

Re: IP Routing

Source:

<http://www.tech-archive.net/Archive/PocketPC/microsoft.public.pocketpc.developer.networking/2004-09/0036.html>

From: Jeff Kelley [MS] (jeffkel_at_online.microsoft.com)

Date: 09/09/04

Date: Wed, 8 Sep 2004 17:34:52 -0700

Using command line apps isn't the easiest way to use a PocketPC, a GUI based app would be more convenient.

However, have you tried the PPC Command Shell that is part of the (unsupported) WM Power Toys?

<http://www.microsoft.com/downloads/details.aspx?FamilyID=74473fd6-1dcc-47aa-ab28-6a2b006edfe9&displaylan>

You could then build the route.exe app from the sources that are released with Platform Builder (public\common\oak\drivers\netsamp\route), and run it from the command shell, I think. I haven't done this myself though.

--

Jeff Kelley

Microsoft / Windows CE Networking

This posting is provided AS IS with no warranties, and confers no rights.

"Don Keller" <DonKeller@discussions.microsoft.com> wrote in message news:147CF1CB-81B4-4C40-AABF-78B267BEDDBE@microsoft.com...

> Hi Jeff,

>

> I was wondering if you could direct me to how I access route.exe on PPC 2003.

>

> Thanks,

> Don

>

> "Don Keller" wrote:

>

> > Thank you. That was very helpful and makes a lot of sense.

> >

> > One question though...how do I get to a command line on PPC 2003 to use the

> > route.exe command?

> >

> > Thanks a lot for the support.

> >

> > Don

> >

> > "Jeff Kelley [MS]" wrote:

> >

> > > After the VPN connection is established, there should be a default route

> > > added to the TCP/IP routing table. This default route will have a

> > > Destination=0.0.0.0 Netmask=0.0.0.0 Interface=<IP address of VPN

microsoft.public.pocketpc.developer.networking: Re: IP Routing

```
interface>
> > > and Metric=1. That default route metric should be lower than the
default
> > > route metrics for other interfaces in the system. As a result, packets
to a
> > > destination IP address that do not match any of the other routes in
the
> > > routing table will use the route of last resort (the default route)
with the
> > > lowest metric and thus get routed through the VPN interface.
> > >
> > > If the underlying network interface (the interface on top of which the
VPN
> > > connection is running) has a subnet route in the route table and
packets are
> > > sent to that subnet, then that subnet route will take precedence over
any
> > > default routes. There is an issue with CE 4.2 (on which WM2003 is
based) in
> > > that when it creates a RAS connection (e.g. modem) it always adds a
subnet
> > > route for that interface, even when the RASEO_RemoteDefaultGateway
flag is
> > > set for the connection and it is adding a default route for it. I
suspect
> > > that what is happening in your case is that you are creating a dialup
> > > connection which is adding the 10.0.0.0 subnet route, then the VPN
> > > connection is also assigned a subnet of 10.0.0.0. Packets being sent
to
> > > 10.x.x.x may thus be routed to the dialup connection rather than the
VPN.
> > >
> > > A fix for this problem was made so that RAS connections no longer add
a
> > > subnet route if they are becoming the default route (i.e. have the
> > > RASEO_RemoteDefaultGateway flag set). Thus in your case with the
initial
> > > modem connection no 10.0.0.0 subnet route would be added to the
routing
> > > table. The fix was released as a QFE to CE 4.2, and an AKU for WM2003,
but I
> > > don't have information on whether your particular OEM has released an
update
> > > for your device.
> > >
> > > The workaround is to add another route to the routing table after the
VPN
> > > interface is brought up. Using the command line "route.exe" command it
would
> > > look something like this:
> > >     Route ADD 10.0.0.0 MASK 255.0.0.0 <IP Address of VPN> METRIC 1 IF
> > > <Interface ID of VPN>
> > >
> > > The route command is just calling into the IP Helper APIs to modify
the
> > > routing table. So, a GUI based app on WM2003 could do what the command
line
> > > route.exe app is doing. I'm not aware of whether something like that
already
> > > exists.
> > >
> > > --
```

microsoft.public.pocketpc.developer.networking: Re: IP Routing

> > > Jeff Kelley
> > > Microsoft / Windows CE Networking
> > >
> > > This posting is provided AS IS with no warranties, and confers no rights.
> > >
> > > "Don Keller" <Don Keller@discussions.microsoft.com> wrote in message
> > > news:2A6EF4B4-DFC3-4287-9105-004945088693@microsoft.com...
> > > > How do I go about getting into the IP routing table on my Pocket PC 2003?
> > > > Similar to the ROUTE command-line utility on Windows. I haven't gotten
> > > > into
> > > > my comfort zone with PPC the way I am with other versions of Windows.
> > > >
> > > > Basically, I am having a very difficult time with my VPN setup. I have an
> > > > Audiovox PPC4100 with Pocket PC 2003 on it with which I can successfully
> > > > connect to a VPN server. I installed a utility called PocketLan that
> > > > gives
> > > > me an ability to display my IP routing table, however, it doesn't let me
> > > > edit
> > > > it. I can see that the routing table would cause some confusion about how
> > > > packets are routed through the VPN vs. the default Internet connection on
> > > > the
> > > > device. So I cannot connect to any of the hosts at work. A tracert
> > > > confirms
> > > > that the packets are sent through the Internet connection on the device
> > > > and
> > > > not the VPN connection.
> > > >
> > > > I have read every post I can find about the proper way to configure the
> > > > VPN
> > > > on it and nothing I have tried has made it work. I think the issue has to
> > > > do
> > > > with both networks using similar IP addresses, 10.0.0.0, so I want to make
> > > > more specific routing entries.
> > > >
> > > > Anyone know of a utility to edit these routes or another way I can go
> > > > about
> > > > it with a .NET app perhaps?
> > > >
> > > > Thanks,
> > > > Don
> > > >
> > > >
> > > >