Question

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What kind of logging and tracing is needed to help Edgewater Networks TAC debug and troubleshoot the issue? What information is needed when opening a case?

Answer

Here are the steps to take the traces and logs that are needed to debug the issue.

1. Open a case with Edgewater Networks TAC (online, phone, email).

2. Information needed when opening a case
    a. MAC address of the unit,
    b. Affected Product,
    c. Affected Version,
    d. Public WAN IP of the unit and login information,
    e. Subject and Detailed description of the case
    f. Relevant traces and logs (pcaps, syslog, ALG logs, sys_report, etc)

3. When describing the issue, put in as much detail as possible. Include a network diagram or layout that explains the relevant IP addresses and as much information as you can.

4. The following traces and logs are / may be needed.

    A) **Wireshark (pcap) trace** - to diagnose issues with regards to SIP signaling, audio issue and general networking or traffic issues.

    Instructions to take a SIP trace to a pcap is on the KB
    http://www.edgewaternetworks.com/kb (Article #96589)

    or the direct link to the Article is
    http://edgewaternetworks.force.com/kb/articles/KnowledgeBase_Solution/E96589

B) **ALG logs** – the get the debug information from the ALG.

i. SSH into the EdgeMarc
ii. Save all output to a file (at this point you can also take the SIP traces by following the steps in 4A)
iii. To start the traces, type

```
# mandctl log 0x19
```

iv. Replicate the call.
v. Leave it running for a minute after the call ends. To stop the traces, type

```
# mandctl log 0
```

Note: There are many levels of ALG debug available. Majority of the time, 0x19 is sufficient. Sometimes, you may need to take a different level, as advised by TAC. Example: (substitute 0x19 in step B (iii) above with the following flags)

- Multi VLAN ALG 0x69

C) **sys_report** – this is the running configuration of the unit

Command Line (CLI) Method

i. SSH into the EdgeMarc
ii. Save all output to a file (at this point you can also take the SIP traces by following the steps in 4A)
iii. Get the running configuration from the unit by typing

```
# sys_report
```

GUI Method (for VOS 13.11.2 or later)

i. Go to the Service Configuration page on the GUI
ii. Click on the link to download the system report in the System Report section.
iii. Wait for a minute and a .txt file will get downloaded to your browser.

D) **syslogs** – these are the historical logs from the unit

i. Typically these logs are stored on your syslog server or EdgeView if you have the EdgeMarc sending it's logs to an external syslog server.
   - In the EdgeMarc GUI, go to Services Configuration -> External Syslog server.

ii. TAC would need the logs before the event and leading up to the event. Copy the logs into a txt file.

E) **PRI logs** – these logs are needed when troubleshooting an issue involving PRI

i. SSH into the EdgeMarc
ii. Save all output to a file
iii. To start the traces, type

```
# debugisdn 0x04
```

iv. Replicate the call.
v. Leave it running for a minute after the call ends. To stop the traces, type

```
# debugisdn 0
```

F) **FXS / SIP UA logs** – these logs are needed when troubleshooting an issue involving the UA

i. SSH into the EdgeMarc
ii. Save all output to a file
iii. To start the traces, type

```
# debugua 7
```

iv. Replicate the call.
v. Leave it running for a minute after the call ends. To stop the traces, type

```
# debugua 0
```

G) **FX0 / SIP GW logs** – these logs are needed when troubleshooting an issue involving the FXO.

i. SSH into the EdgeMarc
ii. Save all output to a file
iii. To start the traces, type

```
# debugsipgw 7
```

iv. Replicate the call.
v. Leave it running for a minute after the call ends. To stop the traces, type

```
# debugsipgw 0
```

5. Gather all the traces from and attach it to the case or send an email to support with the traces and put the case number in the Subject. Please zip them up if they are larger than 2 MB.

6. For cases involving PRI, please include the following information when opening a case.

- Results from the PRI checklist and Recommendation document http://edgewaternetworks.force.com/kb/articles/Release_Note/E314453

Information needed from the PRI PBX

- T1/PRI cable type (typically should be a crossover T1 cable)
- If possible, include a picture of the deployment (PBX, EdgeMarc, surroundings)
- T1/PRI cable length
- PBX make, model and part-number. If there is a T1/PRI card on the main-chassis, include its model and part number along with the software version.
- T1/PRI switch type configured on the PBX (for example NI2, 4ESS, 5ESS)
- T1/PRI line length configuration (short haul/long haul, in some case also referred as LBO (Line build Out))
- T1/PRI Clock configuration (For PBX, it should be set 'external' clock, i.e. clock is referenced from T1/PRI connection). In the case where the T1/PRI is running as a separate card on main-board, this recommendation is still true.
- T1/PRI - B-channel order configuration (descending or ascending). It should be reverse of what is set on the EdgeMarc. If the EdgeMarc is ascending(default), PBX must be descending)
- T1/PRI - B-channel allocation (full 23 channel or fractional)

- T1/PRI - D-channel number (should match with configuration on the EdgeMarc, default is 24)
- Any failure traces/debug logs from the PBX T1/PRI subsystem.
- Some PBX or T1/PRI cards have LEDs to indicate the T1/PRI circuit status. The position of LEDs very from vendor to vendor, but LEDsmay indicate sync loss, alarm, out of frame errors, Rx carrier loss, Loop-back-Mode are useful. Taking a picture of the LED state while issue is occurring is useful.

For advanced configurations and debugging, contact Edgewater Networks Technical Assistance Center at support@edgewaternetworks.com or call 408.351.7255.

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