

M'AthCloud 3.0.0 – Livrables

1.Introduction

Cette documentation décrit les livrables physiques ainsi que leur déploiement sur un environnement VM Linux Ubuntu Server vierge.

2.Livrables

Les livrables sont constitués de 5 archives:

1. L'API (back-end) nécessaire au fonctionnement de l'écosystème: api.zip
2. L'application Web (front-end) Physician & CRO: www.zip
3. L'application Web (front-end) pour l'administration CRO: cro.zip
4. L'application Web (front-end) pour l'administration IIMT: admin.zip
5. Les bases de données: database.zip

3.AZNetwork

Le déploiement est effectué sur l'environnement HDS, chez AZNetwork:

Les adresses de la VM sont:

- LAN: 172.18.55.96/28
- Public: 91.247.75.188

Pour se connecter à la VM, un accès VPN est nécessaire:

- <https://vpnmcld.aznetwork.eu/profiles/f69b2602e960e694b549b5151bb4049cb01037b235e91df56654f816367743d1/>
- user: fabrice.poupon.iimt
- pass: 70Jhzfhuem

Cependant, il faut contacter AZNetwork pour mettre à jour votre clé SSH.

Pour un accès depuis un poste Linux:

- `sudo apt-get install openvpn`
- `sudo apt-get install gadmin-openvpn-client`
- Importer la configuration ci-dessus
- `sudo openvpn --config ovpn.david.fortier.iimt.ovpn`
- `ssh -i ~/.ssh/id_rsa iimtadm@172.18.55.97`
- Vous êtes maintenant logué sur la VM
- Pour passer en root:
 - `sudo -s`
 - Le mot-de-passe est dans le fichier `~/home/mypass.txt`

4. Serveur Web

Pour configurer le serveur Web Apache2 et les 3 sous-domaines nécessaires au bon fonctionnement (api, www, cro):

- sites / subdomains
 - sudo a2enmod rewrite
 - sudo a2enmod headers
- .htaccess (déjà présent dans l'archive du livrable)
- Ajouter cette directive header:
 - Header set Access-Control-Allow-Origin "*" pour permettre l'accès direct aux média depuis des appels JS front-end

5. Base de données

Pour configurer la base de données:

- apt-get update
- apt-get install mariadb-server
- mysql_secure_installation #password
- CREATE USER 'newuser'@'localhost' IDENTIFIED BY 'password';
- GRANT ALL PRIVILEGES ON * . * TO 'newuser'@'localhost';
- apt-get install phpmyadmin

6. Divers

Ajouter les packet DICOM (DCMTK):

- apt-get install dcmtool

Ajouter les divers outils nécessaires:

- apt-get install php-gd
- apt-get install qt5-default
- apt-get install curl
- apt-get install ffmpeg
- apt-get install wget
- apt-get install zip
- apt-get install unzip

A ne pas oublier:

- Modifier la configuration PHP par défaut pour permettre l'upload de fichiers plus imposants
- Penser à la configuration réseau concernant les ports forwarding pour la configuration DICOM
- Les certificats SSL sont installés et configurés dans les fichiers de configuration apache ci-dessous
- Enfin, vérifier que la zone DNS du domaine pointe vers la bonne adresse IP

7. Annexes

7.1. api.conf

```
<IfModule mod_ssl.c>
    <VirtualHost _default_:443>
        ServerAdmin webmaster@localhost
        ServerName api.ipsocloud.com

        DocumentRoot /var/www/api

        ErrorLog ${APACHE_LOG_DIR}/error.log
        CustomLog ${APACHE_LOG_DIR}/access.log combined

        SSLEngine on
        SSLCertificateFile /etc/ssl/ipsocloud.crt
        SSLCertificateKeyFile/etc/ssl/ipsocloud.key
        SSLCACertificateFile /etc/ssl/ipsocloud.ca

        <FilesMatch "\.(cgi|shtml|phtml|php)$">
            SSLOptions +StdEnvVars
        </FilesMatch>
        <Directory /usr/lib/cgi-bin>
            SSLOptions +StdEnvVars
        </Directory>
        <Directory /var/www/api/>
            Options Indexes FollowSymLinks
            AllowOverride All
            SSLOptions +StdEnvVars
            Require all granted
            Header set Access-Control-Allow-Origin "*"
        </Directory>

    </VirtualHost>
</IfModule>
```

7.2. www.conf

```
<IfModule mod_ssl.c>
    <VirtualHost _default_:443>
        ServerAdmin webmaster@localhost
        ServerName www.ipsocloud.com

        DocumentRoot /var/www/www

        ErrorLog ${APACHE_LOG_DIR}/error.log
        CustomLog ${APACHE_LOG_DIR}/access.log combined

        SSLEngine on
        SSLCertificateFile /etc/ssl/ipsocloud.crt
        SSLCertificateKeyFile/etc/ssl/ipsocloud.key
        SSLCACertificateFile /etc/ssl/ipsocloud.ca
```

```

        <FilesMatch "\.(cgi|shtml|phtml|php)$">
            SSLOptions +StdEnvVars
        </FilesMatch>
        <Directory /usr/lib/cgi-bin>
            SSLOptions +StdEnvVars
        </Directory>
    </VirtualHost>
</IfModule>

```

7.3. cro.conf

```

<IfModule mod_ssl.c>
    <VirtualHost _default_:443>
        ServerAdmin webmaster@localhost
        ServerName cro.ipsocloud.com

        DocumentRoot /var/www/cro

        ErrorLog ${APACHE_LOG_DIR}/error.log
        CustomLog ${APACHE_LOG_DIR}/access.log combined

        SSLEngine on
        SSLCertificateFile /etc/ssl/ipsocloud.crt
        SSLCertificateKeyFile/etc/ssl/ipsocloud.key
        SSLCACertificateFile /etc/ssl/ipsocloud.ca

        <FilesMatch "\.(cgi|shtml|phtml|php)$">SSLOptions +StdEnvVars
        </FilesMatch>
        <Directory /usr/lib/cgi-bin>
            SSLOptions +StdEnvVars
        </Directory>
    </VirtualHost>
</IfModule>

```

7.4. Certificats SSL

7.4.1. Certificat SSL

```

-----BEGIN CERTIFICATE-----
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-----END CERTIFICATE-----

7.4.2. Clé privé du certificat

-----BEGIN PRIVATE KEY-----

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-----END PRIVATE KEY-----

7.4.3. Certificat de l'autorité de certification

-----BEGIN CERTIFICATE-----

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-----END CERTIFICATE-----

-----BEGIN CERTIFICATE-----

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-----END CERTIFICATE-----

-----BEGIN CERTIFICATE-----

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7.4.4. Requête de création du certificat initial

-----BEGIN CERTIFICATE REQUEST-----

MIIC1TCCAb0CAQAwwY8xGzAZBgkqhkiG9w0BCQEWDHBBqdHdAaWltdC5mcjELMAkGA1UEBhMCRIIx DzANBgNVBAgMBkZyYW5jZTEOMAwGA1UEBwwFUGFyaXMxDTALBgNVBAoMBELJTVQx FzAVBgNVBAsMDkFkbWluaXN0cmF0aW9uMR0wGAYDVQQDDBF3d3cu aXBzb2Nsb3VklmNvbTCCASIwDQYJKoZIhvcNAQEBBQADggEPADCCAQoCggEBAOH aoe3zye1Cll7Cw1X3ycDyilX7+sYW3wvsJnBui5WolskffRmh7LeoGJGXGPCyZkvi Dbz0MhzzDgCHUga2G3oUM8OJEqz/p+034XpCIROQKgwjRzyufusMCzhcKJRvRUG/ kUFMjkzGrJ9ks0Ql0Lgr7arOY4a/CKS296LrPxFJ4rn9yWYYpBtZ13G8cXnvLHp4 6MRV+9oweXop2k7MtVts3atCVgBAXKSKUDDgzQHEunq22um8aa5xA/PYclmhOa0w Tj7KpuNC1H1NYMiSzLty+EC+CUMQpukuyJg1iNaOXFd5ie9QwMz+4raqmgkrjFU4 oHGaz7USZNfTKmnWvbMCAwEAAaAAMA0GCSqGSIb3DQEBCwUAA4IBAQA HgruBhh54 it4JtnCRP4yVX9G/DR+HunRcpCjl6h4P/z6xOsf1Hn0E7/67HfgHWLO9upf2ESMG kU3SG0HGv03U2s708WvjdDGLbIn5IoAJYYNFhqW+8hcBKkWCb+EzvvfywPKmCtye Q/rfdZL/zmyXJfxN/DEWmIJm1ib9pWtOe4gnbtU0z9ioD8k+jbSwBNFfz1Bc04h6 Fc1SI6yWA4fEft9Tx776SSravf3JkwIzSUqoqJvqI62F7DF5bkXpwr2zZ7il961D 8Pwvafpn0eUk6kHR30pNklynfV08NsRK5y7cdAxh+CPE6CQlViF1mjxtIS8taTYV MCIjQ9ueMKre

-----END CERTIFICATE REQUEST-----