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Windows, un Linux qui s'ignore ?

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Capitoul 2018

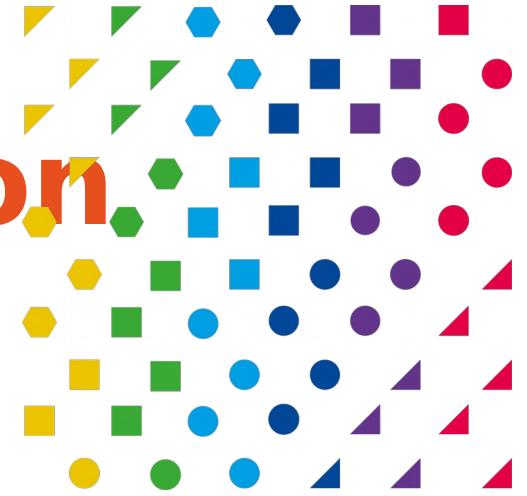


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Gestion de parc Windows, sous Linux.

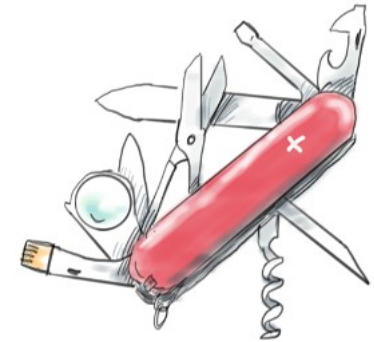
(sans serveur Windows)

INU Champollion



- 978 postes informatiques
 - 643 postes à Albi
 - 207 postes à Rodez
 - 128 postes à Castres
- Parc hétérogène Linux et Windows
 - Harmoniser les méthodes et les pratiques
 - Avoir des outils communs

Les pratiques sous Linux



- Une connexion à distance sécurisée
 - OpenSSH + clef SSH
 - Des connexions SSH multiples
- Des outils en ligne de commande
 - Qui peuvent être automatisés par scripts

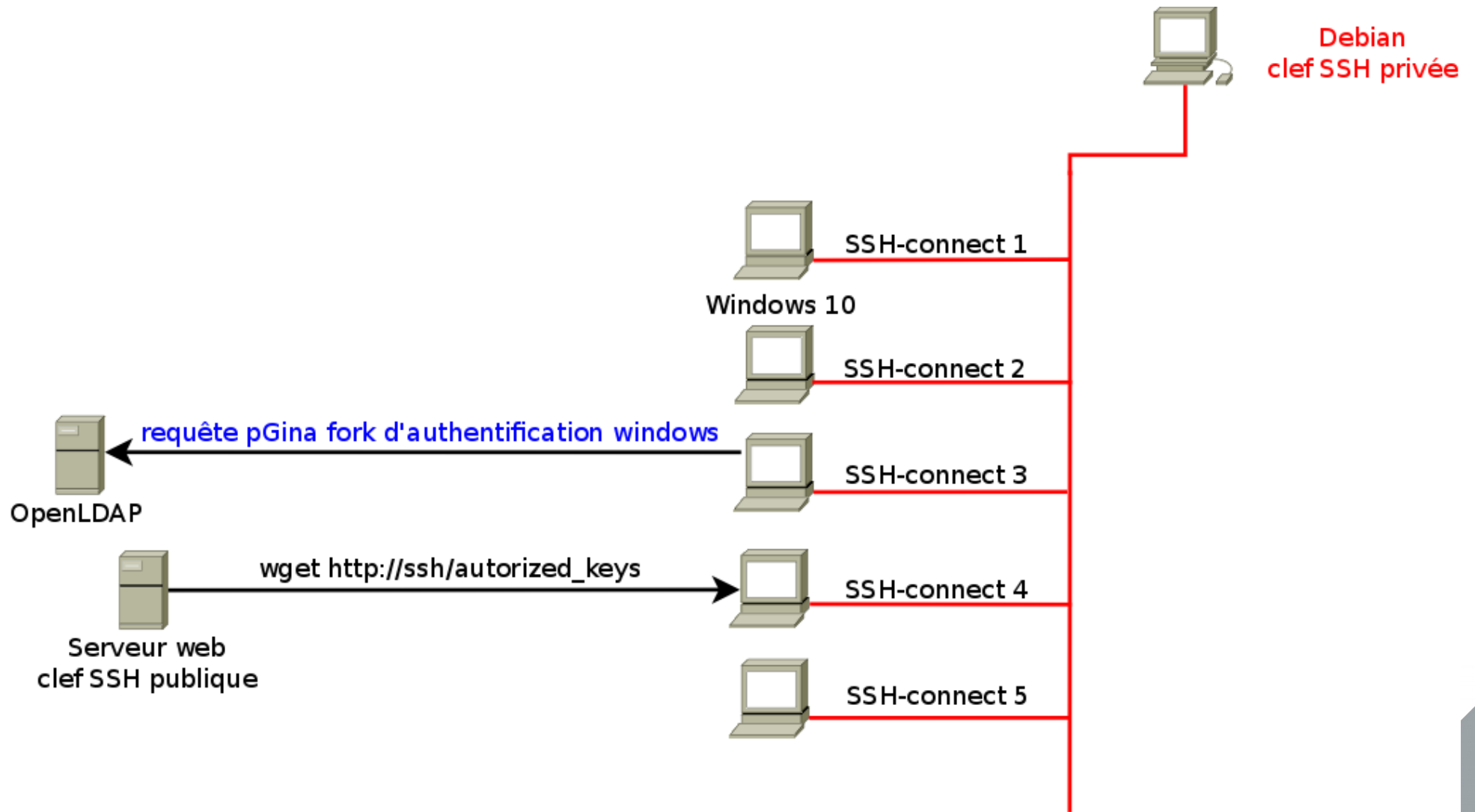
... à transposer sous Windows

Hybridation de Windows 10



- Installation d'un serveur SSH
 - Win32 OpenSSH
- Installation des utilitaires Linux compilés MicoS.
 - GOW (*GNU on Windows*) cut.exe, put.exe, wget.exe...
 - UnxUtils.zip dans c:\windows\system32
- *Authentification Windows sur OpenLDAPserver*
 - *PginaFork*

Résumons...



Les pratiques sous Linux



- Une gestion des mises à jour OS
 - Centralisée depuis des dépôts
 - Installés silencieusement
- Une gestion des mises à jour simple CLI
 - `# apt-get dist-upgrade`

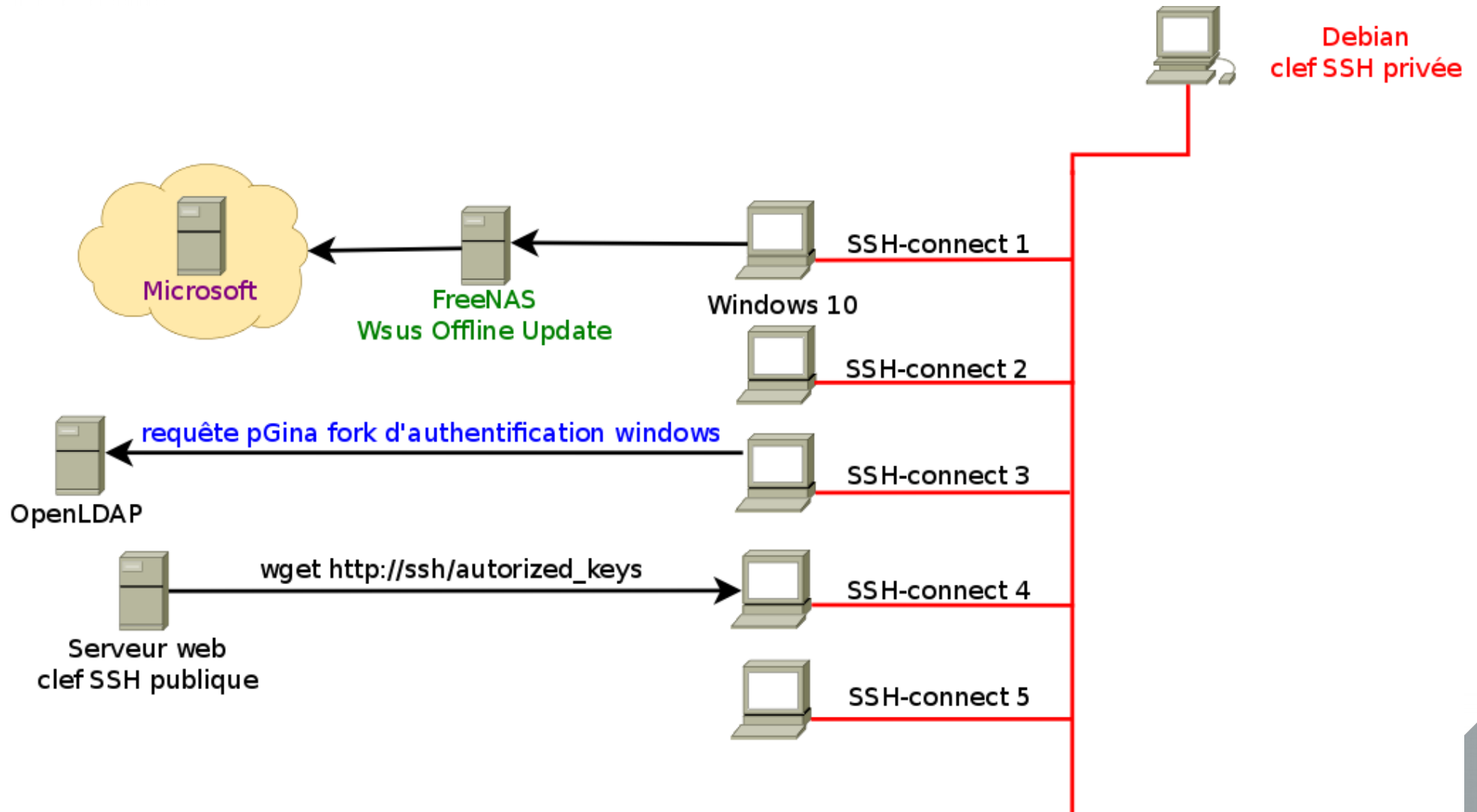
... à transposer sous Windows

Windows polymorphe

- Serveur Wsus Microsoft...non !
 - Un partage de fichiers samba *sous FreeNAS*
 - Désactiver le service client « Windows update »
 - Utiliser une alternative Wsus « push » :
 - Wsus Offline Update : *prefer_seconly="enable"*
 - Windows Update Minitool
 - BatchPatch : The Ultimate Windows Update Tool (sans CLI)
- Les mises à jour Windows 10 sont
 - Maîtrisées et installées



Résumons...



Wsus Offline Update Server

1/2

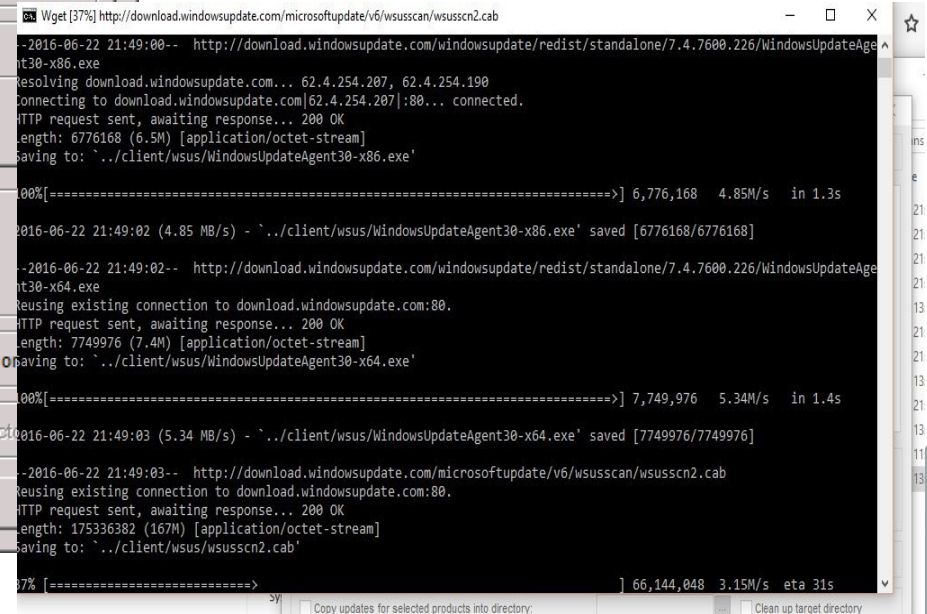
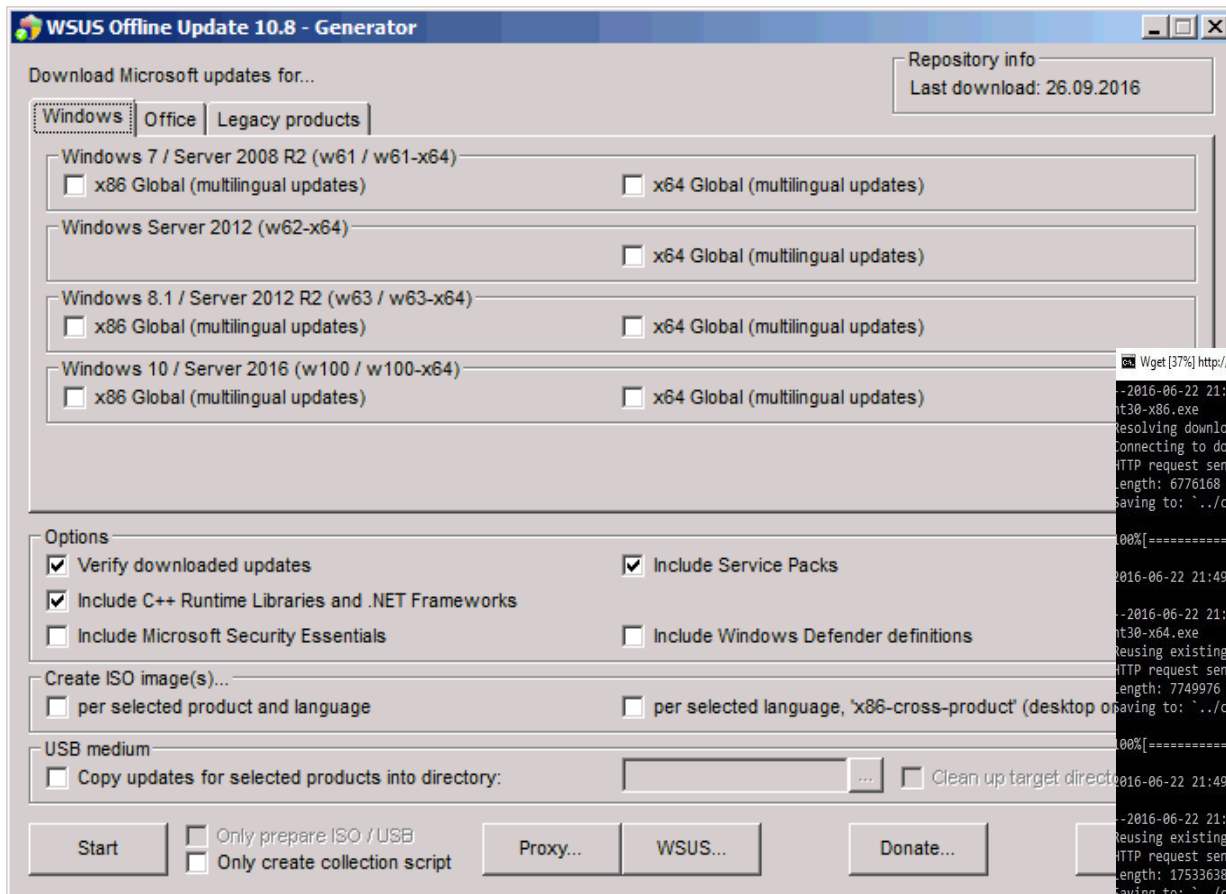
- Téléchargement des mises à jour W10
 - `./sh/download-updates.bash w100-x64 fra -includesp -includecpp -includedotnet`
- Téléchargement des mises à jour Office2016
 - `./sh/download-updates.bash o2k16-x64 fra`



WSUS Offline Update
Update Microsoft Windows and Office without an Internet connection

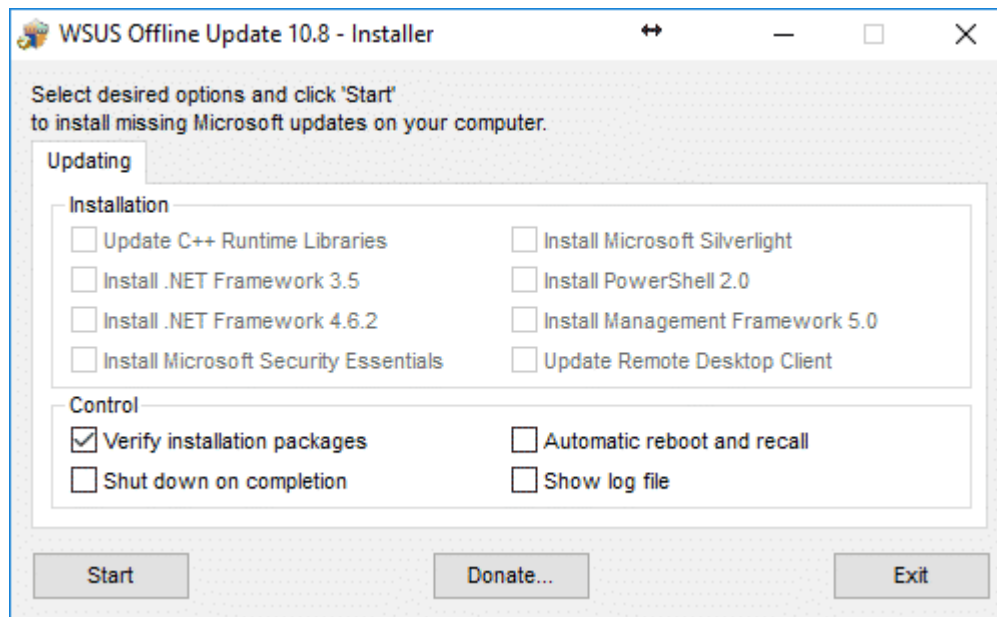
Wsus Offline Update Server

1/2

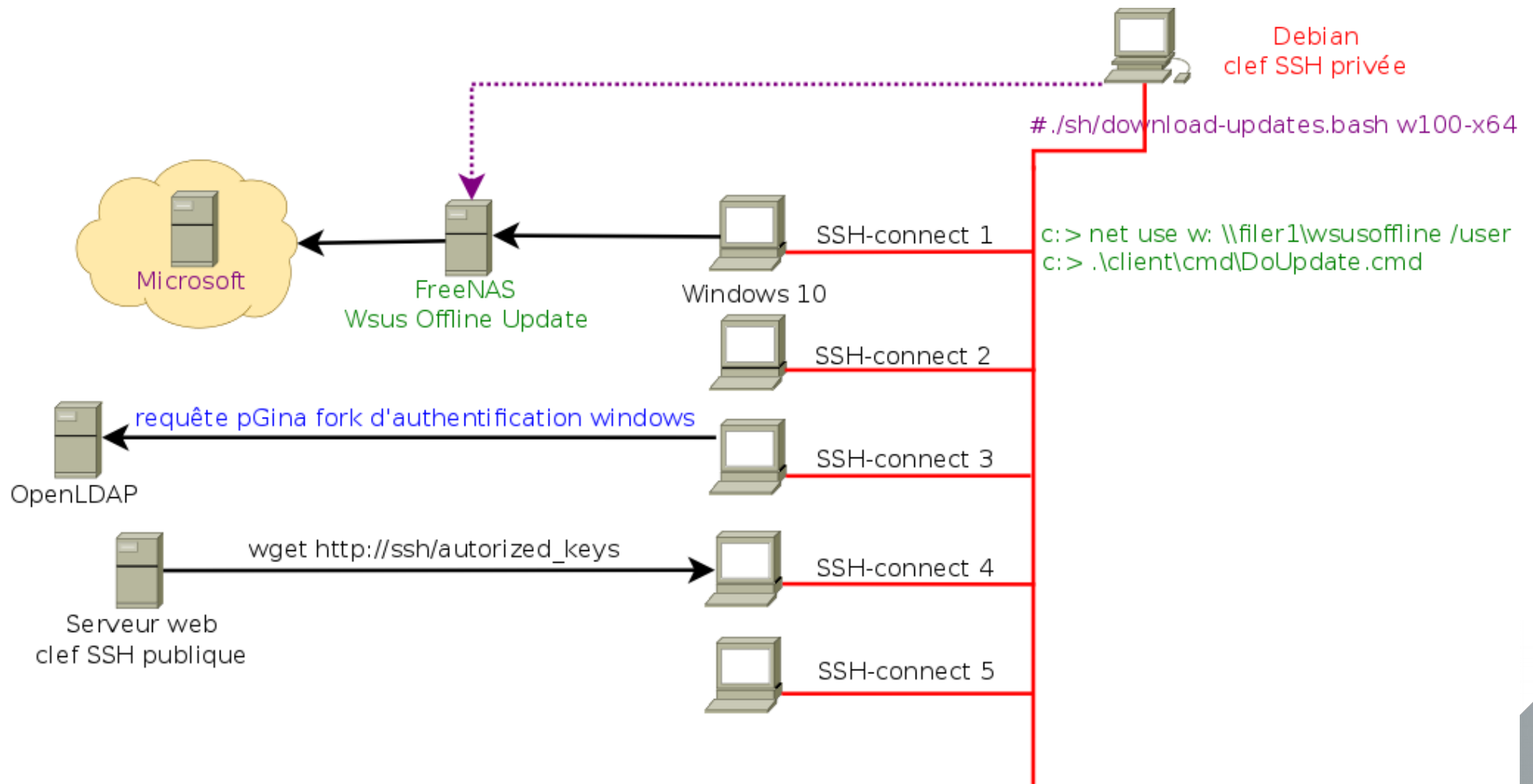


Wsus Offline Update Client 2/2

- Appliquer les mises à jour W10 et Office2016
 - `net use w: \\filer1\wsusoffline /user:user password`
 - `.\client\cmd\DoUpdate.cmd /updatecpp /verify /seconly`



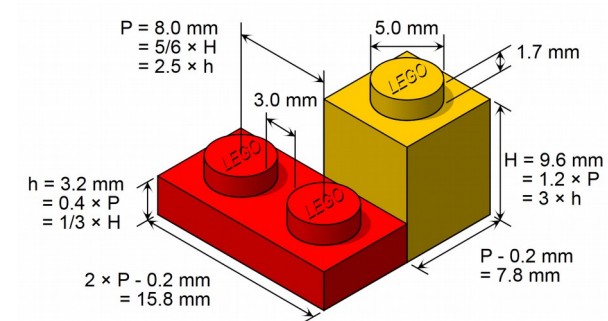
Résumons...



Les pratiques sous Linux

- Une gestion des logiciels

- Centralisée depuis des dépôts
- Toujours en ligne de commande



apt-get install firefox

... à transposer sous Windows

Package Factory



- Créer, déployer, installer les MSI
 - Faire des packages MSI ... c'est long
- Serveur Windows 2018...non !



Chocolatey = un gestionnaire de paquets Open Source pour Windows par script PowerShell

Chocolatey - Package manager for Windows

- 5668 community maintained packages
- Installer chocolatey sur le poste en une seule ligne de commande (cmd ou powershell)
- Avec Chocolatey, il s'agit de télécharger et d'exécuter un script dont l'objet est d'aller chercher un fichier EXE, un MSI, un ZIP sur le site de l'éditeur, afin de procéder à une installation en mode silencieux.

Chocolatey - Package manager for Windows

Les prérequis :

- Windows 7+ / Windows Server 2003+
- PowerShell 2+
- .Net Framework 4+



PowerShell : Installation et Mise à jour

=> On installe plus PowerShell !

- C'était possible avec la V1
 - Maintenant, il est inclus dans le WMF 5.1 (WinRM et PowerShell)
 - Le WMF est la dépendance de Framework.net
- ✓ Le WMF permet d'installer PowerShell, mais il est déjà natif
- ✗ Il n'existe pas une commande pour installer PowerShell



Disponibilités de WMF sur les systèmes d'exploitation Windows

Version du système d'exploitation	WMF 5.1	WMF 5.0	WMF 4.0	WMF 3.0	WMF 2.0
Windows Server 2016	Fourni par défaut				
Windows 10	Fourni par défaut	Fourni par défaut			
Windows Server 2012 R2	Oui	Oui	Fourni par défaut		
Windows 8.1	Oui	Oui	Fourni par défaut		
Windows Server 2012	Oui	Oui	Oui	Fourni par défaut	
Windows 8				Fourni par défaut	
Windows Server 2008 R2 SP1	Oui	Oui	Oui	Oui	Fourni par défaut
Windows 7 SP1	Oui	Oui	Oui	Oui	Fourni par défaut
Windows Server 2008 SP2				Oui	Oui
Windows Vista					Oui
Windows Server 2003					Oui
Windows XP					Oui

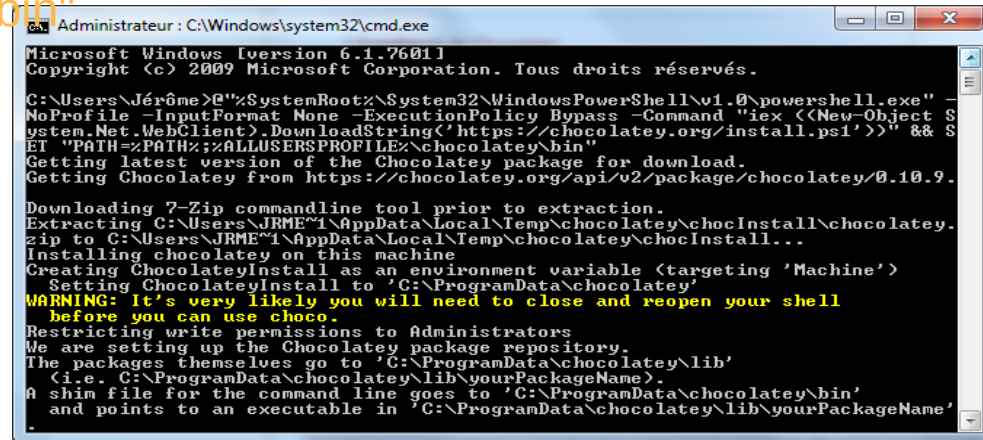


Installer Chocolatey

Software Management Automated

- L'installation se fait à l'aide de la commande en PowerShell :
`@"%SystemRoot%\System32\WindowsPowerShell\v1.0\powershell.exe" -NoProfile -InputFormat None -ExecutionPolicy Bypass -Command "iex ((New-Object System.Net.WebClient).DownloadString('https://chocolatey.org/install.ps1'))" && SET "PATH=%PATH%;%ALLUSERSPROFILE%\chocolatey\bin"`

- > C:\ProgramData\chocolatey\choco.exe
- > C:\ProgramData\chocolatey\bin\choco.exe



```
Microsoft Windows [version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. Tous droits réservés.

C:\Users\Jérôme>@"%SystemRoot%\System32\WindowsPowerShell\v1.0\powershell.exe" -
NoProfile -InputFormat None -ExecutionPolicy Bypass -Command "iex ((New-Object S
ystem.Net.WebClient).DownloadString('https://chocolatey.org/install.ps1'))" && S
ET "PATH=%PATH%;%ALLUSERSPROFILE%\chocolatey\bin"
Getting latest version of the Chocolatey package for download.
Getting Chocolatey from https://chocolatey.org/api/v2/package/chocolatey/0.10.9.
Downloading 7-Zip commandline tool prior to extraction.
Extracting C:\Users\Jérôme\AppData\Local\Temp\chocolatey\chocInstall\chocolatey.
zip to C:\Users\Jérôme\AppData\Local\Temp\chocolatey\chocInstall...
Installing chocolatey on this machine
Creating ChocolateyInstall as an environment variable (targeting 'Machine')
Setting ChocolateyInstall to 'C:\ProgramData\chocolatey'
WARNING: It's very likely you will need to close and reopen your shell
before you can use choco.
Restricting write permissions to Administrators
We are setting up the Chocolatey package repository.
The packages themselves go to 'C:\ProgramData\chocolatey\lib'
(i.e. C:\ProgramData\chocolatey\lib\yourPackageName).
A shim file for the command line goes to 'C:\ProgramData\chocolatey\bin'
and points to an executable in 'C:\ProgramData\chocolatey\lib\yourPackageName'
```



- Côté pare-feu : ouvrir en sortie les ports distants
Tcp/80 et Tcp/443

Rechercher des paquets à partir de chocolatey.org

<https://chocolatey.org/packages/recuva>

<https://chocolatey.org/packages?q=recuva>



Notices: This section not yet converted to new layout. Download stats are rolling back out.

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1.53.1087

6/9/2016
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Recuva 1.53.1087

Private CDN cached downloads available for licensed customers. Never experience 404 breakages again! [Learn more...](#)

This package was approved by moderator ferventcoder on 6/9/2016.

Accidentally deleted an important file? Lost something important when your computer crashed? No problem! Recuva recovers files deleted from your Windows computer, Recycle Bin, digital camera card, or MP3 player. And it's free!

To install Recuva, run the following command from the command line or from PowerShell:

```
C:\> choco install recuva
```

To upgrade Recuva, run the following command from the command line or from PowerShell:

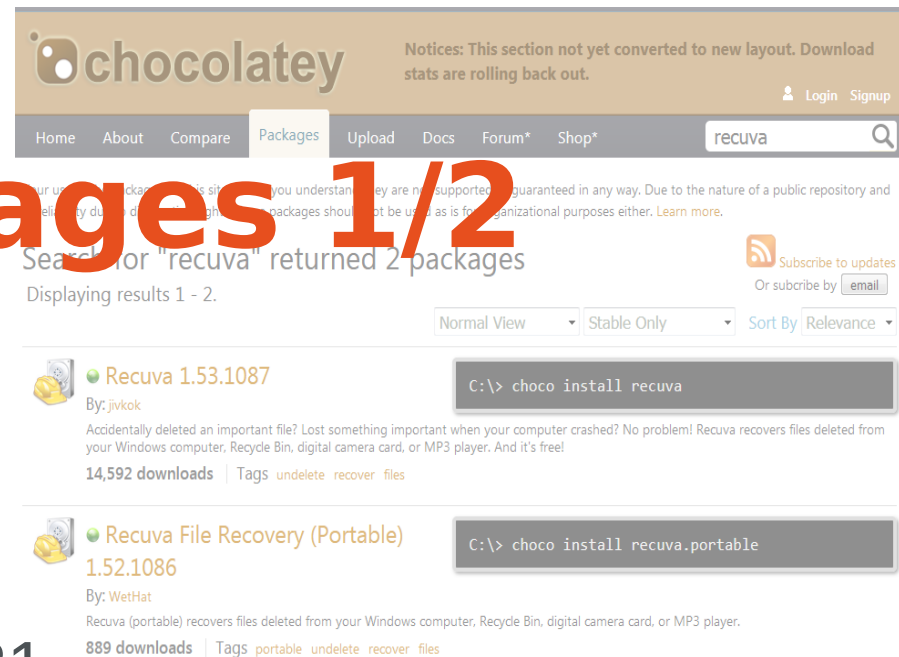
```
C:\> choco upgrade recuva
```

Files

Hide

- Recuva.png
- tools\chocolatey\install.ps1 [Show](#)
- tools\regAdd.ps1 [Show](#)

Gérer les packages 1/2



```
c:> choco install recuva
```

```
c:> choco install recuva.portable
```

```
c:> choco install jre8 --version 8.0.121
```

```
c:> choco install openssh -params "/SSHServerFeature" -y
```

```
c:> choco list -local-only
```

```
c:> choco info vlc
```

```
c:> choco uninstall putty.portable
```

```
c:> choco upgrade firefox
```

```
c:> choco upgrade all
```

Gérer les packages 2/2

```
Do you want to run the script?([Y]es/[N]o/[P]rint): y

Using Git LFS
Installing 64-bit git.install...
git.install has been installed.
git.install installed to 'C:\Program Files\Git'
git.install can be automatically uninstalled.
Environment Vars (like PATH) have changed. Close/reopen your shell to
see the changes (or in powershell/cmd.exe just type `refreshenv`).
The install of git.install was successful.
Software installed to 'C:\Program Files\Git\'

git v2.16.2 [Approved]
git package files install completed. Performing other installation steps.
The install of git was successful.
Software install location not explicitly set, could be in package or
default install location if installer.

Chocolatey installed 3/3 packages.
See the log for details (C:\ProgramData\chocolatey\logs\chocolatey.log).

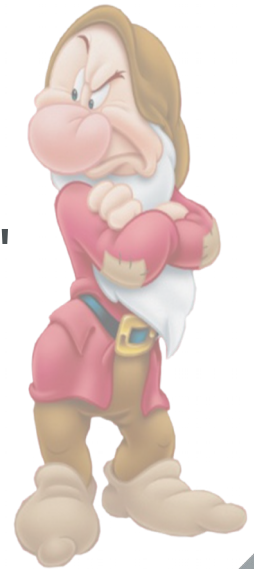
C:\Users\petagentadmin>choco list --localonly
Chocolatey v0.10.8
chocolatey 0.10.8
chocolatey-core.extension 1.3.3
git 2.16.2
git.install 2.16.2
4 packages installed.

C:\Users\petagentadmin>
```

Les risques sont relatifs...



- Un script malveillant avec un lien vers un fichier ou un dépôt vérolé
- La consommation de la bande passante lors de l'installation de logiciels tiers (pas de dépôt "local" comme WAPT)



...mais on peut changer de répertoire de téléchargement !

- Éditez le fichier :

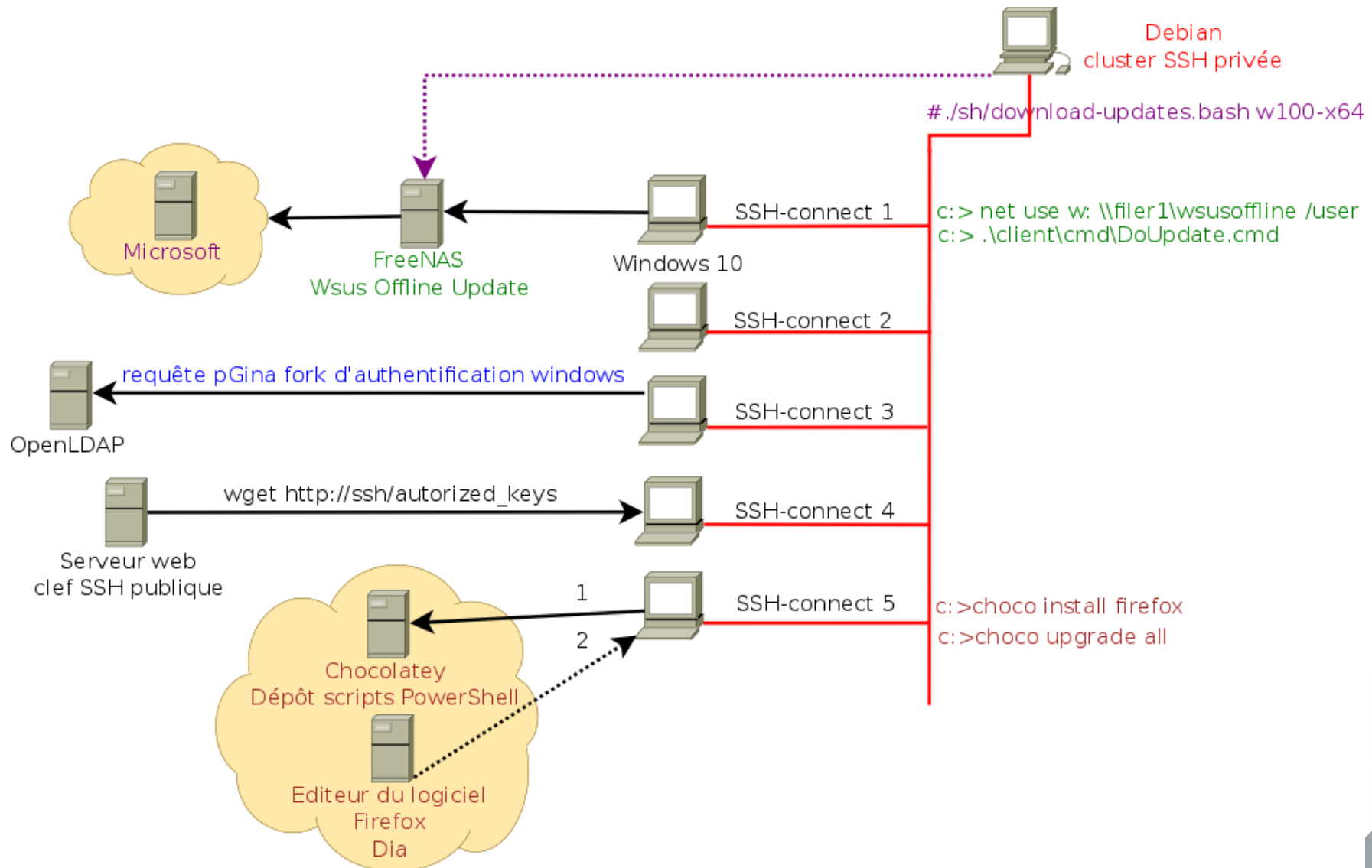
C:\ProgramData\chocolatey\config\chocolatey.config

➤ Modifiez la directive cacheLocation :

```
<add key="cacheLocation" value="e:\chocolatey"  
description="Cache location if not TEMP folder. Replaces  
`$env:TEMP` value." />
```



Résumons ...

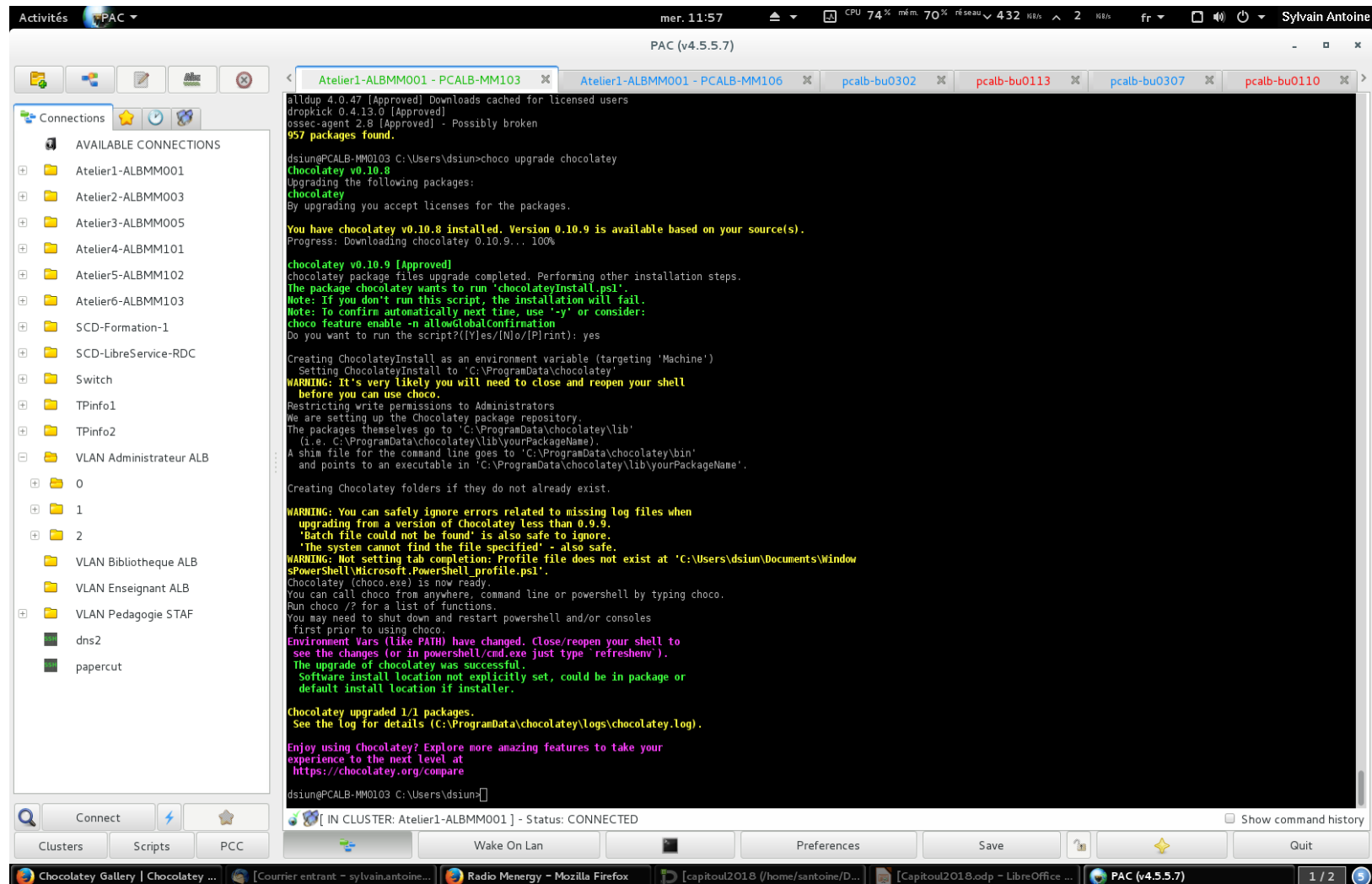


Interface de contrôle pour...

- Passer tous les commandes CLI
- Centraliser les connexions SSH
 - PAC manager - *Linux*
 - Multi Putty manager- *Windows*
- Administrer plusieurs hôtes en même temps
 - Cluster SSH (*natif sur PAC et Putty*)



Interface de contrôle



Contrôler la gestion des « logs » des updates

- Wsus Offline Update (*en local*)
 - C:\windows\wsusofflineupdate.log
- Batchpatch (*sous windows*)
 - Clients Windows
- Apt-dater (*sous linux*)
 - Clients Linux et Windows (dev)

Interface de gestion des « Update » apt-dater

```
Activités
q:quit ?::help q:refresh host
[-] Updates pending
  [-] mm5
    x   [+ ] 10.163.5.1 (Debian 8.10 jessie; 3.16.0-4-amd64)
    x   [+ ] 10.163.5.2 (Debian 8.9 jessie; 3.16.0-4-amd64)
  [-] Up to date
    [-] mm5
      [ ] 172.16.2.52 (Windows 10 Pro 6.3 14393; )
  [ ] Broken packages
  [ ] Refresh required
  [ ] In refresh
  [ ] Sessions
  [ ] Filtered
  [-] Unknown
    [+ ] IBH
    [+ ] Localdomain
  [-] mm5
    [ ] 10.163.0.13
    [ ] 10.163.13.2
```

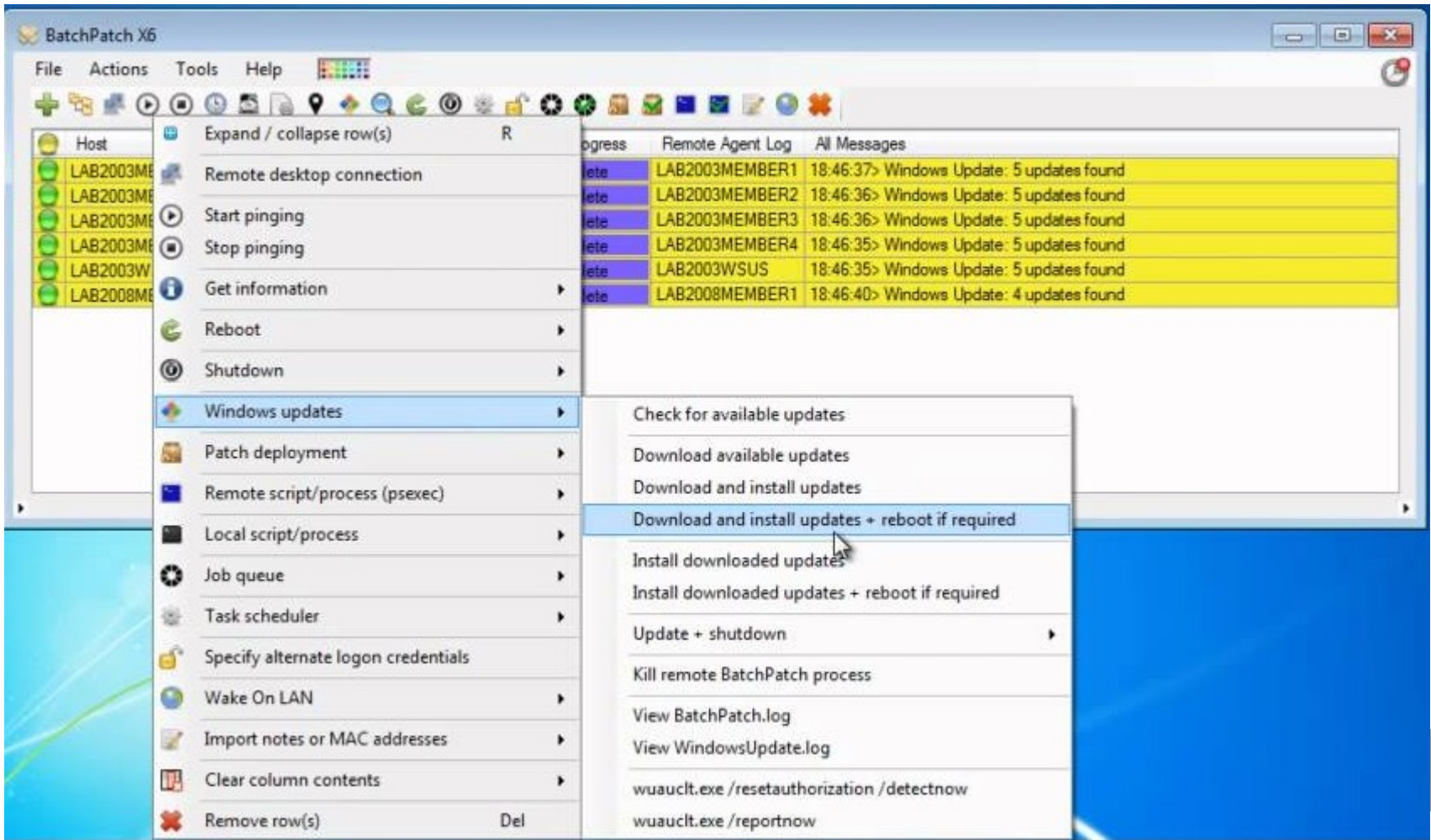
- Lanceur pseudo-graphique (*ncurses*) des
 - Commande *apt-get install...*
 - Commande *wsus.DoUpdate...*

Interface de gestion des « Update »

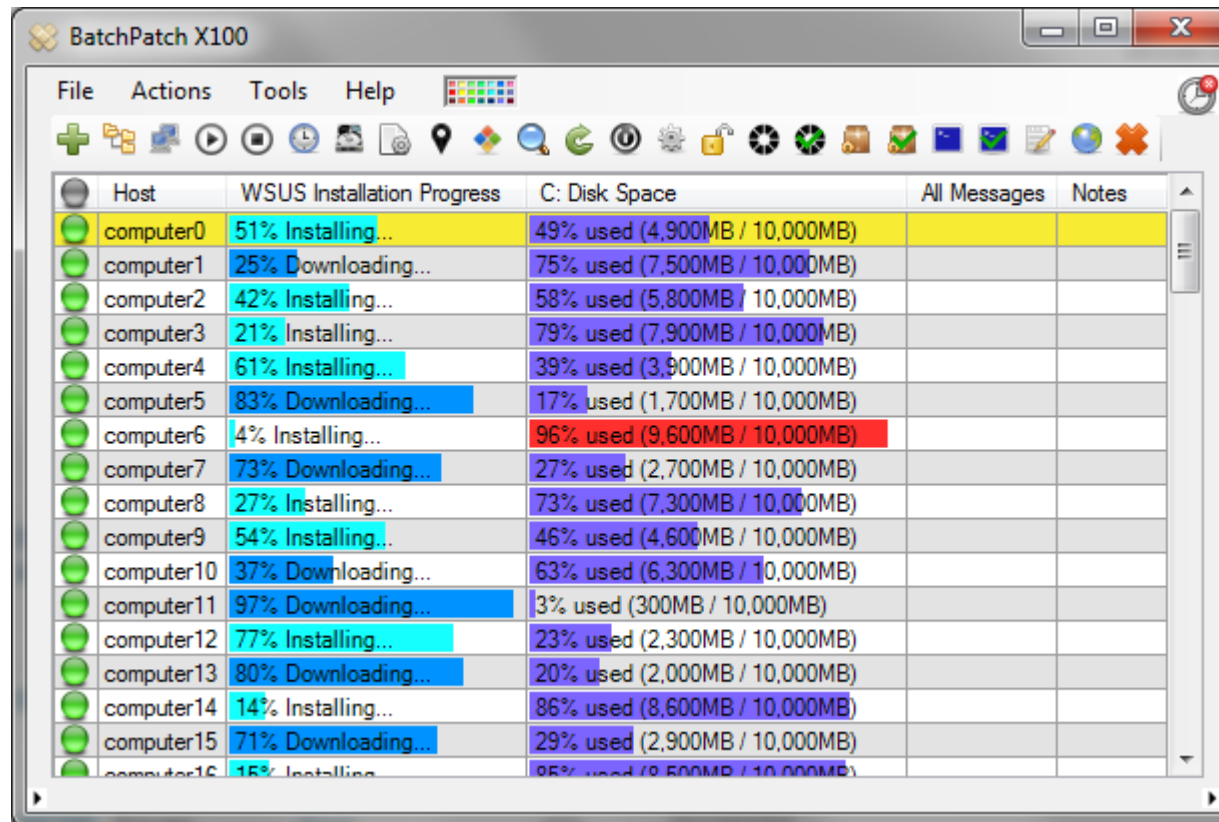


- BatchPatch (*sous windows, sous licence, sans CLI*)
 - Intègre un clone de wsus offline update
 - Push les updates Windows massivement
 - Connexions multiples PSEXEC et WMI
 - Un historique des mises à jour
 - ... tous les outils Pstools

Interface de gestion des « Update » BatchPatch



Interface de gestion des « Update » BatchPatch



The screenshot shows the BatchPatch X100 application window. It features a menu bar (File, Actions, Tools, Help) and a toolbar with various icons. The main area contains a table with the following columns: Host, WSUS Installation Progress, C: Disk Space, All Messages, and Notes. The table lists 16 computers, each with a green status icon, a progress bar, and a percentage indicating the installation status. The progress bars are color-coded: yellow for 'Installing...', blue for 'Downloading...', and red for '96% used'.

Host	WSUS Installation Progress	C: Disk Space	All Messages	Notes
computer0	51% Installing...	49% used (4,900MB / 10,000MB)		
computer1	25% Downloading...	75% used (7,500MB / 10,000MB)		
computer2	42% Installing...	58% used (5,800MB / 10,000MB)		
computer3	21% Installing...	79% used (7,900MB / 10,000MB)		
computer4	61% Installing...	39% used (3,900MB / 10,000MB)		
computer5	83% Downloading...	17% used (1,700MB / 10,000MB)		
computer6	4% Installing...	96% used (9,600MB / 10,000MB)		
computer7	73% Downloading...	27% used (2,700MB / 10,000MB)		
computer8	27% Installing...	73% used (7,300MB / 10,000MB)		
computer9	54% Installing...	46% used (4,600MB / 10,000MB)		
computer10	37% Downloading...	63% used (6,300MB / 10,000MB)		
computer11	97% Downloading...	3% used (300MB / 10,000MB)		
computer12	77% Installing...	23% used (2,300MB / 10,000MB)		
computer13	80% Downloading...	20% used (2,000MB / 10,000MB)		
computer14	14% Installing...	86% used (8,600MB / 10,000MB)		
computer15	71% Downloading...	29% used (2,900MB / 10,000MB)		
computer16	15% Installing...	85% used (8,500MB / 10,000MB)		



HTML Export Produce Reports

new 1

	Host	Remote Agent Log
	Win2016	WIN2016 04/11/2017 13:53:30
	Win2012R2	WIN2012R2 04/11/2017 16:53:52

Win2016

Remote Agent Log

WIN2016 04/11/2017 13:53:30

::Begin online search - Server Selection: Default

The search query "SoftwareOnly" returned 2 update(s):

1> Windows Malicious Software Removal Tool for Windows 8, 8.1, 10 and Windows Server 2012, 2012 R2, 2016 x64 Edition - April 2017 (KB890830) (13 MB) (2017-04-11) - Update Rollups
(Type-SoftwareUpdate | Downloaded-FALSE | RebootRequired-MAYBE)
<http://support.microsoft.com/kb/890830>

2> Cumulative Update for Windows Server 2016 for x64-based Systems (KB4015217) (1068 MB) (2017-04-11) - Security Updates
(Type-SoftwareUpdate | Downloaded-FALSE | RebootRequired-MAYBE)
<http://support.microsoft.com/kb/4015217>

::End search

WIN2016 04/11/2017 13:53:37

[back to table](#) -----

Win2012R2

Remote Agent Log

WIN2012R2 04/11/2017 16:53:52

::Begin online search - Server Selection: Default

The search query "SoftwareOnly" returned 10 update(s):

1> Update for Windows Server 2012 R2 (KB3013816) (4 MB) (2014-12-09) - Updates
(Type-SoftwareUpdate | Downloaded-FALSE | RebootRequired-MAYBE)
<http://support.microsoft.com/kb/3013816>

2> Microsoft .NET Framework 4.5.2 for Windows 8.1 and Windows Server 2012 R2 for x64-based Systems (KB2934520) (71 MB) (2015-01-13) - Feature Packs
(Type-SoftwareUpdate | Downloaded-FALSE | RebootRequired-MAYBE)
<http://support.microsoft.com/kb/2934520>

3> Update for Windows Server 2012 R2 (KB3013769) (56 MB) (2015-04-14) - Updates
(Type-SoftwareUpdate | Downloaded-FALSE | RebootRequired-MAYBE)
<http://support.microsoft.com/kb/3013769>

4> Update for Windows Server 2012 R2 (KB3084905) (2 MB) (2015-10-13) - Updates
(Type-SoftwareUpdate | Downloaded-FALSE | RebootRequired-MAYBE)
<http://support.microsoft.com/kb/3084905>



Des questions ...

