TRANSCRIPT OF

LINUXWORLD 2000

RANSOM LOVE KEYNOTE

ORIGINAL

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VIDEO PLAYREALPLAYER VIDEO 56

Filesize(): Stat failed for av/pgm0086/tnc_0393_33.rm (errno=2 - No such file or directory) in /home/technetcast/live/htdocs/tnc_play_stream.html on line 237

TRANSCRIBED BY:

DEBRA SAPIO LYONS

SPEAKER: (Static) -- directional planning as well as overseeing all aspects of Caldera's activities including engineering, support, sales and marketing. Prior to joining the executive suite, Ransom held various positions at Caldera and was instrumental in orchestrating some of their most influential and key third-party relationships and activities. He holds a degree in International Relations and an MBA from Brigham Young University.

Please join me in welcoming Ransom Love.

RANSOM LOVE: Thank you. Thanks.

Hello, thank you very, very much. It's really a pleasure to be here among friends. It's awesome when you think of where Linux has started and where we are today. It's just awesome. That's due to many of you and we're just excited to be here.

Geoffrey Moore in his books

and lectures and -- and speaking has carefully identified various stages that all products must go through in what he -- in what he calls the Technology Adoption Cycle. And Moore tells us that before a product can be widely accepted, it must cross the chasm, which is a broad expanse, that separates emerging technologies from broad adoption within the business community.

The question that stares us in the face when we consider Linux is: When will Linux cross the chasm? Or, in other words, when will it be accepted as a viable solution across the entire IT landscape? Those of us who have tracked the rise of Linux from the infant operating system to the present day -- I think when I started with it there were like 20 or 30 names on the kernel list and news groups and related to Linux. We are astonished really and -- and -- and grateful to see the repetitity with which it has

been embraced by the development community around the world.

We're also beginning to see the attention that's been given to by all of the industry giants and major OEMs and ISBs. Yet for all this enthusiastic response, we must ask ourselves: When will Linux cross the chasm. In other words, as Moore says: When will it enter the bowling alley, the tornado or main stream high volume universal adoption.

You're probably -- you're probably aware of the giant step that we've taken in this direction recently. I think most of you've been waiting for me to mention it, so we'll mention it right at the beginning. That is the acquisition of the Santa Cruz Operation Server and Professional Services Division. Let me tell you. We're absolutely thrilled by it and it means a lot to the Linux community as a whole. And it says a lot about the Linux community and we'll try to

explain what the -- what the significance of that is.

The reason that this is such a big announcement to Caldera and the Linux community is that Linux and UNIX compliment each other and the perception now that Linux is not ready for prime time in major enterprises has to be seriously reconsidered. Since the SCO announcement, people have asked me if we're going to abandon our Linux roots and move to some sort of hybrid operating system.

My answer is very, very forceful: No, we won't.

(Applause.)

Okay. Why should we abandon the future that we helped to create? The acquisition, however, is going to change the industry and -- and the way that the world communicates and -- and deploys their platforms. Industry leaders are already calling the acquisition an industry changing event, the beginning of a new era, the end of

the old and we're going to explain its significance today.

Moore -- Moore insists that for technology to cross the chasm we must -- an -- we must create what's called 100 perfect solution to the customer.

Now, let me ask the question: Where does Linux provide 100 percent solution in the business environment? Clearly, clearly we've made an -- as an ISP platform, as an Internet server platform, we've made significant inroads. But where does it create and become a total solution to the business environment?

I believe, again, leveraging that foothold, that where Linux drives and becomes 100 percent solution is in this concept that's evolving because of the Internet where the services are being allowed to be broken up, to be optimized, to be customized to specific hardware or software applications. IDG calls these specialized servers, but in

many ways they're the same servers just optimized and customized to either the hardware or software that we see today, but they're much more economical. So this is the area where I believe Linux will penetrate and move across that chasm to a degree that I don't believe we can even comprehend today.

Linux will dominate this space for a number of reasons. First of all, the open source nature of Linux allows it to be optimized and customized more than any other type of OS in the history of the IT industry.

Also, these devices have to be extremely stable and they have to be Internet enabled and they have to be manageable. The collaborative model of open source also provides the -- the lowest cost alternative where most of the commercial Ss -- OSs can't even compete in this space. So -- but even in this space, and not to mention the entire OS platform adoption, are there areas where Linux needs to improve to

become 100 percent solution to the business customer.

Most Linux executives, OEMs, ISBs and observers would say that the answer is yes, there are areas that we need to improve. Here's a list and we'll go through each one and explain.

First of all, global infrastructure. Major hardware and software manufacturers are reluctant to pour millions of dollars into a rollout of a Linux-based product on a global scale because it costs significant amount of money to do that when they have to deal with regional Linux strengths because the Linux that they have here may not be quite what the Linux is here; and if they have to take on the entire support burden of that infrastructure crossing geographic boundaries, they'll be reluctant to do so.

Also, clearly, when we talk about global infrastructure, what about the corporate businesses that want to

begin to deploy a solution? They don't deploy it usually in a single office. They want to deploy it across the broad spectrum of businesses, so they need support infrastructure in every major market that they are in in order to have confidence to deploy Linux on a much grander scale in this -- in -- as we cross the chasm.

The -- they want, then, a global Linux vendor with global support infrastructure. The SCO acquisition gives us a truly global presence. We become the only Linux company with service, marketing, sales infrastructure in every major market around the world. That's significant.

Currently, Linux does not scale to the high end needs of the data center. Linux is a -- a marvelous platform. We all love it but it does not scale to the high end data center needs so we don't have a single platform that goes from the thin clients all the way up to the high end

data enterprise needs. Other OS platforms in the industry do. If we want to be an alternative, we have to have that same scaleability, that same breadth.

Now, may I suggest that a single OS kernel cannot scale. It cannot meet all of those diverse data center needs. Okay. We're already seeing that. Embedded kernels are significantly different than what we ship in most of the Linux distributions. So the fact that we may need yet another kernel as other OS manufacturers do where we have multiple kernels is not -- is not -- is something that if we want to be a global player and a major player we -- we will have to consider.

We -- Caldera's answer to this is an open Internet platform, a completely open scaleable environment utilizing the single platform of Linux across multiple kernels to scale from the thinnest of clients to the

clustering needs of the largest data center.

We see that there are -- no single kernel can meet all the diverse needs in this marketplace. We want to preserve choice, letting IT professionals select the operating system kernel that will best suit their needs, but provide common technology, common services across multiple kernel environments.

This isn't a lot different than what Microsoft does, okay, but we can do it much, much better with Linux and UNIX. Linux is the definitive development platform across all of these kernels.

The server technology, ladies and gentlemen, can never be -- if you think about it, servers and server applications cannot be sold through a retail channel. It has never worked. It will never work. The complexities that's involved there are just -- are just too great no matter how easy we

make the operating system to install. So to attract ISBs and -- to Linux a robust network of technical specialists who know how to deploy, manage and administer Linux and associated applications as needed, businesses also need help.

The single biggest reason why Linux is not being adopted today is not applications. And there's a number of surveys that we'll talk about. It is -- it is technical knowledge on how to develop, deploy and administer Linux.

So these technical specialists will help significantly in deploying the total turnkey solution to their customer base or host it for them as the model changes.

Business customers tell us that they'd be more aggressive in the adoption of Linux if they could purchase and obtain support through the same distribution channel that they use for everything else. The SCO

acquisition gives us more than 15,000 knowledgeable, trained resellers, ISBs and support staff worldwide. This infrastructure would have taken us millions of dollars and years to develop.

Application developers want a common Linux platform. They cannot afford to maintain four or five or six different flavors of Linux. And it doesn't take much for them to have to run through an entire testing cycle and if they have to test it, it's -- it's a separate platform that they have to support.

They won't do it. Not for long. So we want to port once, run anywhere interface, not a multitudes of flavors of Linux. Caldera's committed to Linux standard base. You're going to see significantly more investment on our time and effort to bring that about with the acquisition. Businesses need a platform also that adheres -- adheres to open Internet standards. Why? Why

is that so critical? Because they have to inter-operate and communicate and -- and -- and administer the investments they already have. And so if they bring in disparate systems, they have to have the open Internet protocols like -- to help manage that, like TCP/IP, XML, OpenSLP, Java. We have to embrace more than just the standards of the Internet -- of the Linux community.

Our goal is to promote, encourage and establish open standards that will maximize application, development and business use. In that way Linux will cross the chasm.

The entire financial community is always asking us and will continue to ask us as a community: How do you make money? Okay? There are many people -- this is going to be very controversial, but I'm going to say it because it's the honest truth.

Many people are saying it's a service model. It's all services. Let

me tell you something. Without Linux, which is a product or technology, there would be no services. Okay? Products have always driven services. Always. You have -- and people don't buy just service. They buy a product or a solution and that drives the need for services.

So how do you create a model that is based around more of a product-centric model? What is it that you're buying if -- if the source code is free?

Well, there's significant value in packaging and productizing Linux.

I refer to the bottle -- bottled water. Why do we buy bottled water? Sometimes you pay a premium. I was in Beijing and I paid a lot of money for bottled water and I was perfectly happy to do it. Why? Safety, convenience, all of these things. It's a trusted -- trusted environment that I can deploy.

So packaging is important. So how do we make a model that -- that -- that -- that gives us some sort of distinction, some sort of value contribution based on products. We call it open access. What we're suggesting is that we develop, we innovate and we contribute back in a continuous cycle so that people look to us to be the innovators, to be the one who is moving -- moving technology forward.

We're not co-oping the Linux community. We're not saying we're going to dictate to the community what is or what isn't going to be deployed. What we're suggesting is that we will innovate. We know where we need to go and we will innovate and continuously give back to the community.

Now, will we give everything back under GPL? The answer is no. Why? It's not that we -- much of what we do will be given back under GPL. We like GPL, but it's not the

end-all-cure-all. There are other open source licenses. What our commitment is: Every technology we own, we will provide source code to under an open source license. Okay?

We will choose the license that makes the most business and technological sense for the technology. Sometimes GPL doesn't make sense if you're looking at trying to cross a chasm. There's other cases it makes perfect sense. So what we're saying is a commitment that we will continue to innovate and continue to give back. There will be sometimes where we hold on to it. We may even maintain ownership of some but we'll provide open access to the source.

Why would we maintain ownership? Is ownership bad? No, it's not. If you have open access to the source and ability to do what you need to do, ownership is not bad. In fact, it protects quality. In fact, if you look at the GPL license, it has an

element of ownership to it. Why? It protects it. It protects the model and we need to preserve that.

So what we're saying is technologies will be developed and given to the community based on what's makes business and technological sense. The key is timing. In many instances the technology we'll be providing back for developing -- we'll actually develop some of the technologies under GPL in an open source fashion as well. It just gives us a little bit more flexibility. Caldera will continue to be the leader in innovation in the open source community, an industry at large using this open access model while preserving shareholder value.

Applications. It is a truism that business don't buy operating systems and never have. They purchase solutions. They purchase applications. Now with the SCO acquisition Caldera can offer thousands of business-hardened applications running

on industry standard hardware that run on UNIX. We own the technology to make that seamless to move it to Linux. So all of those dentist office and hotel applications and all the many thousands of applications that exist will soon be Linux applications without forcing them to move. Okay? That's what we'll do with the -- with -- with these applications. We'll commit them to move.

Now, what about other new application development?

What we're doing there is we have Java. If you haven't seen our early access CD, please get it. Java -- we've hot wired hot spot into the browser. It's five times faster than any other browser on Linux and it's faster than Windows, okay, because it provides that technology.

(Applause.)

So what does this mean? It brings thousands of new applications to Linux, to the business commercial

environment. We also have a wonderful relationship with Emprise. We're ecstatic that they're getting ready to -- to move the Delphi platform on to Linux. Do you realize what impact that will have, what that means for commercial Enterprise development environments? Caldera intends to be the develop-on, deploy-on Internet platform for commercial applications on -- on high volume hardware.

Management. You may have seen, again, a recent issue in Network Computing that pinpoints the greatest roadblocks to Linux implementation. In the study called The Linux Challenge more than 30 percent of the respondents found the greatest impediment to Linux -- impediment to Linux implementation -- you notice I didn't write this speech -- is, can you guess, support, ladies and gentleman, support. The second greatest challenge is closely related, the lack of qualified Linux support technicians. Did it say

applications? No.

Research estimates that a million Linux servers were shipped in 1999 and probably more than 20 million Linux desktop computers to date. Newsweek -- this is another wonderful statistic. Newsweek reported that there are just short of 200 million Internet users today. The number is increasing at a rate of 100 million users a year.

Okay. Now, we believe that most of those users, a good percentage, will come on to the Internet using these specialized servers and Internet client devices running Linux.

Now, if you're a LAN administrator, I'd be committing hari-kari. Why? You're talking about devices coming into your network not one at a time but potentially 10, 15, 20, 30, 40, 50, hundreds coming into the network and going out of the network, right, as we move into a mobile -- mobile computing environment.

So how in the world do we manage these devices? We go by system by system? We don't have the time, resources or cycles to go in on a system-by-system basis to do management. It just will not work. It will not scale to the Internet.

You will see in a moment that Caldera has solved these management challenges. We will enable the open Internet platform to become the primary way for extending the Internet.

Okay. Clearly, I've said a lot. I -- I actually -- there's some people who have requested that we actually do some printing. They want the speaker notes with all my chicken scratch, but they want the speaker notes so we can have a meeting right after, so I'm going to -- while we conclude here, I'm going to have Mike Wilson, can you handle that for us?

(Inaudible)

Great. Your mic's not on, Mike.

(Inaudible)

MIKE WILSON: Small minor problem here.

RANSOM LOVE: Mike has a mic problem.

MIKE WILSON: No, not a mic problem, a printer -- actually, a setup problem, a setup problem.

RANSOM LOVE: A setup problem. You know what? It needs to be plugged in.

MIKE WILSON: No, actually --

RANSOM LOVE: A setup problem?

MIKE WILSON: I'll tell you what? Why don't we call -- why don't we call Calvin?

RANSOM LOVE: You know what -- that's true. We are having problems here. Hold on just a second.

Calvin we have on booth duty. At least he's supposed to be on booth duty. Hold on. See if he can help us out.

Calvin. Hey, Calvin, are you over at the booth?

CALVIN: Yeah. Yeah, I am.

RANSOM LOVE: Hey, Calvin, we've got hundreds of people out here in the audience and we're trying to print out -- whoa, what happened to the printer? Union labor.

We're trying to print out my speaker notes. Is there any way that you can help us out? Could -- do you have to run over here or can you -- can you --

CALVIN: Well, don't you have another printer there somewhere?

RANSOM LOVE: You know what? Hold on. Yeah, hey, there's one. Yeah, we do.

CALVIN: Yeah, I think I can. Hold on a sec. Let me -- let me look at that.

Man, I can't believe this. I come to a show to go and attend the sessions and they want me to help them with their hardware problems.

Let's see here. I'm going to pull up -- he's got his printer here in

our system and I'm going to go in here and I think he's hooked up here to the HP1 printer up there on stage. So I'm going to come in here and I'm going to change this to the HP2 printer, save that in there and go and notify his system up there that that's changed, so...yeah, that should do it. Let's get back to what I was doing here. There we go. Okay.

Yeah, that should -- that should be going now. Why don't you give that a try?

RANSOM LOVE: Okay. Calvin, we'll take a look and see if it's going to work.

Yeah, make sure it's plugged in. We're waiting.

MIKE WILSON: It's not updating.

RANSOM LOVE: Is this it? Hey, hey.

CALVIN: Oh, sorry. I lose you?

RANSOM LOVE: Yeah. Calvin.

CALVIN: Hold on. Let me check that. Let me double-check that again.

Well, maybe I lost my connection here. Let's see what we got. I'll save that. All right. Okay. Why don't you give that a try.

RANSOM LOVE: Okay. How's the show going by the way?

CALVIN: Ah, the booth's really busy.

RANSOM LOVE: Yeah.

CALVIN: It's bad. It's a nightmare here.

RANSOM LOVE: Good thing that you're working hard.

MIKE WILSON: Am I having difficulty here? Calvin, why don't you come up and let's --

RANSOM LOVE: Yeah, okay. Come on up.

Calvin Gainsworth is our -- our lead engineer on a project that we've been working on called COSMOS and clearly that -- that was simply going

to be a print cap modification.

CALVIN: Yes, what we were trying to do there is just modify your print cap file --

RANSOM LOVE: Okay.

CALVIN: -- and -- on the system here which is, of course, a very simple thing to do and probably anybody here -- well, hopefully anybody here would be able to go in, change the print cap entry and restart your print demon on there and you'd be printing to a different machine. So...

RANSOM LOVE: What about with 300 machines?

CALVIN: Well, sure. If -- you know, it's one thing to have one person mad at you saying I can't print but if you've got an entire floor of people that are trying to -- you know, their printer got taken and they want to move over to this different printer, how are you going to manage that? Well, to go into all those machines is going to take you several days, so this

will allow you to go in and just do it in a -- in a directory-based system and then affect all the systems that you want to change.

MIKE WILSON: Awesome.

RANSOM LOVE: Why don't you give us a -- a demo on what this can do for us.

MIKE: Yeah, let's go --

CALVIN: Got to start. That's why we didn't -- that's why it didn't work we didn't do that after we rebooted.

CALVIN: Okay. That's good. It's going.

Okay. We just need to -- some minor set up things here we didn't have set up.

RANSOM LOVE: That's why the printer didn't print?

CALVIN: That's right.

RANSOM LOVE: It always happens this way, isn't it? I mean it's only in a -- in a keynote. But the nice thing is it's all live.

CALVIN: Well, dance or something.

RANSOM LOVE: Okay. No, they don't want me to dance. They don't want me to sing.

CALVIN: Here we go.

RANSOM LOVE: Oh, yeah, we could do that.

CALVIN: I think we're ready though.

MIKE WILSON: Actually why don't you -- you want to -- why don't you go ahead and update it again? 'Cause we've got, we got the (Inaudible) --

CALVIN: Okay. Why don't we -- I'll show you on Machine 3 here exactly what I was going to do.

We've got here -- we're actually looking at the COSMOS console here. It's a completely web-based system that we're looking at and what I was actually doing over here and that's how --

RANSOM LOVE: Yeah, what he

was using is this is a marvelous little device from Compaq that is -- was a browser base -- a browser on the handheld device and so all he was doing was this same console using one of these wireless handheld devices.

CALVIN: So what I went to do is I went in -- we have a policy set up here for our printer here and inside the printer, I've got it defined to the machine that I want to print to. And the one we had here was HP1. That one's HP2. So I'm just going to save this and resubmit that change and now that his machine is set up and going he'll be able to go out and now print that document over there for him.

So why don't you go get that now?

RANSOM LOVE: Hey, it's working.

CALVIN: Okay.

RANSOM LOVE: Awesome.

(Applause)

MIKE WILSON: Go unplug that

printer.

One of the -- one of the things that I'd really like to show though, we've got all this fantastic hardware that's been donated over here. IBM, HP and Compaq have all donated some pretty significant equipment and what we'd like to do, I'd like to -- I'd like to sponsor a little game fest tonight and I'd like to -- I'd like to actually install a Shareware version of DSent on there.

RANSOM LOVE: Now, that's some -- some great hardware to run games, Mike.

MIKE WILSON: Yeah.

It's ultimate gaming pack on there, right.

But I'd like to install these DSent boxes. And first of all, on machine 2 here, I want to see if I have DSent loaded here, and it looks like I do not. So I'd like to get it installed on the machines over here, on my laptop as well.

Tell me how COSMOS can help me do this.

CALVIN: Okay. This will -- it's really simple to do this in COSMOS. If we go back to Machine 3 here, we have what are known as profiles inside of COSMOS. It's on machine 3.

MIKE WILSON: Machine 3 on the screen? There we go.

CALVIN: So a profile we defined -- you can set up a profile to be a developer's workstation or an administrate -- and administrative assistant's machine or a gamer's machine. And you can actually have combinations of these profiles for different functions of people in your company.

So I actually have some profiles set up here and I've got one called DSent Gamers and inside DSent Gamers you can define all the software that needs to make up that profile. So if I come into our rpm list that makes

up the DSent gamer, you see here that we've got D1X in here and that's the rpm name for DSent and that is going to be installed. You can also remove software with profiles if you want to remove insecure packages or things like that off the system.

So I already have this profile set up. What I need to do is I need to actually link this to the different computers that I want to affect. Now because we're directory-based we don't have to link it to every single machine.

RANSOM LOVE: But what directory are you using?

CALVIN: Well, in this case we're using LDAP's -- or Netscape's LDAP's server. That is iPlanet 411 is what we're running against in the back end.

RANSOM LOVE: Are you -- are you forced to use the Netscape or can you use anybody's directory?

CALVIN: No, we actually

have -- we actually have an XML interface between COSMOS and the back end, so not only can you use a various numbers of L dot directories, you can also use SQL or basically any back end data store. You just need to write an XML interface --

RANSOM LOVE: Awesome.

CALVIN: Or -- or write to the XML interface.

So I have our policy here or our profile here and what I'm going to do is come in and link that now to the machines I want to affect. And over here on the left I've got several different groups of machines. I've got Caldera machines and I'm going to install this on Caldera and RedHAT here.

MIKE: Where's my machine in there?

CALVIN: Your machine is underneath this Caldera container, right there. This --

MIKE: Laptop.

CALVIN: -- Lap 1 is what you called it.

MIKE: Okay.

CALVIN: So I'm going to go in and I'm going to search for Caldera here and select the container that you're in and submit that and link this profile to that entire container of machines.

MIKE: Okay. Why don't you so submit that -- submit that event.

CALVIN: Well, I also want to do it on the RedHAT machines at the same time.

MIKE: Which are located on which -- on -- (Inaudible)

RANSOM LOVE: You mean you're actually administering RedHAT as well?

CALVIN: That's right, yeah. We are not specific to our distribution. This -- this'll work on all the distributions and we're actually going to install DSent on both that HP stack which has RedHAT running on it and then some of these Compaq's

and your laptop.

RANSOM LOVE: Well, RedHAT's a good game platform.

CALVIN: Absolutely. So I'm going to go ahead and submit that change and it's going to go out and notify these machines.

Now there's two ways we can notify the systems that there are changes.

MIKE: Now, wait a minute. You submitted -- you're telling me that this is updating right now?

CALVIN: That's right. Those machines are now updating and they're getting RedHAT and so is your laptop.

So you can either submit the events and we have an event system that will go out and notify the systems that changes have been made in their profiles and then they'll go out and discover those changes and make themselves what those profiles describe.

The other way you can do is

through polling. So you can -- if you have a firewall or if you have a dial-up connection, you can set those machines to actually come in to the repository, see what the changes are at a scheduled interval. You can do it once a week or once a day or however you want to schedule that. So we have the ability to both push the changes out to the systems or have them poll us for the changes are that made.

MIKE: I see.

RANSOM LOVE: Awesome.

CALVIN: So you should be good to go. You should have DSent on there.

MIKE: I haven't touch my system though.

CALVIN: Well, Of course not.

MIKE: Okay. Let's see. Let's see if it's there. Let's switch to Machine 2 and look it, I'll be darn, D1X --

CALVIN: There it is.

MIKE: -- is actually installed.

CALVIN: Awesome. Magic. This is Linux?

MIKE: You're telling me it's over here as well?

CALVIN: I'm telling you --

MIKE: I got to -- I got to see this to believe it.

CALVIN: I'm telling you that it's installed on all those systems.

MIKE: Let's see. Let's start one up here. If I can reach up here.

CALVIN: No one ever believes what I say.

MIKE: He's an engineer. He's engineer, though. Okay?

Go ahead and talk and I'll just see if -- I'll just --

CALVIN: Okay. So on Machine 3, I'm going to show you the real way to determine if it's installed.

One way is sure enough, you can go walk and look like he has to do to see it. What I'm going to do is I'm going to come up to this container

above all my machines and I'm going to go search them. I can search for software that's installed or hardware that's on the machines. I'm going to go out and search and see if D1X is installed on these machines.

So I'll submit this search and when I come back, sure enough here's a list of all these RedHAT machines, the Caldera machines and his laptop are all listed up here saying that they have DSent installed on them.

RANSOM LOVE: Awesome.

MIKE: Man, I'm getting a neck ache over here.

So you can see it -- you can see that and I have to walk over here and do that so I don't even need to do that.

CALVIN: That's right. COSMOS has the ability to do both hardware and software inventory. Not only can we update the software, but then we can tell you what's on the machine as far as both the hardware and

the software. And if I come --

RANSOM LOVE: Now, what if someone removes or adds software or hardware? Say they want to take RAM out and take it home and stick it in their game machine.

CALVIN: Then, we're going to know that and come after 'em.

MIKE: Wow.

RANSOM LOVE: This is good.

CALVIN: So I'm going to come into these RedHAT machines and I can either -- you already saw the search. But if I open up any of these computers, I have hardware and software in here and I come down and click on the software inventory of this and it's going to pull up here on the right-hand side all of the software that's installed on that machine. And I can go in and click on any one of these and get all the details about that rpm, the files it uses, what it requires to install, the description and all the typical information you'd expect to get

out of an rpm.

MIKE: So when -- when I want to install a package and it has dependencies, what -- what's going to happen?

CALVIN: Well, we actually can figure those out for you. You notice that in this cases I installed DSent on these machines. Well, DSent won't install by itself. And you know that all I specified in the package was DSent. If I come down here to the software scan, this last software scan that we ran on this, it'll tell me that it actually installed three rpms not just DSent. We went out and calculated all the dependencies that that package needed and then also brought those down. So administrators don't have to go through and do this by hand. We'll figure it out on the fly and actually put those packages down on there for you.

MIKE: Very good.

CALVIN: So we've got the

hardware and software done here and we're able to search that.

I can also come in here and now search for any piece of hardware I want on these systems. So, for instance, I'm going to come in and see who has ATI graphics cards installed on them. So I just search the vendor being ATI and when I come back I see that it looks like we have three turbo machines, Turbolinux machines that have ATI and our Caldera machines all have ATI graphics cards here as well.

MIKE: Very nice.

CALVIN: So not only can we manage hardware and software on Linux, on these machines, but like you can see here we do it on all the distributions.

MIKE: So if I wanted to push driver updates, I could push them the same way?

CALVIN: Absolutely. Now that I've searched for this particular piece of hardware, down below I can create now a group or a profile based

on the results of that search and then I can push out updated drivers for this ATI card just to those machines and not affect the rest of the users on the network.

MIKE: Okay. Tell me -- tell me about some of the other things in there. I -- I see -- I see a number of things; for example, the actions part. Can you tell us a little bit about that?

CALVIN: Well, the actions are what allow us to actually put everything in place. Now I mentioned earlier that we have the ability to push things out the systems or configure them to poll the -- to poll our system. So you do that through actions.

And if you come in here -- for instance, I have -- I have an action here called Rebooter and it'll actually go out and if I come into the script here, you'll see that it just runs INIT6 and I can associate this to all

these same machines we just put DSent on, push that out and reboot all those machines.

Now with the scripts you can do anything you want. We have some Default programs that ship in COSMOS like our software inventory, our hardware inventory, our rpm checker. We also have some threshold management which will let you monitor systems and monitor how many users are logged in and if processes are hogging the CPU.

MIKE: Or memory?

CALVIN: Or memory.

MIKE: Okay.

CALVIN: And at the same time when any of those -- when any of those systems detect that, we have a notification system which you can configure to either send SNMP traps or S -- or SMTP email --

MIKE: Okay.

CALVIN: -- out to a pager, whatever you want. And all of our SNMP messages are registered and we have a

mib file so if you got a management console, you can actually get alerts on your console that someone has removed hardware out of one of your Linux boxes.

MIKE: Wow, that's pretty amazing.

CALVIN: And the guys in black suits will show up and escort you out.

RANSOM LOVE: What about security?

CALVIN: As far as security, everything that we do as far as getting to our system from here is done through SSL.

Now, in this case, I'm sure some of you have already noticed, that thing's unlocked up there. Well, for this demo we didn't set up a secure web server. But all of this can be put behind a secure web server and the data will be encrypted through SSL and then when the clients go to talk, they also have an SSL connection to the

repository so all of our connections are secure when we're traveling across the net.

RANSOM LOVE: How about managing security patches and updates?

CALVIN: Absolutely. Just as I pushed out DSENT game out to all these systems, I could just as easily have been pushing out -- pushing out a new secure shell, which we get notifications all the time and update all my systems or remove -- remove packages that I know are insecure on the system.

RANSOM LOVE: What about large Beowulf clusters? Does it provide any benefit there?

CALVIN: Well, certainly, because you don't have to now go to each node and modify. Any time there's a new update or someone wants some software out on there, you don't have to go to each node. You can just create this profile and then profile the machines and hit the submit button

and all those machines will receive that and get themselves updated.

RANSOM LOVE: That's awesome. That's just awesome.

MIKE: That's incredible.

RANSOM LOVE: Thank you. Thank you very much, Calvin and Mike.

So let me just recap. We have a management system that's ready to scale with the Internet across all Linux platforms, eventually across UNIX platforms, so that we can manage these systems, these specialized devices and scale to the volumes that we need to. It's the future now. Thank you very much, gentlemen. Really appreciate it.

(Applause.)

Just -- just in wrapping this up, clearly what we've shown, all of the -- these are all issues. These are all items that -- that need to be addressed as we try to cross the chasm for Linux. Clearly through what you've seen of Caldera's own innovation as well as what we acquired through the

SCO acquisition, we address, clearly, many of the needs to helping Linux cross that chasm. We are committed to Linux. We are committed to the industry. And we're committed to making Linux the number one open Internet platform in the industry.

Thank you very much.

(Applause.)

We -- we would like to give you a couple of minutes because we've covered a lot and there's a lot here to open up to questions. And if I can't answer them, then we've got some very capable individuals to answer them for you. Please feel free to ask some questions.

QUESTION: Do you have any plans to integrate resource management in with COSMOS? I'm looking at, like, a large enterprise where you might want to track disk space by organization or user. Do you charge back that sort of thing?

RANSOM LOVE: Calvin, do you

want to take that one?

CALVIN: We -- we have a number of plans for the future. That's certainly a possibility of some things we can do in there. We do have some threshold management today. What we do monitor, disk utilization and memory utilization and process utilization, so it would tie well into that and I would assume that we -- that'll be somewhere in our future plans, yes.

RANSOM LOVE: Excellent. Thank you.

Next.

QUESTION: I was wondering do you guys support non -- non-rpm based systems like a Slackware?

RANSOM LOVE: Yeah, go ahead.

CALVIN: In the current version that you're seeing here it is rpm based only. The technology is actually -- we actually plug in a module to handle the rpms. So what we're looking at doing is developing a number of other plug-ins, but also

allowing the open source to be able to develop those and handle the different types of packages as well, so --

RANSOM LOVE: Yeah, the beauty of this is it's architected to do that. In fact, it's architected to go into, you know, the different UNIX package managements and others. It's just a module that -- that needs to be written. It's very, very well architected.

Somebody else?

QUESTION: You mentioned several issues that need to be addressed to cross the chasm. Can you give us a -- some examples of where you think Linux stands very well and already across the chasm?

RANSOM LOVE: Well, in most areas I would say the one area that it is -- has a foothold or at least a toehold is in the Internet server platform.

Again, you have -- you have to be clear on the definition of what it

means to be on the other side of the chasm. You have to be -- you clearly have to have broad acceptance among IT environments. It has to be distributed through most businesses. Clearly we have probably the single largest excitement around Linux, but I -- in many areas we are not even close to crossing the chasm.

Okay? That's what I mean. These are many of the components that have to be there in order to -- for main stream IT adoption of Linux.

Now, clearly, we're on the peripheral of that. There's some -- there's places we're making footholds, but -- but there's much to be done.

QUESTION: Yeah: I'm a director of MIS for a holding company and so we actually have several companies that are using SCO now.

RANSOM LOVE: Yes.

QUESTION: I wondered if you could give me a general time frame as to when those applications that

currently run under SCO might be available under UNIX. And I realize -- or under Linux. I realize that's a broad question.

RANSOM LOVE: Okay. Yeah. But there's actually -- we're going to go in and actually demo some of these technologies at FORUM next week. And so you'll actually be able to see -- what we're doing, what you'll see at FORUM next week is actually Linux, the full Linux running on a UnixWare kernel that scales on the high end systems very, very well.

The next step is, as we've talked about, is -- is providing the interfaces for the OpenServer platform to run on Linux and that is not -- that is not a -- technologically that difficult. So we'll have more information next week as we start to rollout that product road map. It won't be complete next week, but clearly we'll have forthcoming information there and our -- let me

re-emphasize something here. We are not going to force anyone to move anywhere, but we will make it compelling and as easy as possible for them to choose to move when they want to and Linux will be the glue literally that resides across. It will be the platform that people develop to.

QUESTION: Thanks.

QUESTION: Will COSMOS be able to manage by OpenServer and UnixWare platforms as well as the Linux platforms?

RANSOM LOVE: Yes, the answer's yes. The timing is the question. We haven't announced when but we will definitely across the entire -- what we call the open Internet platform, it -- COSMOS will scale across all of those platforms.

QUESTION: Okay.

RANSOM LOVE: Yes.

QUESTION: I just want to continue about the Windows NT server. Are you going to look into it or not?

Like to manage NT server stations.

RANSOM LOVE: Okay. Again, the way it's architected is very flexible. We -- we are not in the first release looking to go out and manage -- manage NT, but clearly the way it's interfaced, it's designed with open standards on the back end and we're using open standards, protocols and things on the front end. So it's very modular. Clearly someone could -- can do that and as we make that available open source, that's some -- that's a task that people could easily address.

QUESTION: With the acquisition of SCO is it likely that UnixWare will become open source?

RANSOM LOVE: Our commitment and what we've said publicly is that all of our technologies that we own, we will make access to the source available with the products. When, how, under what license is -- is something that we will define as we --

but that's our commitment; and we will -- we will live up to that commitment.

QUESTION: What happens about Project Monterey because that conflicts with the IA64 Linux, 64-bit Linux?

RANSOM LOVE: Okay. I don't -- if we do our job right in -- in making Linux scale over like UnixWare to the degree that everybody's -- that we know we can -- may I ask? Some -- some people have said, well, people have tried this in the past, but they haven't been that successful. May I suggest we don't have any ulterior motives for not making it successful. Technologically, it -- has not been the reason why it hasn't done it before. There's always some other motive; right?

And so to talk about Monterey, clearly we want to make sure that we have the same level of Linux integration on Monterey that we would have in -- in our UnixWare product.

Now we don't control -- I mean we have a great relationship. It's a joint development relationship with IBM, which we intend to preserve. But they have similar interests. And so it -- this is really a very synergistic -- this transaction is great for all of the major partners as they have already wanted to embrace Linux moving forward.

Now let me address one other aspect of your question which is that the Monterey Project is in conflict with the IA-64 Linux project. I don't believe it's in conflict at all. Now, clearly we have tremendous vested interest in the IA-64 Linux Project and with the acquisition of SCO they've been doing a lot. So you combine those and we've got one of the more comprehensive offerings I believe on the IA-64 Linux. So we'll -- that's clearly an area that we're very committed to. But like UnixWare, there's elements of the Monterey kernel

that are more scaleable, okay?

Now, on the I64 platform I don't know how -- how long a window that is, but today it's a little bit more robust and more scaleable than the I64 Linux is today. Now I'm not saying that over time that won't change.

But -- but -- and let me address one other thing. Sorry. You're getting -- you're getting all of it through one question, but clearly we are going to add components back to the Linux kernel. It's on both IA-32 and IA-64 platforms. We'll work with Linus and everyone in order to make that available. That will take some time; and as I mentioned earlier, I don't know that over time you can have a single kernel -- in fact, I -- I know you can't -- that will scale, you know, the breadth of the IT technology needs.

So I think we're looking in the Linux community at having multiple kernels so...

QUESTION: Multiple Linux

kernels or multiple UNIX kernels?

RANSOM LOVE: Multiple Linux kernels as well over time.

QUESTION: Thank you.

RANSOM LOVE: You bet.

MIKE: Would you do me a favor then and would you call them and ask them to transfer --

RANSOM LOVE: Mike, your mic.

Any other questions?

Yes, sir.

QUESTION: What license are we looking at for COSMOS?

RANSOM LOVE: What license are we looking at for COSMOS?

And that could be true of any of our technologies. What we're looking at, we're looking at all of the open source licenses. There's quite a few and there's -- there's -- there's validation for a lot of the licenses. In some cases we will use GPL. Others we'll use BSD. Others we'll use maybe some other license, but we haven't determined -- it will depend on the

technology itself.

Clearly there's elements of COSMOS that we want to get out as a standard across the industry so there's some good reason for that.

QUESTION: When will COSMOS be available?

RANSOM LOVE: When will COSMOS be available.

Someone said about the same time you can buy ski passes up in Utah.

We are -- what we're releasing -- I mean we're getting -- towards the end of this month we'll actually be doing our open beta. We have it in -- or a closed beta I guess and then open beta is a little bit later.

But we have gone through a number of testing environments. We've actually had it in large Beowulf clustered environments and so it's actually pretty -- it's moving along very, very well.

And, in fact, if you're

interested in -- in participating in that closed beta, Eric Hughes is going to shoot me, but please come by the booth.

Yeah. He's right here. Contact him. Hey. So if you want -- want to participate in that, please do so.

Any other questions? Yes, sir.

(Inaudible)

RANSOM LOVE: The only aspect of SCO that's not being acquired is the Tarantella component with -- what's the other component? It's all -- it's all related to Tarantella. There's -- the professional services is coming over. The entire server division is coming over and all of server technologies.

Now there's one element of OpenServer that is not coming over. We don't own the IP. We just own all the rights for distribution, ongoing development for the OpenServer and that has to do with tax and other -- other

considerations.

Any other questions?

Thank you very, very much. We appreciate you coming.

(Applause.)

(Music.)