

Universal Group Membership Caching

One of the issues that you may need to address when configuring AD DS replication is whether to deploy global catalog servers in each site. Because global catalog servers are required when users sign in to the domain, deploying a global catalog server in each site optimizes the user experience. However, deploying a global catalog server in a site might result in additional replication traffic, which may be an issue if the network connection between AD DS sites has limited bandwidth. In these scenarios, you can deploy domain controllers that are running Windows Server 2008 or newer, and then enable universal group membership caching for the site.

How Universal Group Membership Caching Works

A domain controller in a site that has enabled universal group membership caching, stores the universal group information locally after a user attempts to sign in for the first time. The domain controller obtains the user's universal group membership information from a global catalog server in another site. It then caches the information indefinitely, and periodically refreshes it. The next time that the user tries to sign in, the domain controller obtains the universal group membership information from its local cache without contacting a global catalog server.

By default, the universal group membership information contained in each domain controller's cache is refreshed every eight hours. To refresh the cache, domain controllers send a universal group membership confirmation request to a designated global catalog server.

You can configure universal group membership caching from the properties of the NTDS Site Settings node.