AXIS Camera Station Pro

User management

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1. AXIS Camera Station Pro user management

AXIS Camera Station Pro user management refers to different methods of user authentication to log into AXIS Camera Station Pro. AXIS Camera Station Pro utilizes Microsoft Windows users or groups to assign AXIS Camera Station Pro User roles. These roles allow three different types of user access which are Administrator, Operator and Viewer. Microsoft Windows user accounts are required to be able to log into AXIS Camera Station Pro using the AXIS Camera Station Pro Client or Mobile App. It is important to choose the right type of user management in your surveillance system to be able to manage users and groups, this is dependent on the size, configuration and complexity of the installation.

AXIS Camera Station Pro can utilize two different authentication methods:

- Microsoft Windows Local users and groups.
- Microsoft Windows Active Directory Services.

1.1. Microsoft Windows Local users

In Microsoft Windows, a local user is where a username and encrypted password are stored locally on the computer itself. When logging on as a local user, the computer verifies its own registry of users and its own password file to verify if that user is allowed to log into the system. How to add a Microsoft windows local user

AXIS Camera Station Pro takes advantage of the Microsoft Windows Local user architecture which allows you to add Microsoft Windows local users and groups and assign these users to the different AXIS Camera Station Pro user roles.

All users that are part of the Administrators group, of the local computer on which the AXIS Camera Station Pro server is installed are given the administrator privilege role within AXIS Camera Station Pro. If Microsoft Windows local users are utilized for user authentication in a multi-server environment, then users and/or groups are required to be created on all servers that are a part of the multi-server environment.

NOTE

Microsoft Accounts , Microsoft Entra ID, SAML and LDAP are currently not supported in AXIS Camera Station Pro.

1.2. Active Directory Domain Services

Active Directory (AD) is a directory service from Microsoft, its main use is to manage the authentication and authorization of users and machines on a Windows domain network from a centralized location. The focus of Active Directory is to verify access when a user logs in or tries to connect to a computer and/or resource via the network. It also assigns and enforces security policies. A server that is running Active Directory Domain Services is called a Domain Controller.

To be able to utilize Active Directory via AXIS Camera Station Pro the computer that is running the AXIS Camera Station Pro service first needs to be added to the domain, before any users and/or groups can be assigned AXIS Camera Station Pro user roles. To add a computer to the Domain please make sure to contact your system administrator.

NOTE

When using on-prem Active Directory all computers running AXIS Camera Station Pro need to have contact with the Active directory server. This becomes more challenging when servers are distributed over a large geographical location, and a solution using VPN or similar is required.

2. AXIS Camera Station Pro user roles

There are three roles that can be given to a user or group.

Administrator: The Administrator role grants full access to the entire system, including automatic access to all cameras, I/O ports and views. Therefore, you do not need to specify any camera, I/O or view privileges for a user with this role. This role is required to configure the system.

Operator: An Operator has access to live and recorded video of selected cameras and access to selected I/O ports and views. An operator has full access to all functionality of AXIS Camera Station Pro except system configuration.

Viewer: A viewer has access to live video of selected cameras and access to selected I/O ports and views. A viewer does not have access to recorded video or system configuration.

2.1. Cameras

The following access privileges are available for users or groups with the Operator or Viewer role.

- Access: Allow access to the camera and all camera features.
- Video: Allow access to live video from the camera.
- Audio listen: Allow access to listen from the camera.
- Audio speak: Allow access to speak to the camera.
- Manual Recording: Allow to start and stop recordings manually.
- Mechanical PTZ: Allow access to mechanical PTZ controls. Only available for cameras with mechanical PTZ.
- PTZ priority: Set the PTZ priority. A lower number means a higher priority. 0 means that no priority is assigned. An administrator has the highest priority. When a role with higher priority operates a PTZ camera, others can't operate the same camera for 10 seconds by default. Only available for cameras with mechanical PTZ and when Mechanical PTZ is selected.

2.2. Views

The following access privileges are available for users or groups with the Operator or Viewer role. You can select multiple views and set the access privileges.

- Access: Allow access to the views in AXIS Camera Station Pro.
- Edit: Allow to editing of the views in AXIS Camera Station Pro.

2.3. I/O

The following access privileges are available for users or groups with the Operator or Viewer role. The I/O ports are listed by device.

- Access: Allow full access to the I/O port.
- Read: Allow to viewer access to read the state of the I/O port. The user is not able to change the port state.
- Write: Allow write access to change the state of the I/O port.

2.4. System

The access privileges that can't be configured are greyed out and listed under Role privileges. The privileges with a checkmark means the user or group have this privilege by default.
The following access privileges are available for users or groups with the Operator role.

- Take snapshots: Allow taking snapshots in the live view and recordings modes.
- Export recordings: Allow export of recordings.
- Generate incident report: Allow generation of incident reports.
- Prevent access to recordings older than: Prevent accessing recordings older than the specified number of minutes. When using search, the user will not find recordings older than the specified time. Recordings and bookmarks older than the specified time can't be played.
- Access System Health Monitoring: Allow access to System Health Monitoring.

The following access privileges are available for users or groups with the Viewer role.

- Take snapshots: Allow taking snapshots in the live view and recording mode.

3. Recommendations

The following are some typical considerations and recommendations, If multiple users are to be used, it's recommended to add all the users with the same AXIS Camera Station Pro role into user groups which will reduce the amount of administration and maintenance that is required on the system. For example, if you have 5 security operators, instead of assigning them each an AXIS Camera Station Pro Operator role you can create a single user group. That can be assigned an AXIS Camera Station Pro user role, in this way only a single user object needs to be managed and maintained.

- When deploying multiple AXIS Camera Station Pro servers, it's recommended to use Active Directory Services to simplify user management.
- If multiple users will be using AXIS Camera Station Pro, it is recommended to have a user account for each user. This helps with the overall security e.g password policies and allows auditing user interaction within AXIS Camera Station Pro as well as in the windows environment.
- Never use shared accounts to log into AXIS Camera Station Pro or the Microsoft Windows environment.
- If "Special user security policies" are used either via active directory group policies or local group policies. AXIS Camera Station Pro is unable to display specific error or warning messages about the user security policies, instead it will show a standard response. For example, if you are trying to login to the AXIS Camera Station Pro server outside your allotted login hours you will receive an error message stating "*The username or password is wrong, the account password has expired, or the account is locked.*"

4. Examples

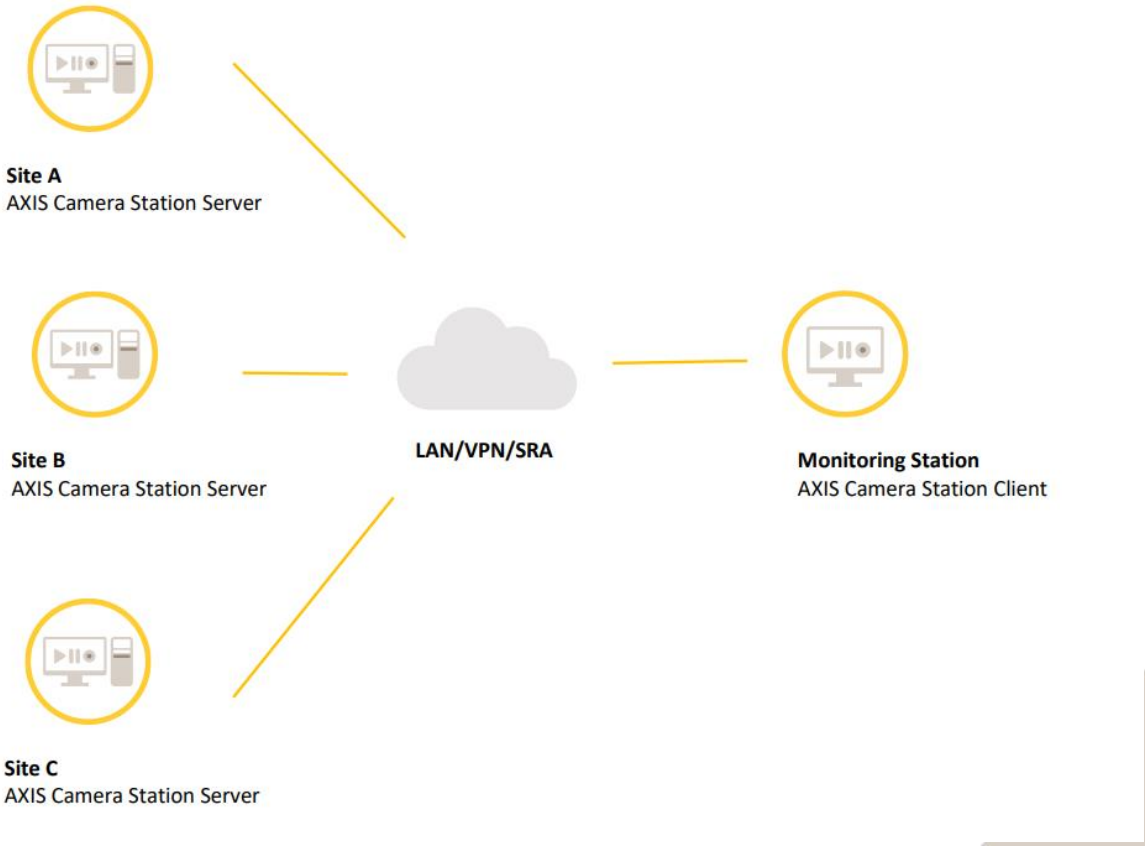
4.1. Windows Local users' configuration.

The below example depicts a multi-server AXIS Camera Station Pro setup utilizing local Microsoft Windows users and groups for user authentication. A central monitoring station using the AXIS Camera Station Pro Client is used to connect to each site. In this type of environment user management needs to be managed and administered locally at each site. To make administration easier it's advisable to duplicate the user and groups on each site.

This configuration simplifies the login process from the Central monitoring station as all sites have the same users and groups. However please note that if a new user needs to be added or an existing user needs to be modified that this needs to be replicated on all sites.

This table depicts an example of users with their respective groups and the AXIS Camera Station Pro roles applied to each of them that would need to be duplicated to each site.

AXIS Camera Station Pro user roles	Microsoft Windows user Groups	Microsoft Windows users
Administrator	System Installer	Erik, Bob, Martin
	IT Administrator	Chris, Kristina
	Security Manager	Susanne
AXIS CAMERA STATION PRO Operator	Manager	Matthew
	Area Manager	Lina
AXIS CAMERA STATION PRO Viewer	Security Officer	Aron, Bart, Michal



4.2. Active Directory user configuration

The below example depicts a multi-server AXIS Camera Station Pro setup utilizing Active Directory domain services for user authentication from a central server. A central monitoring station using the AXIS Camera Station Pro Client is used to connect to each site. In this type of environment user management can be managed centrally from the Active Directory server to create and modify users. Using Active Directory simplifies user management when it comes to pre-configured groups in AXIS Camera Station Pro. However, if new groups need to be created that need a new AXIS Camera Station Pro user role, then these groups need to be added to all AXIS Camera Station Pro Servers separately.

This configuration simplifies the login process from the central monitoring station. When adding groups instead of users to AXIS Camera Station Pro it's easier to maintain and add new users without the need to go into the AXIS Camera Station Pro Client interface. For example, if a new Area Manager starts, that new user needs to be moved into the Area Manager group and they will automatically have the AXIS Camera Station Pro Operator role and be able to login to all servers that have the Area Managers group as an AXIS Camera Station Pro Operator role.

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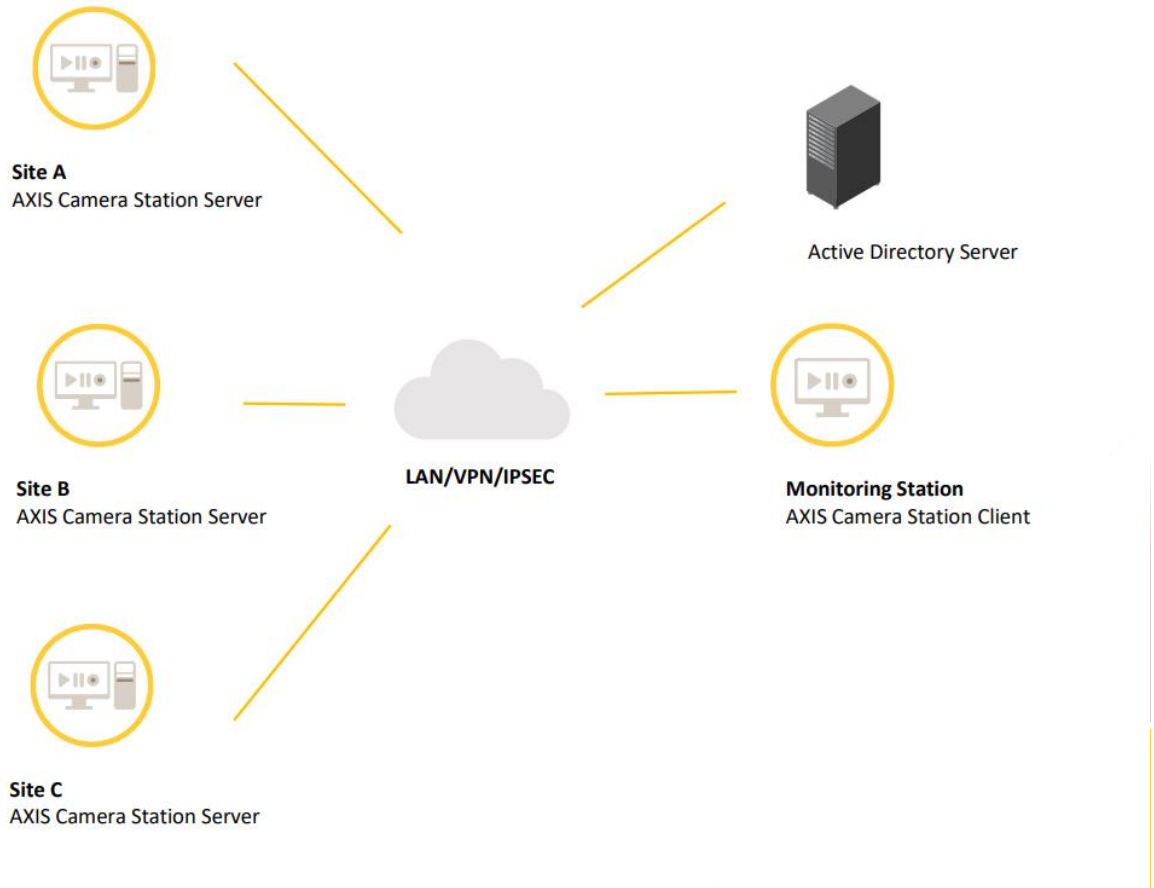

5. Troubleshooting

5.1. An operator or viewer has full administration privileges.

1.1 Symptom.

A user with AXIS Camera Station Pro operator or viewer privileges has full administration access to the AXIS Camera Station Pro.

1.2 Cause

The user in question is either in the local administrator's group of the local machine or is part of the domain users' group which is nested in the local administrators group.

1.3 Resolution

If the user in question should only have operator or viewer roles, that specific user needs to be removed from the local administrators group. Either by a) removing the user out of the local administrator's group, b) removing the domain users' group from administrator's group or c) remove any other groups that the user is in from the local administrators group. By default, any user and or group that is in the local administrator's group of the AXIS Camera Station Pro server will get full administration role privileges on the server.

5.2. Unable to login to AXIS Camera Station Pro.

1.4 Symptom

A user with an assigned AXIS Camera Station Pro role is unable to login to AXIS Camera Station Pro and receives the following error message "**Invalid Credentials**, the username or password is wrong, the account password has expired, or the account is locked."

1.5 Cause

This error message can occur if the following are true,

- Wrong username or password is entered
- The account password has expired
- The account is locked
- Account is disabled
- User must change password at next logon enabled
- Are trying to login outside of login hours

1.6 Resolution

Make sure that none of the above account policies are true, either via local group policy settings or Active Directory group policy settings.

5.3. Unable to login using a guest account

5.4. Symptom

When a user receives the error message “The client is running on a temporary user profile. Please make sure that the client is not running on a guest account.”

1.7 Cause

This error message is displayed when a user is using a Windows guest account. This can also be caused by the windows user being part of the Administrators and Guest groups, but not part of the Users group.

1.8 Resolution

Add a standard Windows user and login with the new windows user. If using a standard Window user already, make sure that this user is not part of the Guest group.

5.5. Unable to find user or group.

1.9 Symptom

Unable to find a user or group when searching to add a new user or group to AXIS Camera Station Pro.

1.10 Cause

This issue can occur if any of the following are true,

- Trying to add a Microsoft cloud user or groups such as Microsoft Accounts or Azure active directory.
- If searching for Domain users or groups, make sure the AXIS Camera Station Pro server has access to the Active directory server.

1.11 Resolution

Make sure that only Windows local users and groups or Domain users and groups are being added in AXIS Camera Station Pro. If searching for domain users or groups and they are not present, make sure that the AXIS Camera Station Pro server is connected to the Domain and that the server has access to Active Directory. If searching for local or domain users make sure that the correct user scope is selected when searching for users or groups.

6. Summary

AXIS Camera Station Pro user management uses the built-in mechanisms of the Microsoft Windows operating systems to make user management highly efficient and secure. Using these mechanisms allows administrators to use either Windows local users and groups or Active Directory services users and groups.

User management is an important part of the implementation and maintenance of a video management system. It's important to understand the different methods and methodologies of user management, to be able to plan and implement the best solution for the specific use case.

When deploying distributed systems, its more efficient to use Active directory services for central user management instead of local users and groups which need to be managed locally at each location. However, to be able to do so the infrastructure needs to be in place to take advantage of Active Directory services.