Editing InterNiche .nv Files

Some InterNiche products require various types of configuration to occur on the target system at run time.

For example, TCP/IP needs to know either its own IP address or whether an IP address is to be picked from a DHCP server. DHCP server needs to know the IP address polls. These values can be specified in **.nv** files. Following is the list of **.nv** files that various products need.

webport.nv
login.nv
server.nv
natdb.nv
dhcpsrv.nv
dhcprecs.nv
rip.nv

webport.nv

webport.nv is the main file. Most of the InterNiche products pick up initialization information from this file. We will describe the parameters associated with each protocol. At any time, only the parameters related to the enabled protocols are needed.

TCP/IP

For TCP/IP, following parameters are needed for each of the interfaces. If the IP address has to be dynamically assigned via a DHCP Server, then **DHCP Client** should have the value **YES**.

```
Net interface: 0
IP address: 10.0.0.1
subnet mask: 255.0.0.0
gateway: 0.0.0.0
DHCP Client: NO
```

DHCP Server

For DHCP Server to be used, the following parameter should be set:

```
Be local DHCP server: YES
```

This would activate the DHCP Server. DHCP Server would then pick the rest of the initialization values from the file **dhcpsrv.nv.** DHCP Server also needs a file **dhcprecs.nv** found in the **\etc** directory on the root level of your hard disk. It stores data in this file. If this file is not present, you must create an empty file with this name. If the **\etc** directory does not exist at the root level of your hard disk you must create this as well.

DNS Client

If the DNS Client is to be used, then the following fields should be initialized. Each parameter contains the IP address of a DNS Server. The maximum number of DNS servers is defined by **MAXDNSSERVERS** in the **dns.h** file.

```
DNS server: 1 - 204.156.128.1
DNS server: 2 - 204.156.128.10
DNS server: 3 - 204.156.128.20
```

Email Alerter

Email Alerter needs the IP address of the SNMP Server and the email address at that server.

```
EMAIL server: mail_server_IP_address
EMAIL recipient: alert_person@domain.com
```

Modem

If InterNiche's modem code is used, then the following values need to be set:

```
Phone Number: your_tsp
User Name: your_name
Password: your_password
Modem Init: AT&D2&C1
Comm port:1
Idle line timeout: 600
login file: login.nv
log server file: server.nv
line protocol: PPP
```

PPP (Point to Point Protocol)

```
PPP Console Logging: YES
PPP File Logging: NO
PPP keepalive: 0
PPP client timeout: 60
```

If **VJ** Compression is enabled in source code, then we also have:

```
PPP VJ request: YES
```

If **CHAP** is enabled in source code, then we also have:

```
CHAP secret:
require CHAP: NO
```

If **PAP** is enabled in source code, then we also have:

```
require PAP: NO
```

NAT Router

```
NAT routing on: YES
NAT internet net: 1
NAT local net: 0
NAT TCP timeout: 900
NAT UDP timeout: 300
NAT TCP window: 8192
NAT TCP MSS: 1500
```

RIP

```
rip ttl: 180 sec
rip broadcast interval: 30 sec
rip deletion interval: 120 sec
rip trigger interval: 5
rip flags: 1
rip allow default gateways: 0
```

If the value for a RIP parameter is **0**, then the default value will be used.

SNMP

If SNMP agent is enabled, then the following system parameters are needed.

```
SNMP Get Community: public
SNMP Set Community: public
SNMP sysContact: Somebody
SNMP sysName: InterNiche's Print Server
SNMP sysLocation: Lab
SNMP Trap target1: 10.0.0.85
SNMP Trap Community1: public
```

Telnet

```
telnet recv buf: 512 bytes
telnet send buf: 2048 bytes
telnet port: 23
telnet max login tries: 5 times
telnet idle time: 600 seconds
```

WEB Server

WebServer needs to know the directory where HTML content is located.

```
http root: /
```

Other .nv Files

The remaining **.nv** files are for the most part self-documenting. You can simply open the file in a text editor to examine or (re)configure it. **dhcprecs.nv** is the main exception and the differences are documented below.

login.nv

login.nv contains various "input" and "output" commands for logging into a server.

server.nv

server.nv contains various "input" and "output" commands so that some client can log into NAT.

natdb.nv

natdb.nv is a database for proxy servers, IP address, aliases, and more.

The Alias table format is **inside_address**, **outside_address**. An **outside_address** of all zeros means use the default outside Internet address.

The Proxy server table format is **inside_address**, **outside_port**, **inside_port**, **protocol**.

dhcpsrv.nv

The first portion of this file contains generic information which affects all hosts on a LAN - address pools, default gateway, lease values, etc. The optional second portion contains specific host information for an arbitrary number for hosts. One of these files will be needed for each network the DHCP is to serve.

Multiple LANs (net interfaces) are supported by assigned each an integer, starting with 0 and counting up.

In the individual host section each Client ID starts a new entry. All the other fields are optional, if any are omitted DHCP server will use the default from the previous section. These fields are:

Client ID   - HEX, often (but not always) MAC Hardware address
host name   - text string, may be null.
lease time   - given in seconds, **-1** means infinite lease
IP address   - in dot notation, **0.0.0.0** means get it from pool
subnet mask - in dot notation, **0.0.0.0** means use default
gateway   - in dot notation, **0.0.0.0** means use default
dns server   - in dot notation, **0.0.0.0** means use default

dhcprecs.nv

dhcprecs.nv, the DHCP dynamic database file, is the exception in two ways. As currently configured it resides in a directory named **etc** at the root level of your hard disk rather

then in the target directory for your port as the other **.nv** files do. And this database file is not to be directly edited. For more information on how this file is configured and how the default path to it is specified, see the file **dhcp_srv.doc** in the technical documentation and the file **dhcpport.c** in the **\dhcpsrv** directory.

rip.nv

Route_Table format is as follows:

```
(    dest    , subnet ,gateway,iface,metric,  ttl , flags,  proxy )
192.9.200.54, 0.0.0.0, 10.0.0.1,  1  ,   1  ,180,  0   , 0.0.0.0
```

ttl - time to live in seconds

flags - **0** for normal case, **1** if the entry is to be made private. Private entries are treated as static and not modified dynamically.