Voltage Database Activity Monitoring

Software Version 24.3.0

Installation Guide

opentext™

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Introduction

This manual is targeted at the person responsible for installing OpenText™ Voltage Database Activity Monitoring in a company. For installing Voltage DAM, follow the steps given below.

Obtain Voltage Database Activity Monitoring software

The latest software for Voltage Database Activity Monitoring `VDAM_24.3_Installation.zip` can be found on OpenText Software Support Online.

Abbreviations

Information about the abbreviations used in this guide are given in the table below.

Abbreviations	Definition
DAM	Database Activity Monitoring
IIS	Internet Information Services
IP	Internet Protocol
IPv4	Internet Protocol Version Four
SSMS	SQL Server Management Studio

Prerequisites

Before installing Voltage Database Activity Monitoring, you should make sure that the following prerequisite are met:

- Use Windows Server 2022 or higher versions for the operating system.
- Transfer all the required setup files to the Virtual Machine.
- Create E, F, G and H disks in the Virtual Machine.
- Static IP Assignments
- Disabling Firewall
- Control User Accounts

Assigning the Static IP Address

To get the IP address of the machine,

1. Open the Command Prompt, type `ipconfig`, and press **Enter**.
2. Copy the address of **IPv4 Address**.

   To define IPv4 Address as a static IP address,
3. Go to **Control Panel** > **Network Connections**.
4. Right click **Ethernet1** and choose **Properties**.

   Ethernet Properties window is displayed.
5. Choose **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties**.
6. Choose **Use the following IP address**.
7. Paste or type the following fields of the machine:
   - IP address
   - Subnet mask
   - Default gateway
8. Click **OK**.
9. Check statistics of IP using the `ping` command.

Disabling Firewall

To disable the firewall

1. Go to Control Panel > Windows Defender Firewall.
2. From the left pane of the window, click **Turn Windows Defender Firewall on or off**.
3. Choose the option,**Turn off Windows Defender Firewall**.
4. Click **OK**.

> **NOTE:** After the installation you must enable firewall choosing **Turn o Windows Defender Firewall**.

Controlling User Accounts

1. Go to **Control Panel** > **All Control Panel Items** > **User Accounts**.
2. Click **Change User Account Control Settings** option.
3. Move the marker down to **Never notify**.
4. Click **OK**.

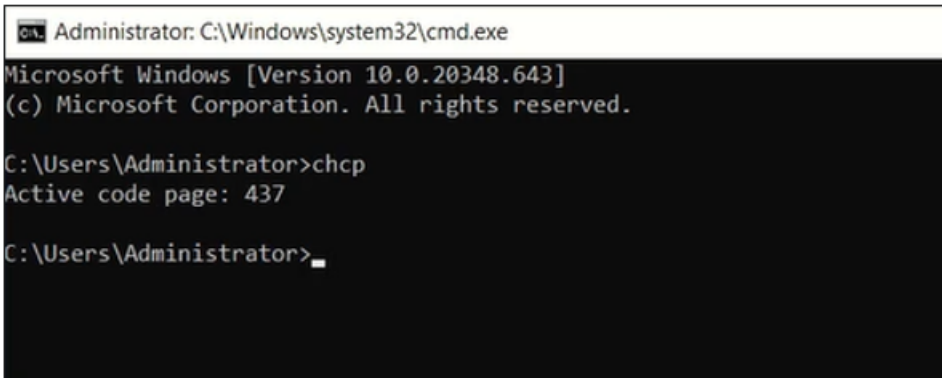
> **NOTE:** After installation, you must turn on the notifications again.

Region Settings

1. Go to **Control Panel** > **All Control Panel Items** > **Region**.
2. In the **Formats** tab, from the **Format** drop down, select English (US) or English (UK).
3. Click **Apply**.
4. In the **Administrators** tab, click **Copy settings**.
5. Select the following check boxes of **Copy your current settings to**:
   - **Welcome screen and system accounts**
   - **New user accounts**.
6. Click **OK**.
7. Go to **All settings** >**Time &Language**.
8. Choose the **Time Zone** as your local time zone.

Checking chcp

1. Open Command Prompt and run the command `chcp`.
2. Verify, **Active code page** is 437.



Disabling IE Enhanced Security Configuration

1. Go to **Server Manager** > **Local Server**.
2. Turn off **IE Enhanced Security Configuration**.

Turning off IPv6

1. Go to Control Panel > All Control Panel Items > Network Connections.
2. Right click on Ethernet1 and choose Properties.
3. Uncheck **Internet Protocol Version 6 (TCP/IPv6)**.
4. Click **OK**.

Setting the machine name

1. Go to **Control Panel** > **About**.
2. Click **Rename this PC**.
3. Enter a machine name and click **Next**.
4. Click **Restart now**.

Installing .Net 4.8, Chrome and Notepad++

1. Open Registry Editor, and check .Net 4.8 Version existence.

   If it does not exist, get the installation package and follow the basic installation steps.
2. Go to the path `HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\NET Framework Setup\NDP\v4\Full` and verify the version is 4.8 or later.

   If it does not exist, get the installation package

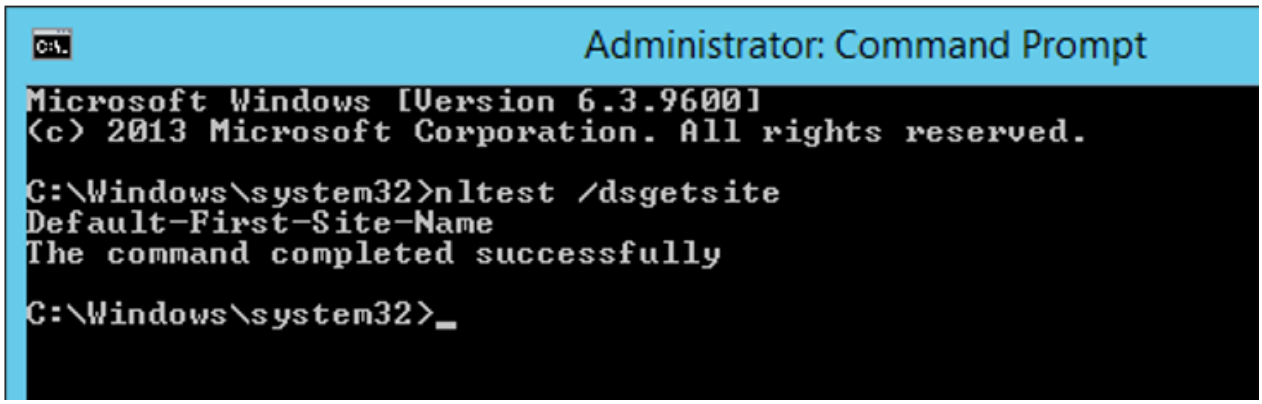
- Double click the following files and follow the basic installation steps.
- `ndp48-x86-x64-allos-enu.exe`

3. Go to **VDAM_Setups** > **ESandSupportingTools_Setup**.
4. Double click the following files to install.
   - `ChromeStandaloneSetup64.exe`
   - `npp.7.6.4.Installer.exe`

> **NOTE:** You can use any editor, but for Notepad editor, it must be Notepad ++.

Setting Host Configurations

1. Go to `C:\Windows\System32\drivers\etc`.
2. Right click `hosts` and choose **Edit with Notepad++**.
3. Add the line `<IP address> _elfws_elfupdate` (at the end).
4. Check if the machine is included in any Active Directory Site and Services. If there is any site information, this value should be added to the host file.

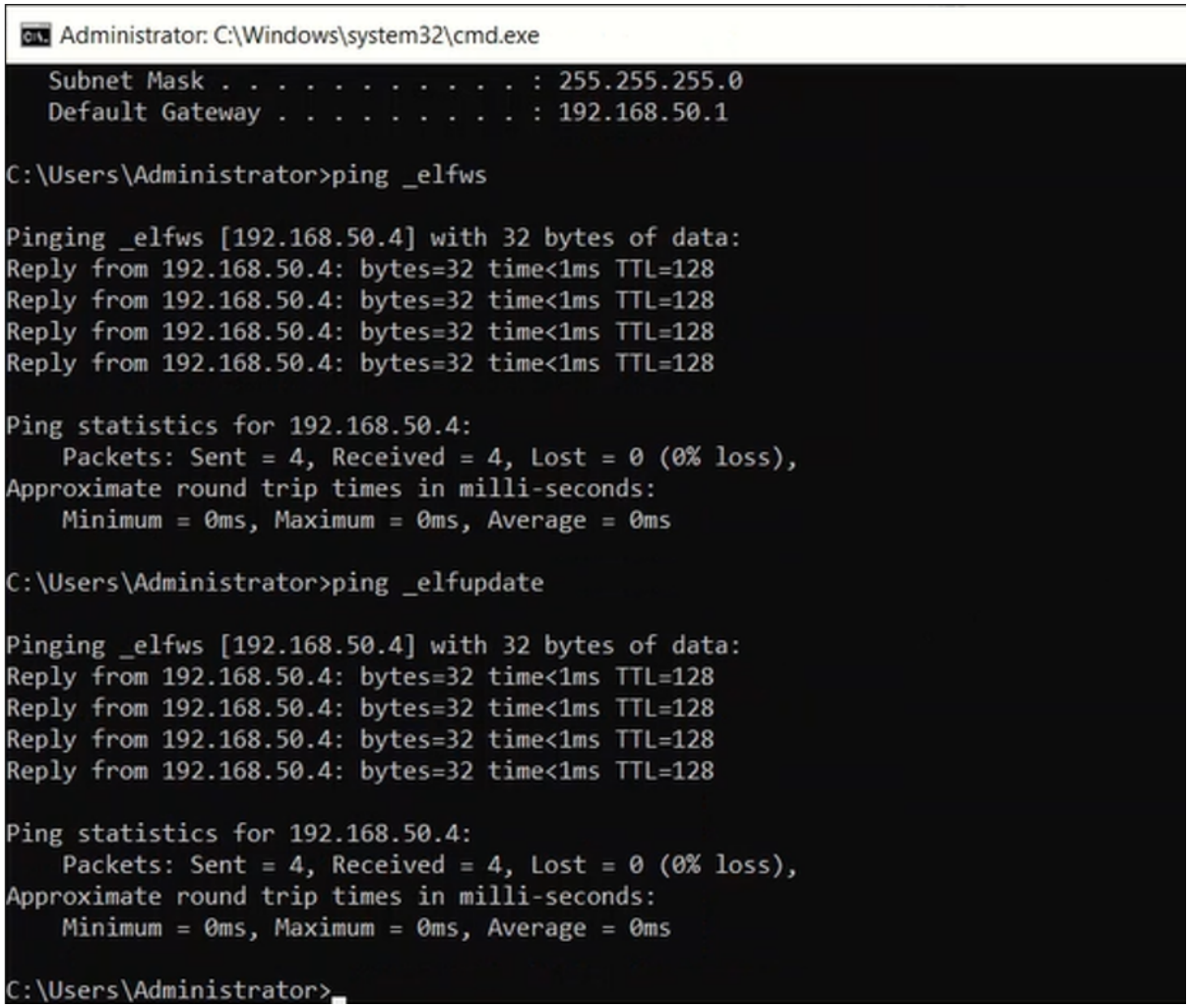


For example, the output was California.

The record in the host file should be as follows:

`<IP Address> California_elfws California_elfupdate <MachineName>`

If no result is returned (i.e. default is returned), the normally written version should be used.



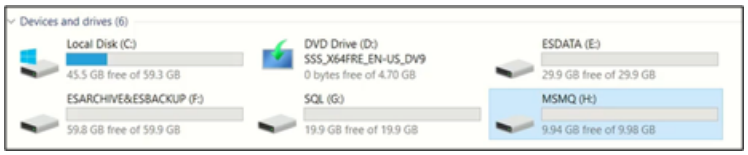
Naming the created disks

Give the name of the disks as

- E: ESDATA
- F: ESARCHIVE&ESBACKUP
- G: SQL
- H: MSMQ

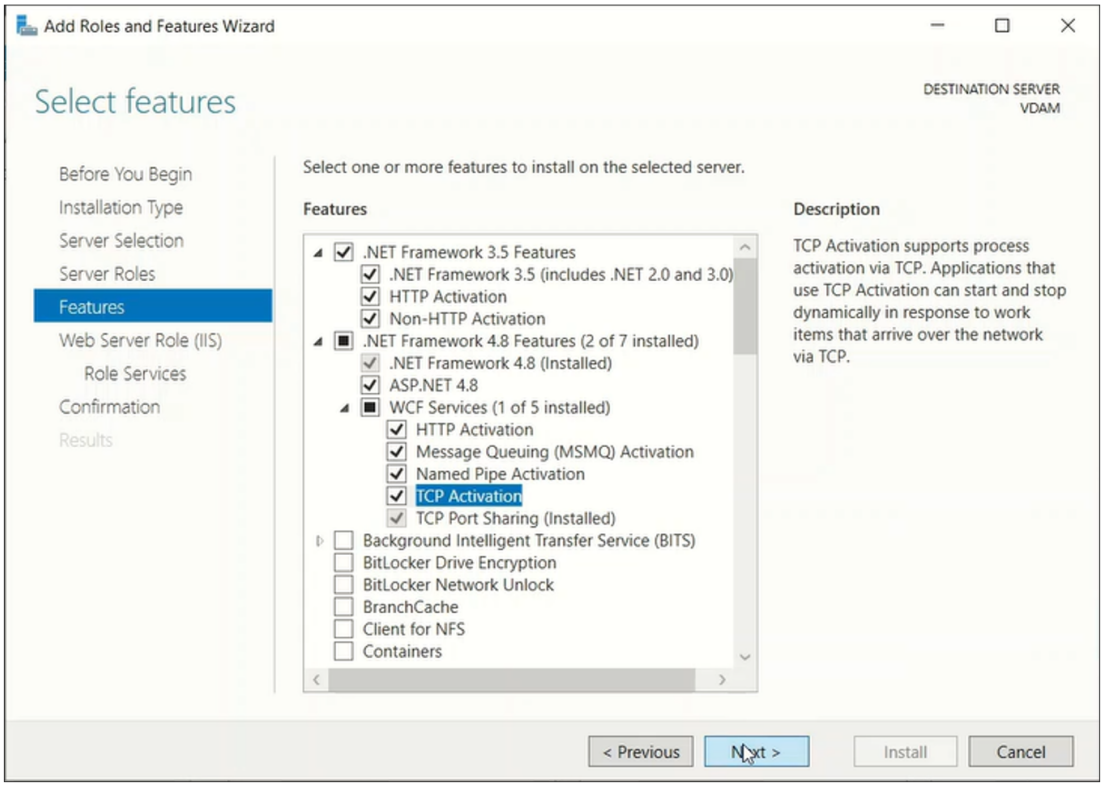
> **NOTE:**
> - Disk C is the system disk.
> - Disk E is the ESData disk.

- Disk F is the ESArchieve and ESBackUp disk. However, in client production environments, it would be better to create these files separately.
- Disk G is the configs disk.
- Disk H is the MsMQ disk. This disk should be SSD if possible. During the first installation, MsMQ comes to the C disk, and in client production environments, MsMQ must be moved to the separately provided SSD disk.



Activating server roles

1. Go to **Server Manager** >**Dashboard**.
2. Click **Add roles and features.**
3. On the **Before You Begin** window, click **Next**.
4. On the **Installation Type** window, choose **Role-based or feature-based installation** and click **Next**.
5. On the **Server Selection** window, choose **Select a server from the server pool**, select **VDAM** from the **Server Pool** and click **Next**.
6. On the **Server Roles** window, select **File and Storage Services** and click **Next**.
7. On the **Features** window, select **.NET Framework 3.5 Features** and **.NET Framework 4.8 Features** with their sub-options. Click **Next**.



8. On the **Web Server Role (IIS)** window, click **Next**.
9. On the **Role Services** window, choose the option following and click **Next**.
   - Web Server
   - Common HTTP Features
     - Default Document
   - Security
10. On the **Installation Selection** window, click **Specify an alternate source path**.
11. Copy and paste the sxs file location to the **Path** and click **OK**.

> **NOTE:** The path to the location of the sxs file in the source folder of the mounted Windows ISO must be entered in this field.

12. Click **Install**.
13. On the **Installation Progress** window, click **Close** after the installation completed.

> **NOTE:** Windows ISO must be mounted, check the status and change it to mounted if it is not.

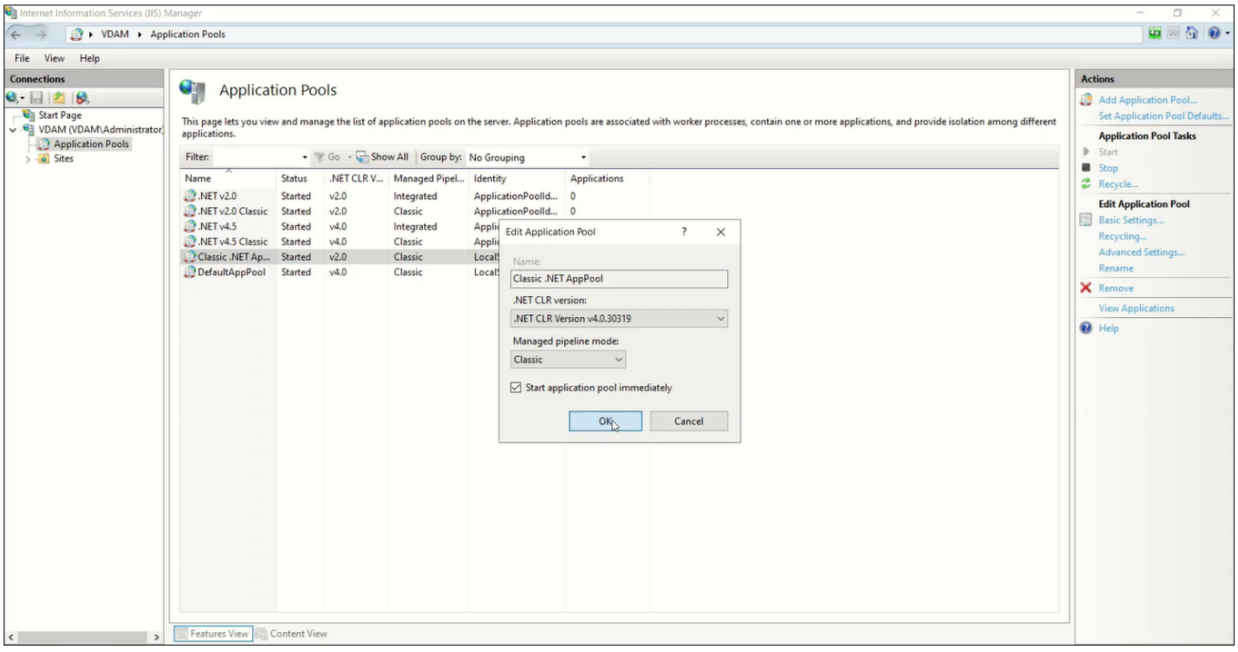
Running the preparation script

1. Go to **VDAM_Setups>Voltage_DAM_Setups >Preparation_Script**.
2. Right click on `preparation2012R2.cmd` and choose Run as administrator.
3. On the command prompt press y to restart the system.

```
Operation is completed. You should restart your machine. Proceed? (Y/N)?y
```

. Editing IIS settings

1. Open **IIS Manager** and edit `app.pool`.
2. Choose `.NET CLR` version as v4.0.30319.



3. From the Action pane, click **Set Application Pool Defaults…** and select **True** value for **Enable 32-Bit Applications** field.
4. Select **True** value for the **Enable 32-Bit Applications** field.
5. Select Classic value for **Managed Pipeline Mode** field.
6. Choose **LocalSystem** for **Identity Process Model** field.
7. In **Application Pool Identity** window, select **LocalSystem** option from the **Built-in account** drop-down and click **OK**.

Rechecking the system requirements

Check firewall, UACs, region&language changes.

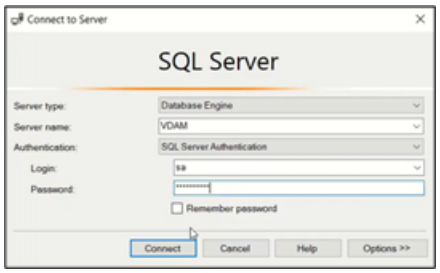
SQL Server Installation

1. Go to **VDAM_Setups** > **SQL Server 2019 Express**.
2. Run `SQLEXPRADV_x64_ENU.exe`.
3. Choose directory for extracted files and click **OK**.
4. Choose **New SQL Servers stand-alone installation** or **add features to an existing installation**.
5. Check **I accept the license terms and Privacy Statement** and click **Next**.
6. On **Global Rules** window, click **Next** if all the results are passed.
7. On **Microsoft Update window**, click **Next**.
8. On **Product Updates** window, click **Next**.
9. On **Installation Setup Files** window, click **Next**.
10. On **Installation Rules** window, click **Show Details**.
11. On **Features Selection** window, select **Database Engine Services** and **Full-text and Semantic Extractions…** and click **Next**.
12. On the **Instance Configuration** window, select **Default instance**, enter **Instance ID** as **MSSQLSERVER** and click **Next**.
13. On the **Server Configuration** window, change the **Account Name** as **NT AUTHORITY\SYSTEM** and click Next.
14. **On the Customization window, set the Collation designator as Latin1_General.**
15. Click only the **Accent-sensitive** and click **OK.**
16. On the **Database Engine Configuration** window, select **Mixed Mode** and define a password. Click Next.
17. Click **Close**, once all features have Succeeded status.

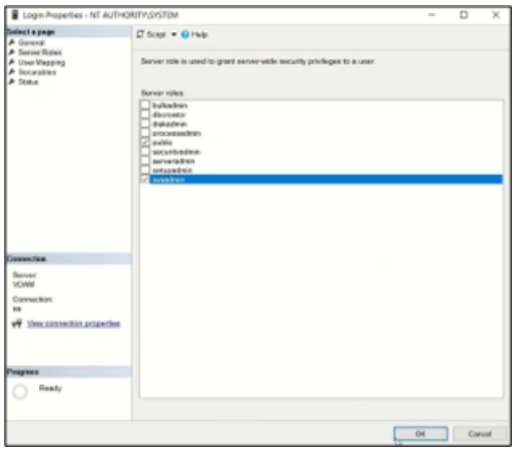
SSMS Installation

1. Go to VDAM_Setups > SQL Server 2019 Express
2. Right click `SSMS-Setup-ENU.exe` and select Run as administrator.
3. Click **Install**.

4. Click **Restart.**
5. Open **SSMS** and log in with user ID and password.



6. Open **NT AUTHORITY\SYSTEM – Server Roles** and allow **sysadmin** to authorize the system.



Installation

Follow the below instructions to install Voltage Database Activity Monitoring.

Database Setup

1. Create a folder as **VoltageDAM_DB in SQL (G:) Disk**.
2. Create the following folders in VoltageDAM_DB
   - SQLDATA
   - SQLFT
   - SQLHS
   - SQLLOG
3. Go to **VDAM_Setups\Voltage_DAM_Setups\Database_Setup\24.3** and right click `DatabaseSetup.msi` and run as an administrator via **Windows PowerShell**, switch to command prompt.
4. On **VDAM Wizard**, click **Next**.
5. Choose **I Agree on License Agreement** and click **Next**.
6. Copy and paste the file location into the installation path for which of the required fields.
   - Database Path: `G:\VoltageDAM_DB\SQLDATA`
   - Database Log Files Path: `G:\VoltageDAM_DB\SQLLOG`
   - Full Text Catalog Path: `G:\VoltageDAM_DB\SQLFT`
   - History Path: `G:\VoltageDAM_DB\SQLHS`
7. Enter **Instance Name and Password** for Server Configuration. Instance name is "." The password is the previously determined **sa password**.
8. Click **Next** to confirm the installation. On the **Installation Completed** window, click **Close**.
9. Verify each folder after installation.
10. Verify in the **SSMS if AuditDB** file got located.

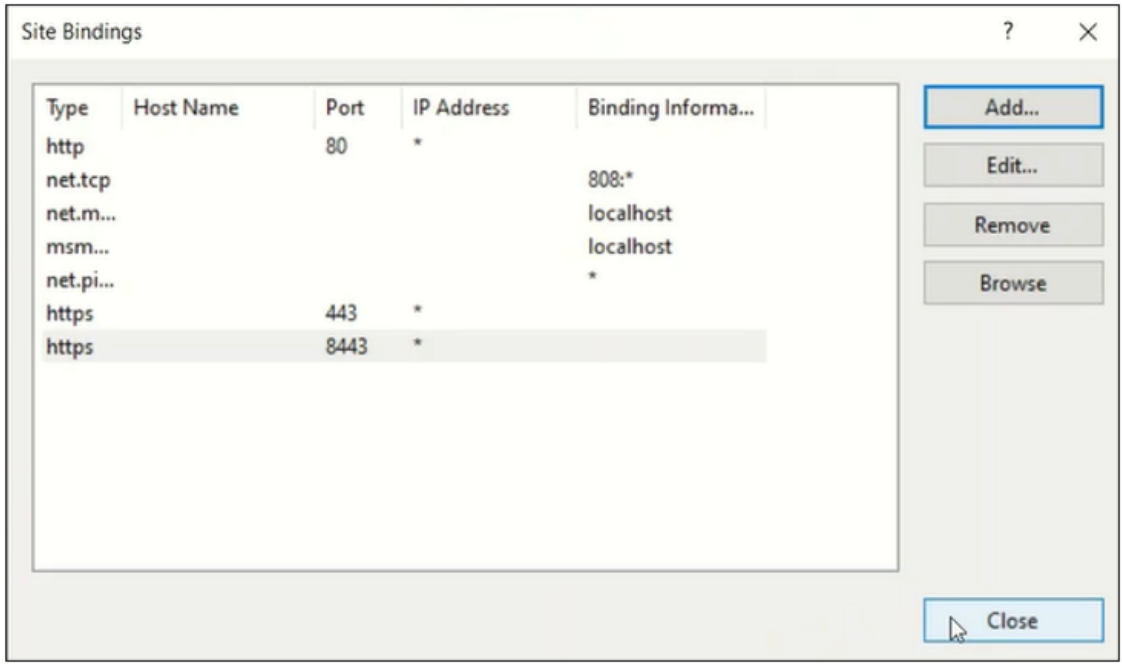
Configuring IIS Certificate

1. From Action pane on the left, under **Edit Site**, click **Bindings.**
2. Open **IIS Manager>Default Web Site** and click **Edit Site Bindings.**
3. Click **Add** to add new one for 443 port channel.

The Type should be https and the **Default IIS Certificate** or a **Custom** created certificate should be added and saved.

4. Click **Add** again to add another one for 8443 port channel.

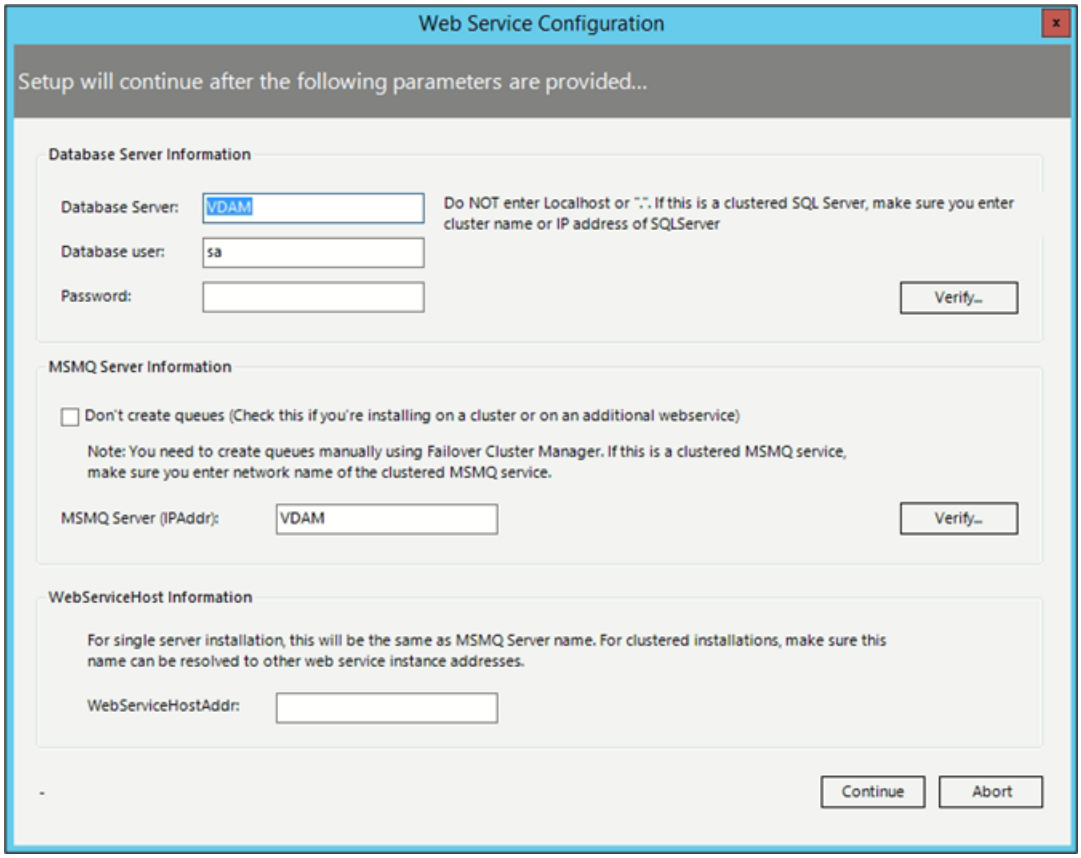
   The **Type** should be **https** and the **Default IIS Certificate** or a **Custom** created certificate should be added and saved.



Web Service Setup

1. Go to **VDAM_Setups>Voltage_DAM_Setups>WebService>24.3.**
2. Right click `Voltage_DAM_WebService.msi` and select **Run as administrator**.
3. On **VDAM Webservice Setup** wizard, click **Next**.
4. On **Select Installation Address** window,
   a. Choose **Default Web Site** from the **Site** drop-down.
   b. Enter **ElfWebService** to **Virtual directory** field.
   c. Choose **DefaultAppPool** from the **Application Pool** drop-down and click **Next**.
5. On the **License Agreement** window, choose **I agree** and click **Next**.
6. On the **Confirm Installation** window, click **Next**.
7. On the **Installation Completed** window, click **Close**.
8. Verify account by entering **Database user** and **Password**.

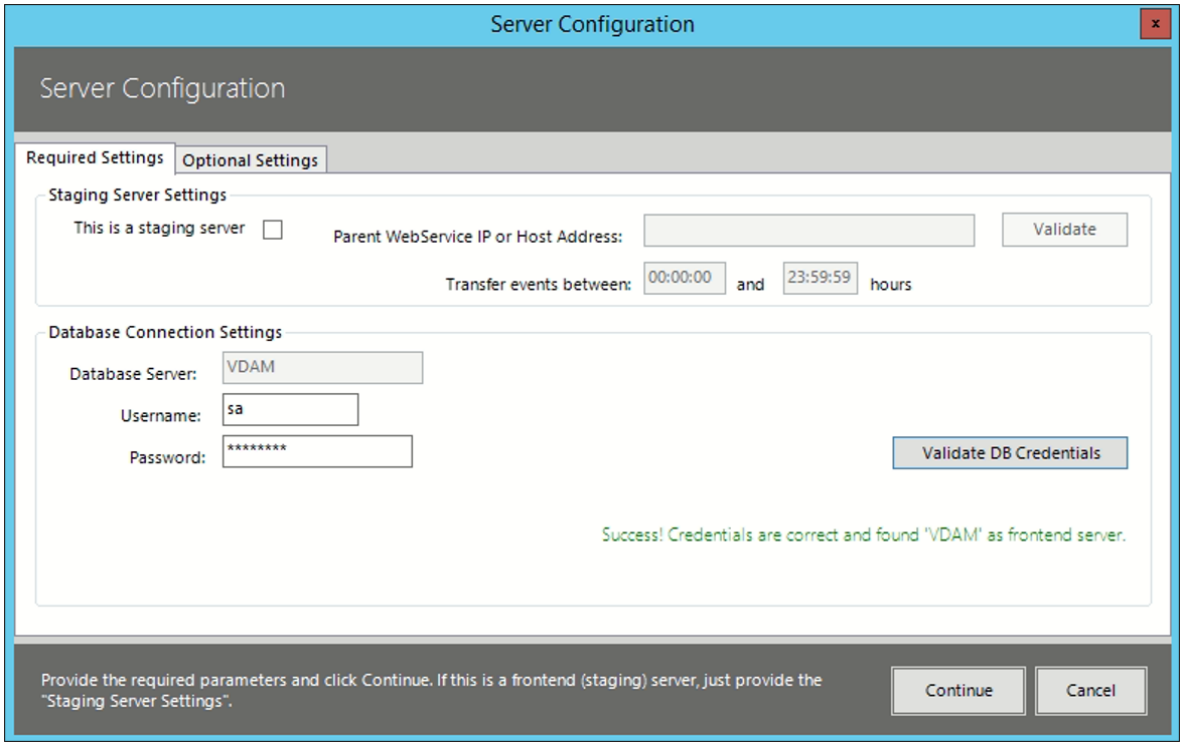
The password is the previously determined **`sa password`**.



Voltage Service Setup

1. Go to **VDAM_Setups\Voltage_DAM_Setups\Voltage_DAM_Server\23.3**
2. Right click `VoltageDAMServer.msi` and Run as administrator.
3. On the **VDAM Server Setup Wizard**, click **Next**.
4. On **Select Installation Folder** window, enter the folder path to install **VDAM Server**.
5. Select **Everyone for Install VDAM Server for yourself**, or **for anyone who uses this computer** field and click **Next**.
6. On the **License Agreement** window, choose **I agree** and click **Next**.
7. On the **Confirm Installation** window, click **Next**.
8. When you see the **Installation Completed window**, click **Close**.
9. On the **Server Configuration** window, verify account by entering **Username** and **Password**.

   The password is the previously determined **`sa password`**.



ElasticSearch Setup

1. Create the following folders in (E:) and (F:) disks:

   as following shown in the figure below.

   E Disk

   - ESDATA
     - ESDATA

   F Disk

   - ESARCHIVE&ESBACKUP
     - ESARCHIVE
       - ESHOTARCHIVE
       - ESWARMARCHIVE
     - ESBACKUP
2. Share each folders, right click on each of the files, select **Properties** > **Sharing** > and click **Share**.
3. Go to **VDAM_Setups** >**ESandSupportingTools_Setup** >**ES7** and copy the **elasticsearch-7.16.3** folder into the C disk.
4. Go to **C** >**elasticsearch-7.16.3** > **config**. Right click on `jvm.options` and choose **Edit with Notepad++**.
5. Delete ## sign Edit the `Xms4g` & `Xmx4g` lines in `jvm.options` file and **Save**.

   > **NOTE:** Define the memory usage as either half of the total memory of the machine or 1-2 GB less of the half. If the total RAM of the machine is 16, elastic tries to allocate half of it to itself, 8 GB should be given to each. For better practice, it should be 1-2 GB less.

6. Go to **VDAM_Setups** >**ESandSupportingTools_Setup** >**ES7**, right click on `elasticsearch.yml` and choose **Edit with Notepad++**.
7. Copy the content and paste them into the file in C disk located `elasticsearch.yml` file.
8. Make the changes in the following lines:

```
cluster.name
node.name
node.master
node.data
network.publish_host
path.repo
discovery.type
```

9. Go to `C:\elasticsearch-7.16.3\bin`.
10. Open command prompt from the folder and enter the command given below.

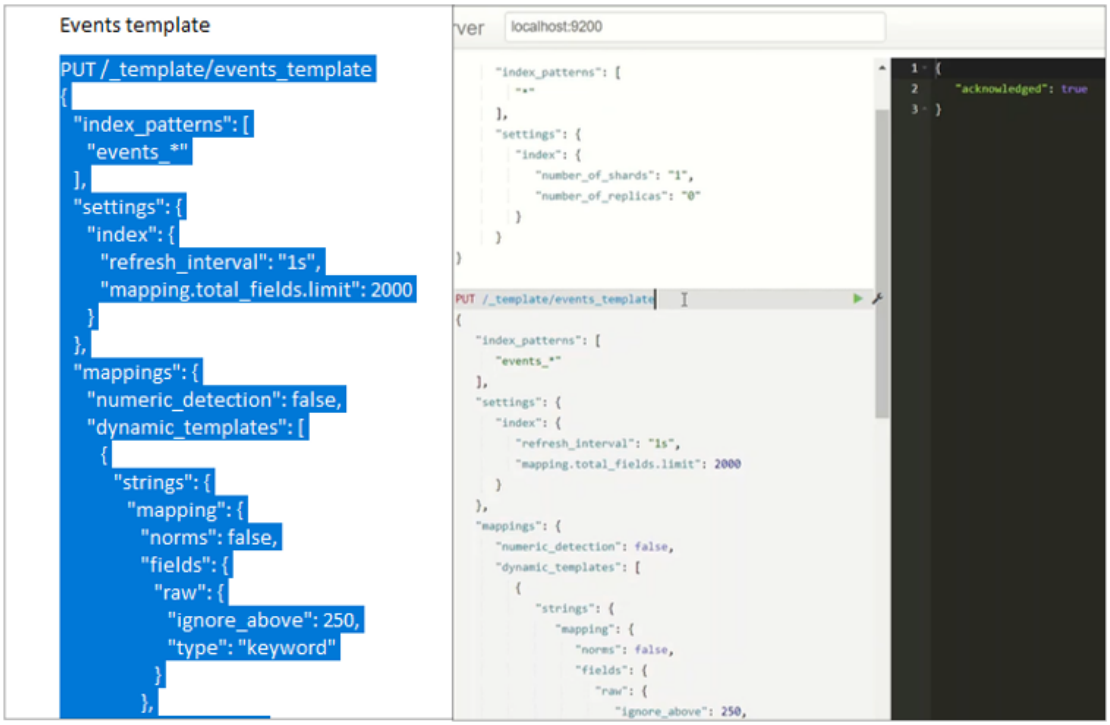
    ```
    C:\elasticsearch-7.16.3\bin\elasticsearch-service.bat install VDAMES7
    ```

11. Change **Startup type** as **Automatic (Delayed Start)** in the Windows service and start the service.
12. Go to **Services** > **Elasticsearch** and check if the service **Elasticsearch 7.16.3 (VDAMES7)** is running.

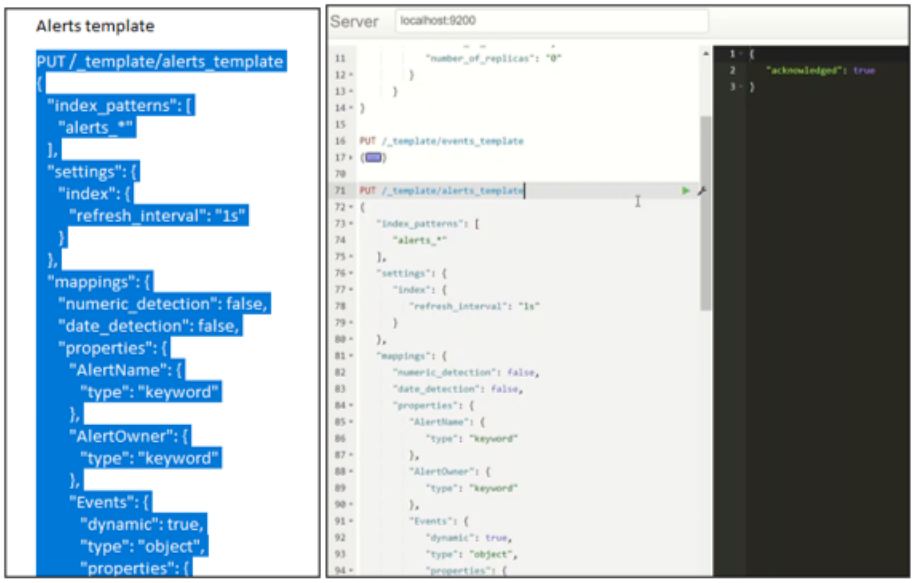
Sense Installation

1. Open Chrome and write localhost:9200 to address line.
2. Click Chrome > Extensions >Manage Extensions.
3. Open the **Developer mode**.
4. Click **Load unpacked** and choose the setup file `sense-chrome-1.0.3` from C disk.
5. Activate the **sense extension** and pin it to the taskbar. Then, click it and make the extension available.
6. Go to **VDAM_Setups** >**ESandSupportingTools_Setup** >**ES7** and open the `ESTemplates.docx`.
7. Copy the **All incides** script from **ESTemplates**.
8. Paste into the sense areas as shown on the figure below.
9. Click play button and see the “**acknowledged**”: **true reply**.

10. Copy the Events template script from ESTemplates.
11. Paste into the sense areas as shown on the figure below. Click **Play** button and see the “**acknowledged”: true reply**.



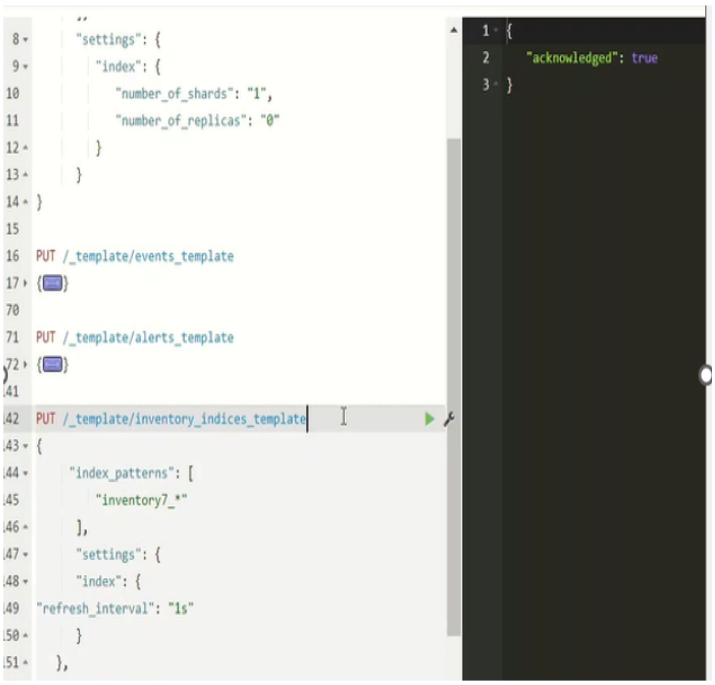
12. Copy the **Alerts template** script from **ESTemplates**.
13. Paste into the sense areas as shown on the figure below. Click **Play** button and see the “**acknowledged”: true reply**.



14. Copy the **Inventory template** script from **ESTemplates**.
15. Paste into the sense areas as shown on the figure below. Click **Play** button and see the **“acknowledged”: true reply**.

Inventory template

```
PUT /_template/inventory_indices_template
{
  "index_patterns":[
    "inventory7_*"
  ],
  "settings":{
  "index":{
        "refresh_interval":"1s"
  }
  },
  "mappings":{
    "numeric_detection":false,
    "dynamic_templates":[
      {
        "strings":{
          "mapping":{
            "norms":false,
            "fields":{
              "raw":{
                "type":"keyword"
              }
            },
            "type":"text"
          },
```



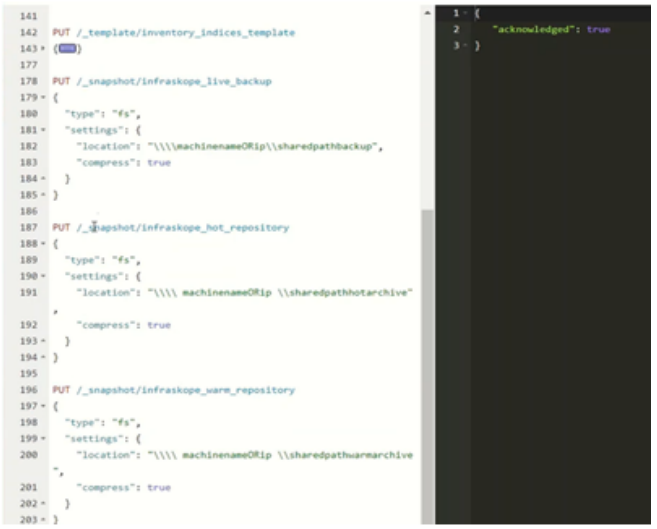
16. Copy the **Repositories** script from **ESTemplates**.
17. Paste into the sense areas as shown on the figure below. Click **Play** button and see the **“acknowledged”: true reply**.

Repositories

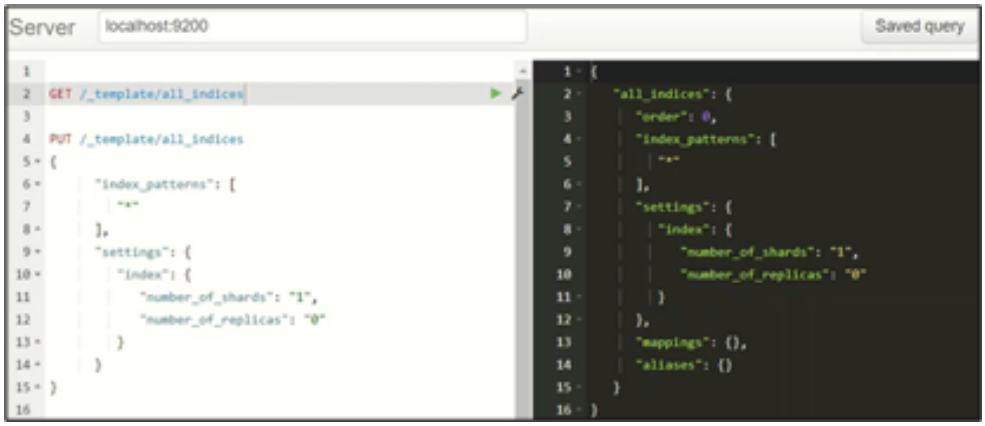
```
PUT /_snapshot/infraskope_live_backup
{
 "type": "fs",
 "settings": {
  "location": "\\\\machinenameORip\\sharedpathbackup",
  "compress": true
 }
}

PUT /_snapshot/infraskope_hot_repository
{
 "type": "fs",
 "settings": {
  "location": "\\\\ machinenameORip \\sharedpathhotarchive",
  "compress": true
 }
}

PUT /_snapshot/infraskope_warm_repository
{
 "type": "fs",
 "settings": {
  "location": "\\\\ machinenameORip \\sharedpathwarmarchive",
```



NOTE: After the necessary scripts are run in Sense Chrome, it is checked whether the commands are working correctly by typing the commands starting with GET.



Control Panel and Console Setup

Control Panel Setup

1. Go to **VDAM_Setups**>**Voltage_DAM_Control Panel and Console**>**Voltage_DAM_Control Panel.**
2. Double click `Voltage_DAM _ControlPanel.msi`**Next** to confirm the installation.
3. On the **VDAM Control Panel Setup Wizard** window, click **Next**.
4. On the **Select Installation Folder** window, enter the folder path to install **VDAM Control Panel**.
5. Select **Everyone** for **Install VDAM Server for yourself**, or **for anyone who uses this computer** field and click **Next**.
6. On the **License Agreement** window, choose **I agree** and click **Next**.
7. On the **Confirm Installation** window, click **Next**.
8. On the **Installation Completed** window, click **Close**.

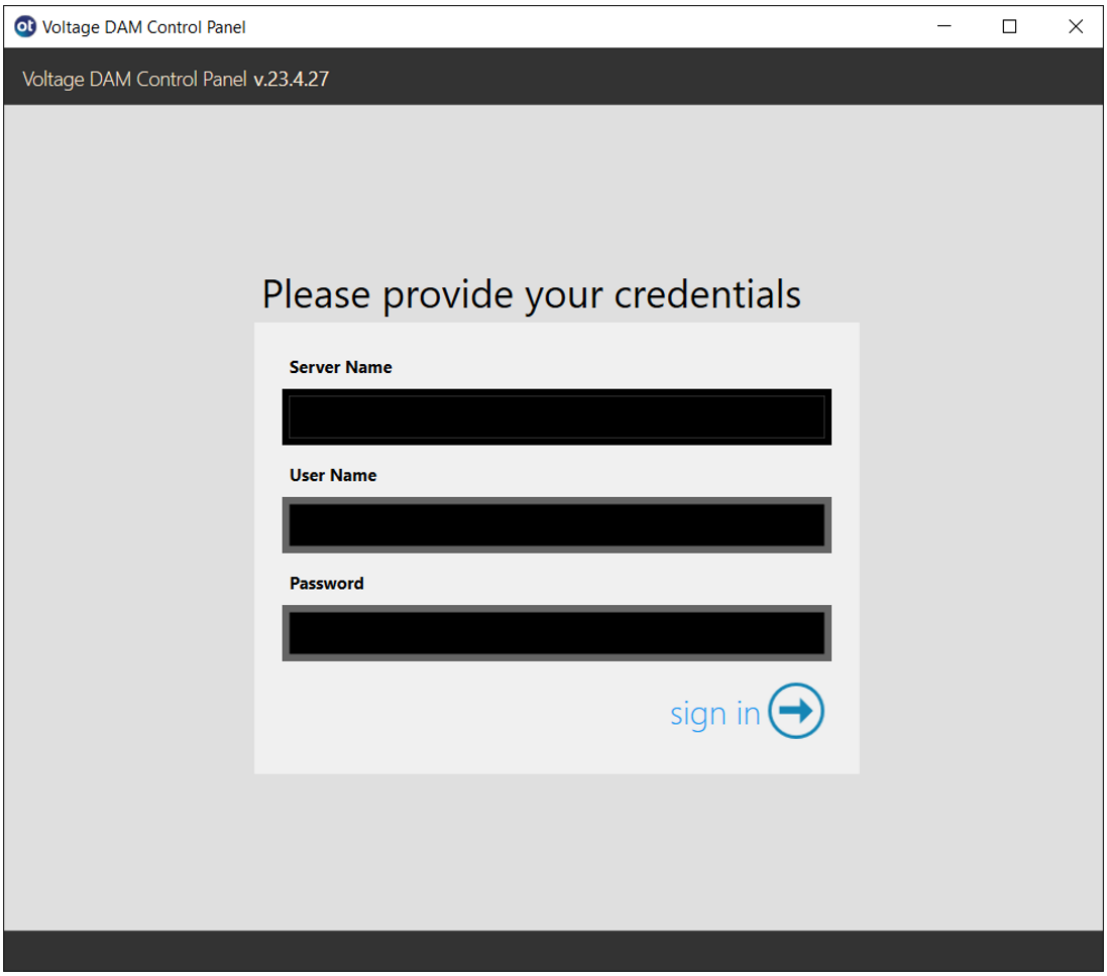
Console Setup

1. Go to **VDAM_Setups>Voltage_DAM_Control Panel and Console>Voltage_DAM_ Console.**
2. Double click `Voltage_DAM_Console.msi`.
3. On the **VDAM Monitoring Setup Wizard** window, click **Next**.
4. On the **Select Installation Folder** window, enter the folder path to install **VDAM Console**.

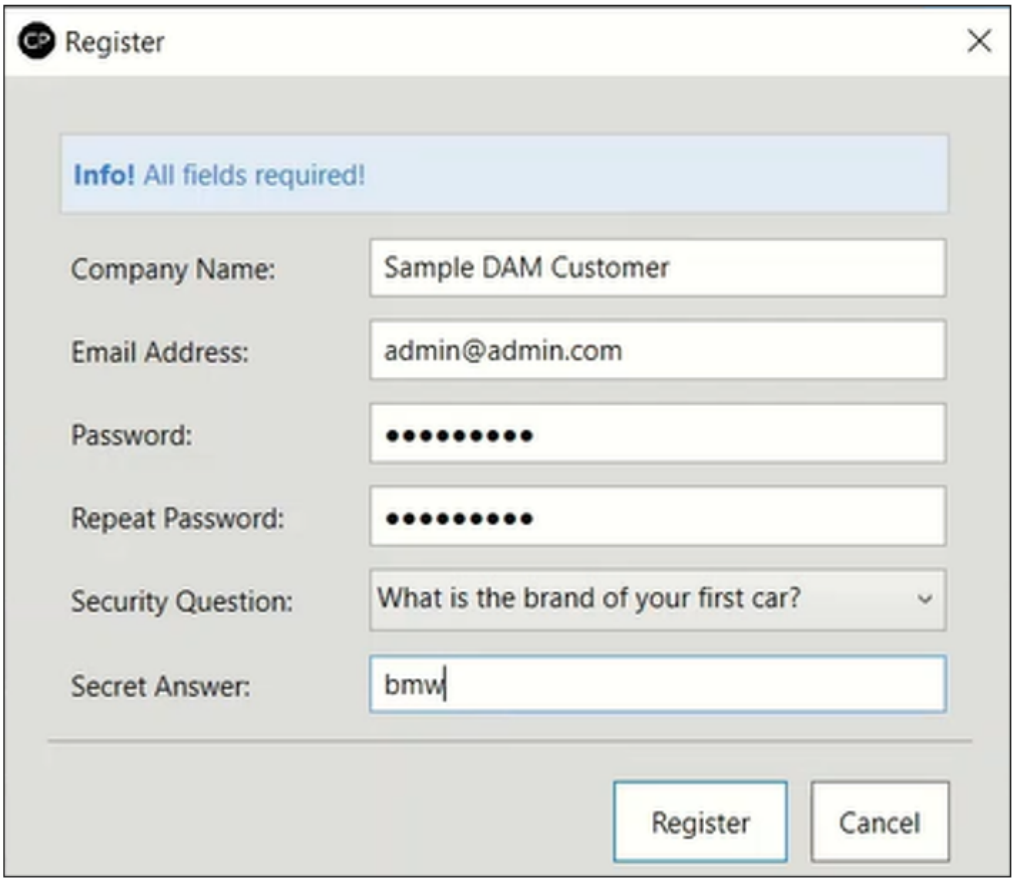
5. Select **Everyone** for **Install VDAM Server for yourself**, or **for anyone who uses this computer** field and click **Next**.
6. On the **License Agreement** window, choose **I agree** and click **Next**.
7. On the **Confirm Installation** window, click **Next**.
8. On the **Installation Completed** window, click **Close**.
9. Enter **Server Name** as the given static IP of the machine

   User Name : logadmin

   Password : password1



10. Enter the text areas on the **Register** box.

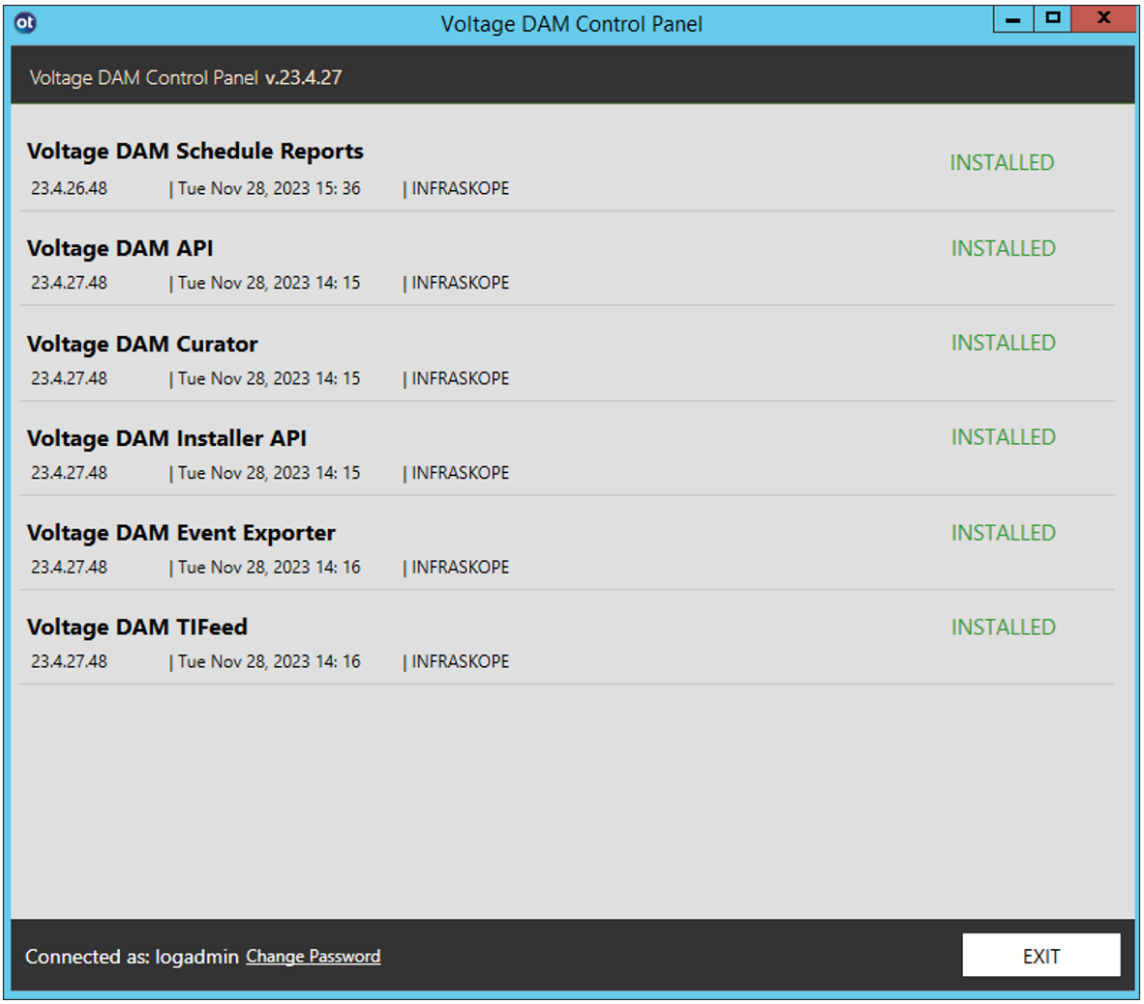

Register
Info! All fields required!
Company Name:
Sample DAM Customer
Email Address:
admin@admin.com
Password:
Repeat Password:
Security Question:
What is the brand of your first car?
Secret Answer:
bmw
Register
Cancel

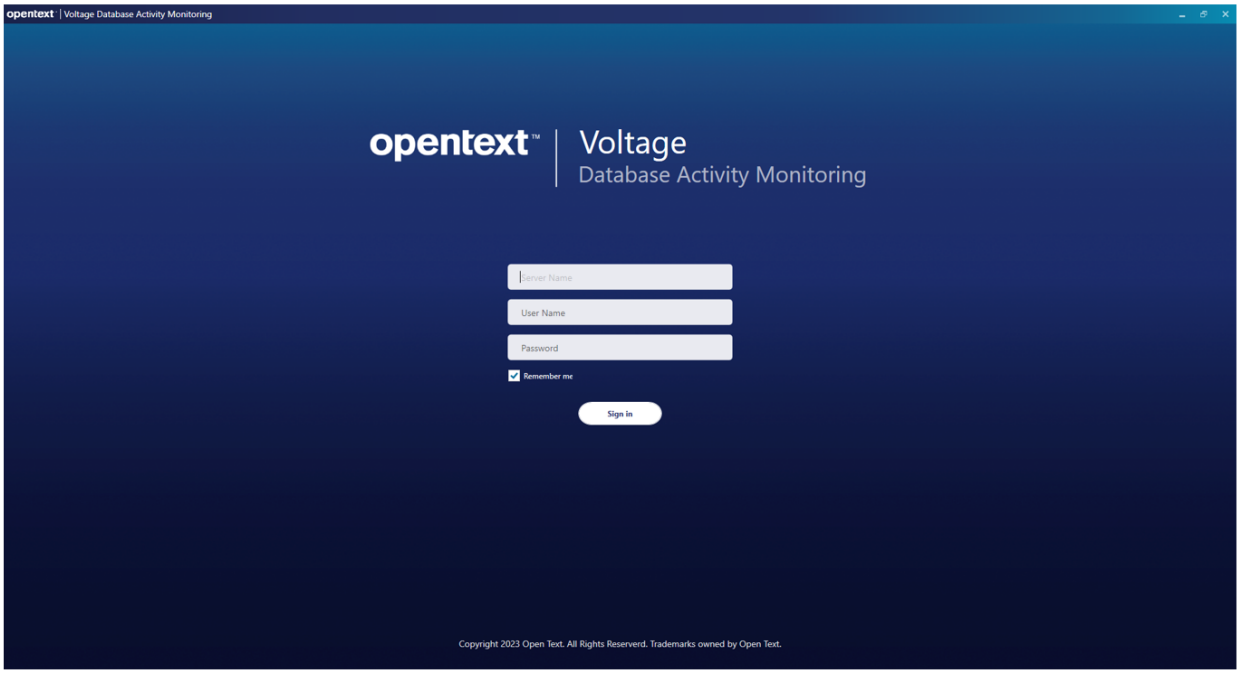
Licensing

Transfer the license documents into your virtual machine.

> **NOTE:** The license must be located in `C:\inetpub\wwwroot\ElfWebService` folder path with app.license name.

1. When the license got taken and pasted as declared, the process would move on. Complete the installation through control panel as shown.



2. After the Installation, open dashboard from the OpenText Voltage Database Activity Monitoring desktop icon.
3. Enter the following:
   - **Server Name** : hostname / IP
   - **User Name** : logadmin

- **Password** : password1