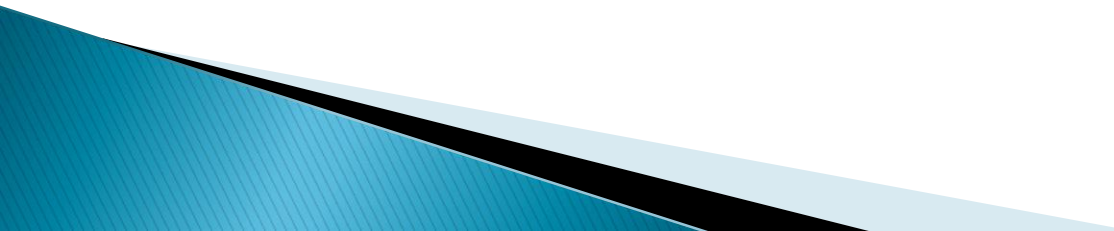


# XenServer à L'ENSAS

- Pourquoi XenServer?
  - Investissement
  - Maintenance
  - Efficacité
- 

# Architecture XenServer de l'ENSAS

Deux pools de 2x deux serveurs et 13 VMs

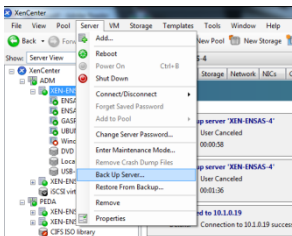
The screenshot displays the XenCenter ADM Overview interface. The left sidebar shows a tree view of the XenCenter environment, including two pools: XEN-ENSAS-2 and XEN-ENSAS-1. The main pane shows the ADM Overview for the selected pool, listing 13 VMs with their respective resource usage and uptime.

| Name                                                                         | CPU Usage     | Used Memory                                                         | Disks (avg / max KBs) | Network (avg / max KBs) | Address              | Uptime                    |
|------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------|-----------------------|-------------------------|----------------------|---------------------------|
| ADM                                                                          | -             | -                                                                   | -                     | -                       | -                    | -                         |
| XEN-ENSAS-4<br>Default install of XenServer                                  | 17% of 8 CPUs | 6693 of 24566 MB                                                    | -                     | 1/4                     | 10.1.0.19            | 169 days 2 hours 38 minut |
| ENSAS-2                                                                      | 2% of 2 CPUs  | 1281 of 2048 MB                                                     | 5/14                  | 0/0                     | 10.1.0.8             | 21 hours 59 minutes       |
| ENSAS-3                                                                      | 1% of 1 CPU   | <a href="#">XenServer Tools out of date (version 5.0 installed)</a> | -                     | -                       | 10.1.0.7             | 23 days 8 hours 3 minute  |
| GASPAR                                                                       | 63% of 2 CPUs | <a href="#">XenServer Tools out of date (version 5.0 installed)</a> | -                     | -                       | 10.1.0.6             | 13 hours 59 minutes       |
| UBUNTU-ENSAS-1<br>OCS Inventry-NG: Inventaire...                             | 0% of 1 CPU   | <a href="#">XenServer Tools not installed</a>                       | -                     | -                       | -                    | 117 days 22 hours 33 minu |
| Windows 7 x64                                                                | -             | -                                                                   | -                     | -                       | -                    | -                         |
| XEN-ENSAS-2<br>Default install of XenServer                                  | 19% of 8 CPUs | 2171 of 24566 MB                                                    | -                     | 0/1                     | 10.1.0.25, 10.2.0.10 | 154 days 4 hours 5 minute |
| NETCRUNCH                                                                    | 76% of 2 CPUs | 616 of 1024 MB                                                      | 0/0                   | 0/0                     | 10.1.0.80            | 54 days 16 hours 51 minut |
| XenServer DDK 5.0.0-11743 ...                                                | -             | -                                                                   | -                     | -                       | 10.1.0.113           | -                         |
| iSCSI virtual disk storage ADM 1...<br>iSCSI SR [10.1.0.10 (iqn.2001-05.c... | -             | -                                                                   | -                     | -                       | 10.1.0.10            | -                         |

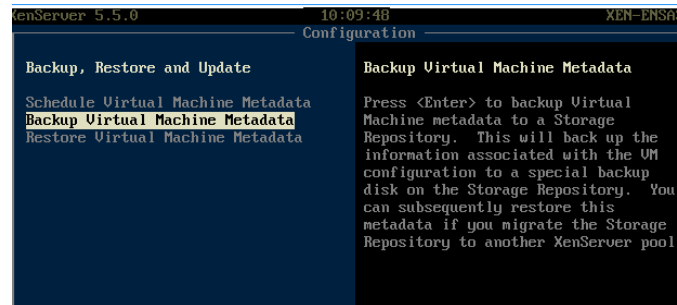
# Outils de sauvegarde

## Sauvegarde des Metadatas

### Par le XenCenter



### Par la xsconsole



### En CLI

xe-backup-metadata provides an interface to create the backup VDIs

```
xe-backup-metadata -h
xe-backup-metadata -c -u <sr uuid>
xe-backup-metadata -d -u <sr uuid>
```

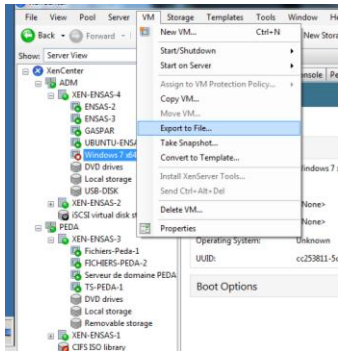
## VM Metadata:

- Nom, description, UUID...

# Outils de sauvegarde

## Sauvegarde d'une VM

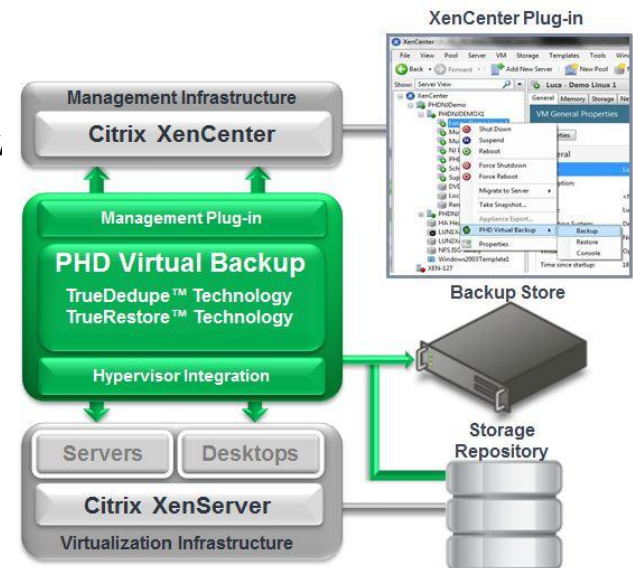
Par le XenCenter



En CLI

```
xe vm-export vm=<vm_uid> filename=<backu
```

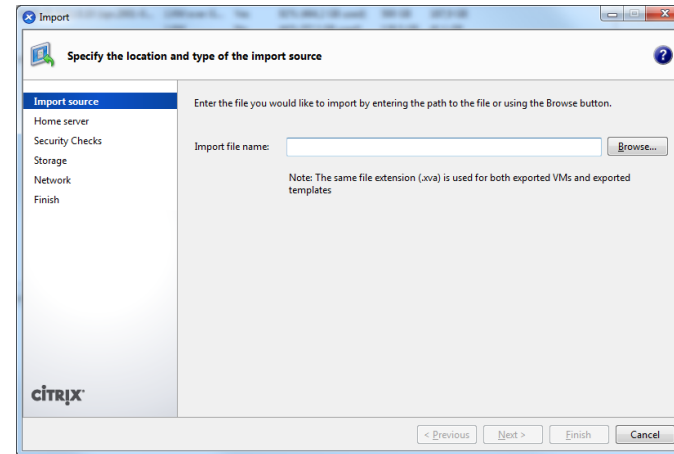
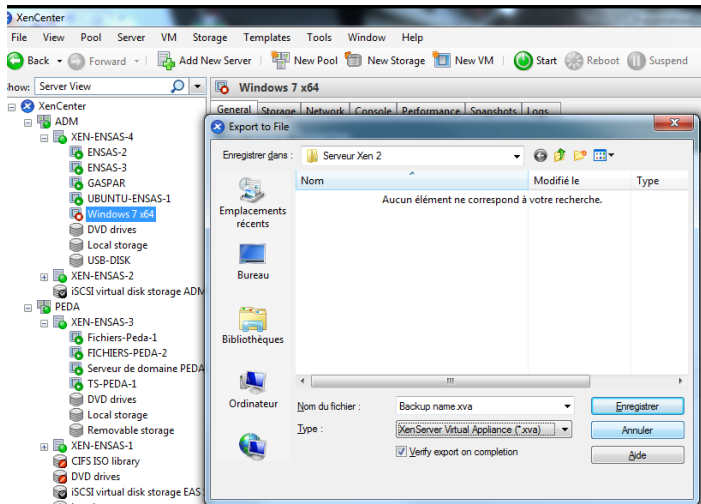
Par des outils tiers



# Outils de sauvegarde

Import/Export d'une VM

Wizard d'importation



# Utilisation de la sauvegarde du SAN

Utilisation des outils intégrés du SAN pour les Snapshots

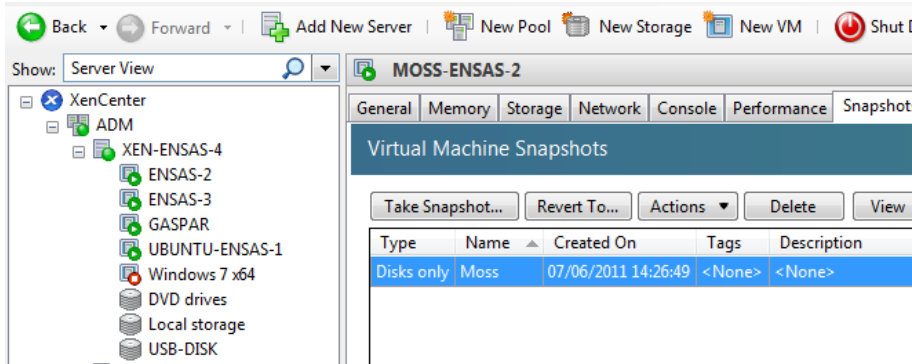
The screenshot displays the Volume EAS management console. The left sidebar shows a tree view with 'EAS' selected. The main area is divided into several sections:

- Snapshot Summary:** Provides an overview of snapshot settings, including a 100% reserve, 90% warning level, and 10 snapshots.
- Snapshots Table:** Lists individual snapshots with their creation dates, sizes, and statuses.

| Created           | Collection | Schedule     | Size     | Status  | Permission             | Connections |
|-------------------|------------|--------------|----------|---------|------------------------|-------------|
| 30/05/11 03:00:00 |            | EAS SnapShot | 500.0 GB | offline | read-write, not-shared | 0           |
| 31/05/11 03:00:00 |            | EAS SnapShot | 500.0 GB | offline | read-write, not-shared | 0           |
| 01/06/11 03:00:00 |            | EAS SnapShot | 500.0 GB | offline | read-write, not-shared | 0           |
| 02/06/11 03:00:00 |            | EAS SnapShot | 500.0 GB | offline | read-write, not-shared | 0           |
| 03/06/11 03:00:00 |            | EAS SnapShot | 500.0 GB | offline | read-write, not-shared | 0           |
| 04/06/11 03:00:00 |            | EAS SnapShot | 500.0 GB | offline | read-write, not-shared | 0           |
| 05/06/11 03:00:00 |            | EAS SnapShot | 500.0 GB | offline | read-write, not-shared | 0           |
| 06/06/11 03:00:00 |            | EAS SnapShot | 500.0 GB | offline | read-write, not-shared | 0           |
| 07/06/11 03:00:00 |            | EAS SnapShot | 500.0 GB | offline | read-write, not-shared | 0           |

Réplication possible avec une autre baie du même type

# Gestion et utilisation des Snapshots



Avantages:

Facile à mettre en place

Copie à chaud de la VM

Possibilité de programmer les Snapshots

Inconvénients:

Problème de libération de l'espace disque CTX123400

| Name                         | Description                        | Type           | Shared | Usage                | Size     | Virtual allocation |
|------------------------------|------------------------------------|----------------|--------|----------------------|----------|--------------------|
| iSCSI virtual disk storag... | iSCSI SR [10.1.0.10 (iqn.2001-0... | LVM over iS... | Yes    | 92% (464,2 GB used)  | 500 GB   | 187,9 GB           |
| Local storage on XEN-E...    |                                    | LVM            | No     | 44% (57,2 GB used)   | 128,5 GB | 41,1 GB            |
| USB-DISK                     |                                    | udev           | No     | 100% (465,7 GB used) | 465,7 GB | 465,7 GB           |
| DVD drives on XEN-ENS...     | Physical DVD drives on XEN-E...    | udev           | No     | 100% (1024 MB used)  | 1024 MB  | 1024 MB            |

# Script de sauvegarde

## Installation:

```
[root@xs /]# mkdir /home/backup
[root@xs /]# cd /home/backup
[root@xs backup]# wget http://www.andy-burton.co.uk/files/xenserver_backup/xenserver_backup.tar.gz
...
23:45:25 (12.9 MB/s) - `xenserver_backup.tar.gz' saved [3181/3181]
[root@xs backup]# tar -xzf xenserver_backup_3.0.tar.gz
[root@xs backup]# chmod 700 vm_backup.*
[root@xs backup]# ./vm_backup.sh
[root@xs backup]# nano vm_backup.log
```

L'ensemble des informations est disponible à l'adresse suivante:

<http://www.andy-burton.co.uk/blog/index.php/2009-08/citrix-xenserver-automated-live-vm-backup-to-windows-cifs-share/>  
\*



# Script de sauvegarde

## Configuration

Fichier de configuration: vm\_backup.cfg

```
GNU nano 1.3.12      File: vm_backup.cfg
# VM backup list
# Only VMs in this list will be backed up when backup_ext="list"
# You can add VMs to the list using: add_to_backup_list "uuid"

# Example:
# add_to_backup_list "2844954f-966d-3ff4-250b-638249b66313"
add_to_backup_list "bdec5de0-834a-fcd8-1a22-5aa6b98fb76a"
add_to_backup_list "30976399-6fd7-38b3-09cc-b9e22f7b32d2"
add_to_backup_list "b5f50606-023b-7b5a-dd38-58a2931484fa"
add_to_backup_list "e721b976-83ff-ddef-b8ab-2a3cf1d45693"
add_to_backup_list "829c933f-d50b-85da-8533-3df41006e639"
add_to_backup_list "9703bf4a-31f3-a2ad-1cce-26b0e1bac8ea"
add_to_backup_list "a90e919e-fdec-0b61-57cc-ab245884ffc2" #Watchdoc1
add_to_backup_list "869c20f5-9e29-096c-9be7-13242f3d04fd" #Moss
```

Programmation de la sauvegarde:

```
[root@xen-ensas-3 backup /]# crontab -e
0 2 * * * /home/vm_backup >> /home/vm_backup.log 2>&1
```

# Script de sauvegarde

Stockage des VMs sur support amovible au format .xva

```
Shell for local user 'root'.  
  
Type 'exit' to return to the management console.  
[root@XEN-ENSAS-4 ~]# cd /  
[root@XEN-ENSAS-4 /]# cd backup  
[root@XEN-ENSAS-4 backup]# ls  
ENSAS-2-2011-04-06_09-26-03.xva  lost+found  
ENSAS-3-2011-05-25_17-10-08.xva  NETCRUNCH-2011-05-25_17-10-08.xva  
GASPAR-2011-01-14_09-19-43.xva  UBUNTU-ENSAS-1-2011-04-06_09-26-03.xva  
GASPAR-2011-04-06_09-26-03.xva  UBUNTU-ENSAS-1-2011-05-25_17-10-08.xva  
GASPAR-2011-05-25_17-10-08.xva  
[root@XEN-ENSAS-4 backup]# █
```