Configuring zone properties in Windows Server 2008

A zone's properties determine how the zone performs zone transfers, ages resource records, and other behavior for the zone. The following parts explain the options available for a zone. To set these options, open the DNS console, right-click the zone, and choose Properties.

General zone properties

A zone's General property page enables you to configure the following options:

1) Status: Click Pause to pause a zone and stop it from responding to queries. Click Start to start a paused zone. You may pause a zone while making extensive changes to the records in the zone or performing other administrative tasks on the zone.
2) Type: You can change a zone's type on the General page to any of the three supported types (AD-integrated, standard primary, or standard secondary). If a server for a primary standard zone fails, for instance, you can change its secondary zone on a different server to a primary zone.
3) Zone File Name: Use this property to change the file in which the zone records are stored. By default, the zone filename is zone.dns, where zone is the name of the zone. The resource records for west.mcity.us, for instance, would be stored by default in west.mcity.us.dns.
4) Dynamic Updates: Use this option to enable/deny dynamic updates by Dynamic Host Configuration Protocol (DHCP) clients and servers to resource records in the zone and corresponding pointer records.
5) Aging: Select this option to specify aging properties for records in the zone.

Start of Authority properties

The Start of Authority (SOA) property page for a zone permits you to configure the zone's SOA record. This property page includes the following properties:

1) Serial Number: DNS uses this value to determine when a zone transfer is required. The DNS service increments the value by 1 each time the zone changes to indicate that the zone is a new version. Other servers performing zone transfers with the server use this value to determine whether a zone transfer is required. If the value is higher than the remote server's records for the zone, the server initiates a zone transfer to update the remote server's zone records. Use the Increment button to increment the serial number and force a

zone transfer.

2) Primary Server: This specifies the host name of the primary master for the selected zone. If you need to change the value, type the host name of the primary master or click Browse to browse the network for the primary master. Make sure that you include a period at the end of the host name.

3) Responsible Person: This property specifies the e-mail address of the person responsible for managing the zone. The data takes the form of an FQDN. The address administrator@mcity.us, for example, should be entered as administrator.mcity.us, replacing the @ symbol with a period.

4) Refresh Interval: This value specifies how often servers that host secondary copies of the zone should check the currency of their zone data against the primary zone data. The default is 15 minutes.

5) Retry Interval: This value specifies the amount of time that must elapse before a server hosting a secondary copy of the zone retries a connection to the primary zone when a previous connection attempt failed. This value should usually be less than the refresh interval and defaults to 10 minutes.

6) Expires After: This specifies the period of time that a server hosting a secondary copy of the zone can wait before discarding its secondary data if its zone data hasn't been refreshed. This prevents the secondary servers from serving potentially stale data to client requests. The default is 24 hours.

7) Minimum (Default) TTL: This value specifies the amount of time that querying servers can cache results returned from this zone. After this period expires, the remote server removes the record from its cache. The default is one hour.

8) TTL for This Record: This value specifies the time-to-live for the SOA record itself. The default is one hour.

Name servers properties

The Name Servers page allows you to alter the NS records for the zone. The advantage of using this method, rather than manually changing each record, is that you can see all NS records in the zone in a single dialog box. To alter a record, select the record and click Edit. Windows Server 2008 DNS shows a dialog box which you can use to change the host name, IP address, or time-to-live value for the NS record. When changing the host name, ensure that the name contains a period at the end. You can click Add to add a new NS record.

WINS properties

The WINS page determines whether the DNS service attempts to resolve through WINS any names that it can't resolve on its own. Use the following properties to configure WINS integration:

1) Use WINS Forward Lookup: Select this option to allow the DNS service to query WINS for any names that it can't resolve on its own through DNS.
2) Do Not Replicate This Record: Select this option to prevent the DNS server from replicating WINS-specific resource data to other DNS servers during zone transfers. You must use this option if you are performing zone transfers to servers that don't support WINS (such as non-Microsoft DNS servers).
3) IP Address: Specify the IP addresses of the WINS servers to query.
4) Advanced: Click to set the cache timeout and lookup timeout periods. The cache timeout specifies the amount of time other servers can cache results returned through a WINS lookup. The lookup timeout specifies the amount of time that the DNS server can wait for a response from the WINS server(s) before generating a ''Name not found'' error.

Zone transfer properties

The Zone Transfers page of a zone's properties specifies the servers that can request and receive a copy of the zone's data through a zone transfer. You can configure the zone to allow all servers to request a transfer, only servers listed on the zone's Name Servers property page, or only servers included in a list of IP addresses that you define. Click Notify to specify how other servers are notified of zone updates. You can configure the zone to automatically notify servers listed on the Name Servers property page for the zone, or servers included in a list of IP addresses that you define. Deselect the Automatically Notify option if you don't want the DNS server to notify the other servers whenever the zone data changes.