The Linux Effect: 20th Anniversary
Linux in everyday life - from smart-phones to supercomputers

BLAINE:
Do you use Linux?
[Vox pop montage, people saying people saying "no."]

Are you sure about that? …well look…. let me just run some names past you. There are a few companies that use Linux to power their servers. See if you recognize any of them, how about Amazon, and errr…facebook…um there's twitter…any bells?....ebay…..oh AND GOOGLE. You use any of them at all?

Well OK then…but, we're not done, Linux isn't just for web servers running Apache IT IS

Andrew Smith:
"OK you will find Linux's in cash machines…

BLAINE:
Andrew Smith from the Open University

Andrew Smith:
"… CCTV systems, obviously we have talked about Linux being on your mobile phone, you've got Linux running on webservers… systems in the internet cloud… metrology systems… search for extra-terrestrial intelligence use a Linux… scientists are using a larger rays… sets of scientific data."

BLAINE:
Linux is open source and free making it as adaptable as it is ubiquitous. Lets pick a user out of the hat.

And….our first case study is…big business and the world of finance.

Chris Kent :
"We're standing outside the stock exchange in the middle of the city of London. Famously the Stock Exchange recently ripped out a system that Ecente and Microsoft did and replaced it with a Linux system actually for trade booking because it was much much faster and much more reliable."

BLAINE:
Chris Kent develops Linux based software for investment banks and hedge funds.

Chris Kent:
"Stability and security is the main things. Without those there was no way they could use Linux. The openness of the software arguably makes it more secure because more people can audit it, more people can look for bugs, more people can look for security holes. On top of that every firm I think I've ever worked for has run Linux to some capacity and these companies aren't in the business of software they just want software that works. It's very well supported if most big firms wouldn't consider rolling their own version of Linux you would simply buy in a three hundred and sixty five day a year twenty four hours a day support contract so if ever anything goes wrong you call them and they some and fix it. So Linux also offers that. Were a small firm, we run Fedora, you can just install it and off you go and for us that really important. "

BLAINE:
Good old banks, OK lets pull another Linux user out of the hat.

The developing world.

Andrew Smith:
"There are charities in the United Kingdom that recycle computers and will send them to developing nations…"

BLAINE:
Andrew Smith

Andrew Smith:
"One of the things that has made Linux very very popular is its much lower foot print on computer hardware which means that you don't need to have the latest wizziest PC so computers that have gone out of date now can be reused and refreshed using Linux. This is proved very popular in developing nations. Canonical which is owned by Mark Shuttleworth, the first space tourist, developed a product called Ubuntu based on Linux. Canonical recognised this as an important egalitarian opportunity to improve and standardise Linux in a way that's easily stored on hardware for much lowered footprint in an easy to use and an easy to access way."

BLAINE:
One laptop per child is a nonprofit organization set up to oversee the creation of an affordable computer for the developing world. Linux Fedora is the operating system of choice – as project founder Nicholas Negroponte explains.
Nicholas Negroponte: "We've chosen free and open software because it's better and because it means that the children can actually participate in making the software even better over time we believe completely in community developed software as well as content.
BLAINE: Linux works as well for the poorest people in the world as it does for the richest, the bankers. But what about the smartest people on earth? Lets pick another random user out of the hat.

Tim Bell:
"It's called the large Hadron Collider. Cern's basically drilling in to understanding the fundamental nature of the universe…"

BLAINE:
Well whaddya know…It's CERN.

Tim Bell:
"The experiments have in them farms of one thousand two thousand Linux machines

BLAINE:
Tim Bell is Operating Systems & Information Services Group Leader in the IT Department at CERN

Tim Bell:
"Like eighty mega pixel cameras and they take pictures of the collisions except they take them around forty million times a second so this produces a huge stream of data about a petabyte a second from the detector. There are multiple ten gigabit fibre links to other sites and two hundred thousand machines that then analyse it and the data and send the results back for the physicist to look at. Embedded in the experiments there is somewhere around four to five thousand machines. They run scientific Linux which is a distribution that we build in collaboration with a Firmielab which is a hydro physics centre in Chicago. So for us Linux provided us with this very good combination of something that you could run stably in production, it doesn't crash very often at all but also people were coming along excited with the chance to be programming in this environment. It's a very exciting programming environment.

BLAINE:

Linux runs on everything from your workaday wireless router to CERN’s most powerful super-computers. Apache – the wide world’s web server of choice – is Linux based, as is your Android Smartphone and probably your local cash machine. In fact I bet there is a version of Linux running somewhere near you right now.