

### Hardware and Software requirement

The following table describe the recommended server configuration for best operation

<b>CView Main Server</b>	<ul style="list-style-type: none"> <li>▶ Type can be physical or virtual machine</li> <li>▶ 60 GB Hard Disk (available free space)</li> <li>▶ 4-8 GB RAM (8 GB is recommended)</li> <li>▶ 2-4 CPU Core (Minimum of 2 CPU )</li> </ul>
<b>CView Remote</b>	<ul style="list-style-type: none"> <li>▶ Type can be physical or virtual machine</li> <li>▶ 10 GB Hard Disk (available free space)</li> <li>▶ 2 CPU Core (Minimum of 2 CPU )</li> </ul>
<b>Operating system</b>	<ul style="list-style-type: none"> <li>▶ Windows servers <ul style="list-style-type: none"> <li>▶ 2008 or 2008 R2</li> <li>▶ 2012 or 2012 R2</li> <li>▶ 2016</li> </ul> </li> </ul>
<b>MS-SQL</b>	<ul style="list-style-type: none"> <li>▶ MS-SQL Server: 2008 R2 , 2012 , 2014 , 2016</li> <li>▶ Database size is based on certificate volume: <ul style="list-style-type: none"> <li>▶ 10,000 : 0.35 GB</li> <li>▶ 100,000: 2.50 GB</li> <li>▶ 400,000: 6.50 GB</li> </ul> </li> </ul>
<b>Additional software</b>	<ul style="list-style-type: none"> <li>▶ .NET Framework 4.6.1</li> <li>▶ IIS 7.5 and UP</li> </ul>

### Additional IIS server components

The following windows rule & features are required for main or remote server

- ▶ Application development section
  - ▶ ASP
  - ▶ ASP .NET 4.5
  - ▶ ASP .NET 4.5 Extensibility
  - ▶ ISAPI Filters
  - ▶ ISAPI extensions
  
- ▶ Security
  - ▶ Windows Authentication
  - ▶ IIS Client Certificate Mapping Authentication – ▶ **For CView Remote server only**
  
- ▶ Management Tools
  - ▶ IIS6 Meta base compatibility under (IIS6 Management compatibility)

## Required permission

For **C-View** to operate, you are required to create an applicative user, this user should be a domain user with any valid name according domain policy, and for example "**CViewUser**" **C-View** applicative user ("**CViewUser**") required to have the permissions list below:

- ▶ Member in domain users group
- ▶ Add "Log on as a Service" privilege
- ▶ Member in C-View server local administrator group
- ▶ Certificate authority (each one)
  - ▶ Read permission on each CA in the forest
  - ▶ Enroll permission for each exportable template
  - ▶ Issue and manage permission - applicable for issue & revoke certificate
  
- ▶ DB Owner on **C-View** database
  
- ▶ IIS Server
  - ▶ Member in IIS\_IUSRS group (Configured during C-ViewAdmin Installation)
  - ▶ Define as applicative user for C-View Application pool (Configured during C-ViewAdmin Installation)
- ▶ C-View Services
  - ▶ Log on user for all C-View services (Configured during C-View Service Installation)
  
- ▶ Machine registry - Full control permission on event log key
  - ▶ HKLM\SYSTEM\CurrentControlSet\Services\Eventlog
  - ▶ HKLM\SYSTEM\CurrentControlSet\Services\Eventlog\Security
  
- ▶ Read and write permission to folder C:\CViewData and all sub directories
  
- ▶ C-View security is based on 6 roles, each role should be associate with AD directory group (mandatory) C-View initial setting is as follow:

### **Associate with Domain User group**

- ▶ **Viewer** - View global data scope
- ▶ **Admin** - Role to allow C-View configuration modification

### **NOT associate with Domain User group**

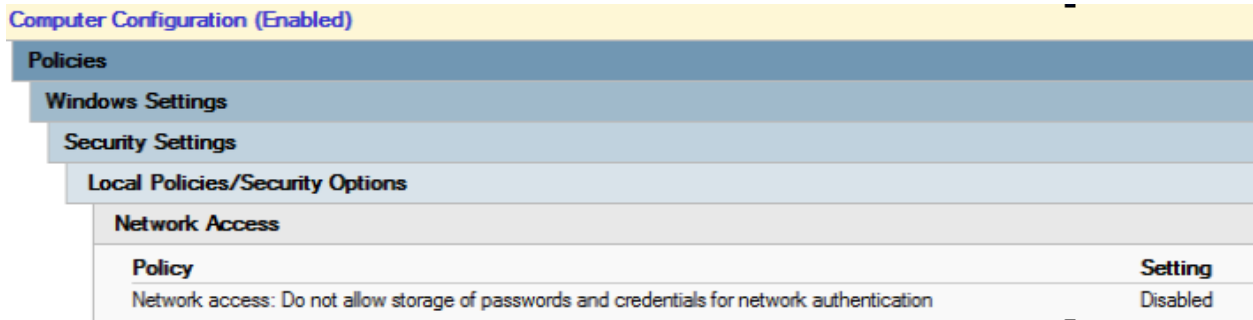
- ▶ **Auditor** – View global data scope plus Audit viewer
- ▶ **Cert Manager** – Life cycle management for private scope
- ▶ **Cert Owner** - Life cycle management for global scope
- ▶ **Enrollment Agent** – provide permission to enroll on behalf



- ▶ After C-View installation we advise to assign the relevant AD groups to C-View roles
- ▶ Exist AD groups can be used or new dedicated AD groups

## Policy

C-View create Task Scheduler during installation, it requires disabling the policy "Do not allow storage of password and credentials for network authentication"



## Firewall and access control

**C-View** should have access to servers & services in the domain/forest. The following table list servers & services name and relevant ports you should open before starting **C-View**

Direction	Ports to open
<b>C-View -&gt; SQL server</b>	ODBC standard ports 1433/1434
<b>C-View -&gt; CA</b>	DCOM 135,137-139 + High ports ( RPC, ICMP )
<b>C-View -&gt; AD</b>	As a domain member 88,53
<b>C-View -&gt; Servers</b>	443 or others defined by organization
<b>C-View - SMTP TP</b>	Default port 25, Can be configured differently