

System Log Interpretation

0. Release Note

Edition 1.00, 2001/3/12 , First release

Edition 1.01, 2001/4/6, Add PPPoE

Edition 1.10, 2001/8/3 , Add PPTP

1. Security Log

1. Unrecognized access from 207.71.92.221:137 to UDP port 137

A host on the Internet whose IP address is 207.71.92.221 tried to access your UDP port 137.

2. 192.168.123.100 login successful

A host whose IP address is 192.168.123.100 logged in successfully as system administrator.

3. 192.168.123.100 login failed

A host whose IP address is 192.168.123.100 failed to login due to password mismatch.

4. 192.168.123.100 logged out

The system administrator logged out manually.

2. Connection on Demand Log

Connection-on-Demand is one of the main features of the Router. If Connection-on-Demand is enabled, the Router does not connect to ISP until any client activates his Internet applications, such as browsers, mailers etc. This feature is useful when your ISP charges you by counting the connection time.

These logs tell you who and why makes the Router to start its connection procedure. If the trigger is unwanted, try to ask the users to configure their applications or enable the Access Control feature to block them out.

1. DOD:192.168.123.100 query DNS for *www.yahoo.com*

A host whose IP address is 192.168.123.100 sent a DNS query for FQDN “www.yahoo.com”. This query made the Router to start its connection procedure.

2. DOD:TCP trigger from 192.168.123.100:1234 to 204.71.200.74:110

A host (192.168.123.100) sent a TCP packet to port 110 of another host on the Internet (204.71.200.74). This query made the Router to start its connection procedure.

Port 110 is POP3 service. You may guess. Someone tried to access his/her emails. Users are used to configure their mailers to check email periodically. It may cause the Router to be triggered periodically if *disconnect-when-idle* is enabled.

3. DOD:prot 1 trigger from 192.168.123.100 to 204.71.200.74

A host (192.168.123.100) sent an IP packet whose protocol number is 0x1 to another host (204.71.200.74) on the Internet. This query made the Router to start its connection procedure.

4. DOD:triggered internally

The Router is being configured as auto-reconnection or the system administrator forced the Router to connect to Internet by clicking “Renew”, “Connect” or “Dial-Up” buttons on the Web UI.

3. DHCP Log (for Dynamic IP Address)

1. DHCP:discover(*HOSTNAME*)

The Router broadcast a DISCOVER packet to seek DHCP server. *HOSTNAME* is what you configured at the Primary Setup page. In most case, Host Name is not necessary. However some ISP requires you to specify specific Host Name they assigned you. For example, @Home.

2. DHCP:offer(192.168.0.1)

The DHCP server sent OFFER packet to acknowledge the previous DISCOVER packet. If the Router did not receive OFFER packet, it means that there is something wrong about the WAN connection. For example,

1. The connection between the Router and DSL/Cable modem is not correct.
Action: check the LINK status both on modem and the Router.
2. The configured Host Name is not correct (for @Home). *Action: double check the Host Name configuration.*
3. Some ISPs registered your MAC address (for example, MediaOne). Only registered MAC addresses are allowed to access the Internet. *Action: click "Clone MAC" button to clone the registered MAC address.*
4. The firmware version is too old. *Action: make sure your firmware is R1.90h or later.*
5. The DHCP server was shut down. *Action: try again later.*
6. The WAN port of the Router is damaged.

3. DHCP:request(192.168.0.100)

The Router sent a REQUEST packet to request an IP address 192.168.0.100 from the DHCP server.

4. DHCP:ack(DOL=1800,T1=900,T2=1200)

The Router received an ACK packet to indicate the server has assigned an IP address to the Router. The lease time is 1800 seconds, and T1 and T2 time for DHCP protocol are 900 and 1200 seconds respectively.

5. DHCP:nak

The Router received a NAK packet to indicate the server rejected to allocate the requested IP address.

6. DHCP:renew

The Router sent a renew request to the DHCP server to extend the lease time of IP address.

7. DHCP:release

The Router sent a release request to the DHCP server to release the requested IP address.

4. PPPoE Log (for PPP over Ethernet)

PPPoE is a protocol for connecting hosts on an Ethernet to the Internet through a common broadband medium, such as a single DSL line, wireless device or cable

modem. It is defined in RFC 2516.

1. **PPPoE start to dial-up**

PPPoE task of the Router starts to dial-up.

2. **PADI sent *SERVICE_NAME***

The Router broadcast a PADI packet with a Service-Name tag to seek Access Concentrator. *SERVICE_NAME* is what you configured at the Primary Setup page. In most case, Service Name is not necessary and has to be configured as null string.

“PADI:3com sent” means the Router tries to talk to DSL modem in 3COM's PPPoE dialect. (R1.91i)

3. **PADO recv 0006 *AC-NAME***

The Access Concentrator *AC-NAME* sent PADO packet to acknowledge the previous PADI packet. If the Router did not receive PADO packet, it means that there is something wrong about the WAN connection. For example,

1. The connection between the Router and DSL/Cable mode is not correct.
Action: check the LINK status both on the modem and the Router.
2. The configured Service Name is not correct. *Action: make sure your ISP require you to configure the Service Name.*
3. The Access Concentrator was shut down. *Action: try again later.*
4. The WAN port of the Router is damaged.

4. **PADO error201: *ERROR_MESSAGE***

The Access Concentrator cannot offer the service. The error number and error message is from the Access Concentrator. In most case, *ERROR_MESSAGE* describes the detailed reason. The following errors are defined in RFC2516:

- 0x0201 Service-Name-Error
- 0x0202 AC-System-Error
- 0x0203 Generic-Error

5. **PADR sent**

The Router sent PADR packet to Access Concentrator to request a PPPoE session.

6. **PADS recv 8002 3505**

The Access Concentrator sent PADS packet to inform the Router the session was

built successfully.

7. PADS error201:ERROR_MESSAGE

The Access Concentrator sent PADS packet to inform the Router it failed to build the session. The error number and error message is from the Access Concentrator. In most case, *ERROR_MESSAGE* describes the detailed reason. The following errors are defined in RFC2516:

0x0201 Service-Name-Error

0x0202 AC-System-Error

0x0203 Generic-Error

8. PADT recv

The Router received a session termination request from the Access Concentrator. The Router has no choice but terminate the session immediately.

9. Connection is broken

The connection is abnormally broken. The Router has no choice but terminate the session immediately. The reason may be:

1. The Router received PADT packet
2. No replied received when the Router probes the WAN connection

10. PPPoE start to hang-up

The Router starts to hang-up its PPPoE session.

11. PADT sent

The Router sent PADT packet to inform the Access Concentrator the session is being terminated.

5. PPTP Log

In stead of PPPoE, some ISPs adopt PPTP to provide their services. PPTP is defined in RFC 2637.

1. PPTP start to dial-up

PPTP task of the Router starts to dial-up.

2. Connection is broken

The connection is abnormally broken. The Router has no choice but terminate the session immediately. The reason may be:

1. PPTP control connection is terminated abnormally
2. No replied received when the Router probes the WAN connection

3. PPTP start to hang-up

The Router starts to hang-up its PPTP session.

4. PPTP:error= *ERROR_NO*

An error occurs on PPTP control connection. Currently, there are following errors:

Error	Cause
-111	PPTP server is unreachable
-112, -115	Fail to establish connection to PPTP server
-200, -214, -299	PPTP control connection was aborted abnormally
-301, -302	PPTP server rejects connection request
-303, -304	PPTP server rejects outgoing call request

6. Dial-up Log (for Dial-Up Network)

1. COM2 is in console mode

The COM port is in console mode. In general, the Router will detect the existence of the modem. If there is a modem attached, the COM port is available for dial-up service immediately. *Action: wait a moment or reboot the Router.*

2. COM2 start to dial-up

The Router started to dial-up.

3. COM2: baud=115200

The baud rate to communicate with the modem was 115200.

4. DIAL2: tx ATZ

The Router sent "ATZ" string to the attached modem or ISDN TA.

5. DIAL2: rx OK

The Router received "OK" string from the attached modem or ISDN TA.

6. COM2 start to hang-up

The Router started to hang-up.

7. Connection is broken

The connection is abnormally broken. The Router has no choice but terminate the connection immediately. The reason may be:

1. Modem is shut off or detached
2. The peer is shutdown the connection

7. PPP Log (for Dial-Up Network and PPPoE)

Note, the digit before colon is the id of system task. For example, PPP1:, PPP2: and PPP3: are all indicate that the Router is talking with Internet in PPP protocol. It is meaningless for the end users.

1. PAP3: *AUTHENTICATION_RESULT*

The authentication protocol is PAP. The process is completed and the result is *AUTHENTICATION_RESULT*. Note! If the ISP does not return any result string, the Router will generate “OK” or “Fail” instead. Any other result strings are from the ISP.

2. CHAP3: *AUTHENTICATION_RESULT*

The authentication protocol is CHAP. The process is completed and the result is *AUTHENTICATION_RESULT*. Note! If the ISP does not return any result string, the Router will generate “OK” or “Fail” instead. Any other result strings are from the ISP.

3. MSCHAP3: *AUTHENTICATION_RESULT*

The authentication protocol is MSCHAP. The process is completed and the result is *AUTHENTICATION_RESULT*. Note! If the ISP does not return any result string, the Router will generate “OK” or “Fail” instead. Any other result strings are from the ISP.

4. IPCP3: IP is 192.168.0.100

The ISP assigns IP address 192.168.0.100 to the Router.

5. IPCP3: DNS1 is 168.95.1.1

The IP address of the domain name server assigned by the ISP is 168.95.1.1.

6. PPP3: terminate

The PPP procedure cannot be completed in the specific timeout.

7. PPP3: closed

The PPP procedure cannot be completed in the specific timeout.

8. PPP3: retry fail

The PPP procedure cannot be completed in the specific timeout.

8. Print Server Log

1. *CLIENT_NAME* sent a job to printer

The print server of the Router received a job from *CLIENT_NAME*.

2. job was done

The job was done.

3. job was killed

The job was killed.

9. Configuration Log

1. ERR: All DNS fail

The Router can act as a proxy DNS server. When the Router receives DNS query, it will pass the query to the DNS servers configured by the users or negotiated during the connection process. If all DNS servers cannot be connected, the Router will show this log. *Action: check the DNS setting.*

2. ERR: Corrupted coninfo

The Router detected the configuration data was corrupted. You have to configure the Router again or restore the default setting.