

## ***DNS Aging and Scavenging***

DNS dynamic updates add resource records to the zone automatically, but in some cases those records are not deleted automatically when they are no longer required. For example, if a computer registers its own host (A) resource record and is improperly disconnected from the network, the host (A) resource record might not be deleted. These records, known as stale records, take up space in the DNS database and may result in an incorrect query response being returned. Windows Server 2012 can search for those stale records and, based on the aging of the record, scavenge them from the DNS database.

Aging and scavenging is disabled by default. You can enable aging and scavenging in the **Advanced** properties of the DNS server, or you can enable it for selected zones in the zone's Properties window.

Aging is determined by using parameters known as the Refresh interval and the No-refresh interval. The Refresh interval is the date and time that the record is eligible to be refreshed by the client. The default is seven days. The No-refresh interval is the period of time that the record is not eligible to be refreshed. By default, this is seven days. In the normal course of events, a client host record cannot be refreshed in the database for seven days after it is first registered or refreshed. However, it then must be refreshed within the next seven days after the No-refresh interval, or the record becomes eligible to be scavenged out of the database. A client will attempt to refresh its DNS record at startup, and every 24 hours while the system is running.

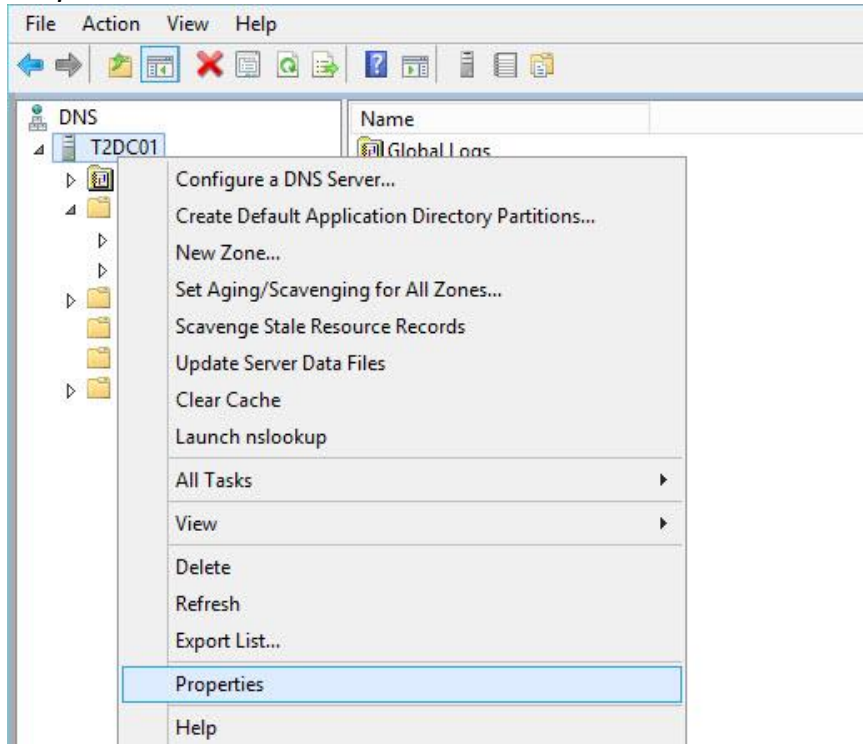
**Note:** Records that are added dynamically to the database are time-stamped. Static records that you enter manually have a time stamp value of zero 0; therefore they will not be affected by aging, and will not be scavenged out of the database

- Enable Scavenging on your DNS server
- Enable Scavenging for all Zones
- Manually Scavenge stale records
- Enable Scavenging for an individual Zone

Opening your DNS Manager by typing DNS in start or run dnsmgmt.msc

## Enable Scavenging on your DNS server

1. First of all, we need to enable Scavenging on the DNS-server. Many tends to forget this step, and to be honest, it does seem a tad redundant. Nevertheless, open the DNS Manager, right-click server name and select *Properties*.



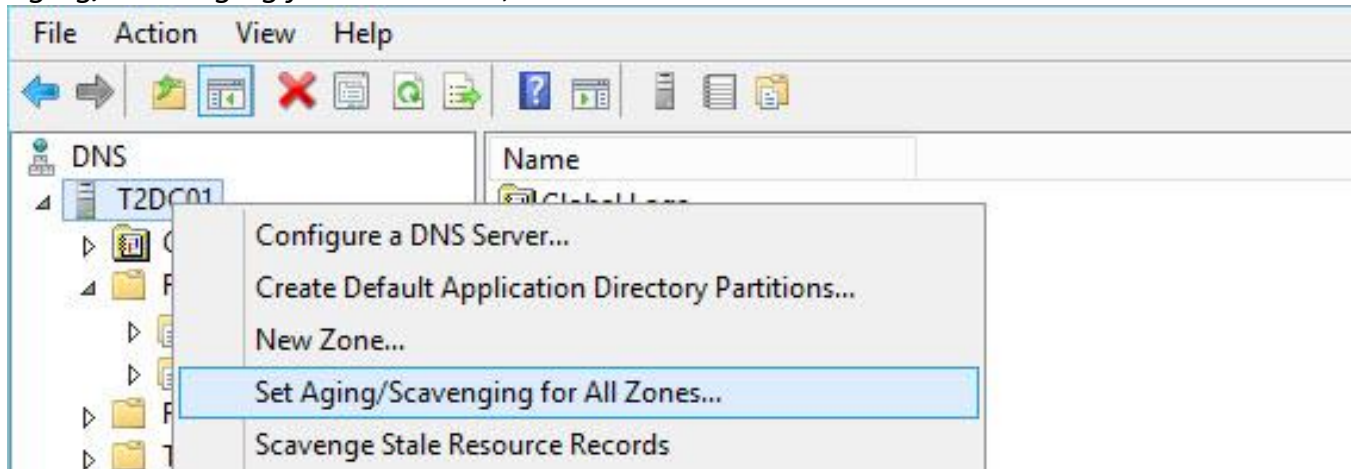
2. Click the *Advanced* tab and put a mark in *Enable Automatic scavenging of stale records* and click *Apply/OK*.

The screenshot shows the DNS Server Configuration console with the 'Advanced' tab selected. The 'Server version number' is 6.2.9200 (0x23f0). Under 'Server options', several checkboxes are visible: 'Disable recursion (also disables forwarders)', 'Enable BIND secondaries', 'Fail on load if bad zone data', 'Enable round robin', 'Enable netmask ordering', 'Secure cache against pollution', and 'Enable DNSSEC validation for remote responses'. The 'Name checking' dropdown is set to 'Multibyte (UTF8)' and 'Load zone data on startup' is set to 'From Active Directory and registry'. The checkbox for 'Enable automatic scavenging of stale records' is checked, and a green arrow points to it. Below this, the 'Scavenging period' is set to 7 days. A 'Reset to Default' button is located at the bottom right of the configuration area. At the very bottom of the console are buttons for 'OK', 'Cancel', 'Apply', and 'Help'.

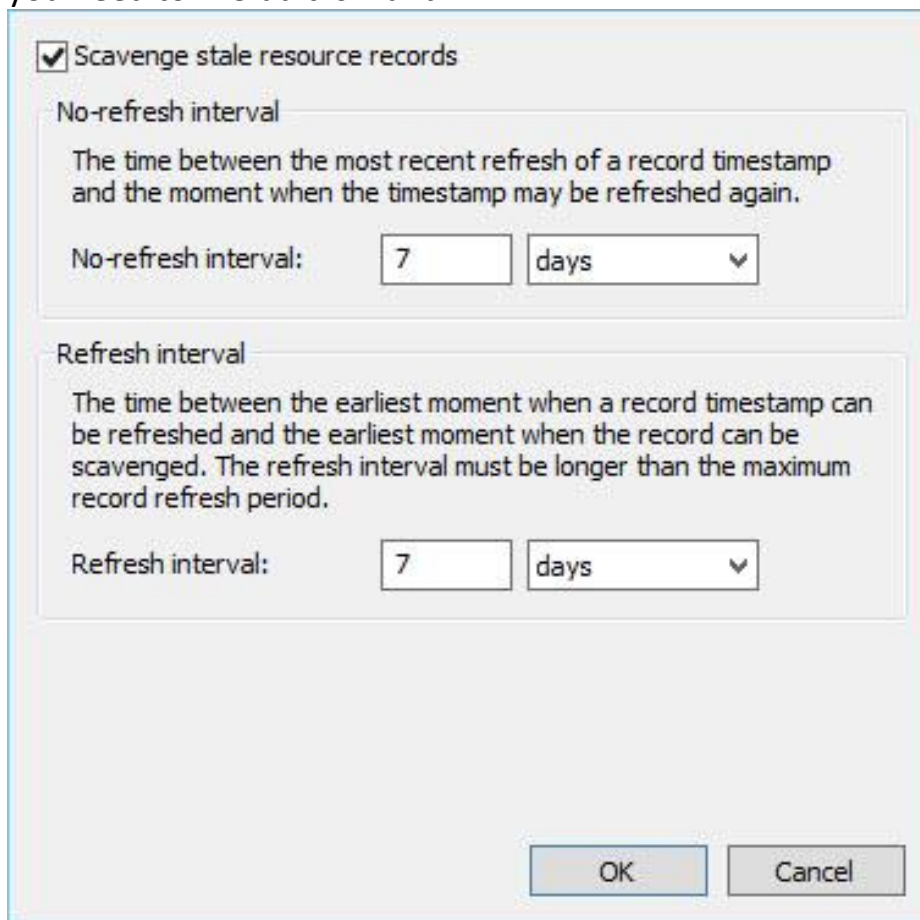
3. *Scavenging* is now enabled on the DNS server, but remember you have to either *enable scavenging on all zones* or *enable scavenging on individual zones* as well, which we do next, or nothing happens.

## Enable Scavenging for all Zones

1. Right-click your servername, my server is named *T2DC01*, and select *Set Aging/Scavenging for All Zones...*,

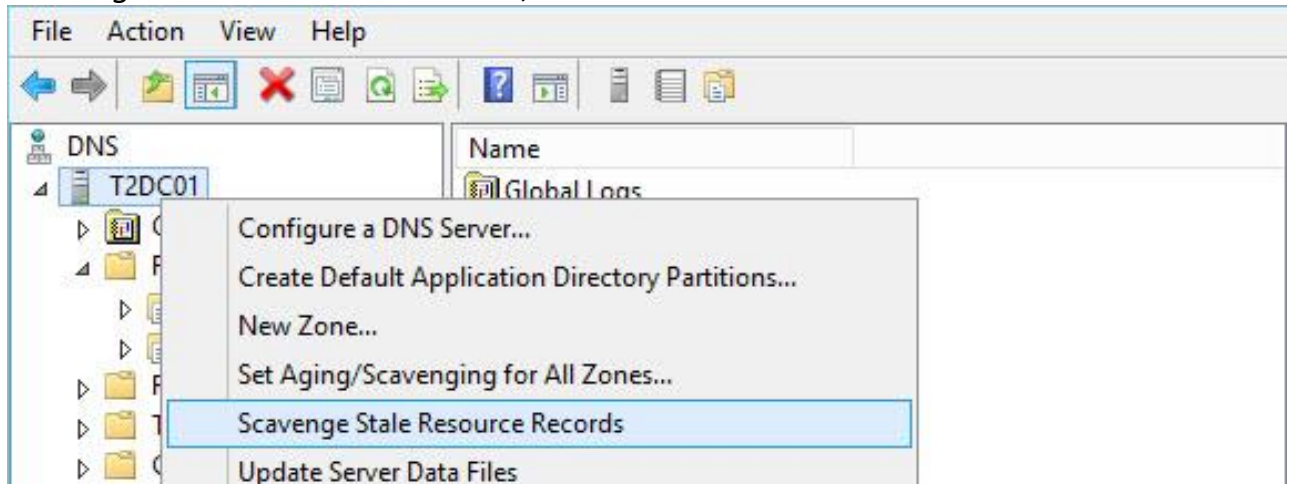


2. Put a mark in *Scavenge stale resource records*, and adjust the settings if you need to. Default is 7 and 7.

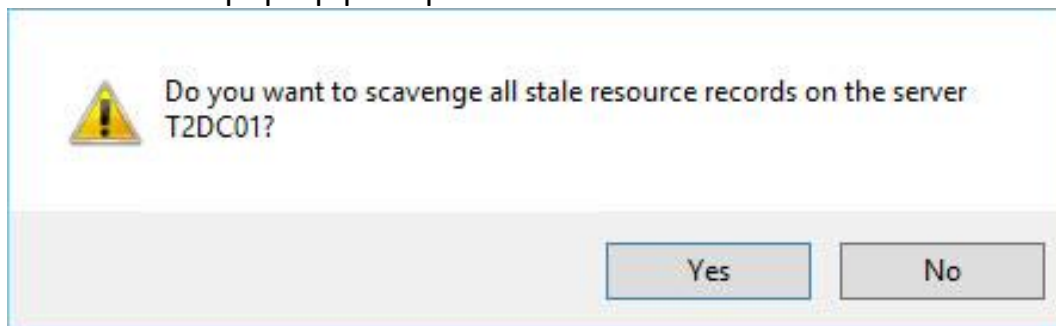


## *Manually Scavenge stale records*

1. Right-click your servername, my server is named *T2DC01*, and select *Scavenge Stale Resource Records*,



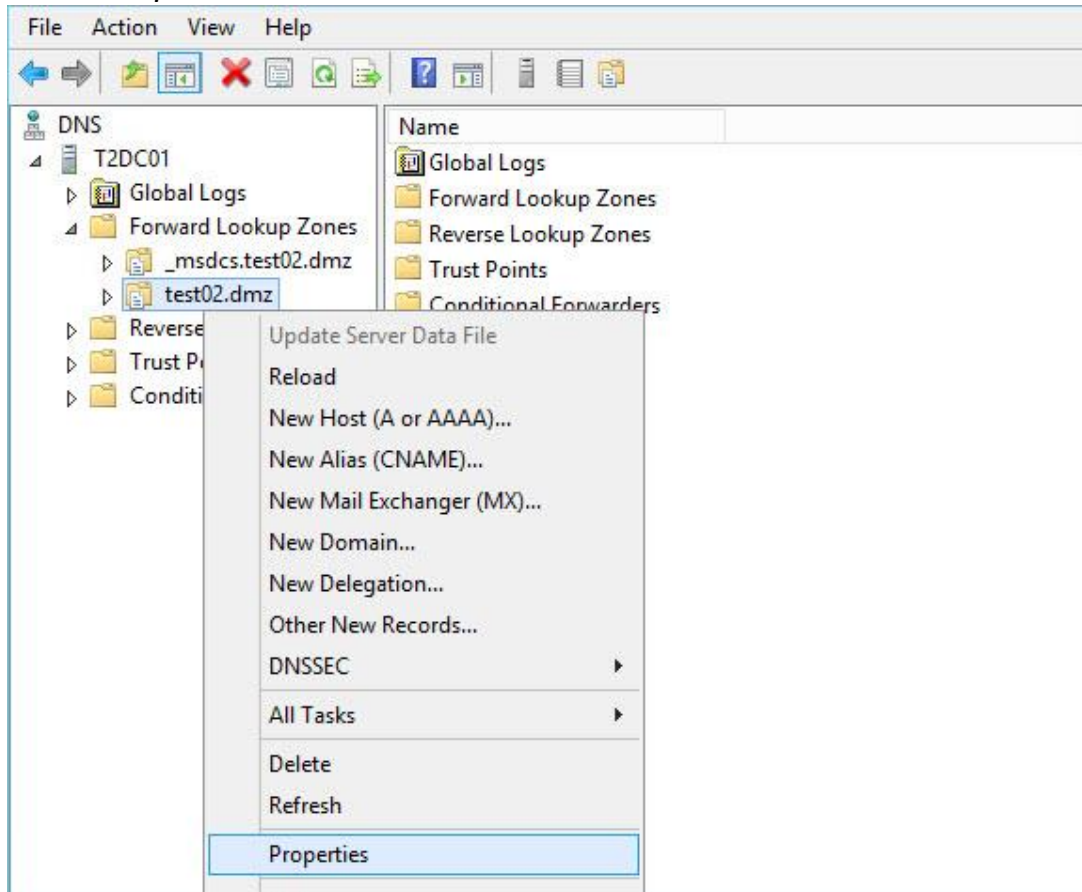
and OK to the pop-up prompt




## *Enable Scavenging for an individual Zone.*

Use this option if you do not want Scavenging enabled for all zones, or if you want different settings pr. zone.

1. Right-click your *Forward Lookup Zone* name, in my case *test02.dmz* and select *Properties*



2. On the General tab, click Aging...

WINS	Zone Transfers	Security
General	Start of Authority (SOA)	Name Servers
Status:	Running	<input type="button" value="Pause"/>
Type:	Active Directory-Integrated	<input type="button" value="Change..."/>
Replication:	All DNS servers in this domain	<input type="button" value="Change..."/>
<hr/>		
Data is stored in Active Directory.		
Dynamic updates:	<input type="text" value="Secure only"/>	<input type="button" value="v"/>
	Allowing nonsecure dynamic updates is a significant security vulnerability because updates can be accepted from untrusted sources.	
To set aging/scavenging properties, click Aging.		<input type="button" value="Aging..."/>

- Put a mark in *Scavenge stale resource records*, and adjust the settings if you need to. Default is 7 and 7.

Scavenge stale resource records

**No-refresh interval**  
The time between the most recent refresh of a record timestamp and the moment when the timestamp may be refreshed again.

No-refresh interval:

**Refresh interval**  
The time between the earliest moment when a record timestamp can be refreshed and the earliest moment when the record can be scavenged. The refresh interval must be longer than the maximum record refresh period.

Refresh interval: