

# USB resets with Nokia 6131 in Data Storage mode

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Hi all,

I'm having some problems using a Nokia 6131 in 'Data Storage' mode, i.e. when it acts as a USB mass storage device. This is with a Gentoo patched kernel 2.6.18, but AFAICT there are no patches against the USB subsystem in Gentoo's version of the kernel.

The symptoms: The system scans the partitions fine, I can mount the device and see the directory contents fine, but when I try to actually transfer files the USB subsystem seems to be doing bus resets continually until either of the sides simply gives up; I think it may be the phone that simply goes out of data storage mode into normal mode after a number of resets (or a fixed amount of time with no data transfer).

I've done a run with all the above steps with USB mass storage verbose debug enabled, the log can be retrieved from here:

<http://imada.sdu.dk/~bardur/usb-storage.log.gz>

The thing I that my untrained eye noticed was that most of the small transfers seem to succeed (at least before the bus resets kick in), while all the large transfers fail. This of course explains why reading the partition table and directory contents works.

Here's the phone's lsusb -v data:

```
Bus 002 Device 004: ID 0421:047c Nokia Mobile Phones
Device Descriptor:
  bLength 18
  bDescriptorType 1
  bcdUSB 2.00
  bDeviceClass 0 (Defined at Interface level)
  bDeviceSubClass 0
  bDeviceProtocol 0
  bMaxPacketSize0 64
  idVendor 0x0421 Nokia Mobile Phones
  idProduct 0x047c
  bcdDevice 3.70
  iManufacturer 1 Nokia
  iProduct 2 Nokia 6131
  iSerial 3 359390005710019
  bNumConfigurations 1
```

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Configuration Descriptor:  
bLength 9  
bDescriptorType 2  
wTotalLength 32  
bNumInterfaces 1  
bConfigurationValue 1  
iConfiguration 0  
bmAttributes 0xc0  
Self Powered  
MaxPower 8mA  
Interface Descriptor:  
bLength 9  
bDescriptorType 4  
bInterfaceNumber 0  
bAlternateSetting 0  
bNumEndpoints 2  
bInterfaceClass 8 Mass Storage  
bInterfaceSubClass 6 SCSI  
bInterfaceProtocol 80 Bulk (Zip)  
iInterface 0  
Endpoint Descriptor:  
bLength 7  
bDescriptorType 5  
bEndpointAddress 0x81 EP 1 IN  
bmAttributes 2  
Transfer Type Bulk  
Synch Type None  
Usage Type Data  
wMaxPacketSize 0x0040 1x 64 bytes  
bInterval 0  
Endpoint Descriptor:  
bLength 7  
bDescriptorType 5  
bEndpointAddress 0x01 EP 1 OUT  
bmAttributes 2  
Transfer Type Bulk  
Synch Type None  
Usage Type Data  
wMaxPacketSize 0x0040 1x 64 bytes  
bInterval 0

(I should note that the product ID changes to 0x47b when the phone is NOT in data storage mode just in case it matters.)

Does anyone have any clues to impart or anything I can try to make it work?

—

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## USB resets with Nokia 6131 in Data Storage mode

– Sometimes it's hard to see your own face without a mirror.

Dr. Phil, 'Dr. Phil'

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