Update Guide

Active Circle Solution Update

Active Circle

Version 4.6.1

Abstract

This document describes the update process for the Active Circle solution.

March 2018 - Rev. 1.2

Contents

Introduction

Active Circle 4.6 is the new foundation of the Active Circle solution. Please refer to the release notes for more details about the latest features of this version. The release notes can be find on the Active Circle Help website: https://activecircle-help.com.

The update is important to stay up to date, enjoy the new features and the latest bug fixes.

Support

Through this process, you can deploy the update yourself.

If you need additional help, a migration assistance service. For more information, contact your Actice Circle sales contact.

> ⚠️ **Important**
>
> To benefit from support assistance, it is required that you first to follow the process outlined below, otherwise a service proposal will be proposed to you.

> ℹ️ **Note**
>
> If you are experiencing a problem or are doubt during the process, you can contact the Active Circle support team `customer-support@active-circle.com`.

Identify the components

Active Circle solution can be composed by many components, please identify the ones that you use in order to update your solution:

- Active Circle
- Active Media Connector (AMC)
- Active Media Explorer (AME)
- Active Data Mover (ADM)

Compatibility matrix

The new version of Active Circle is 4.6.1 or higher :

- AMC 4.6.0 or higher is compatible with Active Circle 4.6
- AME 2.2.3 or higher is compatible with AMC 4.6
- ADM 1.4.0 or higher is compatible with AMC 4.6

Recommendations

> ⚠️ **Important**
>
> The process is fully detailed in this document and, is mandatory so don't forget this step. Take your time and read the entire process before starting!

Prepare the binaries

All installation binaries can be downloaded from the Active Circle FTP Server ftp://ftp.active-circle.com:

- For the Active Circle download:
    - **/downloads/Binaries/AC/ac-*4.6.1*.bin**
    - **/downloads/Tools/Update-4.6/script_update_4.6.zip**
- For the AMC download: **/downloads/Binaries/AMC/amc-*4.6.0*.bin**
- For the AME download:
    - **/downloads/Binaries/AME/ame_package-*3.3.3*.run**
    - **/downloads/Binaries/AME/ame-*2.2.3*.run**
- For the ADM download: **/downloads/Binaries/ADM/adm-*1.4.0*.bin**

The numbers in *italics* refer to the current version. Replace the values if more recent executables are available.

It is mandatory to use the **root** user to update.

Then, copy the binaries to the nodes and make it executable: **chmod +x *.sh *.bin**

Active Circle

Prerequisites

Active Circle 4.6 defines a new organization of file location information in archives, involving a significant update of the files and archives of each share.

> **⚠ Important**
>
> Please carefully read the entire procedure before implementing.

Choose the right first node

Migrating file location to the archives requires the path of all share files. It is therefore essential to choose a node containing information from all shares. It is therefore essential to choose a node containing information from all shares:

- For circles containing **at least 3 nodes**, any node in the circle can be chosen.
- For circles containing **more than 3 nodes**, it is imperative that a consolidation node be selected.

> **ⓘ Note**
>
> When using a circle with more than 3 nodes, if no particular node is defined as consolidation node, you must choose one. Then give it time to synchronize with all the other nodes to consolidate all the information. This step must be performed at least a few days before updating the circle.

Service interruption during the update

During the update, after first restarting the Active Circle service shares will not be immediately accessible until their metadata has been updated.

> **Note**
>
> The amount of time required for this update is proportional to the number of files and archives.
>
> Depending on your hardware configuration, allow for approximately 1 hour per 100,000 files being updated.

> **Important**
>
> It is essential that you do not start other circle nodes until the shares are all running on the first node.

Sequential updating

To ensure the consistency of metadata across all nodes, you must wait until the end of the node update before updating the next node.

Accessing prohibited files

The use of Active Circle while updating is prohibited:

- Accessing files from the main NAS (SMB, NFS and FTP) is prohibited.
- Using Active Circle interfaces (explorer and administration) are prohibited.
- Using the CLI is also prohibited.

Process

For configurations with tape archiving, please carefully follow the procedure indicated in the following section "Update for configurations with tape archives".

For configurations only containing disk storage, you can go directly to the section "Update for configurations with disks only" for the simplified update procedure.

Update for configurations with tape archives

> **Note**
>
> Use this procedure for configurations with tape archives.

1. Identify the circle consolidation nodes to begin updating to begin updating.

2. Copy files to all nodes.

   The Active Circle binary: `ac-4.6.1.bin`

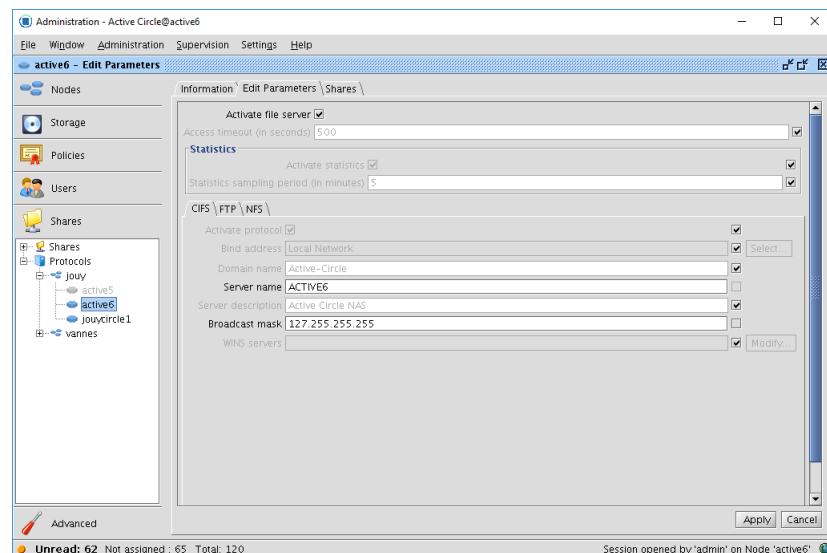   The update script: `script_update_4.6.zip`

   Extract it into: `/activecircle/.tools/bin`

   Make it executable: `chmod +x /activecircle/.tools/bin/*.sh`

3. Disable file server

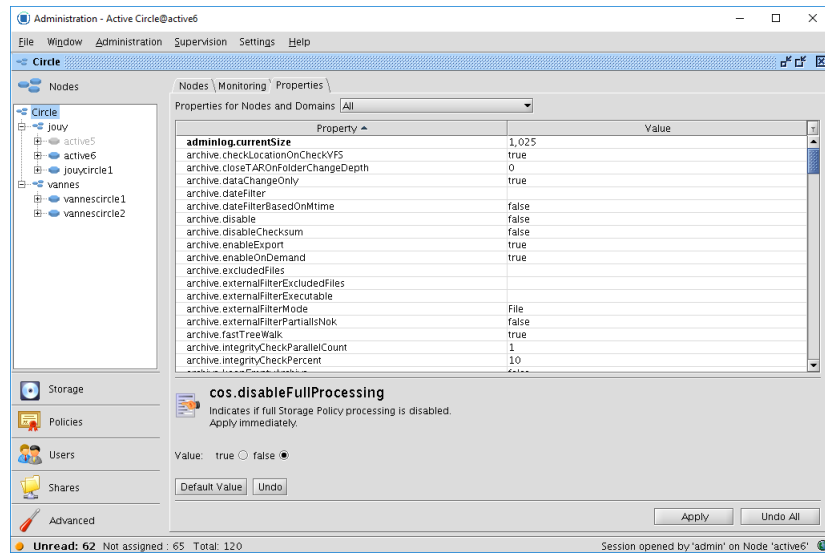   Launch the Active Circle administration interface.

   Go to the "Share" viewing pane and click on "Protocols".

   For each server, in the "Edit Parameters" tab, click on the "Activate file server" checkbox to disable the file server.

4. Disable storage policies

   In the Active Circle administration interface, go to the "Nodes" viewing pane and click on "Circle".
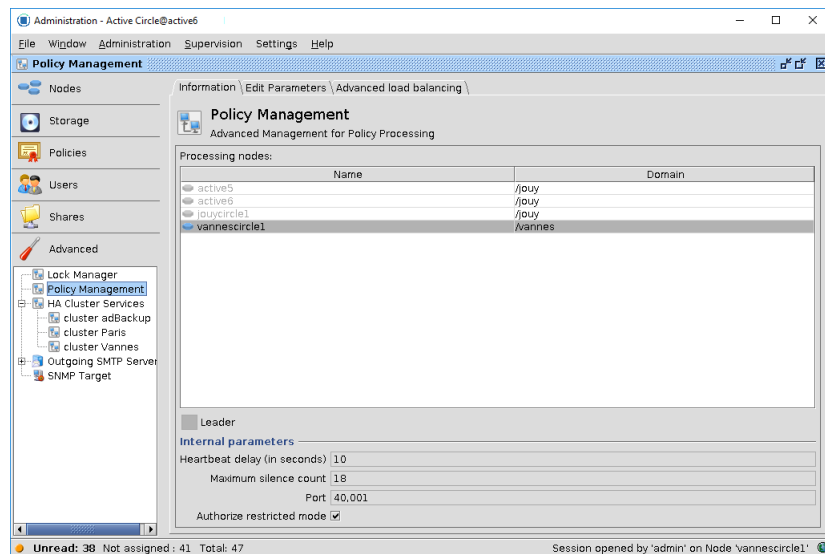
In "Properties" tab, make this modification:

Disable storage policies to put: `cos.disableFullProcessing` to **true**

5. Disable archiving policies

   In the Active Circle administration interface, go to the "Advanced" viewing pane and click on "Policy Management".

For each processing nodes of the "Policy Management", edit:

`/activecircle/.localvars`

Go to the end of the file and modify `CELL_LOCAL_OPT` propertie to add:

`-Dactivecircle.account.disableCOSProcessing=true`

6. Configure the first node

   Only on the first node, edit: `/activecircle/.localvars`

   Go to the end of the file and modify the `CELL_LOCAL_OPT` property to add:

   `-Dactivecircle.vfs.catalog.firstNodeUpgrade41=true`

7. Stop the Active Circle service on all nodes in the circle by ending with the node that will be updated first to ensure that its catalog is up to date.

Use the following command:
- CentOS 6: `service activecircle stop`
- CentOS 7: `systemctl stop activecircle`

8. Save the catalog of each node using this script:

   `./activecircle/.tools/bin/backupNode.sh destination_path`

9. Install the update on the first node by running the following command:

   `ac-4.6.1.bin -r -M`

10. Start the Active Circle service on the node with the following command:
    - CentOS 6: `service activecircle start`
    - CentOS 7: `systemctl start activecircle`

> **i** **Note**
>
> The catalog update will be completed once you restart the node and each circle share.

11. Monitor the update progress using this script:

    `./activecircle/.tools/bin/update46Monitor.sh period_in_minutes`

    The script gives the number of shares being updated, the number of shares completed and the percentage of completion.

    For example:

```
[root@ac #]# ./activecircle/.tools/bin/update46Monitor.sh 10
Number of shares: 114
Filtered logs  : /var/log/ac/update46_logs_20171215_10h32.txt
CSV file       : /var/log/ac/update46_monitoring_20171215_10h32.csv
Period         : 10 minutes
---
Date          Total In progress Completed    %
15/12/17 10h42  114          10         0   0%
[...]
17/12/17  2h53  114           1       113  99%
17/12/17  3h03  114           0       114 100%
```

> **⚠** **Important**
>
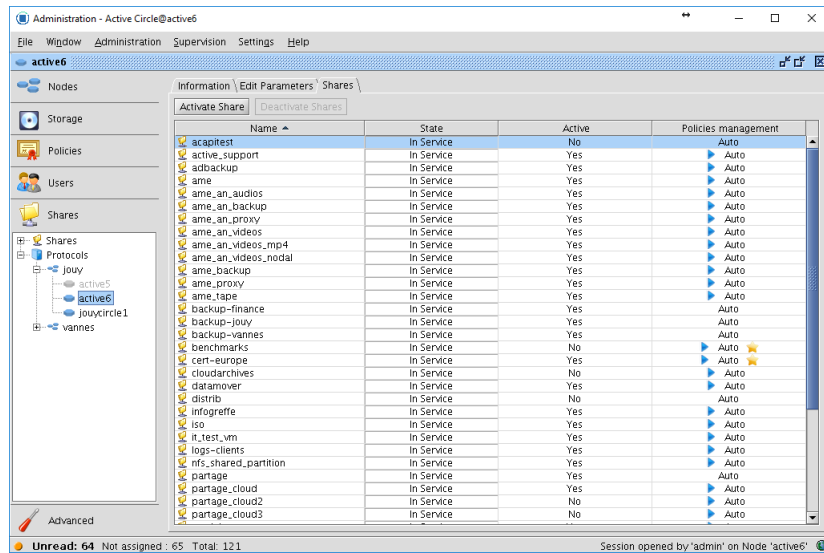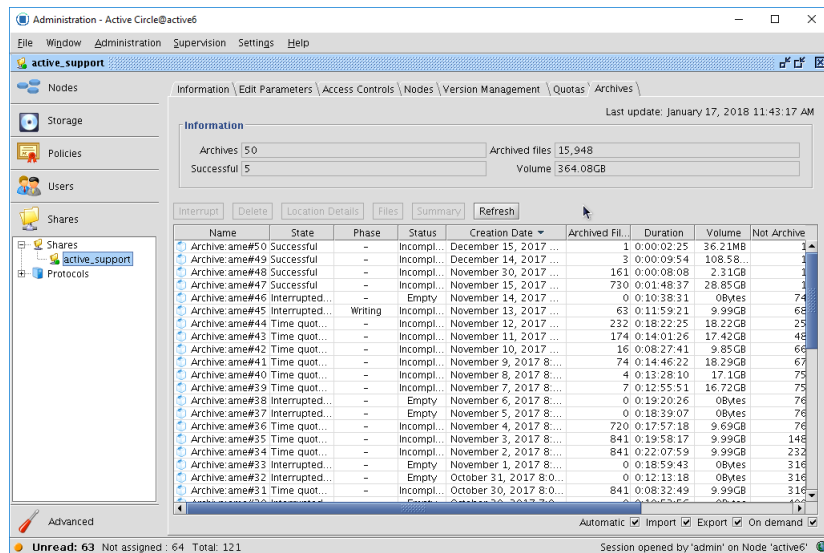> Wait until the end of the update before continuing to the next step.

12. Manual validation

    Launch the Active Circle administration interface on the node and verify that:
    - All share statues are **In Service** in the "Share" viewing pane, "Protocols", select the node and go to the "Shares" tab.

- Archives are displayed on the actived share of the node. See it on each share from the "Share" viewing pane, in the "Archives" tab.

- No supervision notes on un-started shares, indicating corruption.

> **Note**
>
> If you have a problem, please contact Active Circle support team:
> `customer-support@active-circle.com`

13. Validate the update progress using this script:

`./activecircle/.tools/bin/update46Validation.sh`

This script checks the status of the update, the statistics to give the number of archives and files repaired, the following two possible exceptions CatalogSynchroConnectionServiceNotFoundException and OutOfMemoryError and finally, the number of archive location "repaired".

For example:

```
[root@ac #]# ./activecircle/.tools/bin/update46Validation.sh
Info: number of shares : 114
Info: the node is fully updated
```

```
Info: N archive location(s) repaired. See
      /var/log/ac/update46_archive_repaired_20171219_11h07.txt
```

> ## Note
>
> If you have a problem, please contact the Active Circle support team: `customer-support@active-circle.com`

14. Repeat steps 9 to 13 on the other nodes

> ## Important
>
> The update must be sequential, so update only one node at a time.

15. Finalization:

    - Verify all the supervision notes.
    - Activate the file server on the nodes (see step 3).
    - Check the file access.
    - Set the circle property to default: **`cos.disableFullProcessing = false`** (see step 4).
    - Delete the system properties: **`-Dactivecircle.account.disableCOSProcessing=true`** and **`-Dactivecircle.vfs.catalog.firstNodeUpgrade41=true`** (see steps 5 and 6).

    Reboot one by one the modified nodes.

16. Congratulations, your circle is now up to date!

Update for configurations with disks only

> ⚠️ **Important**
>
> Only use this procedure for configuration with disks only without tape archives.
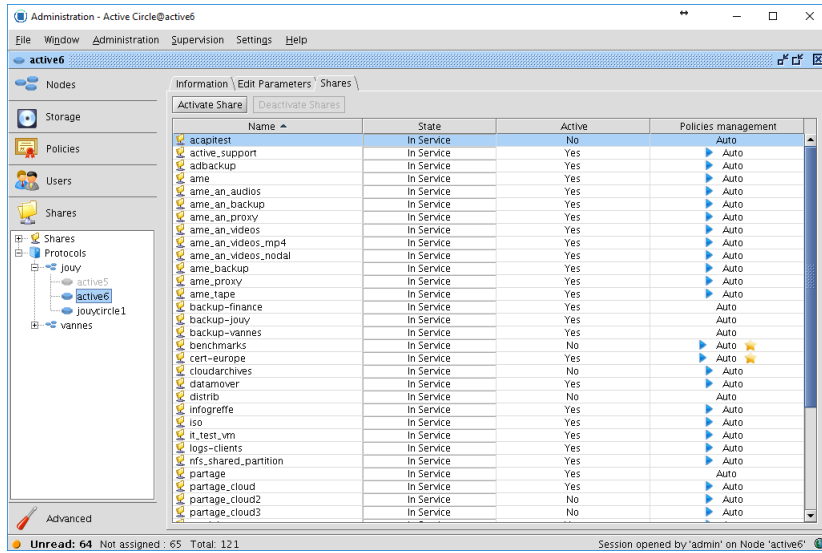
1. Identify the circle consolidation nodes to begin updating the circle with them.

2. Copy files to all nodes.

   The Active Circle binary: `ac-4.6.1.bin`

3. Configure the first node

   Only on the first node, edit: `/activecircle/.localvars`

   Go to the end of the file and modify the `CELL_LOCAL_OPT` property to add:

   `-Dactivecircle.vfs.catalog.firstNodeUpgrade41=true`

4. Stop the Active Circle service on all nodes in the circle by ending with the node that will be updated first to ensure that its catalog is up to date.

   Use the following command:
   - CentOS 6: `service activecircle stop`
   - CentOS 7: `systemctl stop activecircle`

5. Save the catalog of each node using this script:

   `./activecircle/.tools/bin/backupNode.sh destination_path`

6. Install the update on the first node by running the following command:

   `ac-4.6.1.bin -r -M`

7. Start the Active Circle service on the node with the following command:
   - CentOS 6: `service activecircle start`
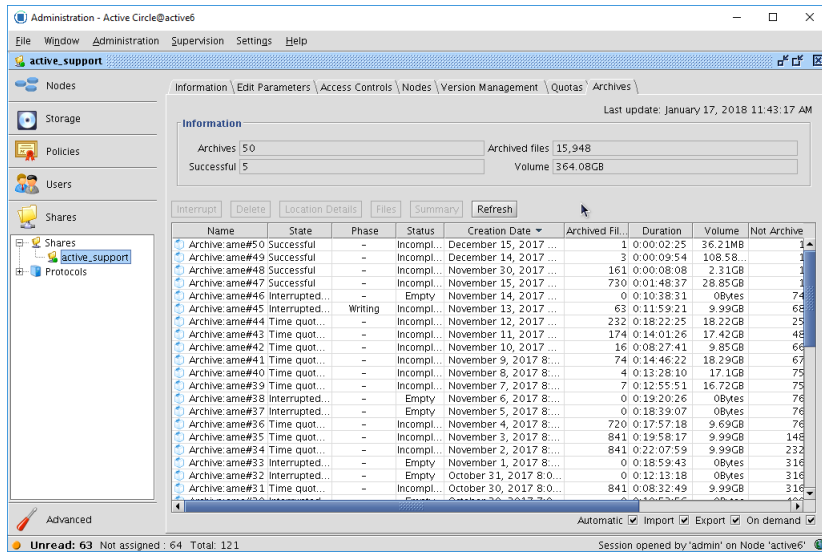   - CentOS 7: `systemctl start activecircle`

> ℹ️ **Note**
>
> The catalog update will be completed once you restart the node and each circle share.

8. Manual validation

   Launch the Active Circle administration interface on the node and verify that:
   - All the shares display the status **In Service** in the "Share" viewing pane, "Protocols", select the node and go to the "Shares" tab.

- Archives are displayed on the active share node. See it on each share from the "Share" viewing pane, in the "Archives" tab.

- No supervision notes on un-started shares, indicating corruption.

> ℹ️ **Note**
>
> If you have a problem, please contact the Active Circle support team: `customer-support@active-circle.com`

9. Repeat steps 6 to 8 on the other nodes

> ⚠️ **Important**
>
> The update must be sequential, so only update one node at a time.

10. Finalization:

- Verify all the supervision notes.
- Check the files access.
- Delete the system properties: `-Dactivecircle.vfs.catalog.firstNodeUpgrade41=true` (see step 3).

Reboot the modified node.

11. Congratulations, your circle is now up to date!

AMC

Update

The update of the AMC consists of two parts:

1. Updating the AMC web application (server)
2. Updating the plugin on Active Circle Node (client)

Web Application

The AMC web application is installed in dedicated server or on one of the Active Circle node.

> ⚠️ **Important**
>
> The update operation will likely require the restart of various services.

Check your internet connexion and update the Active Media Connector web application, by running the installation executable with the `-w` option:

`./amc-4.6.0.bin -w`

This will update automatically the prerequirements, the web application and theirs configuration files. The existing tomcat, web application and plugin configuration file will not be modified.

```
[...]
Install webapp
Extract current AMC
Copy config file under /etc/ac/acapi-config.groovy
Copy tools...
Restart tomcat
done                                                          [   OK   ]
```

All the logs are store in the file: `/var/log/amc_install.log`

Plugin

The AMC plugin is installed at least on one of the Active Circle node. To update the AMC plugin, internet connexion is not required, copy the installation executable to the node and run it with the -p option:

./amc-4.6.0.bin -p

This will verify that the Active Circle software is installed on the system and update the plugin and its configuration file.

```
[...]
Install plugin and force loading
AcapiPlugin.groovy
done success
```

> **Note**
>
> The AMC plugin update must be repeated on all the Active Circle nodes where it installed.

Check the configuration

Once the Active Media Connector is updated you must check the configuration. Adapt the default value regardings your configuration.
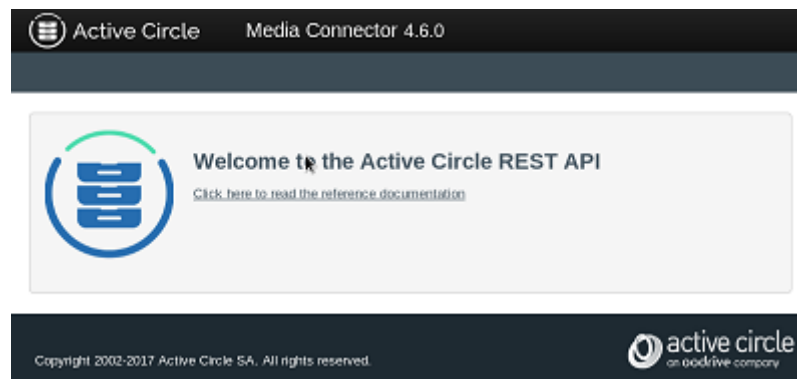
Access Port

Verify the access port (default: 8081) with the following URL address:

http://*apiservername:8081*/acapi

The AMC home page should appear as follows:

Figure 1. The AMC Home Page

Credentials

Verify the default credentials (default: admin/1234) and the shares access with the following:

http://*apiservername:8081*/acapi/1.0/file

Active Circle shares should appear as follows:

```
{
    "self": "http://10.10.50.161:8081/acapi/1.0/file",
    "share": "",
    "path": "",
    "creationDate": "",
    "modificationDate": "",
    "type": "directory",
    "files": [
        "data/",
        "users/"
        "share1/"
    ]
}
```

Nodes

Verify that nodes are registered in the AMC with the following URL address:

http://*apiservername:8081*/acapi/1.0/node

The nodes should be appear as follows:

```
{
    "self": "http://10.10.50.161:8081/acapi/1.0/node",
    "max": 100,
    "offset": 0,
    "sort": "id",
    "order": "asc",
    "count": 2,
    "size": 2,
    "nodes": [
        {
            "name": "node01",
            "description": "",
            "lastStartingTime": 1511445528493,
            "nodeVersion": "4.6.0_0",
            "hasTapeDrive": true,
            "path": "node01/Local",
            "ipAddresses": [
                "10.10.50.161"
            ],
            "httpPort": 80,
            "ftpPort": 21,
            "url": "http://10.10.50.161:8081/acapi/1.0/node/node01"
        },
        {
            "name": "node02",
            "description": "",
            "lastStartingTime": 1511446219149,
            "nodeVersion": "4.6.0_0",
            "hasTapeDrive": false,
            "path": "node02/Local",
            "ipAddresses": [
                "10.10.50.162"
            ],
            "httpPort": 80,
            "ftpPort": 21,
            "url": "http://10.10.50.162:8081/acapi/1.0/node/node02"
        }
    ]
}
```

AME

Update

The AME is installed in dedicated server or on one of the Active Circle node.

> **Note**
>
> This update procedure can only be used to update version 1.6 or later of the Active Media Explorer.

> **Important**
>
> It is mandatory to update in stages.
>
> If you have version 1.6 installed, please update in version 2.0 then 2.1 and 2.2. Be sure to use the latest available patch of AME for updating.

> **Tip**
>
> If you have version 1.5 installed, please contact your Active Circle support team.

Follow these steps to install the updated files:

1. Verifier qu'il n'y a pas d'activité sur l'AME.

2. Stop the AME:

   CentOS 6: **`service ame stop`**

   CentOS 7: **`systemctl stop ame`**

3. Run the dependency executable:

   `./ame_package-3.3.3.run`

   This will automatically update the prerequisites and their configuration files. If prompted during the installation, enter "y" and press Enter to confirm.

   ```
   [...]
   OS packages for web servers and media management installed
   OK exiting
   ```

   This process take at least 20 minutes to complete.

4. Run the installation executable:

   if installed version is AME 1.6 start with **`./ame-2.0.2.run`** and then

   if installed version is AME 2.0 start with**`./ame-2.1.7.run`** and then

   if installed version is AME 2.1 start with**`./ame-2.2.3.run`**

   This will install AME software and deploy automatically database and PHP files. If prompted during the installation, enter "y" and press Enter to confirm.

   ```
   [...]
   ============================================================================
   Active Media Explorer installed successfully
   To finish the Active Media Explorer configuration you must:
   - Start the AME service, use the following commande:
               service ame start
   - Access the web interface using the url:
               http://localhost/

   For more information to configure automatic AME start see file: /ame/README
   ============================================================================
   ```

5. To start the service, type the following command:
   - CentOS 6: **`service ame start`**
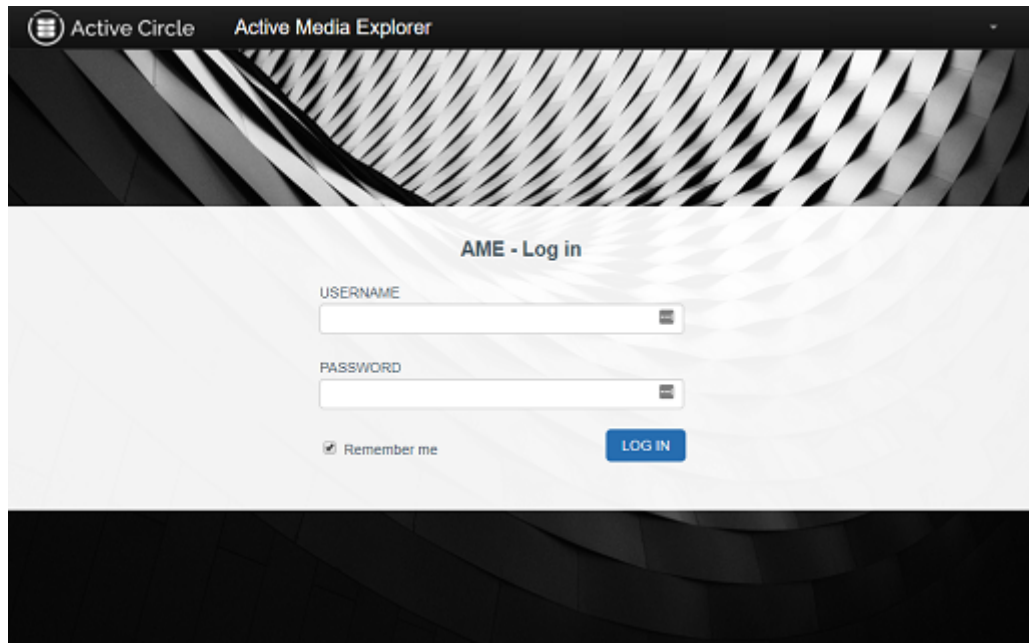   - CentOS 7: **`systemctl start ame`**

Check the configuration

Verify the update with the following:

`http://ameservername`

The AME home page should appear as follows:

Figure 2. The AME Home Page

ADM

Update

The ADM web application is installed in dedicated server or on one of the Active Circle node.

> ⚠️ **Important**
>
> The update operation will likely require the restart of various services.

Check your internet connexion and update the Active Data Mover web application, by running the installation executable with the `-w` option:

./adm-*1.4.0*.bin -w

This will update automatically the prerequirements, the web application and theirs configuration files. The existing tomcat, web application and plugin configuration file will not be modified.

```
[...]
Install webapp
Extract current ADM
Configuration
Copy config file under /etc/ac/datamover-config.groovy
Restart tomcat
done                                                          [   OK   ]
```

All the logs are store in the file: `/var/log/adm_install.log`

Check the configuration

Once the Active Media Connector is updated you must check the configuration. Adapt the default value regardings your configuration.
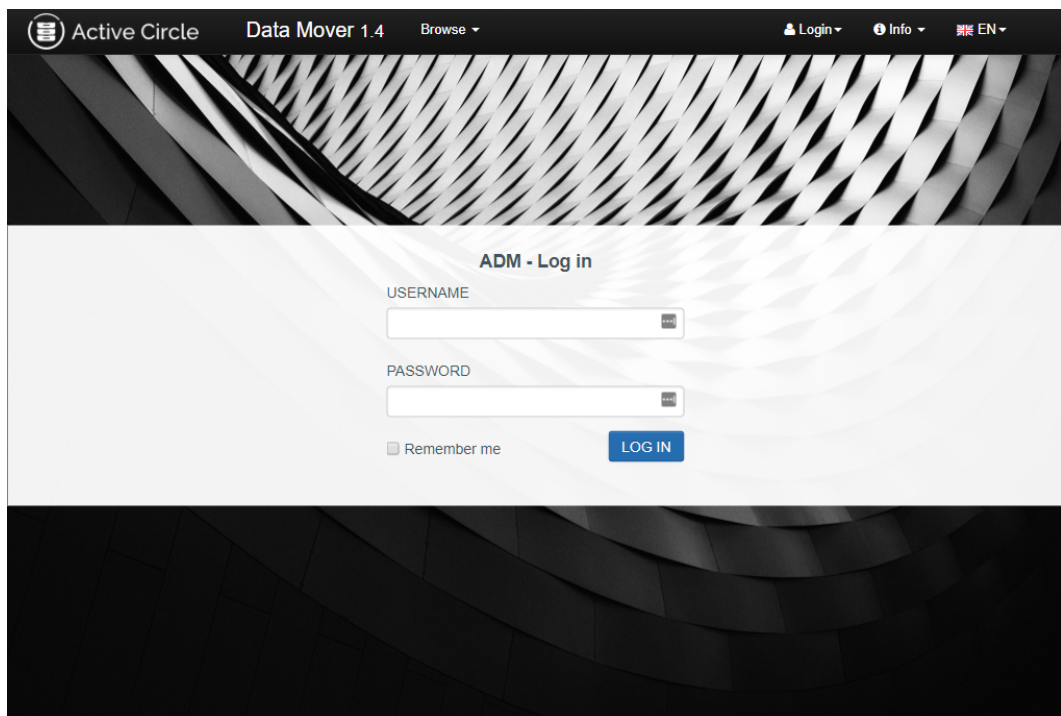
Access Port

Verify the access port (default: 8081) with the following URL address:

```
http://admservername:8081/datamover
```

The ADM home page should appear as follows:

Figure 3. The ADM Home Page

For more information

For additional information, contact your Active Circle representative or send an e-mail to `customer-support@active-circle.com`.

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