

# Virtual adapter, change IP address through registry, enable/disable?

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<http://www.tech-archive.net/Archive/Development/microsoft.public.development.device.drivers/2005-11/msg00235.html>

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- *From:* "Benoît Bousquet" <[bbousquet@xxxxxxxxxxxxxxxxxxxxx](mailto:bbousquet@xxxxxxxxxxxxxxxxxxxxx)>
  - *Date:* Wed, 9 Nov 2005 15:29:57 -0500
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Greetings.

I have a virtual adapter based on the NetVMini sample from the XP DDK. I have been using it (successfully) for tunneling, using IpHlpApi calls to add/delete IP addresses. However, this implies that the adapter has a dummy first address (DHCP off, so it usually sits there as 0.0.0.0). I would like to be able to change the primary address on the adapter instead of adding a second one when needed. I have seen some virtual adapters who do this exact thing and I'm wondering what steps are involved.

I know that the following works:

- disable virtual adapter in device manager
- make registry changes in

HKLM\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters\Interfaces\{.....}

- enable virtual adapter in device manager

This is rather slow, however, and I was hoping a similar effect could be obtained by using Windows' media sensing mechanism. I thus tried the following:

- internally set my connection status to "disconnected" (this is what my virtual adapter responds to an OID\_GEN\_MEDIA\_CONNECT\_STATUS query)
- indicate NDIS\_STATUS\_MEDIA\_DISCONNECTED with NdisMIndicateStatus
- make registry changes, as above
- internally set my connection status to "connected"
- indicate NDIS\_STATUS\_MEDIA\_CONNECTED with NdisMIndicateStatus

Sadly, although this is way faster than the first option, the new IP information does not seem to get fetched from the registry.

I did some OID debugging and saw that the only OID\_GEN\_MEDIA\_CONNECT\_STATUS (0x00010114) request my adapter received was when I ran IPCONFIG (which queries the adapters directly). Furthermore, my calls to NdisMIndicateStatus do not have much of an impact on the way Windows behaves with the adapter (GetIfEntry's dwOperStatus goes from "Operational" to "Non Operational").

Any ideas?

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Benoît Bousquet

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