

## ***Netmask Ordering***

Netmask ordering returns addresses for type A address records (A record) DNS queries that prioritize resources on the client computer's local subnet to the client. In other words, addresses of hosts that are on the same subnet as the requesting client will have a higher priority in the DNS response to the client computer.

Localization is based on IP addresses. For example, if there are multiple A records that are associated with the same DNS name, and each of the A records are located on a different IP subnet, netmask ordering returns an A record that is on the same IP subnet as the client computer that made the request.

Round Robin

## **Configuring round robin**

Round robin is a local balancing mechanism used by DNS servers to share and distribute network resource loads. You can use it to rotate all resource record (RR) types contained in a query answer if multiple RRs are found.

By default, DNS uses round robin to rotate the order of RR data returned in query answers where multiple RRs of the same type exist for a queried DNS domain name. This feature provides a simple method for load balancing client use of Web servers and other frequently queried multihomed computers.

If round robin is disabled for a DNS server, the order of the response for these queries is based on a static ordering of RRs in the answer list as they are stored in the zone (either its zone file or Active Directory).

## **Example: Round-robin rotation**

A forward lookup-type query (for all A RRs that match a DNS domain name) is made for a multihomed computer (multihomed.example.microsoft.com) that has three IP addresses. Separate A RRs are used to map the host's name to each of these IP addresses in the zone. In the stored example.microsoft.com zone, the RRs appear in this fixed order:

multihomed IN A 10.0.0.1

multihomed IN A 10.0.0.2

multihomed IN A 10.0.0.3

The first DNS client that queries the server to resolve this host's name receives the list in default order. When a second client sends a subsequent query to resolve this name, the list is rotated as follows:

multihomed IN A 10.0.0.2

multihomed IN A 10.0.0.3

multihomed IN A 10.0.0.1