

Having fun with PowerShell 6.0

JEA, remoting and cross-platform



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- PowerShell Conference EU/Asia
- Dutch PowerShell User Group
- Speaker / Blogger / Tech Enthusiast
- PowerShell Gallery
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Agenda

Introduction to PowerShell Remoting

Why JEA / How JEA

What is new with PowerShell

Security on PowerShell 6

Questions

PowerShell Remoting

Available since PowerShell 2.0

Enable-PSRemoting to configure

Can use different authentication methods

GPO or DSC to configure

Double-hop issue?

PowerShell remoting default configuration

```
Administrator: Windows PowerShell
Windows PowerShell
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PS C:\WINDOWS\system32> Get-PSSessionConfiguration

Name           : microsoft.powershell
PSVersion      : 5.1
StartupScript  :
RunAsUser      :
Permission     : NT AUTHORITY\INTERACTIVE AccessAllowed, BUILTIN\Administrators AccessAllowed, BUILTIN\Remote
                  Management Users AccessAllowed

Name           : microsoft.powershell.workflow
PSVersion      : 5.1
StartupScript  :
RunAsUser      :
Permission     : BUILTIN\Administrators AccessAllowed, BUILTIN\Remote Management Users AccessAllowed

Name           : microsoft.powershell32
PSVersion      : 5.1
StartupScript  :
RunAsUser      :
Permission     : NT AUTHORITY\INTERACTIVE AccessAllowed, BUILTIN\Administrators AccessAllowed, BUILTIN\Remote
                  Management Users AccessAllowed
```

Why JEA?

SECURITY SEAL



FOR UR PROTECTION.

Reasons for JEA

1

Secure PowerShell
access to systems

2

Reduce the amount
of people that can
do „*everything*“

3

See what users do
on your system

How to deploy JEA

1

PowerShell cmdlets to generate & register

2

Deploy and Configure pre-requisites

- WMF 5.1
- Enable PoSh Remoting
- PowerShell logging

3

DSC for deployment

Creating a JEA Configuration

Create a Role
Capability File

Deploy Role
Capability File

Create
Configuration
File

Register
Configuration

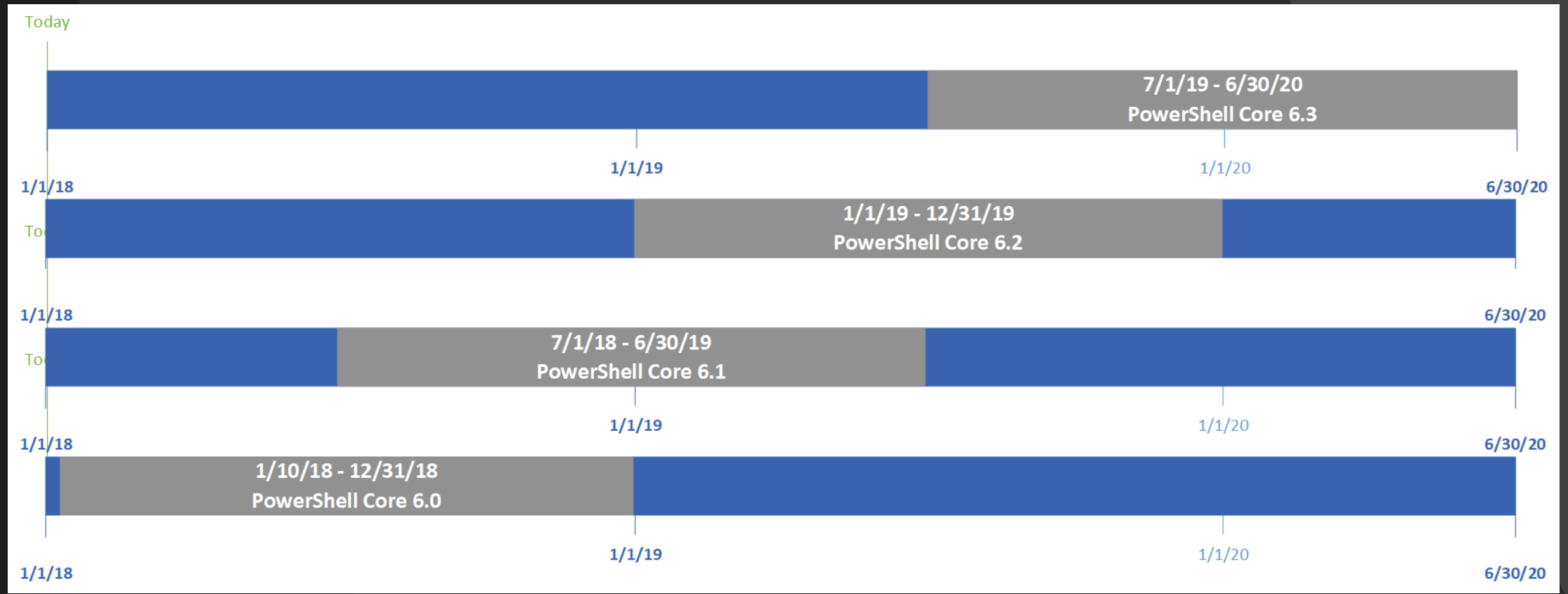
What is new with PowerShell

- Multiple versions of PowerShell installed side-by-side
- Installation without reboot
- WinRM & SSH remoting
- PowerShell 6.0.1 currently released
- Cross platform Linux/Windows/MacOS

What is missing in PowerShell core

- Get-WmiObject / EventLog / PerfCounters
- Security features
- Full .Net support

Future of PowerShell 6 - [Aka.ms/pslifecycle](https://aka.ms/pslifecycle)



Future of Windows PowerShell

- Remains fully supported
- Still receives bug fixes and updates
- Will not be replaced by pwsh

PowerShell 6.0 Security

1

JEA is only available
on Windows
PowerShell

2

No secure strings on
non-Windows
platforms

3

No DeviceGuard and
Applocker support

PowerShell 6.0 Security – JEA

- JEA is only available on Windows PowerShell.

PowerShell 6.0 security – Secure strings

- Alternatives for secure strings on Linux
 - GNU Privacy Guard

Questions

