SouthEast LinuxFest 2020

Virtual Event Schedule

(subject to some minor changes and fixes)

Last Modified: 6/13/20, 2:15PM EDT (GMT-4)

(Sunday 2:15PM talk changed)

Special thanks to those who have helped make our stream possible:
Ask Noah Show: http://asknoahshow.com   @asknoahshow
Linux Delta: https://linuxdelta.com
GeekBeacon: https://geekbeacon.org (GeekBeacon Discord)
Presented by @nixiepixel and @kernellinux

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https://linuxdelta.com/live/self (Video Stream & IRC)
#southeastlinuxfest on Freenode (IRC)
(The IRC Freenode channel is also the chat below the live stream)
https://t.me/southeastlinuxfest (Telegram Chat)

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Friday, June 12th

(All times US EDT, GMT-4. Time between talks is used for Q&A, discussion, wanton displays of old hardware and boxed Linux software hoarding, and breaks.)

5:00 - 6:00 PM: Stream introduction, discussion of upcoming events
An introduction from your virtual hosts to the proceedings.

6:00 - 7:00 PM: Dave Stokes - MySQL JSON Document Validation

JSON is a popular data interchange format and MySQL has had a native JSON Data Type for a few years. But until recently there was no way to make sure JSON data included required fields, data type checking, or range checking. But thanks to the JSON-Schema.org's designs, there is now a way to ensure that the JSON data going into your MySQL Database is correct. You will learn how to use constraint checks with the new JSON validation functions to catch bad data before it gets into your server.

Dave Stokes is a MySQL Community Manager for Oracle Corporation and travels extensively to promote MySQL, speaking over thirty times each year for the past several years. He is also the author of MySQL & JSON - A Practical Programming Guide which is a guide for those wishing to take advantage of the JSON data type and the MySQL Document Store. With degrees in computer science and business, you can find him on the road at shows like FOSDEM, SCaLE, Confoo, PHP UK, Scotland PHP, PyCaribbean, or maybe your local meetup (please let him know if you need a speaker!). Dave actually started programming in FORTRAN on punch cards on a Digital Equipment Corporation KL1091 36-bit computer and wants you to know that the dinosaurs roaming the earth at the time did make on-campus parking especially daunting. He has been playing guitar (badly) for way too long. Dave resides in Texas with the mandatory hound dog and pickup truck.

7:15 - 8:15 PM: Chris Waldon - Introducing Arbor

Arbor is a {free software,libre,open source} chat system that models conversations as trees of replies instead of a list of messages. It uses decentralized identity systems to support p2p, federated, and centralized deployment topologies, and it's designed from the ground up to provide a better, clearer chat platform that respects its users. This talk is a description of the motivation and features of Arbor, followed by a live demo.

Chris works as an SRE for IBM. In his free time, he likes to hang out with his wife and cats, to read, and to hack on https://arbor.chat

8:30 PM: Extended Stream ("Virtual after party")

Historical Hardware Hoarders Ragchew (old hardware and old boxed Linux software). In addition, informal ad-hoc gaming stream with some choice/combination of Minecraft, Tabletop Simulator, Team Fortress 2, C&C Red Alert, and Others

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Saturday, June 13th

(All times US EDT, GMT-4. Time between talks is used for Q&A, discussion, wanton displays of old hardware and boxed Linux software hoarding, and breaks.)

9:00 - 9:30 AM: Stream introduction, discussion of upcoming events
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9:30 - 10:30 AM: Bruce Gray - Refactoring and Readability: The Pre-Sequel
Under-embraced in every programming language: Regexps, Deep data structures, Trees.
Hard to learn, and harder to read? No, they actually make code _more_ readable, and are less painful than they look. This is their multi-language intro, via refactoring instead of examples, with clear on-ramps, and how to tell when they are worth learning.

Bruce Gray, Consultant and Contract Programmer, Gray & Associates.   Bruce is a specialist in FOSS dynamic languages, member of Raku (nee Perl 6) devel team, and Leader of EALUG in Auburn AL for 17+ years.

10:45 - 11:45 AM: Susan Sons - Securing Your Organization
Having an infosec subject matter expert (SME) won't do your organization any good if that SME doesn't have the skills to grow security practice throughout the organization. This talk is about changing culture within an open source project, company, or other organization to support ongoing information security improvement. Learn to model what it really takes, and the tools to get the job done.

Susan Sons is a hacker and instigator extraordinaire.
(Above talk moved)

11:45 - 1:00 PM: Lunch Intermission, possible additional content

1:00 - 2:00 PM: Kevin Howell - Automation 101 With Ansible
Automation skills are useful for sysadmins, developers, testers, and plenty of other roles. Ansible is a great tool for general automation. I'll talk about why automation rocks, how to speak Ansible lingo, some fundamentals of how to automate using Ansible, and suggest some more advanced topics for self-study.

Kevin Howell works as a Principal Software Engineer at Red Hat, where he is the tech lead for a team that works on open source subscription management software. Kevin is also a Red Hat Certified Architect (RHCA).

2:15 - 3:15 PM: Cary Beuershausen - Hitchhiker's Guide To Microservices, Containers, and Kubernetes

Join your guide for a high-level journey through the lifecycle of microservices development. We will create a microservice, create a container, and deploy it to a Kubernetes cluster.

Cary is a 20+ year IT veteran with the majority of that time being spent in the world of software development. He spent 13 years developing and leading a team creating Java web services and is now focused on Cloud-native development and mentoring other teams in the ways of delivering Cloud-based, containerized applications. He is also a Certified Kubernetes Application Developer and has enjoyed mentoring others earning their own certifications.

3:30 - 4:30 PM: David Stokes - What's New With MySQL

MySQL has been releasing new features each quarter for the past few years but do you know what is included in those releases? Well, this session will cover in reverse order the new features such as hash joins, dual password, multi-valued indexes, derived tables, and more. There is some really cool stuff that can save you a lot of grief if you know about them.

Dave Stokes is a MySQL Community Manager for Oracle Corporation and travels extensively to promote MySQL, speaking over thirty times each year for the past several years. He is also the author of MySQL & JSON - A Practical Programming Guide which is a guide for those wishing to take advantage of the JSON data type and the MySQL Document Store. With degrees in computer science and business, you can find him on the road at shows like FOSDEM, SCaLE, Confoo, PHP UK, Scotland PHP, PyCaribbean, or maybe you local meetup (please let him know if you need a speaker!). Dave actually started programming in FORTRAN on punch cards on a Digital Equipment Corporation KL1091 36-bit computer and wants you to know that the dinosaurs roaming the earth at the time did make on-campus parking especially daunting. He has been playing guitar (badly) for way too long. Dave resides in Texas with the mandatory hound dog and pickup truck.

4:45 - 5:45 PM: Grayson Penland - The Best Desktop Environment

Learn the pros and cons of popular desktop environments such as KDE, Gnome, XFCE, and more.

Grayson Penland. A bit young but still a Desktop Linux and FOSS enthusiast, coffee fanatic.

5:45 - 7:00 PM: Dinner Intermission, possible additional content

7:15 - 8:15 PM: User submitted: Programs you use every day in Linux most people haven't heard of.

Submission methods:
- Upload a video to YouTube or Archive.org, email link to southeastlinuxfest@gmail.com
- Email a link with a screenshot (make sure if command line to really make the font size huge!), short description of what you use it for, and link to the software's homepage to southeastlinuxfest@gmail.com

8:30 - 10:30 PM: Extended Stream ("Virtual after party")

GeekBeacon Open Source Community - Linux Gaming Takeover
- Lutris and WINE to Mine, oh my!
- It has GeekBeacon
- **Team Fortress 2** host Holler
- **Tabletop Simulator** host Eon
- **Minecraft** host Gameslayer with tentative judging contest
- Have we mentioned GeekBeacon? You know that's NixiePixel right?
- **Geek Beacon Event Page**
- **Voice Chat: https://discord.gg/geekbeacon**

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Sunday, June 14th

(All times US EDT, GMT-4. Time between talks is used for Q&A, discussion, wanton displays of old hardware and boxed Linux software hoarding, and breaks.)

9:00 - 9:30 AM: Stream introduction, discussion of upcoming events

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9:30 - 10:30 AM: Jean Pierre LeJacq - Modern SSH Security: Best Practices

OpenSSH is ubiquitous in the open source community for devops and development. It is unfortunately also one of the most common attack vectors. We present modern OpenSSH features for securing connections that are rarely used and poorly understood. We also give guidance on configuring the client and server to enhance the value of these features. We also demonstrate compliance with NIST SSH guidelines. This is the one of the simplest things you can do to secure your infrastructure.
- OpenSSH certificates to simplify credential management.
- Certificates and DNSSEC SSHFP to eliminate man-in-the-middle attacks.
- Matching patterns for enhanced access control.
- Integration of OpenSSH and GnuPG authentication keys.
- Storage of keys on hardware security tokens using GnuPG and the brand new FIDO2 capability.
- Optimal Cryptographic selection including the new quantum computing resistant keys.

Jean Pierre is a founding partner of Quoin, Inc., a consulting company specializing in open-source software. Jean Pierre has over 25 year experience in software development and DevOps, focusing on security best practices. He has presented numerous times at SELF on a wide range of topics.

10:45 - 11:45 AM: David B. Thomas - What's Efficiency, Precioussss?

A guide to sorting out when to use a pre-built framework if the potential struggle of going back to basics is worth it. PHP or node or C? Do you really need that web server built in assembly? Is your LAMP stack too heavyweight? Is speeding up your dev process worth possibly slowing down your users, or vice versa? At what point does architecting become a sport? We'll go over some principles to help answer these questions.

David has been writing and modding software since he was 6, starting with an ill-fated attempt to make Sim City run on his pitiful Packard Bell. He grew up with the internet, starting with the first web standards, and got involved in open source and FOSS activism shortly after 2000. His focus is on delivering utility to the end user, whether that be a software developer or the average person on the street.

12:00 - 1:00 PM: Susan Sons - Securing Your Organization

Having an infosec subject matter expert (SME) won't do your organization any good if that SME doesn't have the skills to grow security practice throughout the organization. This talk is about changing culture within an open source project, company, or other organization to support ongoing information security improvement. Learn to model what it really takes, and the tools to get the job done.

Susan Sons is a hacker and instigator extraordinaire.

1:00 - 2:00 PM: Ian Geiser - Have You Tried Turning It Off and On Again?

It all looked so innocent in the beginning. A bunch of hippies in bell bottoms trying to change the world. What started with Heath Kit and the Altar has brought us to the endless "patch Tuesdays" and culminated with the Boeing 737 Max. Once computer systems were open and documented, now there is nobody who can fathom the entire stack. To compound the issues software is closed and mistakes are hidden until it is too late.   It is no longer the 1970's, computers are no longer a toy to tinker with as a hobby. They make up systems that run our lives, our banks, they decide if we live or die.   In the world of accounting, law, and medicine peer review and rigor are required for new ideas. Why should computers be any different? This talk is going to cover some of those hippie ideals from the past and how they can bring computers into the modern world that they built.

Ian is VP of Development at HiveIO, and has been tinkering with computers since the mid 80's. He compulsively writes code and has been active in open source since the late 90's. He has contributed to the KDE project, Linux on the PowerPC, as well as random pull requests on over 50 projects.

2:15 - 3:15 PM: Dan Langille - ZFS For Newbies

Dan Langille thinks ZFS is the best thing to happen to filesystems since he stopped using floppy disks. ZFS can simplify so many things and lets you do things you could not do before. If you're not using ZFS already, this entry-level talk will introduce you to the basics. Things we will cover include:

- A short history of the origins
- An overview of how ZFS works
- Replacing a failed drive
- Why you don't want a RAID card
- Scalability
- Data integrity (detection of file corruption)
- Why you'll love snapshots
- Sending of filesystems to remote servers
- Creating a mirror
- How to create a ZFS array with multiple drives which can lose up to 3 drives without loss of data.
- Mounting datasets anywhere in other datasets
- Using zfs to save your current install before upgrading it
- Simple recommendations for ZFS arrays
- Why single drive ZFS is better than no ZFS
- No, you don't need ECC
- Quotas
- Monitoring ZFS

This talk is designed to get you interested in ZFS and see the potential for making your data safer and your sysadmin duties lighter. If you come away with half the enthusiasm for ZFS that Dan has, you'll really enjoy ZFS and appreciate how much easier it makes every-day tasks.

Dan Langille first started with Unix-like operating systems sometime in the early 1980s. In 1998, he discovered FreeBSD on a near-daily basis after needing a firewall for his ADSL connection. From that start, he began several online journals, founded two highly successful open source conferences, and eventually turned his hobby into a profession. Dan now works as a sysadmin for a widely-known infosec company and is frequently impressed by those he works with. When not running conferences or working, Dan blogs about these activities. He wishes he did more mountain biking.

3:30 - 4:30 PM: Destination Linux LIVE

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