Active Directory UNIX Extensions

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Overview

When a customer chooses to enable support for multiple protocols on a volume through NFS and SMB/CIFS, the user and group identities created through the different protocols do not necessarily match each other. This is because SMB typically maps a user by associating an Active Directory security identifier (SID) with a user identity (UID) or group identity (GID) through a local mapping policy, which is typically a simple algorithm that directly incorporates the relative ID (RID) component of the SID. NFS, on the other hand, uses the local UID or GID on the UNIX/Linux system without much conversion. This can lead to a situation where an Active Directory user "bob" may write files that UNIX user "bob" cannot access.

However, the Nasuni Filer can be configured in such a way that the Active Directory-mapped UIDs and GIDs match the NFS UIDs and GIDs. Currently, this support relies on the customer using a feature of Active Directory that extends the Active Directory schema to provide UNIX-style UIDs and GIDs. This feature is known by multiple names, including "Identity Management for UNIX", "UNIX Extensions", "Server for Network Information Services", "Services for UNIX", or "RFC 2307". On a domain that supports these extensions, a UNIX/Linux-based client can obtain the UID and GID values from the canonical records in the domain.

If this is your situation, contact Nasuni Support for assistance in configuring this feature.

Considerations

Here are some considerations to keep in mind:

- In order to use Active Directory's UNIX extensions, it is necessary to first configure domains and clients.

- Verification involves writing files and directories to ensure that the user identities match.

- There are different procedures for configuring the first Nasuni Filer on the account and for subsequent Nasuni Filers on the account.

- If possible, have this configuration done before the Nasuni Filer joins Active Directory.