ADMP Setup Guide

AMD

Version 3.0

Before installing the ADMP binary or application, prepare your environment by following the steps below.

Contents

- *Configure HTTPS (SSL Certificates)*
  - *Create Server Configuration File*
  - *Generate CA Key and Certificate*
- *Database Setup*
  - *SQLite Setup*
  - *SQL Server Setup*
    - *Install SQL Server*
    - *Verify sqlcmd Utility*
    - *Grant Permissions for ADMP Database*
  - *PostgreSQL Setup*
    - *Install PostgreSQL*
    - *Add PostgreSQL to PATH*
    - *SSL Certificate Storage*
    - *Create PostgreSQL Server Configuration File*
    - *Generate Server Keys and Certificates*
    - *Generate Client Keys and Certificates*
    - *Update pg_hba.conf*
    - *Update postgresql.conf*
    - *Secure Certificate Key Permissions*
    - *Restart PostgreSQL Service*

Configure HTTPS (SSL Certificates)

SSL certificates secure data between clients and the ADMP server using encryption and authentication.

Store all SSL certificates and keys in `C:\Program Data\AMD\SSLCerts`.

Create Server Configuration File

Create `server_san.cnf` inside the SSL folder with the following content:

```
subjectAltName = @alt_names
[alt_names]
DNS.1 = {server name}
DNS.2 = localhost
IP.1 = {server ip}
IP.2 = 127.0.0.1
```

Generate CA Key and Certificate

Run these commands in the SSL folder:

```
openssl genrsa -out CA.key 4096
openssl req -x509 -new -nodes -key CA.key -sha256 -days 3650 -out CA.crt -
↪subj "/CN=ADMPRootCA"
openssl genrsa -out admpkey.key 2048
openssl req -new -key admpkey.key -out admpcert.csr -subj "/CN={server name}"
openssl x509 -req -in admpcert.csr -CA CA.crt -CAkey CA.key -CAcreateserial -
↪out admpcert.crt -days 365 -sha256 -extfile server_san.cnf
```

Database Setup

ADMP supports SQLite, PostgreSQL, and SQL Server. Refer to the instructions below for your preferred database.

SQLite Setup

No setup is required. SQLite is included within the ADMP binary and does not need external configuration. You can continue directly to installation.

SQL Server Setup

Install SQL Server

Download and install SQL Server (Express or Developer Edition) from Microsoft:

SQL Server downloads

Verify sqlcmd Utility

Check whether `sqlcmd` is available using Command Prompt:

```
sqlcmd -?
```

If you receive a “command not found” or similar error, install the SQLCMD utility from:

SQLCMD utility

Grant Permissions for ADMP Database

This ensures ADMP has full rights for database operations during setup. Run the following command to grant ADMP access rights:

```
sqlcmd -S localhost\SQLEXPRESS -Q "CREATE LOGIN [NT AUTHORITY\SYSTEM] FROM␣
↪WINDOWS; ALTER SERVER ROLE [sysadmin] ADD MEMBER [NT AUTHORITY\SYSTEM];"
```

PostgreSQL Setup

> **Note**
>
> ADMP uses SSL-based authentication for PostgreSQL. The server and client trust each other using SSL certificates for secure communication.

Install PostgreSQL

Download and install PostgreSQL from the official site:

PostgreSQL downloads

Add PostgreSQL to PATH

Add PostgreSQL binaries to the system environment PATH:

```
%ProgramFiles%\PostgreSQL\16\bin
```

SSL Certificate Storage

Store all SSL certificates and keys in the following folder:

```
%ProgramFiles%\AMD\ADMP\SSLCerts\
```

Copy the previously generated `CA.crt` and `CA.key` files to this same folder.

Create PostgreSQL Server Configuration File

Create `server_san.cnf` inside the SSL folder with the following content:

```
subjectAltName = @alt_names
[alt_names]
DNS.1 = {server name}
DNS.2 = localhost
IP.1 = {server ip}
IP.2 = 127.0.0.1
```

Generate Server Keys and Certificates

Run these commands inside the SSL folder:

```
openssl genrsa -out server.key 2048
openssl genrsa -out admpkey.key 2048
openssl req -new -key server.key -out server.csr -subj "/CN={server name}"
openssl req -new -key admpkey.key -out admpcert.csr -subj "/CN={server name}"
openssl x509 -req -in server.csr -CA CA.crt -CAkey CA.key -CAcreateserial -
↪out server.crt -days 365 -sha256 -extfile server_san.cnf
openssl x509 -req -in admpcert.csr -CA CA.crt -CAkey CA.key -CAcreateserial -
↪out admpcert.crt -days 365 -sha256 -extfile server_san.cnf
```

Generate Client Keys and Certificates

Run the following commands inside the SSL folder:

```
openssl genrsa -out client.key 2048
openssl req -new -key client.key -out client.csr -subj "/CN=postgres"
openssl x509 -req -in client.csr -CA CA.crt -CAkey CA.key -CAcreateserial -
↪out client.crt -days 365
```

Update pg_hba.conf

Open the following configuration file:

```
%ProgramFiles%\PostgreSQL\16\data\pg_hba.conf
```

Add the following lines to enable SSL and certificate authentication:

```
hostssl all all 0.0.0.0/0 cert clientcert=verify-full

# IPv4 local connections:
host all all 127.0.0.1/32 scram-sha-256

# IPv6 local connections:
hostssl all all ::/0 cert clientcert=verify-full
```

Update postgresql.conf

Open the following configuration file:

```
%ProgramFiles%\PostgreSQL\16\data\postgresql.conf
```

Enable SSL in the configuration file:

```
ssl = on
ssl_ca_file = 'C:\\Program Files\\AMD\\ADMP\\SSLCerts\\CA.crt'
ssl_cert_file = 'C:\\Program Files\\AMD\\ADMP\\SSLCerts\\server.crt'
ssl_key_file = 'C:\\Program Files\\AMD\\ADMP\\SSLCerts\\server.key'
```

Secure Certificate Key Permissions

Run the following commands to remove inheritance, revoke existing permissions, and grant full control to the Administrator.

> **Note**
>
> Execute all commands below in an administrator command prompt on the ADMP hosted server, after performing Create Database from the application.

```
icacls "%ProgramFiles%\AMD\ADMP\SSLCerts\server.key" /inheritance:r
icacls "%ProgramFiles%\AMD\ADMP\SSLCerts\server.key" /remove:g Users Everyone
icacls "%ProgramFiles%\AMD\ADMP\SSLCerts\server.key" /grant Administrator:F /
↪grant "NT AUTHORITY\NetworkService:R" /grant "NT AUTHORITY\SYSTEM:R"
```

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```
icacls "%ProgramFiles%\AMD\ADMP\SSLCerts\client.key" /inheritance:r
icacls "%ProgramFiles%\AMD\ADMP\SSLCerts\client.key" /remove:g Users Everyone
icacls "%ProgramFiles%\AMD\ADMP\SSLCerts\client.key" /grant Administrator:F /
↪grant "NT AUTHORITY\NetworkService:R" /grant "NT AUTHORITY\SYSTEM:R"
```

Restart PostgreSQL Service

Restart the PostgreSQL service to apply the SSL and authentication changes.

Installation

You are now ready to install the ADMP binary and continue with the installation steps. After installation, open:

`https://<hostname>:<443>/`

or launch ADMP from the Windows Start Menu: AMD Device Management Portal.