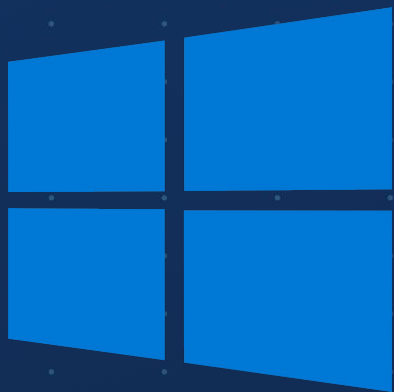
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ID;LC;;;BU)(A;CIID;DC;;;BU)(A;OICIIOID;GA;;;CO)
```

ACLs

- win_owner:
 - path: C:\Program Files\SomeApp
 - user: Administrator
 - recurse: true
- win_acl:
 - path: C:\Temp
 - user: Users
 - rights: ReadAndExecute, Write, Delete
 - inherit: ContainerInherit, ObjectInherit

Wrapup

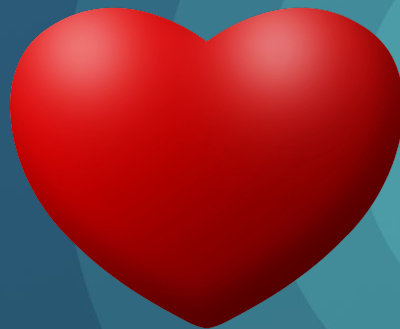
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THANK YOU



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