Squaw Valley California did everybody

get up here okay any travel issues at

all wasn't as bad as last year we have a

special announcement at the end of the

vent about next year's location which be

much more difficult place to get to it

also tonight's evening reception don't

forget to enjoy a mudslide we're going

to be having those available for

everyone too soon too soon all right

well happy Valentine's Day everyone

thank you also for spending your

Valentine's Day with us yes yes as does

mine but one of that we

wanted you know as these this event

evolved and next year we'll try not to

put it on Valentine's Day but we do want

encourage people to bring their

family along I don't know if everyone

was aware of this i hope it meets most

of you were we have free childcare at

the event this week we have lots and

lots of parents who bought their

children this week to the event

including mine you may see my

eight-year-old daughter running around

but we really want to make this an event

where people can come and enjoy

themselves and the most important thing

of this event

hopefully for all of you is that all of

you will build better relationships with

each other and to that end what I really

encourage you to do this week is to get

to know people who you don't know

already this week we really this year's

crowd is incredibly specially we have an

amazing group of people from all aspects

of open source you people who are

leading open source program office

people who are running and managing some

of the biggest open source projects in

the world folks who are deploying open

source to billions and billions of

subscribers in the telecom space people

who are using open source to create

production automobiles it's just all

locks of open source are at this event

this week and what we've done is

structured our time so that there's lots

of opportunity

network to get to know each other we've

emphasized the hallway track and I hope

take advantage of

that that opportunity I do want to take

a minute to thank our sponsors including

Intel VMware Delhi MC and IBM let's give

them a quick round of applause as i

mentioned we're having a reception

tonight at five thirty in the ballroom

fire again mud slides will be available

in addition to beer and wine and then

tomorrow going to have

themed receptions throughout the hotel

this will be an opportunity for people

to go to sort of different thematic

network get-togethers and really again

get to know each other so that we can

all do good work together in the future

and then we also have an open space for

unconference session so if you have a

topic you'd like to discuss ah the

signup board is in the foyer so just go

ahead and find the unconference session

sign up and people will be able to do

that as well so again I want to thank

all of you for coming and then give you

a little linux

foundation is at this year this is our

annual member event and we're really

happy year

we just at this

event this been a good

year for the linux foundation in 2017 is

already shaping up to be a really good

year you know one of the things that

we're really focused on is having a big

impact on creating the greatest shared

technology investment in the world and

it's not just us you know our mission

really is to create the largest share of

technology investment in the world by

making open source code available for

anyone to use to propose it's

not just the Linux Foundation there are

other foundations it's Mike malinka

bitching around here somewhere from the

Eclipse right there Mike malinka bitch

from the Eclipse Foundation in the back

of the room there thank you for coming

his organization like ours is again

dedicated to the same thing to

make a lot of source code available to

as many people as possible and on the

linux foundation's and to that end we've

had in the number of

organizations and people that we work

with I think the 827 member companies

the most foundation is already out of

date like Michael boosters around here

somewhere we it's about 50 out of date

so we're going to we're going to

probably break a thousand organizations

participating in the Linux Foundation

this year which is a big milestone the

thing I'm most proud about that is the

fact that companies that are coming in

now from wholesale new sectors that

hadn't done a lot of open source work in

the past telecom automotive etc are

really learning how to do shared

software development understanding the

intellectual property regimes that open

source represent and just sort of

greasing the skids for broader low of

code which is incredibly important if

your admission is to create the greatest

shared technology resource in the world

last year we had over 20,000 attendees

at 150 events from 85 different

countries it's it is crazy where is

Angela and her team around here

somewhere let's give them a quick round

of applause

what we're going to add another 50

events this year aunt Angela

screaming right not actually

and reduce the number

of n so we're combining some of events

but I'm going to talk about that in a

little bit one thing you might not know

about the Linux Foundation is we do a

lot of training we've trained over

800,000 students most of whom are take

our training courses at no cost we are

trying sure that the projects

that we work with have a set of

practitioners and developers that can

further increase the adoption of that

particular code not only that we have

training programs that are trying to

help the diversity in our communities

both in terms of gender we offer free

training scholarships for women's

organizations all over the world we've

also partnered with the goodwill in

Austin Texas where we're working with

people in poverty to give them job

skills technical skills through our

training curriculum and through a

hands-on mentor program to lift those

folks out of poverty single parents

folks who've seen hard times folks who

need good jobs a few

of the things we're doing around

training we're creating at the Linux

Foundation we did a little tally across

all the projects that just we're hosting

about 14 billion dollars worth of value

if you measure up the lines of code and

how much it cost on average to create a

line of code it's billions and billions

of dollars worth of value and certainly

Linux itself just continues to dominate

almost every aspect of modern computing

it runs almost all high performance

computing systems the majority of mobile

devices embedded systems most of the

world's economy the internet it's safe

to say runs on Linux so we're going to

continue and we hope all of you join us

and we know you're already working with

us to on those big outcomes

how can we really move the needle with

shared open-source software to really

make big impact on both industry and

society and you know one of the things

that I get asked about all the

I'm is you know you're doing so much

more than Linux when are you going to

change Foundation

and my response to that is I just made

up like all these vests and gave them

away to Africa pocket we're not change

in pin Hagan at least that for now but

no no name change but we really have

gone beyond Linux some of you may be

aware but many of you might not be aware

that of work around security

you're going to hear from Bruce Schneier

in a minute here about a world that is

facing increasing difficulty in trouble

when it comes to cyber security privacy

and other things we have an initiative

Oh that we're working with here called

let's encrypt there anyone here from the

let's encrypt projects a few people

some folks let's encrypt is a free

certificate authority the idea behind

let's encrypt is to make HTTP as the

default for the Internet to secure all

internet traffic by creating a free

certificate authority this in 2016 for

the first time ever more than fifty

percent of internet traffic was secure

in large part thanks to let's encrypt we

can literally chart where let's encrypt

started to when the move the needle

started moving up in terms of secure

traffic across the internet and we want

to get that as high as we possibly can

our core infrastructure initiative is

working with projects that are sort of

the intersection between incredibly

important for the security integrity of

the global Internet and kind of screwed

up screwed up in terms of difficulty

getting funding have a requirement for

third-party audit need additional

eyeballs on the code things like openssl

ntpd other projects we're really that

initiative is about creating a culture

of secure coding practices for all open

source projects and helping fix open

source projects that haven't

traditionally gotten resources but are

important to society by providing them

funding and other resources as well if

you haven't seen the core infrastructure

initiative badging program which has

been adopted by some of

biggest open source projects in the

world check it out this is a way for

your project to indicate that you follow

secure coding practices have responsible

disclosure policy have a more efficient

way of making sure that security is part

and parcel to everything you do in code

in the networking sector we have lots of

new open source projects and that's only

getting bigger we're working with the

largest global operators in the world

you're going to hear this week from

organizations like AT&T last year we

partnered with China Mobile to announce

a management orchestration platform

they're essentially open sourcing the

network infrastructure that provides

service to billions of people all over

the world we're doing a lot of good work

to harmonize those projects you're going

to hear about throughout this week

in the cloud or cloud native computing

foundation with a project such as Cooper

Nettie's from me theists and others is

really leading the way in terms of the

modern micro service and container based

application development methodology that

that really is defining the way people

build apps today Cloud Foundry another

example of a platform that's being used

to create incredibly important

technology solutions for governments and

organizations throughout the world our

automotive Dan

kouchi in the room maybe not i did see

him at the bar late last night this is

is such a sleeper project linux

foundation that's going to have a huge

impact just as more and more production

vehicles roll out with the AGL code in

it this is CES this year Daimler

announced that they're joining our

automotive grade Linux initiative so now

we have Toyota daimler and a dozen of

the world's biggest automotive OEMs all

working together to create the future

automotive middleware and informatics

systems that really define what an

automotive cockpit experience it looks

like and then finally uh last year in

December I think with pretty much there

no we

we rolled of

work in December uh this month i think

our block

chain initiative hyper lecher Brian

mellendorf will be here this week to

talk about it he runs that particular

initiative at the Linux Foundation

you're going to hear from Chris Ferris

from IBM about blockchain but

distributed lejacq technology is no

doubt changing the way that people are

creating trust transactions on the

the

new trust protocol for the internet

hyper Ledger's technologies are being

deployed in financial service

applications that are really modernizing

the financial service back office you

know it takes a nanosecond to make a

trade with high-frequency trading

systems and it takes a week or two to

reconcile that trade on the back office

all that's going to be changed as large

organizations start using distributed

ledger technology to manage that back

office a trade will take

seconds minutes instead of days and

weeks and blockchain technology isn't

just about financial services you're

going to hear about how the hyper ledger

project is helping to work with

organizations like De Beers to track in

an immutable way the provenance of

diamonds in order to get blood diamonds

out of the system working with

governments to create immutable

transparent land registration systems to

prevent corruption in those governments

and to create a better society so as you

can see the linux foundation is working

on a much neater i haven't mentioned all

of our projects into those that haven't

mentioned but i can only do

so much in short period of time we're

working on a lot more than linux the

question that this group should ask the

leadership source and many of

our projects is why do we need

open-source foundations why do we need

the Linux Foundation like I won't speak

for you but it's a good question and you

know this something that in today's

political world has also come to a light

and recently we in this sort of make

sense we've seen a flurry of executive

orders and of the question came up in DC

as we

I'll give you a second to read the order

yeah too soon like we're in California

is an open source of that I figured this

is pretty safe crowd by the way this

order I'm not sure about but there was

another order related to the Linux

kernel where for every which is bloated

and sad and for every line of code added

to the colonel two lines of code must be

removed that one actually makes a lot

more sense to me but you know it's a

good question why do you need a

foundation you know there are millions

of open source projects out there I

think this also out of date

how what's the latest is anyone here

from github what's the latest github

repo number is it 50 1,000,000 is that

right whole week I got man this is

really I didn't make this very long ago

that 51 million open

source repository on github sourceforge

you know around a half a billion we've

got the asf with over 175 projects 300

in another managing around 300 and

another 15 incubation Mike idea I hope

I'm viewing your service here about 163

projects is that roundabout oh my God

look at this my numbers they're terribly

wrong my apologies the Pope no problem

no problem the point is there's a lot of

open source projects out there the real

question is which ones matter which ones

matter you know I mean does do the

remaining 30 million projects out there

that somebody put up for a good put

reason you know maybe they were working

on a PhD thesis or it was an undergrad

who is working on some experiment the

question I think to all of you so those

who run the profession of open source of

commercializing it of taking meaningful

dependency upon it right in the case of

some of the blockchain initiatives where

we're working with governments to take a

societal dependency upon an open source

project you really have to under

stand which matter where is that value

related to the number of projects and

and that's where think that we want

we think foundations should focus

helping projects create sustainable

ecosystem these are the ones that end up

mattering and they kind of grow up into

the left in that if you look at this

chart you know if you think about

foundations are trying to do we're

trying to kind of grow up into left in

this slide this look at reverse I always

liked up

into the right it's just to Silicon

Valley you know but the best projects

the projects that are meaningful and you

can count on for decades to come are

those who have a good developer

community solving a really big problem

where that code is used to create real

value value in the form of profit for

companies many of the companies that you

work for take open source code create

products or services and create real

profit that then is in turn reinvested

back into the project and when I say

reinvested back into the project I don't

mean reinvested back into a foundation

the foundations and Mike you're to

have to back me up on this like a tiny

little sliver of the economic activity

in an open source project the real cost

is the developers who actually work on

these projects that's where all the

major cost is driven in any open source

project it's easy to sign up for a

foundation membership it's much harder

to assign three four very expensive

specialized engineers that you've taken

a lot of time to train to go work on an

open source project collaboratively with

companies that maybe your competitors

but that's what ends up happening in the

best open source projects and we think

the

foundation is to create that sustainable

ecosystem it's to work with projects

that solve a meaningful problem in

the market to create really

good communities communities that have a

diversity of committers both in terms of

ization who are committing to the

project in terms of gender in terms of

race in terms of class in terms of

quality if there's no good code you

don't get to the second step here but

then having those very effective

communities be used to create really

interesting things you know the

production for a automotive

that's for a car is it's three years

when Toyota takes a bat on automotive

grade Linux they enter a three year

production cycle with their vehicles I

mean they're iterating the software

throughout that period but it's a big

long-term commitment to codes not good

if they don't think the ecosystem is

sustainable if they don't think the

project will be here they're not going

to make that investment right and that

create value and profit may not be

the perfect word here I think value

because it's not always about profit i

think the you know if you ask the

government of georgia the country of

georgia who's using open-source

technology for their land registration

systems who's really rooting out a lot

of corruption in that country it's not

about profit it's about making better

society for their people but they then

in turn reinvest back in that project

that that society is dependent upon by

sending engineers by sending

requirements by sending bugfix so forth

lather rinse repeat if you ask anybody

works at the Linux Foundation what their

job is this is it if any of them tell

you anything differently when you ask

them give me their names now but this is

what all our projects are looking for so

you know people wadna why

are you eating

that purchase that spot to create these

sustainable ecosystems right and we know

what happens when projects fall out of

that that feedback loop look at openssl

I mean the internet was secured by two

guys named Steve ntpd you know Harlem

stand on his own keeping time on the

internet with a 30 year old code base

written and see that still in bitkeeper

and it's very hard to commit to that

sustainability loop is going more

and more important as open source

becomes more and more important to all

your companies to all society

to all of us as individuals and

ecosystems take real work this is what

foundation is do this is the details

this is what Mike's team my team do day

in day out we create a governance

structure where you can pool

intellectual property for long-term safe

harbor you have a development process

right making sure that individual

developers are the ones that are making

the decisions as opposed to companies

trying to mandate them this is that paid

this the pay-to-play myth right all our

projects have individual technical

steering committees where their role on

those technical steering committees go

with the person when opendaylight

started one of our early projects the

lead committer further on the tsc for

that project was a cisco employee who

have written a lot of the code base at

quit

cisco went to red hat didn't lose this

position on the technical steering

committee see this creates them is

sustainable marketplace as well where

your organization are competing on the

market in

these important positions and that just

makes the project stronger that's that's

that's not a feature that's

been critically important to the success

of these projects right and it also just

so happens to improve the pay of

individual developers who work on these

projects who are committed to them and

who get in these important roles we

provide the infrastructure for projects

whether it's making sure that we have a

way to do a developer certificate of

origin with a github project or whether

it's a custom infrastructure for

brownfield networking deployments that

of hardware to

test all this stuff where's Eduardo key

god knows what kind of hardware you

people need to test your project you

also need ecosystem development events

like this ways where people can get

together and solve problems I think it's

going to become more important to have

these kind of get together in a

structured way across project them

and talk that in a second we also

think that you need intellectual

property management tracking the code

making sure that trademarks are owned in

a neutral place making sure that

everyone understands that there's a safe

harbor

whether its trademarks whether its

copyright whether its patent regimes

we're creating structures to create this

neutral playing field because

open-source projects don't exist in

isolation we can do more the important

thing now is that none of this stuff

works without the other stuff and this

almost a

random and you can the

categories and what is up there but what

really matters is how do we work across

these projects from a security point of

view having good secure coding practices

from a governance point of view how do

you make sure you raise up the

individual developer don't break what is

great about open source but help

underwrite that development so it's

sustainable make sure that the copyright

regimes the trademark regimes the patent

regimes are stable transparent and

a wall

sorry subtle wall Joe Geddes can resist

a second shot and then provide training

and certification programs to get more

practitioners this is going to be

critical because as you go up and down

the staff we're changing nouns to verbs

meaning that networking as one example

you have a management orchestration

component an SDN controller you have

data plane services you have all these

different pieces that make up a

networking stack but those are nouns

what you really need is here's how I on

board of the NF how I orchestrate

something and that's going to call a

need cross-project cooperation common

configuration language is common data

modeling things that we all need to work

together not just inside of our projects

but across projects and that's what we

really want to get done at the Linux

Foundation and finally we think that

diverse communities across all of these

organizations are strong communities

this year the Linux Foundation is going

to provide hundreds of scholarships for

women and people in from

underrepresented communities to come to

all of our events free training programs

for them today we announced with the

National Center for Women in Technology

a training program an e-learning program

for all the speakers at our events where

you can sit down and I've taken this

spend about an hour so learning how

to better communicate with people who

are different from you and you're going

to see take this class will even give

you a special t-shirt and some schwag

for taking it looking at you right there

no but take it because one of the things

that you'll learn is that there is a

massive amount of scientific evidence

that shows how diverse communities

perform better than those that are not

how if you take a little bit of time to

learn how to stop interrupting people to

be a better person that you'll get

better outcomes we're really committed

to that at the Linux Foundation so

that's the update we're working on a ton

of different interesting projects

working both within our projects and

outside of our projects to create a

greater shared technology investment

which is our ultimate goal and to

give one final thank you too and I'm

going to go a little bit over here to

give this special thank you uh you know

the final thing I'd like to share today

is thank you to someone who's been

working at the Linux Foundation and one

of my proudest moments when at the Linux

Foundation if not when someone new comes

to work at the Linux Foundation although

I will say I was pretty cycling Brian

belen Dorf decided to come and work but

it's not when someone comes to the LF

it's when someone leaves it's when

someone leaves you know when Ian Murdock

may he rest in peace called me up and

said Jim I just got offered my dream job

at Sun Microsystems he was our CTO huge

pay increase I you know as a kid I just

everything about sun and solaris I love

it to go take this job I was

proud of that I wished him well when say

I'm Ramsey is Sam here this morning

somewhere around here when Sam Ramsey

called me up and said I just got offered

a job as the vp of product for

Google's compute platform big job I was

so proud of the fact that the guy was

running Cloud Foundry is now going to

that job and Neela Jacques has been

running our opendaylight project for

three years one of our earlier projects

is now leaving organization as well

he's to bain capital to become an

entrepreneur in residence there and I'm

so going on

to an opportunity where he is going to

go create new organizations and value at

one of the best venture capital firms in

the valley so you can just stand up nua

and give me a thank you don't worry

opendaylight is in good hands he'll Rob

with doing all the work anyway I do I

get a pleasant to fill Rob will be the

interim executive director and you need

not about that project enjoy this

week we've got so much to accomplish on

not just this week but an open source in

general the thing i always tell

developers or people who are working in

open source it's not the biggest problem

you'll have the biggest challenge it's

that you think too small it's that

you don't think nearly big enough we can

all work together the great outcomes

we've already have are only going to get

better so have a great week and thank

you for listening to me this morning