

Gestion des postes de travail avec SCCM 2012



Capitoul 27 Février 2012

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> Introduction

Contexte UT1

Les solutions envisagées

Les Fonctionnalités SCCM

Mise œuvre

Implantation

Simulation

Bilan

Introduction

■ Objectif : présentation de l'implantation de SCCM 2012 dans notre université.

■ Programme

- Introduction
- Contexte UT1
- Les solutions envisagées
- Les fonctionnalités SCCM
- Implantation
- Simulation
- Bilan



■ UT1 en chiffre

- 20000 étudiants

- 1122 personnels

 - 504 personnels administratifs

 - 618 enseignants chercheurs

■ La DSI

- Services Support (10 pers.)

- Services Système (4 pers.)

- Services Ingénierie (7 pers.)



■ Descriptions du parc



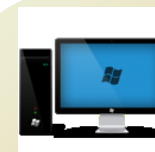
25 Salles TP
600 postes



1700 postes informatiques
70 logiciels



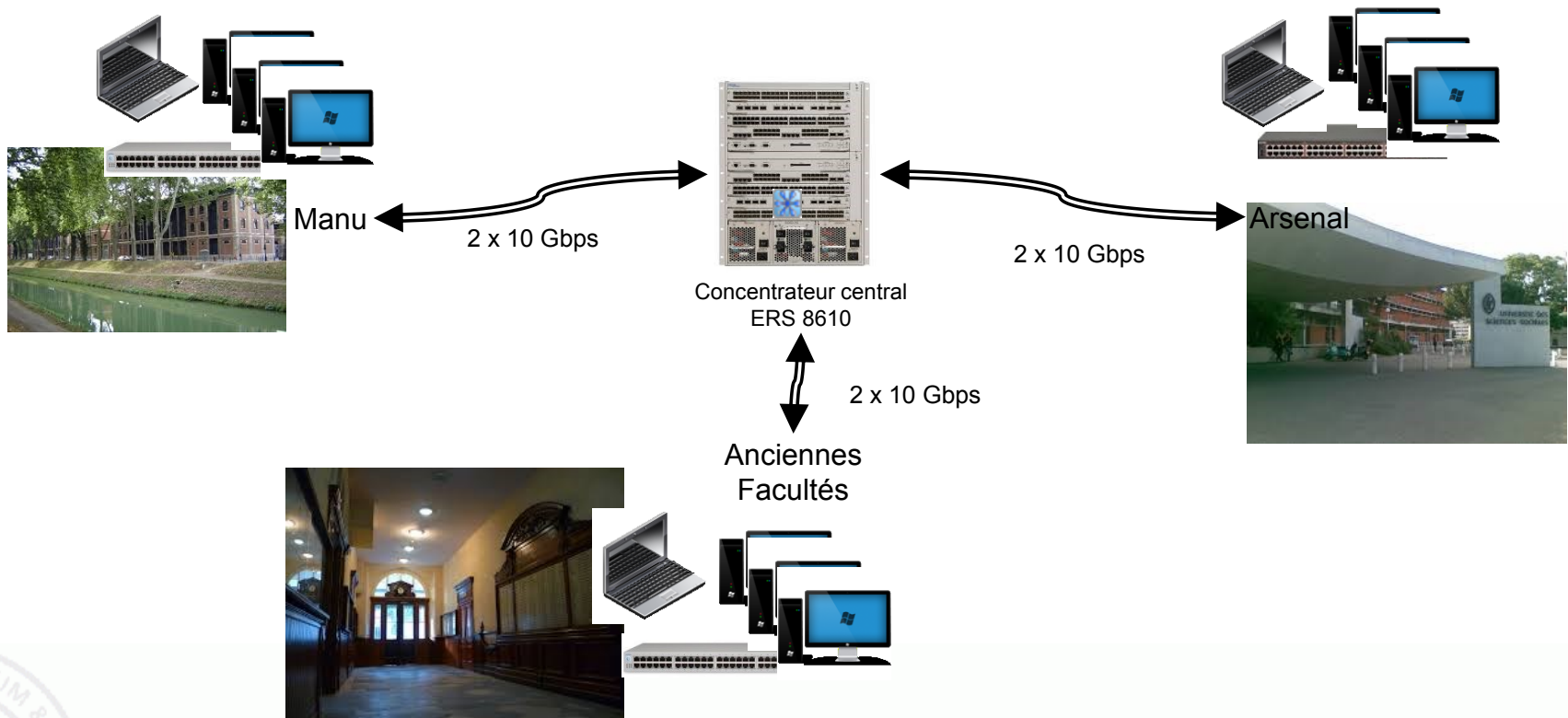
Enseignants



Administratifs

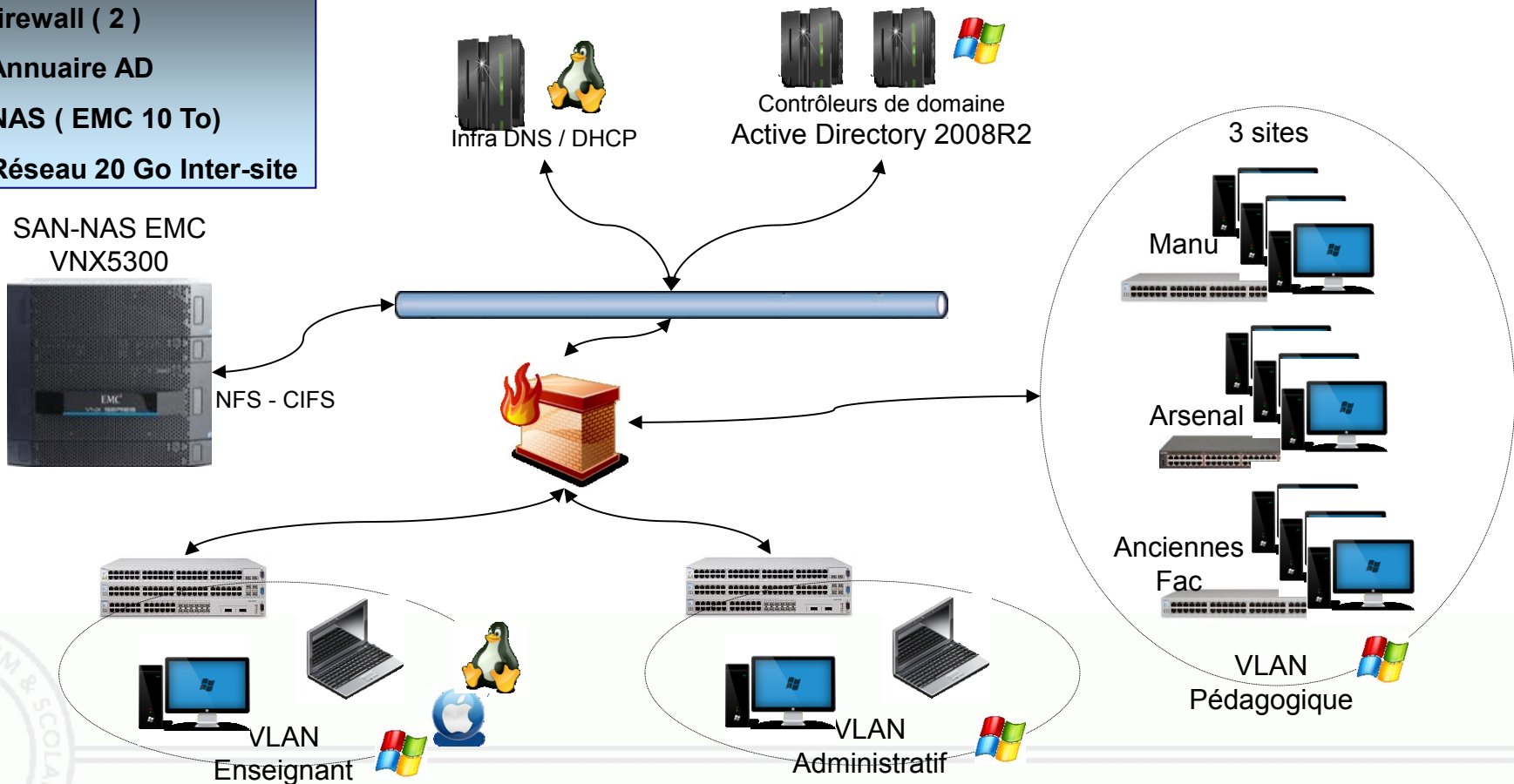
■ Infrastructure : Schéma simplifié

- Réseau 20 Gbps Inter-site



■ Infrastructure : Schéma simplifié

- VLAN (52)
- Firewall (2)
- Annuaire AD
- NAS (EMC 10 To)
- Réseau 20 Go Inter-site



■ Notre scénario Salle TP (GHOST)



- Partition de maintenance
- Temps réalisation / exploitation « master »
- Problématique intégration « drivers »
- Temps d'intervention long
- Complexité du cycle de vie « master »

■ Notre scénario les autres postes (GHOST)



- Même problématique
+ parc hétérogène
+ intégration de logiciel métier

■ Les Solutions

Conserver GHOST

Gestion seulement de master

Coût licence / poste

Solution de virtualisation poste de travail

Coût infrastructure

Intégration solution logiciel complexe

Utilisé dans notre contexte de poste libre accès

Microsoft

Nous avons un Active Directory

Nous déployons du Windows

WDS* + MDT** (lite touch) gratuit

SCCM (zero touch) payant

* Windows Deployment Services

** Microsoft Deployment Toolkit



Les Solutions envisagées 2/2

Coût Licence

Serveur SCCM

Datacenter

Standard

Nb de processeur physique par
license

2

2

Nb de systèmes managés
(OSE) par license

Illimité

2

Prix Groupe Logiciel (CNL)

xxx € HT

xxx € HT

Client SCCM

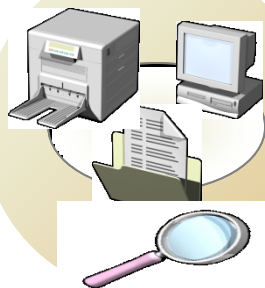
CAL Core xxx € / ETP / AN (contrat location MS EES)





Les Fonctionnalités de System Center Configuration Management

Gestion des ressources



Déploiement



Gestion de Conformité



Sécurité



Inventaire logiciels
et matériels

Gestion de
catalogue

Mesure d'utilisation
des licences

Gestion à distance

Application
Management

Gestionnaire de
mise à jour logiciels

Déploiement de
Système
d'exploitation

Content
Management

Compliance
Settings

Power Management

Client
Health

Reporting

Monitoring



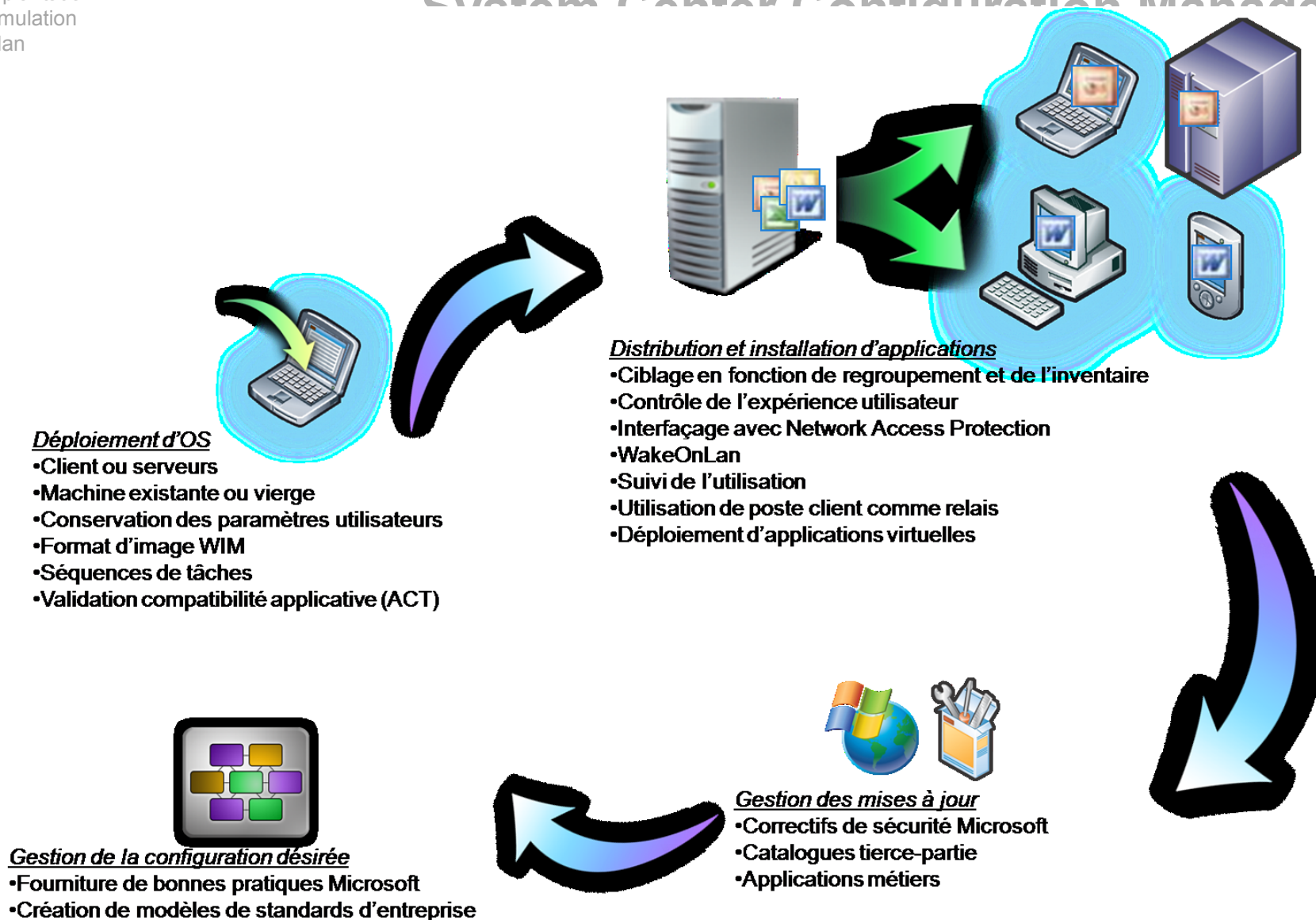
Role-based
Administration

NAP

Endpoint Protection



Les Fonctionnalités de System Center Configuration Management



Nos objectifs

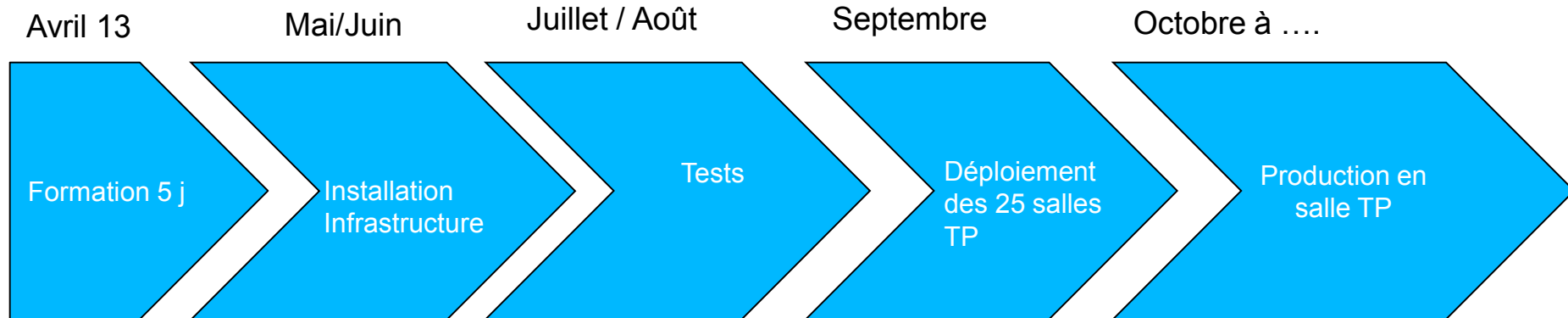
- 1 - Déploiement OS (master) des salles de TP informatiques (Septembre 2013)
- 2 - Gestion des configurations logicielles en salle de TP (Décembre 2013)
- 3 - Déploiement du client SCCM sur le reste du parc et gestion des configurations (Février 2014)
- 4 – Gestion totale du parc (Décembre 2014)

■ Les phases objectif 1 et 2 – salle de TP informatique

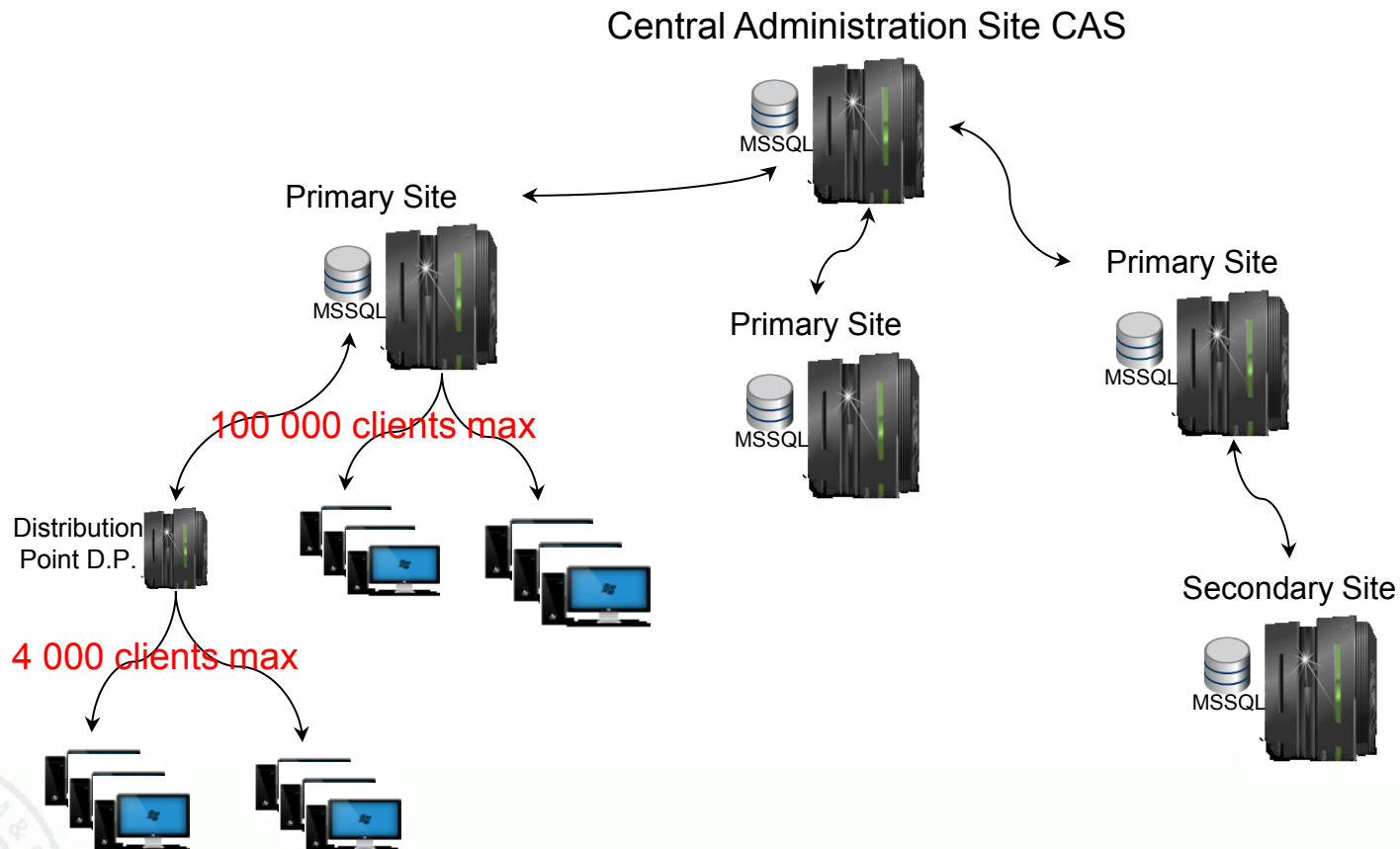
Noyau de 3 IGE sur le projet :

- 1 Support Coordinateur
- 1 Système – expertise déploiement salle Péda
- 1 Support – expertise déploiement

+ ensemble de la DSI



■ Infrastructure SCCM - Principe



■ Infrastructure SCCM – UT1

- 1° Windows 2008 R2 SP1
- 2° SQL Server 2008R2 SP2 Standard Edition
- 3° System Center Unified Installer 2012 SP1
- 4° ADKSetup (Kit évaluation déploiement USMT)
- 5° WAIK (Windows Assistant Installation Kit ImageX MDT)

Primary Site



RAM : 16 Go dont 8 Go Ram SQL

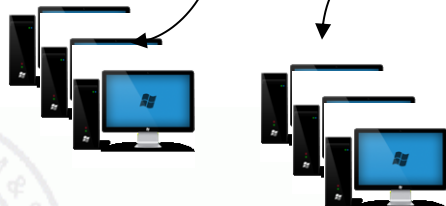
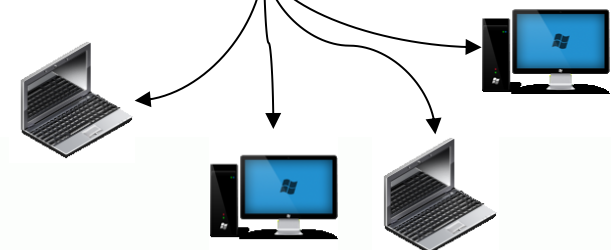
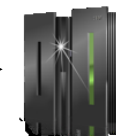
DISQUE :

- 60 Go OS
- 50 Go pour SCCM +
 - 20 Go / image wim
 - 3 à 8 Mo / client
 - 50 Go WSUS
 - 10 Go Log

Distribution Point
Salle TP



Distribution Point
Reste du Parc





Aperçu

The screenshot shows the SCCM Administration console with the following structure:

- Administration
 - Overview
 - Hierarchy Configuration
 - Site Configuration
 - Sites
 - Servers and Site System Roles**
 - Client Settings
 - Security
 - Distribution Points
 - Distribution Point Groups
 - Migration
- Assets and Compliance
- Software Library
- Monitoring
- Administration**

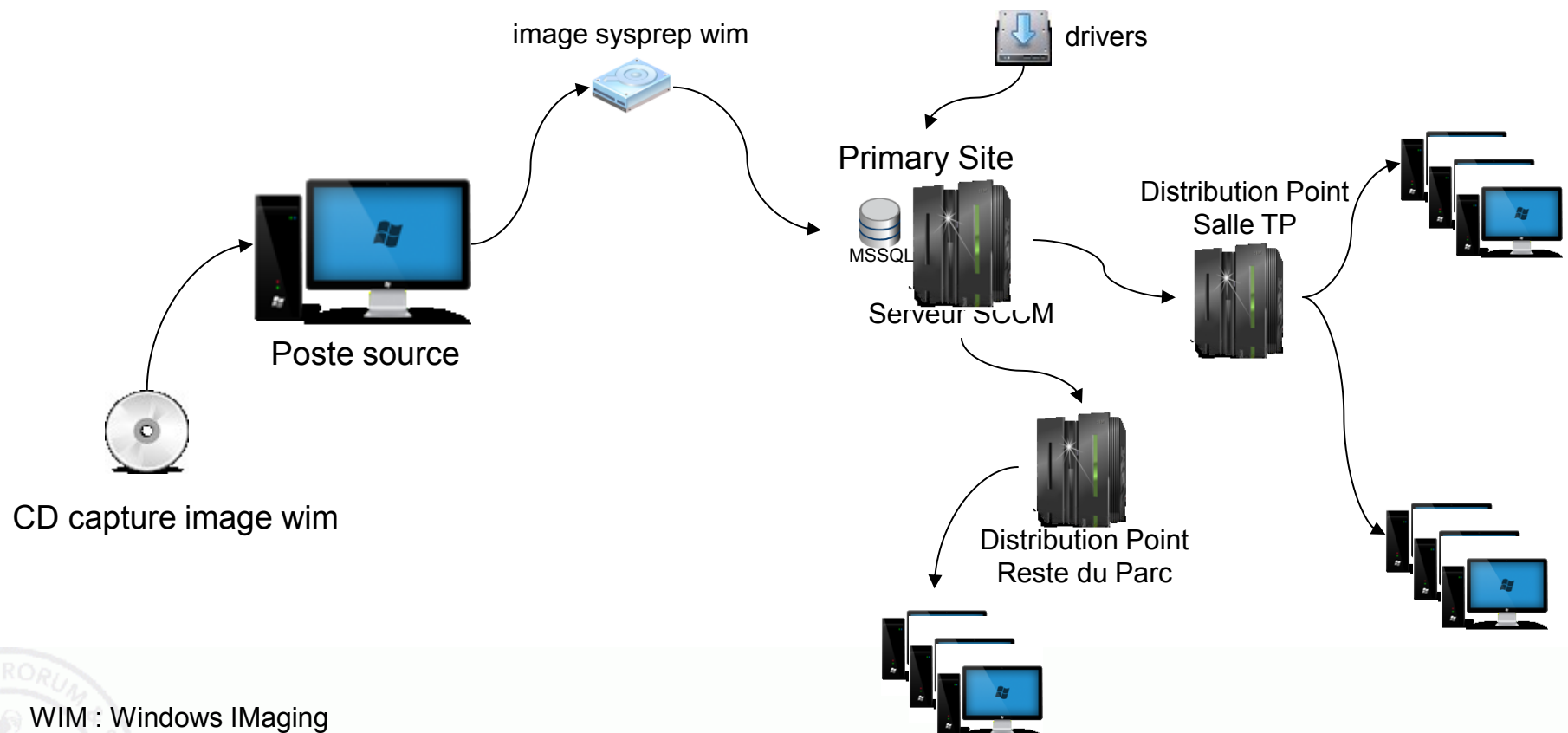
The 'Servers and Site System Roles' page displays the following table:

Icon	Name	Site Code	Count of roles	Type
	\\DP-ETU.ad.ut-capitole.fr	UT1	3	Site system server
	\\sccm.ad.ut-capitole.fr	UT1	9	Primary site

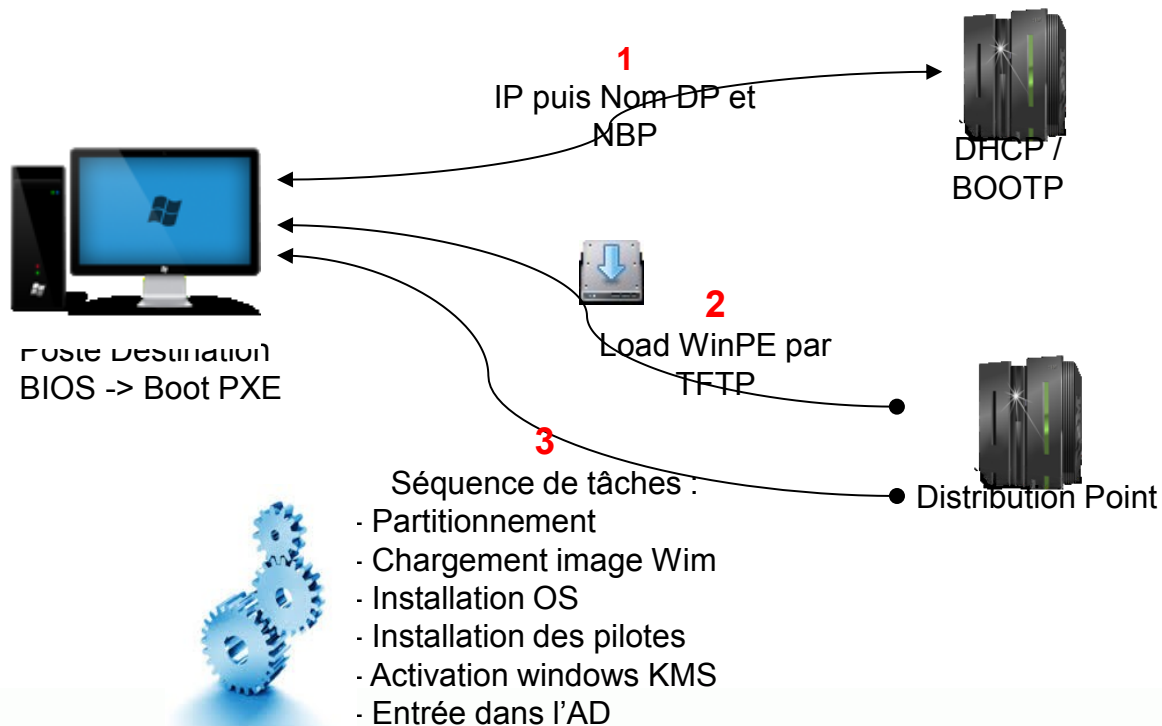
Below this table, the 'Site System Roles' section lists the following roles:

Icon	Role Name	Role Description
	Component server	Any server requiring a Configuration Manager service to be installed.
	Distribution point	A Configuration Manager server role that stages packages for distribution to clients.
	Fallback status point	A site system role that receives messages from ConfigMgr clients that cannot commun
	Management point	A site system role that replies to Configuration Manager client requests and accepts m
	Reporting services point	A site system role that provides integration with SQL Server Reporting Services to crea
	Site database server	A site system role that runs Microsoft SQL Server and hosts the Configuration Manager
	Site server	The main site system role that hosts the Configuration Manager components and servi
	Site system	A server or server share that hosts one or more site system roles for a Configuration M
	State migration point	A site system role that stores user state and settings migrated during operating system

■ Déploiement OS : Processus général



■ Déploiement OS : Processus de déploiement



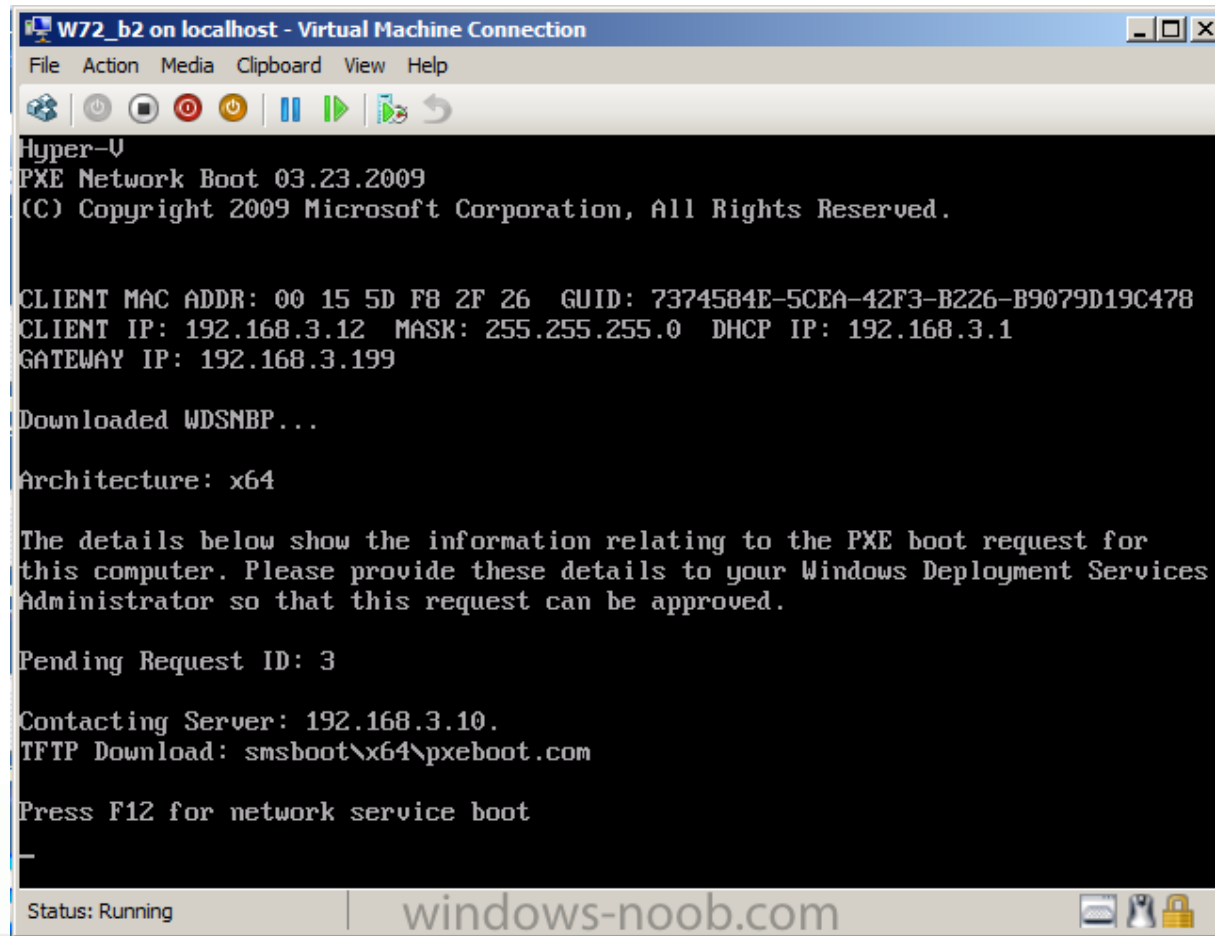
PXE : **P**re-boot **eX**ecution **E**nvironment

NBP : **N**etwork **B**ootstrap **P**rogram

Exemple de déclaration (dhcpd.conf) :

```
host a13469 { hardware ethernet f8:b1:56:a5:c6:b7; fixed-address 10.2.81.13; filename "boot\\x64\\pxeboot.com"; next-server dp-etu.univ-tlse1.fr; }
```

■ Boot PXE



```
Hyper-V
PXE Network Boot 03.23.2009
(C) Copyright 2009 Microsoft Corporation, All Rights Reserved.

CLIENT MAC ADDR: 00 15 5D FB 2F 26  GUID: 7374584E-5CEA-42F3-B226-B9079D19C478
CLIENT IP: 192.168.3.12  MASK: 255.255.255.0  DHCP IP: 192.168.3.1
GATEWAY IP: 192.168.3.199

Downloaded WDSNBP...

Architecture: x64

The details below show the information relating to the PXE boot request for
this computer. Please provide these details to your Windows Deployment Services
Administrator so that this request can be approved.

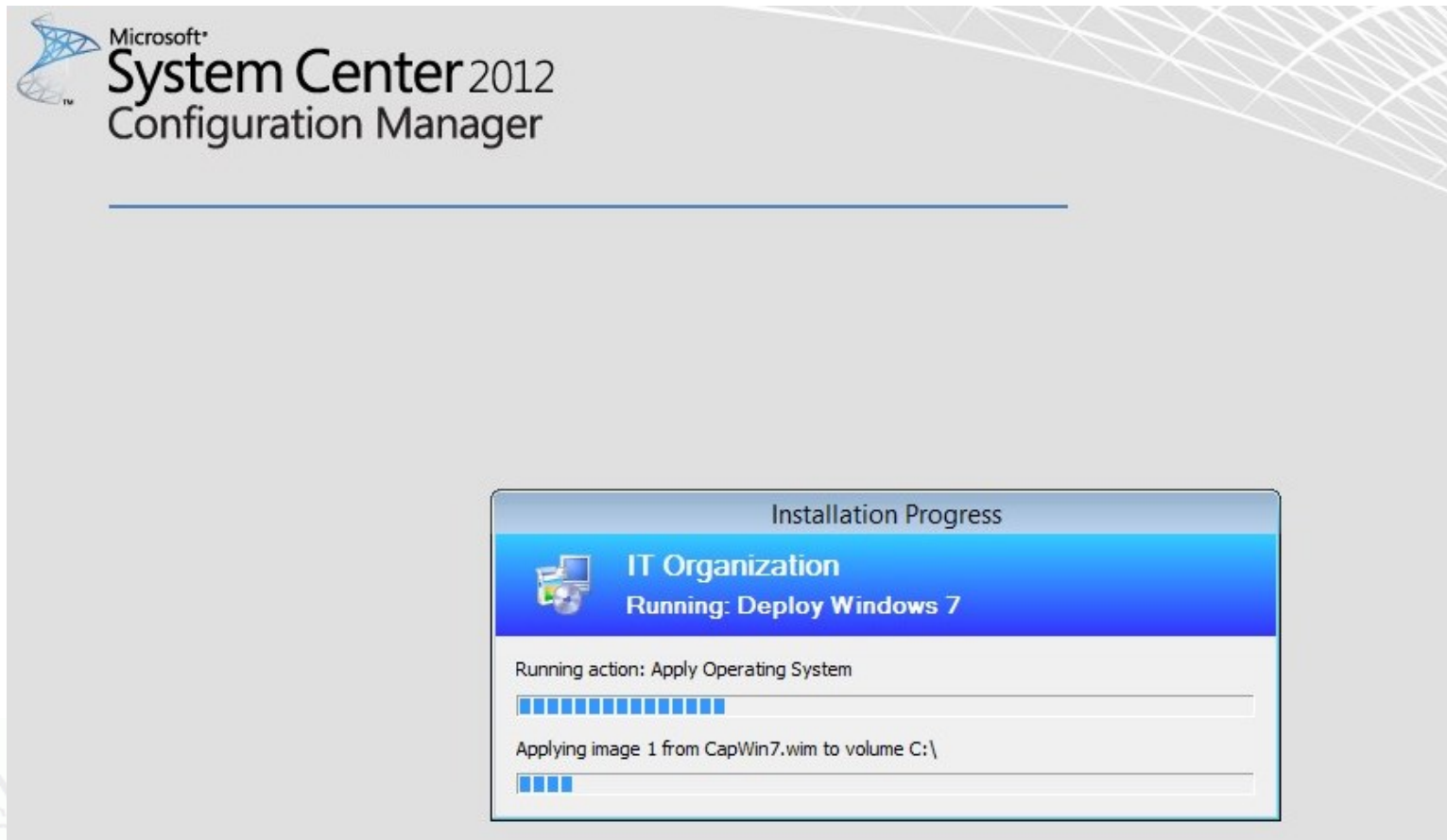
Pending Request ID: 3

Contacting Server: 192.168.3.10.
TFTP Download: smsboot\x64\pxeboot.com

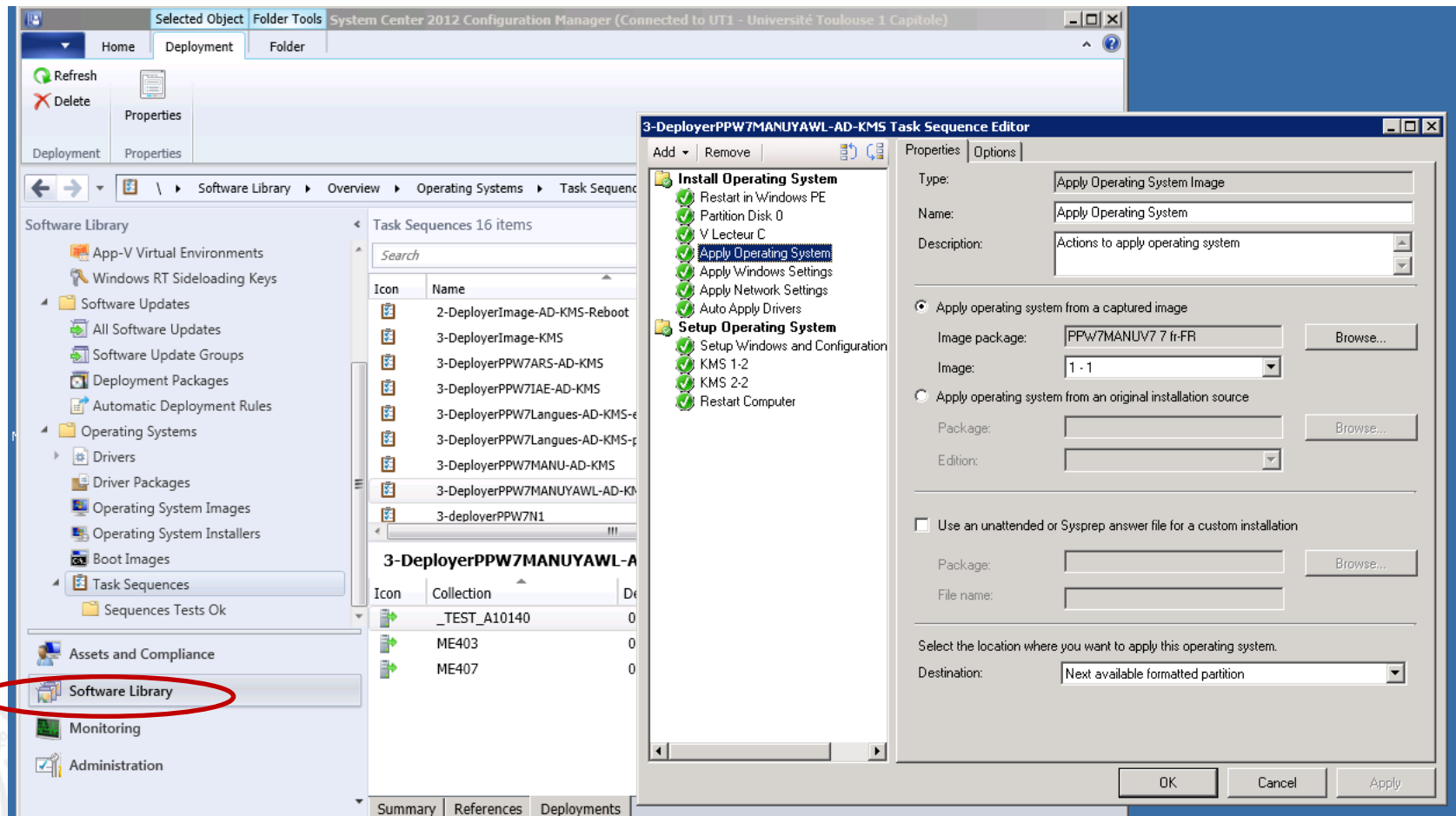
Press F12 for network service boot

Status: Running
```

■ WinPE Chargé – exécution des tâches



■ Séquence de tâches



■ nos « master »

The screenshot shows the SCCM console interface. The left pane displays the 'Software Library' tree, with 'Software Library' highlighted. The right pane shows the 'Operating System Images' list with 11 items. Below the list, the details for 'PPW7MANUV7' are displayed, including a summary, content status, and related objects.

Icon	Name	Version	Scheduled Updates Date	Schedule
	PPW7ARS	1		
	PPW71AE	4		
	PPW7LanguesV5	5		
	PPW7LanguesV5prof	5		
	PPW7MANU3	3		
	PPW7MANUV6	6		
	PPW7MANUV7	7		
	PPW7N1	1		
	PPW7N2	1		

PPW7MANUV7

Summary

Comment: YAWL for Study - Netbeans 7.4
Version: 7
Language: French

Content Status

Success: 2
In Progress: 0
Failed: 0
Unknown: 0

2 Targeted (Last Update: 07/02/2014 11:17)

Related Objects

Content Status

■ Cible - La salle ME403

System Center 2012 Configuration Manager (Connected to UT1 - Université Toulouse 1 Capitole)

Assets and Compliance

Device Collections 56 items

Icon	Name	Limiting Collection	Member Count
	ME101	All Systems	19
	ME202	All Systems	20
	ME302	All Systems	16
	ME304	All Systems	16
	ME310	All Systems	1
	ME401	All Systems	16
	ME402	All Systems	16
	ME403	All Systems	20
	ME404	All Systems	16

ME403

Icon	Software	Feature Type	Deployment Start Time
	3-DeployerPPW7MANUYAWL-AD-KMS	Task Sequence	07/02/2014 19:15

Assets and Compliance

Summary Deployments Custom Client Settings

The screenshot shows the System Center 2012 Configuration Manager console. The left-hand navigation pane is expanded to the 'Monitoring' section, which is highlighted with a red circle. The main pane displays the 'Deployments' view, showing a list of 14 items. The selected item is '3-DeployerPPW7MANUYAWL-AD-KMS Status to ME403'. The right-hand pane shows the details for this deployment, including a 'General' tab with software and collection information, a 'Completion Statistics' section with a green circle indicating success, and a 'Related Objects' section with links to 'Collection', 'Task Sequence', and 'Content Status'.

Icon	Software	Collection	Purpose	Action
	3-DeployerPPW7Langues-AD-KMS-el...	_Deploy-Langues-PB	Required	Install
	3-DeployerPPW7MANU-AD-KMS	ME310	Required	Install
	3-DeployerPPW7MANU-AD-KMS	_Deploy-Manu-PB	Required	Install
	3-DeployerPPW7MANUYAWL-AD-KMS	ME407	Required	Install
	3-DeployerPPW7MANUYAWL-AD-KMS	ME403	Required	Install
	3-DeployerPPW7MANUYAWL-AD-KMS	_TEST_A10140	Required	Install
	3-deployerPPW7N1	A10843-PosteReference	Required	Install
	3-DeployerPPW7N2-AD-KMS	_Deploy-ARSenal-PB	Required	Install

3-DeployerPPW7MANUYAWL-AD-KMS Status to ME403

General

Software: 3-DeployerPPW7MANUYAWL-AD-KMS
 Collection: ME403
 Feature Type: Task

Completion Statistics

Success: 20
 In Progress: 0
 Error: 0
 Requirements Not Met: 0
 Unknown: 0

Total Asset Count: 20 (Last Update: 20/02/2014 15:33:59) [View Status](#)

Related Objects

- [Collection](#)
- [Task Sequence](#)
- [Content Status](#)

■ Retour d'expérience



Gestion du Wake-On-LAN non résolu
Mise en œuvre du Multicast
Ouverture de port réseau – client SCCM
Infrastructure doit supporter de gros débits



Réalisation - Gestion des drivers simple
Déploiement - Centralisation des ressources
Adaptation master plus Simple

Nos Objectifs 3 et 4 - 2014

Exploitation Reporting et Monitoring
Mise en œuvre de WSUS
Installation et mise à jour des msi
Exploitation catalogue de logiciels



■ Références

Document : Official Microsoft Learning Product
10747A – Administering SCCM 2012

Icônes : <https://www.iconfinder.com/> (free use)

■ En savoir plus

Tester SCCM

<http://www.systemcentercentral.com/sccm-2012-hands-on-labs-now-available-online-technet-virtual-labs/>

Liens concernant les prérequis et installation :

<http://www.pierresalvy.com/2012/05/system-center-2012-configuration-manager-installation-pas-a-pas-les-prerequis/>

<http://msfttech.blogspot.fr/2012/03/sccm-2012-installation-guide.html>

<http://technet.microsoft.com/en-us/library/hh272770.aspx>

<http://vconfigmgr.wordpress.com/2011/05/30/sccm-microsoft-sccm-2007-et-microsoft-sql-200x/>

Configuration :

<http://www.adminreseau.net/2009/09/07/installation-et-configuration-de-wsus-3-0-sp2/>

<http://vconfigmgr.wordpress.com/2011/05/30/sccm-microsoft-sccm-2007-et-microsoft-sql-200x/>

Problèmes et diagnostics (cmtrace) : <http://prajwaldesai.com/sccm-log-files>

Divers : <http://www.windows-noob.com/forums/index.php?/forum/44-system-center-configuration-manager/>

