Running NowWAP in Fault Tolerant or Redundant Load Balanced Environment

For many configurations it is desirable to install NowWAP on multiple servers in order to achieve fault tolerance and/or improved throughput and performance.

The only special consideration when running NowWAP in this type of clustered configuration is if NowWAP is configured to use RADIUS accounting to supply MSISDN information to one or more content servers, such as an MMSC.

This document describes a new feature that exists in NowWAP v2008.06.03 and later releases, which allows multiple NowWAP gateways to share this MSISDN information.

∴ Configuring NowWAP 2008

To run NowWAP in a load balanced configuration the NowWAP program files are installed locally on each server.

A load balancer is used to route network traffic to any of the NowWAP servers.
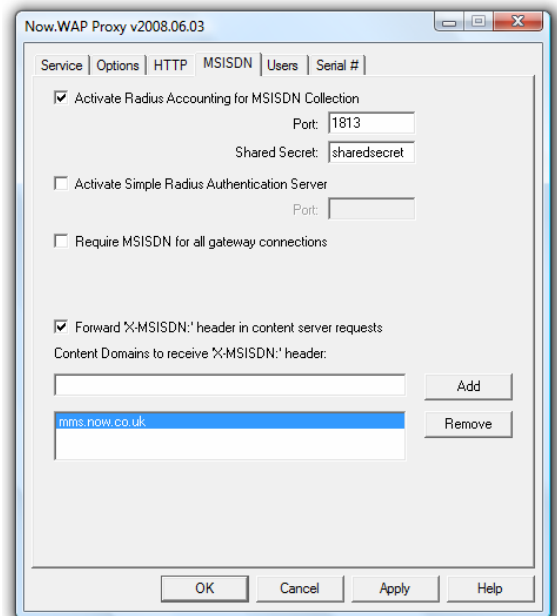
In this type of environment there is one shared IP address from which the load balancer accepts requests, routing them to any of the available NowWAP servers.

In addition to the single shared IP address, each of the NowWAP servers has a unique local IP address that is not shared.

The access server is configured to send RADIUS accounting packets to the shared IP address. Based upon server availability, the load balancer will route the RADIUS accounting packet to one of the NowWAP servers (any of the servers could be used).

All of the NowWAP servers are configured to listen for RADIUS accounting packets when "Activate Radius Accounting for MSISDN Collection" is checked on the "MSISDN" page of the NowWAP configuration.
The same "Port" number and "Shared Secret" should be configured on all NowWAP servers, using the values expected by the access server.
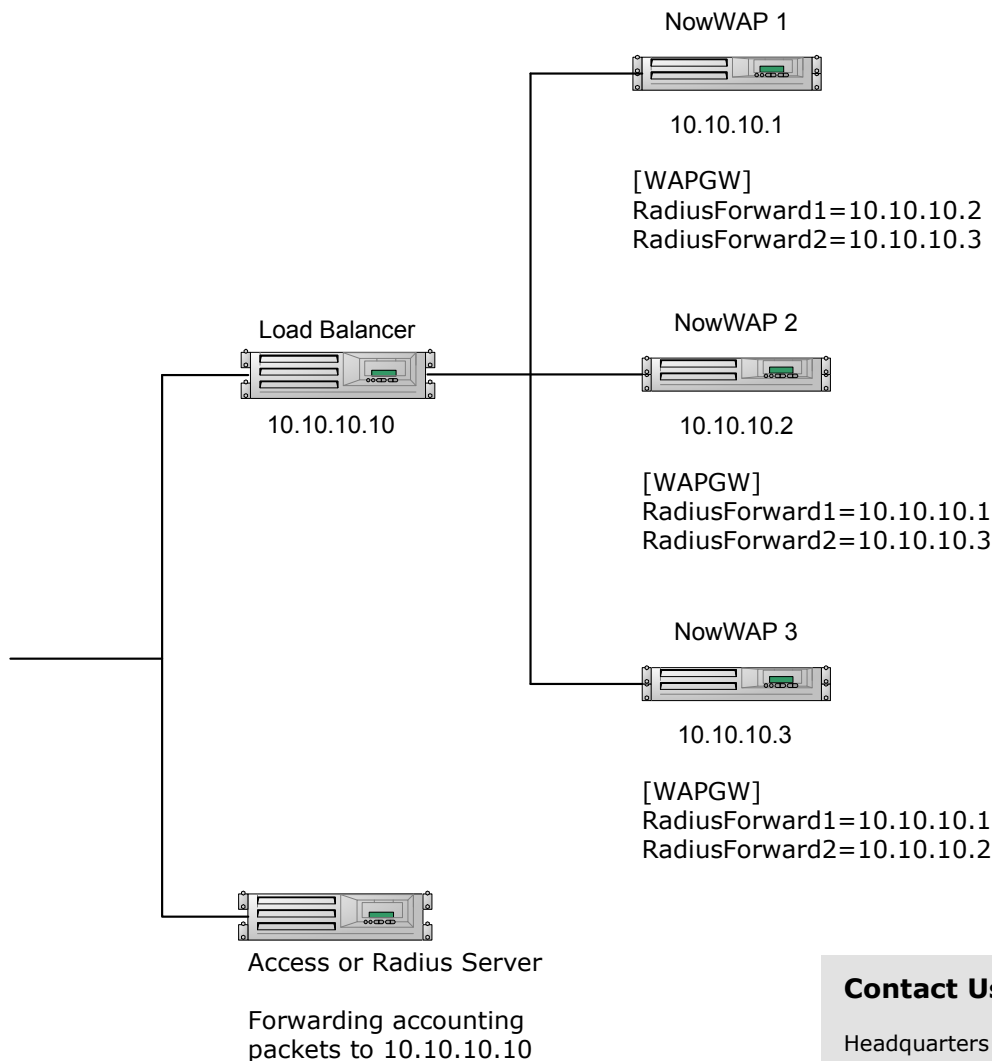

Manual edits must then be applied to the WAPGW.INI file of each NowWAP server (see example on page 2).

For an example of this configuration, assume that three NowWAP servers are load balanced using a shared IP address of 10.10.10.10. The non-shared (local) IP addresses for the three servers are 10.10.10.1, 10.10.10.2, and 10.10.10.3.

The access server is configured to send RADIUS accounting packets to 10.10.10.10 (the shared IP address).

Manual edits must then be applied to the WAPGW.INI file of each NowWAP server as per the diagram.

NowWAP 1

10.10.10.1

[WAPGW]
RadiusForward1=10.10.10.2
RadiusForward2=10.10.10.3

Load Balancer

NowWAP 2

10.10.10.10

10.10.10.2

[WAPGW]
RadiusForward1=10.10.10.1
RadiusForward2=10.10.10.3

NowWAP 3

10.10.10.3

[WAPGW]
RadiusForward1=10.10.10.1
RadiusForward2=10.10.10.2

Access or Radius Server

Forwarding accounting
packets to 10.10.10.10

Troubleshooting Notes

1) For troubleshooting purposes it may be easiest to first configure the access server to send the RADIUS Accounting packets to the non-shared IP address of just one of the NowWAP servers. Once that is working properly, change the access server to send the RADIUS Accounting packets to the shared IP address of the load balanced cluster.

2) NowWAP logs all received RADIUS transactions in log files named RADIUS-yyyymmdd.LOG (where yyyymmdd is the current date). Refer to these log files for details regarding RADIUS Accounting packets received by NowWAP.

3) For further troubleshooting, it may be helpful to use a network traffic analyzer, such as Wireshark (formerly known as Ethereal).