Send TCP / UDP strings and commands to Local and Remote Applications without netcat with Bash

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   Did you ever needed to send TCP / UDP packets manually to send commands to local or remote applications, having a fully functional BASH Shell but not having the luxury to have NC (Netcat Swiss Army Knife of Networking) tool?
This happens if you have some Linux based embeded device as Arduino or a Linux server with a high security PCI requirement which can't affort to have Netcat in place or another portable hardware with a Linux kernel, that needs to communicate in UDP for any reason but you don't want to waste additional 28KB or physically you have access to a Linux device that doesn't have netcat but you want to be able to send UDP externally ...

   SInce some time in **newer GNU Bash's releases support for TCP / UDP data sending** is described in Bash's Manual and should be working it is not as good as you might expect but for a small things it could save you the day.

   The syntax to use it is:

        /dev/protocol/IP/PORT

To open new socket connection to a UDP / TCP protocol with bash you have to simply open a new Shell handler (lets say 3) to:

/dev/tcp/your-url.com/80

or

/dev/udp/83.228.93.76/53

1. Get GOOGLE HTML Source with simple BASH / Getting URL Index with bash sockets

If you happen to have access to a machine where no network downloader tool or a text browser such as curl, wget, lynx, links is available but you want to dump the content of a index.html or any other URL with simply bash you can do it like so:

```
exec 3/dev/tcp/www.google.com/80
echo -e "GET / HTTP/1.1\r\n\r\n" >&3
cat &3
cat &3
while IFS= read -r -u3 -t2 line || [[ -n "$line" ]]; do echo "$line"; done
exec 3>&-
exec 3 /dev/udp/127.0.0.1/538
```

```
echo "Any UDP data" > /dev/udp/127.0.0.1/3000
```

If you happent to have netcat or running on a *bash shell that doesn't properly support TCP / UDP sending you can always do it netcat way:*

```
echo "Command" | nc -u -w0 127.0.0.1 3000
```

Of course this little hack is useful just for simple things and eventually for more comlex stuff and scripting you would like to use a fully functional HTML reader (*W3C compliant* Web Browser) still for a quick dirty stuff *Bash socketing from the console rocks pretty much ! :)*