

## Load Balancing Microsoft Terminal Services

Setting up a virtual service to balance Microsoft Terminal Servers is very similar to setting up any other virtual service. The system tries to automatically detect the type of the virtual service based on the port of the virtual service.

**Please Specify the Parameters for the Virtual Service.**

Virtual Address	10.3.1.1
Port	3389
Protocol	tcp

*Once a port number of 3389 is entered, the system automatically chooses Remote Terminal as a service type.*

If the Virtual Service uses port 80, 8080 or 443, then it will be configured as a HTTP/HTTPS service. If it uses port 3389 then it will be configured for Terminal services. If the port is set to anything else, the service will be configured as “Generic”.

**Properties for 10.3.1.1:3389 - Operating at Layer 7**

**Basic Properties**

Activate or Deactivate Service	<input checked="" type="checkbox"/>
Service Type	Remote Terminal
L7 Transparency	Enabled
Real Server Check Protocol	Remote Terminal Protocol
Service Nickname (optional)	<input type="text"/> <input type="button" value="Set Nickname"/>
Persistence Options	Mode: Terminal Service
	Timeout: 6 Minutes
Scheduling Method	adaptive

*Note: The type of the service can always be changed manually by using the Mode selection option.*

This configuration is intended to allow the LoadMaster to balance Microsoft Terminal Services across multiple servers. Upon first connection, a server is allocated using the standard scheduling methods, i.e. Round Robin, Least Connection, Adaptive, etc.

If a user disconnects from his/her session without logging out, it is preferable to maintain persistence with the server that he/she originally connected to. This allows that user to come back to the screen they were working on, with all the same windows open and applications running where they had left off.

This is where the Persistence Mode of Terminal Service comes in. If this persistence mode is enabled, when a user reconnects, the LoadMaster will try to connect the session to the same server. It does this in one of three ways:

1. If the terminal servers support a Session Directory, the LoadMaster will use the "routing token" supplied by the Session Directory to determine the correct host to connect to. The LoadMaster persistency timeout value is irrelevant here - it is a feature of the Session Directory.  
**Note: The switch "IP address redirection" in the Session Directory configuration MUST be UNCHECKED for this to work.**
2. Using Session Directory with LoadMaster is optional, in terms of persistence. If the Client pre-populates the username and password fields (see figure x) in the initial request, then this value is stored on the LoadMaster. As long as these fields are still populated upon reconnect, the LoadMaster will look up the name and reconnect to the same server as the original connection. The persistence timeout is used to limit the time the information is kept on the LoadMaster.



*Username and password have been pre-populated*

3. If using "Terminal-Service or source IP" mode, then if neither of these two modes succeeds, then the source IP address will be used for persistency.