

NETEVENTS

APAC CLOUD SUMMIT

FINAL

A Vision for Cloud Security

Dr. Hongwen Zhang

Chief Executive Officer, Wedge Networks

Well, thank you very much. That's a very good introduction. Good morning everyone. I'm Hongwen Zhang, Co-Founder and the CEO of Wedge Networks.

Cloud security is a very large broad topic. I can talk about how do you secure assets in the cloud. I can talk about data encryption privacy. But I feel that none of these topics fits into a vision talk and because you are really representing the early stage [beachhead] problems.

We know today cloud is the biggest leap since Ethernet in the connectivity and there are so many opportunities that are emerging. So I felt that our vision has to be a vision that projects to the future. And I believe that cloud presents the biggest opportunity to impact the information security, the very industry of information security. And actually here, some of the panellists already talked about the large impact of the cloud.

And this cloud initiative will provide the biggest hope to secure several hundred millions of SMBs, near one billion virtual machines, someone talked about earlier on and 2.1 billion mobile devices and also 18 billion, I heard, 18 billion Internet of Things connected devices. So it is the opportunity that we are going to be focusing on, on the vision part.

A quick introduction about Wedge Networks. We are a provider for cloud managed security services platform for the ISPs and currently we have about 16 different countries deployed our products. We secure about 15 million end points. And our R&D office is in a small town called Calgary, Alberta, Canada.

Now if you do a quick search, Google search about Alberta, Canada, you'll find out an interesting news and this happened recently. There is a measles outbreak in one of the small towns in Southern Alberta.

Now let me just give you some quick facts about measles and it's a completely preventable disease. But it's quite lethal if you get, if especially children get infected. And every day worldwide there are 430 children who die from measles.

Now the fact is that it is completely preventable. And so our newspaper Toronto Star which is a Canadian newspaper had articles saying that the reason this small community had a measles outbreak is because this community has been traditionally against immunisation. So that was the result of it.

So that gets us to a very interesting topic. So there are a lot of diseases. There are cures to these diseases but still people got infected. And that provoked us to look at the -- I just got this diagram from the United States Centre for Disease Control.

If you look at this diagram that describes the statistics of death rate, I think at the turn of last century, due to infectious diseases, in the beginning of the last century there are about 800 people who die from infectious diseases for every 100,000 populations. And since the government implemented the common healthcare system, it dropped 200 points.

And the biggest impact actually comes from the centralised water treatment system. It dropped 400 points. And throughout the years, really the very well organised immunisation program and till the recent years, the only -- the death rate is around less than 100. So this is a quite interesting statistic. So the cures have existed for a long time but distribution really, really made a difference there.

Now let's cover the topic of the information security. And we know that there is some very good solutions out there that prevent the infectious computing diseases, that prevent data leakage and that basically ensure business continuity out there.

But the fact is every year, globally we see almost several hundred billions security breach related damage and also we spend almost \$60 billion every year on security solutions. So there's something not quite working there.

And if you look deeper into the statistics, you'll find out really a lot of these effective solutions cannot be effectively deployed in the vast amount of Internet connected devices. We're talking about hundreds of millions of SMB customers who are really struggling everyday just to get their business running. We are talking about several billions of mobile devices who has no way of defending itself. So there's got to be a way to turn this around.

And very quickly here that even we have large enterprise customers. I found out some of them are also very challenged to deal with the new dynamics, the large amount of dynamic content created every single second in the cloud and being consumed by mobile devices. And we really need to find a way to solve this problem especially for those under-armed small businesses and individuals.

There are a lot of them. As I mentioned again the statistics are mind boggling. There are 220 million SMBs worldwide, 2.1 billion mobile devices and people is projecting close to 1 billion virtual machines and 18 billion Internet of Things connected devices.

So how do we actually distribute a security solution in this mix? Well, the answer is that where do all those entities go. [We've got] immunisation in schools, in households. Where do all the computing entities go? They go to their service providers.

Before I go further I want to reiterate a very important concept here. Security for the future is all about effective management. This is a very nice hotel. A couple of nights ago I checked into the hotel. The first thing I asked and the front desk assured me that the tap water here is drinkable. We have long past the days where we have to boil each kettle of the water to make it safe drinking.

And the Internet traffic should be the same. When you open up your laptops, your mobile devices, you should never be worried about the devices will be contaminated. So that's the ideology we're talking about here.

So how do we make this work? Why is that to the best interest of the service providers to make our security life easier? In the past there are prominent service providers who are trying to implementing value-added security solutions and with very limited success. What's the reason for that?

If I can summarise it, the single reason is the technology is too expensive to be used by the mass computing devices. So we've got to find an easy way to allow the service provider to sell security services to the SMBs, the consumers, with affordable price. That's really the key. That's the technical challenge.

So very quickly my organisation, Wedge Networks has been really focusing on solving these technical challenges. So really WedgeOS which is our product, it works and it's getting easier every day. And I think there are really two reasons. One is the focused execution, I'll talk about that. The other is that our industry is also maturing. And we already heard the new technologies that are forming, so I'm going to touch each of them.

So our focus at Wedge Networks as one of the vendors who want to actually make this real is that we look at it, we need turn the "you mind your own security business" to a different way, a much more cost attractive way that your security needs are being satisfied by the motivated service providers.

And so how do we actually get the service provider to work in this regards? And let me talk about the new industry trends and through the very good discussions about the new Ethernet adoption and the SDN and all those things, we know that there are standards emerging that allow us to really overlay another layer on today's network.

What if this other layer is like the clean water system? It is a virtual secured layer that is going to be a key important thing in the future. And the key concept here is certainly software defined. A software defined network security that we need to really separate the difficulties of [insert] the good network solutions in a complex network from physical complexity.

We want to make sure that this overlay of security can be implemented so that service providers can generate revenue by offering this proven, very useful security services to the customers.

So how do we make it for the SMBs to accept it? Very easy. When SMBs look at it, we know that they are getting all the good security services otherwise they have to spend a fortune to accomplish. And when they can easily comprehend what is the end result of the security, it is proven that SMBs will open up their wallet and really pay the service provider for such services.

So in the beginning I promised a vision, a vision that how can we enable a secure computing for the 300 million businesses worldwide and 2.1 billion mobile users and 18 billion Internet of Things connected devices. And let me conclude with this slide.

Today we can open up the tap we can drink the water with no worry about being infected with the diseases. Internet traffic should be the same way. And service provider is a key player in this. Thank you very much.

Tim Dillon - Research Director Asia, Current Analysis

Thank you, Hongwen. Good morning, ladies and gentlemen. My name is Tim Dillon and I'm with Current Analysis looking after their operations here in Asia-Pacific. And we're just going to spend the next ten minutes or so having a discussion with Hongwen about some of the areas that he's raised. Please feel free. Always happy to take questions from the floor as well. It's not meant to be exclusive.

Hongwen, I'd like to start I guess with this observation that security has changed a lot, the issues, the vulnerabilities, the attack vectors in the last ten to twelve years. And we're seeing a different security environment that both the telcos and the service providers and the enterprises face today. So in your view do you think the industry has kept apace with that changing security environment?

Hongwen Zhang

Yes, that's a very good question, Tim. I think that if you look at it historically, security has been really on the side of being reactive and rather than a [well thought] strategy. That's why if you look at when I tried to present the vision of the future, we should really look at what other systems in the world has been performing, for example the medical system and all those things.

From that perspective we will be able to form a much more strategic view of how security can be managed. I think in the next phase of the -- first of all, I think that the traditional security vendors has done a good job. But for the next phase with such a large network integration happening on this planet, we need to have a different approach of managing securities. And we can draw from other [nature] systems as examples.

Tim Dillon

So I'm sure if there were some of the traditional legacy security players in the room, they might take issue with the fact that you said they're not keeping apace with their industry. They would see look we are, we're doing all this work, we're doing a fantastic job. Why do you think they've failed to move as fast as the industry or rather the security environment is moving?

Hongwen Zhang

I don't think that they have failed. I think they have come up with very effective cures for different things and the recent [sandboxing], of try to detect APT are very, very needed solutions.

What I'm saying is that in order to have effective security if you look at the industry, I read the statistics about \$1 trillion damage each year, even though we spend almost \$60 billion on security. There's got to be a different way of managing security to make it more effective.

So to go back to the analogy of the measles outbreak in my home province, and if the people just didn't get immunisation how good your immunisation methodology can be?

Tim Dillon

And in terms of where Wedge Networks has been focusing its efforts, can you give me some examples of some recent successful security deployments that you've undertaken?

Hongwen Zhang

Absolutely. I think if you really look at it, as a vendor first of all, we are quite responsive to the customer. So basically to follow on this topic here is that really in order to [weave] the advanced security into the network, to provide security has been very big demand for our customers and mainly from the service provider trying to offer security to their end user enterprise customers. That has been a fairly successful use case in several different regions.

And one particular use case related with this discussion is we also see the major movement to move into the cloud. There are a lot of virtual instances in the cloud and even for private cloud how do we actually make sure these virtual instances -- imagine the future. You may not even need to use the laptop anymore. You could have your phones, ipads running in the cloud. How do we make them secure? It's a quite interesting use case that I would say that this kind of solution is perfectly suited and we have fairly good customers that are happy to be protected in that way.

Tim Dillon

So if I think about you are both or Wedge Networks is both a threat and a opportunity for telecom service providers at their network security level. If I speak to many of the service providers, they all say they can do that. They have the ability to clean their own pipes effectively. So why would Wedge Networks fit and work in that scenario?

Hongwen Zhang

I think that if you look at it, there are -- this is a very fundamental question of why this whole thing would actually work in addition to what the service providers are offering.

And number one security is evolving to such a large scale. I would say that if I can use the term large scale security problems, probably a lot of people would actually agree with me and outbreaks typically takes a lot of resources to get fixed.

In that regards the majority of the under-protected SMB customers and also consumer users, they would not have the resource to really procure the expensive solutions, typically so-called managed security solutions from service providers. We really need to make a different way of handling it.

Let me give you an example. We know that connectivity is going up every year. So the demand for connectivity is going up every year around 35% globally and we know that the cost of connectivity is going down 18% each year. There is a big gap. There will be more data consumed and in order for a service provider to really provide effective solutions for that, they need to really contain the cost.

So the previous panel discussions, one of the gentleman the bank has a [inaudible] 100 times traffic going up when they actually go to the Google services. That's the kind of dynamics you are looking at. A cost effective solution not only for now but the future really is a very challenging technical problem for the service providers.

Tim Dillon

So do you think the service providers when it comes to managed security because there have been some very good examples of the telco service providers moving into that space and doing well and others which have been less than successful and cause a lot of pain for the service provider. Where do you think they've gone wrong? For those that haven't worked, where has that managed security solution failed? Is it a cost issue like you've just referenced or are there other factors contributing? And where does Wedge go within that to solve that problem?

Hongwen Zhang

There are two factors in this. So basically the question as to why the previous approach has not been working and the two factor of that is number one is you really need a dedicated group of vendors who are really committed to enable a mass scale security solution and focusing is very, very important.

Number two, also that the technology was not there. And today we take it for granted. Even I know that some of the people may not quite agree that SDN is universal and virtual overlay of network is universal. But we take it for granted it's the future and that to a certain degree it's already being implemented. For example, the Australian school example. That's a very good example, how security can be implemented in a totally different level.

So to answer your question Tim I think that one is that you need dedicated vendors who really are committed to this cause. And the other is that you really need an overall ecosystem, the standards emerging so that this can be implemented in a large scale.

Tim Dillon

I guess the last issue before we move to the broader panel there's various alliances, there's different cloud security groups. There's a large number of affiliated bodies all representing cloud and security. From the Cloud Ethernet Forum perspective, you're chairing security. Could you just give a quick précis for where you think that's going to go within the forum?

Hongwen Zhang

So Tim is right. So Wedge is very fortunate to be the one that we are the chairing member of the Security Group of the Cloud Ethernet Forum. And so basically from that perspective I can say that definitely the cloud is the biggest boom right now. In the next generation connectivity that is the hub of digital life and security use cases is very important.

So the goal for my group is that we want to actually facilitate standards so that interoperability can be achieved among service providers for security issues. We want to actually suggest the new applications so that opportunities that bring in with the cloud can be realised by the members. So you are all very welcome to joining us and there are tons of benefit in this.

Tim Dillon

A plug for membership is not allowed [laugh]. Ladies and gentlemen, before we move to the broader panel do any of you have any questions for Hongwen before we move on? Alright, in that case, if you could show your appreciation please for Dr. Zhang.

[End]