

Minutes from team meeting held on 7/2/2012:

ARs:

- **John:** remove all use of 80 character header.
- **John:** remove all use of “deadbeaf” header.
- **Kyle:** change implementation to run pahole once.
- **David:** develop gui to show tree view of data structures dumped by Loki code.
- **Driver-side team:** standardize the name field inside of driver.
- **Driver-side team:** dd support in driver side for dumping from multiple drivers.
- **Kyle:** define internal data structure output by our parser.
- **David:** research GDB 7’s ability to parse binary for data structure organization, and ability to script with python.
- **Anyone:** “Offset” line heading in python script needs a colon.

Userspace team meeting 7/2:

- AR: John remove all use of 80 character header.
- AR: John remove all use of “deadbeaf” header.
- AR: Kyle change implementation to run pahole once.
- AR: David develop gui to show tree view of data structures dumped by Loki code.
- AR: Standardize the name field inside of driver.
- We need to ask sponsors if they want the ability to use our tool with multiple drivers.
- AR: Add support in driver side for dumping from multiple drivers.
- We need to look into problems with resource sharing (multiple drivers using the Loki interface simultaneously).
- ‘WXPython’ and ‘QTPython’ are useful packages for python gui development.
- AR: Kyle define internal data structure output by our parser.
- AR: David research GDB 7’s ability to parse binary for data structure organization, and ability to script with python.

Sponsor meeting 7/2:

- Blob has defined space for each structure? Yes.
  - Loki defines how this is laid out.
- Printing just a pointer value is enough.
- AR: “Offset” line heading in python script needs a colon.
- Dependencies for using Loki:
  - Kernel has debugging turned on.
  - Pahole utility installed.

- debugfs installed.
- debugfs goes into memory for us.
- Testing: Multiple processes trying to write information to debugfs directory.
- Sponsors: there are opportunities for multithreaded fun.
- Make sure that multiple threads can read debugfs.
- 4 network devices should result in 4 data structures, one for each physical device.
- If we solve the above point, then we will solve the multithread problem.
- Plan for multiple driver instances and multiple users reading from debugfs.
- The tool will be used by both a well-trained customer response person, and a network device engineer sitting at home.
- Let the following scripted cycle run overnight or for a few days: insmod, rmmod, insmod, rmmod, ...
- e1000\_probe() gets called for each e1000 device.
- We can add code to the e1000.h file if we need to.
- Don't assume that gdb or pahole are installed on the target system.
- We should work towards being able to run the Loki tool off of a usb key.