

AT 8000S

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- 1 AT-8000S
 - ◆ 1.1 ??????? ?????????
 - ◇ 1.1.1 ?????????
 - ◇ 1.1.2 VLANs
 - ◇ 1.1.3 ????????? ?????????
 - ◇ 1.1.4 ??????? ?? ?????????
 - ◇ 1.1.5 ????????? ???????
 - ◇ 1.1.6 SNMP
 - ◇ 1.1.7 ???????
 - ◆ 1.2 ??c????? DHCP Relay + Option 82
 - ◇ 1.2.1 ?????????? ?? ?????????
 - ◇ 1.2.2 ??????? ????????????? ???????
 - ◇ 1.2.3 ??????? ?????? Option 82 ??? AT-8000S/24
 - 1.2.3.1 Circuit ID
 - 1.2.3.2 Remote ID
 - ◇ 1.2.4 DHCP Snooping

AT-8000S

? ??????? ??????? ?????? 50-60 ?????????????? AT-8000S
 ??????: ?????????? ?????????????? ?? ?????????????? ? ?????? ???? ??????? ? Dlink DES-3526.

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???? ? ? ???? ? ? ???? ? ? ???? ???? ???? ???? ???? ???? ???? ???? Lucent OmniStack LS6224
 ?????????? ??????? ?????????? ???-?????????. ?????????? - 115200. ?????????? ?????????? ??????? 25 ??????.

????????????? ???? ?????????? ??? ? ?????????? (3.0.0.33) firmware, ?????????? ?? ?????? ????????????????

```

Boot1 Checksum Test.....PASS
Boot2 Checksum Test.....PASS
Flash Image Validation Test.....PASS

BOOT Software Version 1.0.1.06 Built 01-Jul-2007 17:08:46

ATI8000 board, 88F5181 CPU based with ARM926EJ-S core.
64MByte SDRAM. I-Cache 32 KB. D-Cache 32KB. Cache Enabled.

Autoboot in 2 seconds - press RETURN or Esc. to abort and enter prom.
Preparing to decompress...
 100%
Decompressing SW from image-2
 100%

OK
Running from RAM...

*****
*** Running SW Ver. 3.0.0.33 Date 08-Jan-2009 Time 14:19:42 ***
*****

HW version is
Base Mac address is: 00:15:77:5f:4d:60
Dram size is : 64M bytes
Dram first block size is : 43520K bytes
Dram first PTR is : 0x1580000
Dram second block size is : 0K bytes
Dram second PTR is : 0x4000000
Flash size is: 16M
01-Oct-2006 01:01:05 %CDB-I-LOADCONFIG: Loading running configuration.
01-Oct-2006 01:01:05 %CDB-I-LOADCONFIG: Loading startup configuration.
Device configuration:
Slot 1 - AT-8000S/24

-----
-- Unit Standalone --
-----

Tapi Version: v1.3.3.1
Core Version: v1.3.3.1
01-Oct-2006 01:01:18 %INIT-I-InitCompleted: Initialization task is completed

01-Oct-2006 01:01:18 %SNMP-I-CDBITEMSNUM: Number of running configuration items loaded: 12
01-Oct-2006 01:01:18 %SNMP-I-CDBITEMSNUM: Number of startup configuration items loaded: 12

User Name:
  
```

VLANs

? ?????????????? ?????????????? 2 ??????:

- 101 - ??????????????
- 102 - ??????????????

```
vlan database
vlan 101-102
exit
```

???????? ???? ???? ? ?????????????? ?????? (e1-e24 access, gi1-g2 - trunk)

```
interface range ethernet g(1-2)
switchport mode trunk
switchport trunk allowed vlan add 101
switchport trunk allowed vlan add 102
exit
interface range ethernet e(1-24)
switchport access vlan 101
exit
```

????????? ???????????

????????????? VLAN ? ???? vid=102

```
interface vlan 102
ip address 172.16.251.2 255.255.240.0
exit
ip default-gateway 172.16.251.1
```

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????????????????? ??????? ? ????????? ? ??? ???? ???? ?????????? ??????-????????
?????? ?????????? ?????????? ?????? ssh. ? ??????? ? DES-35(26|50) ?????????????????? ?????????? ?????????? ???? ????????????? ??????
? ssh ??? ?????????????????? CLI.

```
ip ssh server
```

?????? ?????????????? (RADIUS) ?????? ??????? ??????????? (????????????? ??????, ??? ?????? ??? - ?????????? ?)? ?????????? ??? ? ?????
(telnet). ?????????? ??? ?????????? ? ?????????????????????? ?????? ?????????????? ?????????? ??????, ? ? ?????? ??? ???? ???? ????????? - ??????????
?????? enable)

```
radius-server host 172.16.1.1 retransmit 5 deadtime 60 key switch
aaa authentication enable RADIUS radius enable
aaa authentication login RADIUS radius local enable
aaa accounting login radius
```

```
line telnet
login authentication RADIUS
enable authentication RADIUS
exit
```

```
line ssh
login authentication RADIUS
enable authentication RADIUS
exit
```

?? ??????? ??????? (FreeRadius) ?? ??????? ?? (/etc/raddb/users):

```
sirmax          Cleartext-Password := "This_Is_My_MegaPassWoRD"
                User-Service-Type = Shell-User,
                cisco-avpair = "shell:priv-lvl=1"

$enab15$        Cleartext-Password := "SuperDuperEnablePass"
                Cisco-AVPair = "shell:priv-lvl=15"
```

????????? ?????????????? ?????? ?????????????? ??????? ACL.

```
management access-list Equipment
permit ip-source 172.16.29.0 mask /24 service ssh
permit ip-source 172.16.29.0 mask /24 service snmp
...
exit
```

```
management access-class Equipment
```

????????????????? deny ip any any ?????? ACL. ? ?????? ?????????????? telnet ? http(s) ??????? ???????????.

????????????????? ?????????

????????? ?????????????? ?? ?????????? syslog-c?????.

```
logging 172.16.100.100
```

SNMP

????????????? ?????????????? snmp v3, ??????????????, ??? ? ???????????.

????????????? ?????????????? ?????????? engineID

```
snmp-server engineID local default
```

```
snmp-server location My_Location
snmp-server contact sirmax_at_noname.com.ua
snmp-server view ALL iso included
snmp-server community public ro view ALL
snmp-server host 172.16.100.100 private traps 2
snmp-server group monitor v3 priv notify ALL read ALL write ALL
snmp-server user monitor monitor auth-md5 megapassworddlyasmp
```

????????? ?????? (????? ?? ??????)


```

Hardware type: Ethernet
Hardware address length: 6
Hops: 1
Transaction ID: 0xc27bab16
Seconds elapsed: 27 (little endian bug?)
Bootp flags: 0x8000 (Broadcast)
  1... .. = Broadcast flag: Broadcast
  .000 0000 0000 0000 = Reserved flags: 0x0000
Client IP address: 0.0.0.0 (0.0.0.0)
Your (client) IP address: 0.0.0.0 (0.0.0.0)
Next server IP address: 0.0.0.0 (0.0.0.0)
Relay agent IP address: 172.16.251.2 (172.16.251.2)
Client MAC address: 00:1c:23:95:8d:8b (00:1c:23:95:8d:8b)
Server host name not given
Boot file name not given
Magic cookie: (OK)
Option: (t=53,l=1) DHCP Message Type = DHCP Discover
  Option: (53) DHCP Message Type
  Length: 1
  Value: 01
Option: (t=116,l=1) DHCP Auto-Configuration
  Option: (116) DHCP Auto-Configuration
  Length: 1
  Value: 01
Option: (t=61,l=7) Client identifier
  Option: (61) Client identifier
  Length: 7
  Value: 01001C23958D8B
  Hardware type: Ethernet
  Client MAC address: 00:1c:23:95:8d:8b (00:1c:23:95:8d:8b)
Option: (t=50,l=4) Requested IP Address = 169.254.86.169
  Option: (50) Requested IP Address
  Length: 4
  Value: A9FE56A9
Option: (t=12,l=6) Host Name = "tester"
  Option: (12) Host Name
  Length: 6
  Value: 746573746572
Option: (t=60,l=8) Vendor class identifier = "MSFT 5.0"
  Option: (60) Vendor class identifier
  Length: 8
  Value: 4D53465420352E30
Option: (t=55,l=11) Parameter Request List
  Option: (55) Parameter Request List
  Length: 11
  Value: 010F03062C2E2F1F21F92B
  1 = Subnet Mask
  15 = Domain Name
  3 = Router
  6 = Domain Name Server
  44 = NetBIOS over TCP/IP Name Server
  46 = NetBIOS over TCP/IP Node Type
  47 = NetBIOS over TCP/IP Scope
  31 = Perform Router Discover
  33 = Static Route
  249 = Classless Static Route (Microsoft)
  43 = Vendor-Specific Information
Option: (t=43,l=2) Vendor-Specific Information
  Option: (43) Vendor-Specific Information
  Length: 2
  Value: DC00
Option: (t=82,l=18) Agent Information Option
  Option: (82) Agent Information Option
  Length: 18
  Value: 0106000400650101020800060015775F4D60
  Agent Circuit ID: 000400650101
  Agent Remote ID: 00060015775F4D60
End Option

```

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Agent Circuit ID: 000400650101
Agent Remote ID: 00060015775F4D60

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?????? ?????? Option 82 ??? AT-8000S/24

Circuit ID

?????? ??????????????, ??? ?????? Circuit ID ?????????? Dlink DES-3526

????????? ??????????: Agent Circuit ID: 000400650101 ?.?. ?????????????, ??????? 2 ?????? ?????? ??????? ??????????? ? ?????? ?? ??????????? (???)
????????????? ??????????, ? ??.) - ?????????????? Dlink.

1	2	3	4	5	6	7
??? ?????=01 (hex)	?????=06 (hex)	??? Circuit ID=00 (hex)	?????=04 (hex)	VLAN ID=0065 (hex)	Module (=01) (hex)	Port=01 (hex)
??? ?????=01 (dec)	?????=06 (dec)	??? Circuit ID=00 (dec)	?????=04 (dec)	VLAN ID=101 (dec)	Module (=01) (dec)	Port=01 (dec)
1 ????	1 ????	1 ????	1 ????	2 ??????	1 ????	1 ????

????????? ?????? ? ??? ??? stand-alone ?????????????? ?????????????? ?????????? 01 ? ?? 00 ? ??? Module. ??? ??????????? ?????? ?????? (?????????????)
? ?????????????? ??????????

?????????????????, ?????????????? ?????????? ?????????? ?? DES-30(26|50) ???

??? ?????? ??????? ?? ?????? ??????

```

class "match-port-1"
{

```

