

# 12-08-2021 TSC Meeting Minutes

TSC Meeting [Zoom link](#)

[Meeting Recording](#)

Meeting [Chat File](#)

Attendees & Representation. Please add your name to the attendance table below.

Attendees	
Name	Company
<a href="#">Daniel Havey</a>	Microsoft
<a href="#">Eric Tice</a>	Wipro
<a href="#">VM (Vicky) Brasseur</a>	Wipro
<a href="#">Brian Merrell</a>	Walmart
<a href="#">Christopher Liljenstolpe</a>	Cisco
<a href="#">Dave Thaler</a>	Microsoft
<a href="#">Rishabh Gupta</a>	Walmart
<a href="#">Satya Pradhan</a>	Walmart
<a href="#">Kanthi P</a>	Walmart
<a href="#">Santhosh Fernandes</a>	Walmart
<a href="#">Karan Dalal</a>	Walmart
<a href="#">Abhijit Patil</a>	NIWC Pacific
<a href="#">Dhivya R</a>	Walmart
<a href="#">Jason Niesz</a>	Walmart
<a href="#">Raga lahari</a>	Walmart
	Walmart

LF Staff: [LJ Illuzzi](#)

## Agenda

- [LF Antitrust Policy](#)
- Meeting note taker
- Welcome to new attendees
- Private Enterprise Number (PEN) Request for L3AF- LF Legal gave the ok to proceed. Next steps?
- [Developer and Testing Forum in January 2022](#) (virtual event)
  - Topic submission- [L3AF: eBPF for Windows and Cross Platform eBPF programs](#) - thank you Daniel and Poorna!
  - Any others?
- Update on PM Housekeeping:
  - Email reminder to add agenda items to be sent every Monday via mailing list calendar
  - Template button - Click to create agenda topics.
  - Add agenda for next meeting during current meeting under "Future Agenda Items".
  - Holiday schedule:
    - Meetings on Dec. 8, 15
    - Dec. 22 and 29th to be canceled
    - Jan 5th: Developer and Testing Forum Prep.
- General Topics (cover as needed)
  - Use Cases

- Roadmap
- Project structure
  - Governance
  - Technical Steering Committee

## Minutes/Updates

- Abhi Patil: Where is the L3AF project at currently? (high level overview)
  - Orchestration across any eBPF platform in order to solve business problems
  - L3AFd which runs on any host.
  - Many eBPF programs - see wiki
  - Create marketplace/repo of eBPF programs
  - Simplify chaining of eBPF programs
  - extend eBPF programs to Kubernetes
- Abhi P:
  - Targeting DDOS programs
  - Lead for DDOS initiative
    - Peraton Labs and Georgia tech working on their project
- Karan: More details on the and use case yo move forward
- General Topics (cover as needed)
  - Use Cases
  - eBPF program (soon to be open sourced)
    - export records in IBPF format
    - Enterprise number will be needed for this
    - Dave T: eBPF programs that will be put into marketplace
      - L3AF could include signed programs
      - samples
      - Include other programs that are not signed by L3AF
    - Is L3AF a framework for marketplace?
    - Vicky B: Peel off marketplace from L3AF?
      - Handled by different team that works with L3AF so it can support different project such as Polycube
    - Dave T: Is the PEN for L3AF
    - Karan: L3AF team is contributing programs and that is what the PEN is for.
  - Jason: Agree with Dave, be careful with diluting L3AF
    - Walmart added programs should not be natively part of L3AF itself, but rather the Walmart contribution to L3AF
  - Dave T: Could you use a Walmart PEN and contribute that to L3AF?
  - Karan: Once the eBPF program is OSSed then we should use the Walmart PEN and it should be under the LF after OSSing
    - What kind of signing are we looking for?
      - Verification that the eBPF programs are compatible with the L3AF platform
        - For instance chaining.
        - Need deeper dive.
  - Dave T: Whose PEN do you use. Whoever the signer is going to be?
    - Karan: For now we don't have a clear bifurcation. It's just one L3AF.
      - We should consider how to do this.
    - Louis: IPfix program, is this a one time sign off or every time it is used?
      - Dave T: Whenever there is a change to the program it must be resigned. Not a one time thing.
      - PEN is a one time number. The signature changes with updates and revs.
    - Karan: If someone wants to use IPfix and change the PEN they can do this. Not tying anyone to the existing PEN.
    - Dave T: Then it would be a different program. Stars and other marketplace artifact would be invalidated.
    - Christopher L: Maintainer of the code should sign the code. The org that controls the commit bit.
    - Raga P: planning to use PEN on IPfix to define custom fields. If there is no PEN then it would be an unknown field.
    - Karan: Anyone could pass a PEN into these fields and change things. If you don't change things then you get the predefined custom fields.
      - Term L3AF has been overloaded. L3AF team, platform, project, marketplace
    - Dave T: L3AF is the foundation. The more we put programs into it the more it becomes the L3A instead of L3AF.
    - Karan: If L3AF is the platform (L3AFd) how do we want to structure the remaining components?
      - Keep L3AF marketplace as a separate project? Should we drop the L3AF branding on it?
    - Vicky: Makes sense to have the marketplace be a separate thing with separate branding that is closely tied into L3AF.
      - L3AF becomes the initial consumer of this, but we plan for other consumers.
    - Louis: Consider breaking off separate projects under L3AF to ensure that the output of these is compatible with L3AF.
      - Common in OSS world for Project Tech Leads to spin off other projects in this manner.
    - Vicky: Makes a lot of sense to have things under L3AF initially. Perhaps move them later (eBPF Foundation).
    - Jason: Small set of programs provided by L3AF itself and make sure they are compatible to help get things started in the beginning.
    - Vicky: This will help to get L3AF off the ground with a small set of programs that are useful and work.
    - Jason: Yeah, these could be examples and building blocks that others can use.
    - Karan: Definitely a good thing.
    - Dave T: 3 categories of stuff: core daemon, marketplace, programs
      - Which one should be in different projects?
      - Are they all under the L3AF?
      - Where do the programs go?
      - Is the marketplace part of the L3AF repo?
      - Multiple marketplaces (Google, Apple, etc.). Is the marketplace part of the foundation?
      - Does L3AF just contain samples? Leaning towards this one?
    - Vicky: If marketplace is separate this is incredibly valuable because orgs can run their own marketplace. Should be a separate project.

- LJ: are any programs in the marketplace paid for items?
- DaveT: Yes, Vicky: leave door open
- LJ: Not sure it should be OSS?
- DaveT: Marketplace is not the programs. Paid programs can be distributed by on open source marketplace.
- Vicky: cannot confuse monetization strategy with the licensing strategy. For pay programs should not be excluded from an OSS project. It's the licensing.
- Brian M: This is good. Will take all these thoughts and work them into paper. Available this month(?), when we reconvene.
- Karan: Better to leave it open so that it is an attractive proposition for folks to contribute. We need to iterate on this a little more.
- Vicky: Brian's paper will help us to create a parallel working group to address this.
- Jason: Start them in the base and then move when available.
- Housekeeping: Next meeting is the 15th. Dec 22 and 29th are cancelled, reconvene on January 5th for Dev and testing forums

## Action Items

## Future Agenda Items

- Cross-platform signing:
  - The overall approach to signing should be the same on Linux as well as Windows and the tooling should work in the same manner. So for instance if you have two obj files, one for Windows and one for Linux then the same command and tooling should work for both files.
  - Matteo Croce to kick off the technical discussion
  - Here is a discussion link on Windows for eBPF GitHub about the topic: [How do we do signing? · Discussion #693 · microsoft/ebpf-for-windows \(github.com\)](#)

### \*\*\*\*\* Minutes from previous call \*\*\*\*\*

- Polycube - Yunsong Lu representing
  - Polycube is specific to Networking
  - eBPF replace iptables \*this would be more crossplatform than current iptables designs
  - eBPF Network Functions - 2010 PhD dissertation: <https://ieeexplore.ieee.org/document/9340283>
  - Challenges - scale and rapid change in Linux kernel
  - Kenny Paul: Where is Polycube used in production?
    - No open information.
    - Driven by developers in iovisor - not product tested.
    - Apache license
  - Presentation posted on L3AF Wiki page
  - Yunsong: L3AF code shares same goal as Polycube. What is the target market for L3AF? Long term goal?
    - BrianM: L3AF - general purpose platform for orchestrating and running eBPF programs. Big driver is production features@ Walmart. Kernel function marketplace, etc.
  - DanielH: Can we switch from GPL to MIT licensing to make the code cross-platform with OSes like Windows and Apple?
- Developer and Testing Forum
  - L3AF has placeholder but doesn't have topics yet.
  - eBPF for Windows topic is apropos
    - @Daniel to ask @Dave about this: [2022 LFN Developer Event Topics January](#)
      - 30-60 mins
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