

NexusDB Server AWE Edition Setup

The new AWE DLL functionality allows any NexusDB Server compiled with NexusDB v3.11.1 or later to use all available memory on the machine for database caching (adjustable by the MaxRam setting), just by adding a DLL to your setup.

The AWE functionality is licensed on a per machine basis. The license is enforced by the supplied nxmm.dll file. The DLL will create a machinekey file unique to the machine NexusDB Server is running on; the machinekey is then sent to NexusDB, and a licensekey file is sent back to unlock the license.

A license key can be requested for any NexusDB Server. If no customer info is provided, the license key will be a one-time 30 day trial key.

The short “todo” list:

- Ensure account privilege is created
- Ensure DLL is present in exe directory
- Start NexusDB Server to create machinekey
- Email machinekey file, receive licensekey file back
- Restart NexusDB Server, AWE enabled

The Details:

In order to use AWE, there is a special windows account privilege that needs to be turned on for the windows user account that the NexusDB Server is running under.

Go to Control Panel | Administrative Tools | Local Security Policy | Local policies | User Right Assignment. On the right-hand side, you'll have a list of policies; find the one named "Lock pages in memory". Doubleclick it, and add the user account that NexusDB Server is running under. Reboot the machine. Now, manually setting the Server Engine setting "Max RAM" to a value like “Total Machine RAM” - 2048 (the setting is in MB; eg your machine has 16GB RAM, so calculate 16384 - 2048) should use all the assigned RAM for database caching if you have large enough data tables. As default (Max Ram = -1) 4GB will be left for OS and other processes. This means that even on a 8GB machine, an AWE enabled server will have 4GB cache, as opposed to only 1.5GB when run without AWE.

Place the nxmm.dll file in the same directory as your NexusDB Server, then (re) start it. This will cause the NexusDB Server to write a nxmm.machinekey file to the system drive.

To find this file, open the Server Configuration web page from the tray icon, go to the Statistics link (upper right), then choose “Server Engine” from the list on the left. You should now see an image similar to the following, with the “License Key Status” value displaying the directory where the nxmm.machinekey file has been stored. In the example below, it is in C:\ProgramData\nxmm\; the actual value depends on OS version.

Server Engine Statistics

Statistics Name	Value
License Key Status	C:\ProgramData\nxmm\nxmm.licensekey does not exist
Uptime	0.00:00:19
Sessions	0
Databases	0
Transaction Contexts	0

In order to receive the licensekey file, you should email the nxmm.machinekey file as an attachment to awelicenserequest@nexusdb.com (click link to open your default email application). The email subject should be "AWE". If you are requesting a trial license, leave the email body empty.

If you have purchased a license, enter your customer ID (not extended ID) on the first line of the email body, and enter the name of the company that will be using the NexusDB Server as the second line of the email body. No blank lines please. The company name will be displayed in the Server Engine Statistics page.

Please allow for at least 15 minutes after sending the email for processing and returning, and check spam folders if no return email should appear.

After the nxmm.licensekey file has been successfully returned to your email, place that file into the same directory as the nxmm.machinekey file, and (re)start NexusDB Server. The Server Engine Statistics will now display the license details and AWE status. Verify that the "AWE Edition" line displays "Yes, Active" to indicate that AWE is in use.

If any problems or questions arise, please email support@nexusdb.com.