

Enabling a Network Adapter

First view the available network adapters,

```
dladm show-dev
e1000g0      link: up      speed: 100    Mbps      duplex: full
e1000g1      link: up      speed: 100    Mbps      duplex: full
e1000g2      link: unknown speed: 0      Mbps      duplex: half
e1000g3      link: unknown speed: 0      Mbps      duplex: half
```

Often there are issues with network negotiations. I have yet to meet an experienced admin who does not force the modes.

```
cd /kernel/drv
vi e1000g.conf # this will change depending on the adapter
```

Here is an example file with modification,

```
# Driver.conf file for Intel e1000g Gigabit Ethernet Adapter
#
# Copyright (c) 2002, by Intel, Inc.
# All Rights Reserved.
#
#ident "@(#)e1000g.conf 1.1      98/09/22 Intel"
#
# Copyright 2006 Sun Microsystems, Inc. All rights reserved.
# Use is subject to license terms.
#
# ident "@(#)e1000g.conf      1.4      06/03/06 SMI"
#
ForceSpeedDuplex=4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4;
#ForceSpeedDuplex=7,7,7,7,7,7,7,7,7,7,7,7,7,7,7,7;
# This will force Speed and Duplex for following settings for a
typical instance.
# 1 will set the 10 Mbps speed and Half Duplex mode.
# 2 will set the 10 Mbps speed and Full Duplex mode.
# 3 will set the 100 Mbps speed and half Duplex mode.
# 4 will set the 100 Mbps speed and Full Duplex mode.
# 7 will let adapter autonegotiate.
AutoNegAdvertised=0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0;
# This parameter determines the speed/duplex options that will be
# advertised during auto-negotiation. This is a bitmap with the
# following settings.
# Bit      | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0
# Setting| N/A | N/A | 1000F | N/A | 100F | 100H | 10F | 10H
#
# For example:
# To advertise 10 Half only AutoNegAdvertised = 1
# To advertise 10 Full only AutoNegAdvertised = 2
# To advertise 10 Half/Full AutoNegAdvertised = 3
# To advertise 100 Half only AutoNegAdvertised = 4
```

```

# To advertise 100 Full only AutoNegAdvertised = 8
# To advertise 100 Half/Full AutoNegAdvertised = 12
# To advertise 1000 Full only AutoNegAdvertised = 32
# To advertise all speeds AutoNegAdvertised = 47
MaxFrameSize=0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0;
# 0 is for normal ethernet frames.
# 1 is for upto 4k size frames.
# 2 is for upto 8k size frames.
# 3 is for upto 16k size frames.
# These are maximum frame limits, not the actual ethernet frame
# size. Your actual ethernet frame size would be determined by
# protocol stack configuration (please refer to ndd command man
pages)
# For Jumbo Frame Support (9k ethernet packet)
# use 3 (upto 16k size frames)
FlowControl=3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3;
# 0: Flow control is completely disabled
# 1: Rx flow control is enabled (we can receive pause frames
# but not send pause frames).
# 2: Tx flow control is enabled (we can send pause frames
# but we do not receiving pause frames).
# 3: Both Rx and TX flow control (symmetric) is enabled.
# 4: No software override. The flow control configuration
# in the EEPROM is used.
TbiCompatibilityEnable=1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1;
# 1 turns it on and 0 turns it off.
# Some switches as Cisco 6500/Foundary still operate in TBI mode.
# This setting will fix the problems seen with odd byte packets.
# This setting is valid only for 82543GC based copper adapters.
SetMasterSlave=0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0;
# 0 sets to hardware default
# 1 forces master
# 2 forces slave
# 3 forces auto
# This setting controls the PHY master/slave setting. Manually
forcing

```

```
# master or slave can help reduce time to link with some switches
# (Planex 08TX and IO Data switches). It is recommended that this
# setting remain at the hardware default.
```

Enable the Adapter

See the state of current and available adapters,

```
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e1000g3      link: unknown speed: 0    Mbps      duplex: half
```

Enable the adapter,

```
ifconfig e1000g1 plum
```

Notice the adapter is enabled and at full duplex,

```
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