

Jenesis Software - Podcast Episode 2

Chuck: All right, welcome to episode two with Chuck,

Eddie: Eddie,

Benny: And Benny.

Chuck: And we're doing some technical talk today about network speed on episode two. Let's talk about, guys, today about network speed. Let's say someone calls in and says, "My network is slow," or, "My speed is slow using My Jenesis." What can we do to speed up the network? Benny. Start out ...

Benny: Well, the network speed, the first thing that you always want to point out and that most people don't fully understand is that network speed and internet speed are two separate things. Your hardware determines your local network speed and your internet provider gives you a modem that determines your internet speed so those are going to be two separate things. Now on a network, you'll need some sort of switch, router, something along those lines that will allow you to expand upon your network speed.

There's going to be two things. You're going to have your network interface card on the workstations which are going to have a certain speed that they can handle depending on when you buy your computer. Anything over three years old like we were saying has probably got a 10/100, which means it's limited to 100 megs per second on the network. What you want to do is get a switch and plug all of your work stations in and then plug them into your internet modem. Because that will allow you to adjust, depending on what switch you buy, the speed of your network. So you can get up to about one gig, which is 1,000 megs.

Chuck: Right, so let's start out then with the hardware as far as what you would need for a network speed. What we'd recommend for network speed?

Benny: Well we definitely recommend a one gig switch. We want one gig of speed across the network. If you don't have that then more than likely that's where your speed issues are coming from.

Chuck: Right, so what we'd start out with, we'd recommend that you buy a switch. It's important to note that a modem and a switch are two different things.

Benny: Different devices.

Chuck: So what I would say is, even if your internet service provider has provided you with a modem, that's what you access the internet with. A lot of times that will be a 10/100, or a 100 megabyte per second router.

Benny: Exactly.

Chuck: What we recommend is that you buy a gigabit switch so that let's you do 1,000 megabyte per second across your network and plug all of your computers, run the wire from the computer to that switch.

Benny: Yeah. You want all the computers onto that switch and then you want that switch connected to the modem that provides internet. Exactly. Exactly right.

Chuck: And that needs to be a gigabit switch and you can buy those, \$45, \$50 bucks ...

Benny: Yeah, depending on the number of ports you want on it, which is how many workstations you would have, or would add up how many workstations you have, add one for the router itself and then determine it by that. An eight work one is probably about the price range you said. You can get one cheaper for less ports; more expensive for more ports.

Chuck: I would recommend at least buying an eight port switch just because for expansion ...

Benny: Yeah, for expansion purposes.

Eddie: You may want to put a printer on it or more computers in the future.

Benny: Exactly. You have many different devices that will connect by Ethernet and any of those devices, the increase of speed will help.

Chuck: Yeah and we also need to note that workstations or server, they also need to have a gigabit card or network card in them. The newer machines probably going to have a gigabit card in them. If it's less than three years old, I mean more than three years old, I'm sorry. If it's more than three years old then you're probably want to check your machine to see what speed your network card is running at.

Eddie: Is that easy for most people to check?

Benny: You can check your adapter in your Network and Sharing Center if you know how to access it. Usually you can right click on the computer on the bottom right in your task tray and it brings up the option, "Network and Sharing Center," and

you can go in there and then there's a "Network Adapter" section on the left side that you can click on. Now when you click on that, it's going to bring up a list of all the physical and non-physical, we won't go into non-physical, but most of them will just be one per each physical network interface card you have installed on your computer.

When you look at it, you can right click on it, get the properties for it and it will tell you right there what speed it's performing at. You can go by the name of it. You probably want to look up the name of it to make sure it's designed to work at one gig speeds because there could be other reasons it's limited.

For example, you could have a switch that only operates at 100 megs per second. Now if you've got that, no matter what network interface card you've got on your workstation, it's going to limit it to that 100 speed. And that's the way every modem works. It's going to limit it to whatever speed that modem is designed for. Most all modems from your internet provider are going to be 100 megs.

Chuck: I think it's important to note that what you just said there was probably went over a lot of people's head, but you need to make sure that every workstation on your network has a gigabit network card in it because if one of those workstations is running at a 100 instead of a gigabit, it will make the whole network run at the 100 speed. We want to make sure that they're all gigabit. Like Benny said, you can check it. If it doesn't happen to be down next to your display, or down next to your clock, then you can click on "My Computer," go to "Control Panel," and then inside the Control Panel there's an option that says "Network" or "Network Settings." Then you can, over on the left side it will say "Network Adapters," and you can click on that. Once you click on Network Adapters you can right-click on the property, go to properties and it will tell you the speed that the adapter is running at.

Eddie: Based on everything that you're saying, you just said, is it your recommendation that the average computer user follow your instructions and determine if they have a gigabit card or less, or is it your recommendation that they get their local computer guy to come in and determine that for them? Is it easy enough for most people to do that on their own?

Chuck: Well it's easy to check. I would definitely recommend you a computer person come in and if you need to change out a network card or if you need a different network card then that may be a little more technical than most people want to deal with.

Benny: Yeah and it's important to remember if you bring in a technician, they're able to pretty much resolve that on the spot or know how to resolve that for you on the

spot. You can check to see the speed but having a technician there will actually allow them to put a plan in action.

Eddie: So you said earlier that a switch, a gigabit switch is normally less than \$100. You said around \$50. What about the network cards?

Benny: Network cards probably, they run anywhere from \$15 to \$25.

Eddie: Oh wow, so pretty inexpensive. Do most computers that have been bought in the last two or three years, do they probably have a gigabit card or not necessarily?

Benny: They should.

Chuck: Most computers would have it if they've been bought in the last three years. If you have Windows, a good way to kind of judge is if you have Windows 7 or Windows 8, you're probably going to have, not always, but you're probably going to have a gigabit card in your computer. Definitely Windows 8 would have one.

Benny: Definitely.

Eddie: So we talked in episode one about computer speed. Now we're talking about in episode two, we're talking about network speed. So when people call up, they're system is slow, then part of the process that we're going to go through and they can do it as well based on listening to this podcast, is probably listen to episode one to determine is the problem their computer first. Then if the computer is good and things, is there an easy test? Certain things that run locally well but over the internet are slow? That's be, my local software works fast but my network software is slower?

Benny: That's a good point and a lot of times when we're troubleshooting Jenesis issues, one way to figure out if it's network related is you go in and if you Google something and it loads very quickly, but then you open Jenesis and you get a not responding, you get a loading cursor for a while, then that's kind of a dead giveaway that, "Hey, you're internet's fine. There's something going on with the network." That's a good way of finding that out.

Eddie: Another way maybe also, would this be true, if Jenesis is loaded on the server itself and they go to the server and it's fast but workstations are slow then there's probably a network problem. If it's slow on the server they may need to listen to episode one because the server itself may not be capable. Would that be accurate?

Benny: That would definitely be accurate. I would believe that, yeah.

Chuck: That sounds something that would be, but the network is easy enough to check and if you determine you think it may be slow, there is a possibility that the cable that you're using going from your switch to your computer is not compatible. Or not exactly what you need. It needs to be, and it's usually written right on the cable, it needs to be a CAT 5E or higher cable. Could be a CAT 6. It's usually written right on the cable.

Eddie: So if it's a CAT 5, but not a CAT 5E, the cable may need to be replaced?

Chuck: That's possible ...

Benny: That's a possibility, not guaranteed, but definitely a possibility.

Chuck: It's not always ...

Eddie: Start with the switch and the cards?

Benny: Right.

Eddie: So listen to episode one, make sure all the computers are what they need to be, then if you still have network problems, speed, check the switch, make sure it's gigabit, replace it if needed for \$50, check the network cards in each computer, don't leave one computer with a less than gigabit card, and replace each of those cards for \$25 each, and the switch, would you recommend someone just go to the local office supply place and buy the switch and replace that themselves? But if it's the network card to go ahead and call a local computer guy to do the network cards?

Benny: Yeah, it depends on how tech savvy they, how adventurous they want to be. Sometimes setting up a network switch can be just as simple as plug it in, unplug it and re-plug in your cables. Sometimes you have to do some set up. Depends on how adventurous you want to be.

Eddie: And you think, I would imagine it's not going to take a technician very long to come out and set that switch up, so depending on how much their charging per hour we're probably not talking one an hour, I would guess on average. Would that be true you think?

Chuck: No, if you know you need a new switch then you can do like Benny said. You can, if you've got a switch now you can Google it and just put in the model number of that switch and it will tell you all about that switch. You know, Google, Google will find it.

Benny: Give you all the specs on it and everything.

Chuck: Yeah, give you all the specs.

Benny: One good thing to remember, too, about the cables is that a lot of the cables will go through walls, depending on offices and stuff so you may have to bring in a technician just to test both ends of the Ethernet cable just to make sure there's no issues with it. You can't visibly go through and check it on some of them.

Eddie: Right.

Chuck: It's good to check everything and make sure that's going to be, solve a lot of your network issues. I've had the examples of people calling in and they said, "Man, I changed my network, changed my cards and it's amazing at the difference." And then I've had people call and say, "I've got, my network's slow but I've got all the cards," and we'll start checking and you'll realize that you got one computer that's still on the slower card.

Benny: Mm-hmm (affirmative)- limiting the whole network.

Chuck: And it will limit the whole network so that's the main thing. To make sure it's ...

Eddie: Are there any tests that someone can run on a computer that would be a benchmark, like the empty gauge telling you you need to put gas in your car? Or does that not really exist with computer speed or network speed?

Benny: There are some programs out there.

Chuck: There are some tools you can use. I'm sure Benny's probably knows some that I don't know, but ...

Benny: You can monitor them but you can even check your Network Utilization and Task Manager. Like if you right-click on the toolbar at the bottom, you can go to Task Manager and the majority of the time you can check Network Utilization which will tell you how much you're utilizing and by that you can derive how much traffic you have. But really the best way to check your speed is just like we were saying earlier. To go into Network Sharing, go to that card, that network interface card adapter and just look at it. It will tell you what speed it's operating at and how much data it's transferred.

Eddie: Okay. I guess the bottom line is, if you're happy or not happy with your performance of your computer, right?

Chuck: Absolutely.

Benny: Yeah, definitely.

Eddie: All right, one last thing I think on the internet. Benny mentioned earlier that there's a distinction between the computer speed and secondly the network speed, and then third is the internet speed.

Benny: Exactly.

Eddie: So when we think about the internet speed, you're going to know if that's a problem maybe because it takes a while for pages to open up on the internet or it takes a while for things to download off the internet. I have used speakeasy.net in the past to go and it tell me how much bandwidth is. Is that the right way to?

Benny: Oh yeah. You can use ...

Chuck: That will definitely tell you your download and your upload speed. You can't have too much upload for me. We do a lot of upload now. I guess it's proper to define upload, it would be a file or a image or something that you are sending to someone from your computer to the internet or across the internet. Download is when you're getting something back from the internet or from someone.

Benny: Yeah, and upload is very important.

Chuck: Yeah and usually download, your internet service provider will give you a higher download speed than they do upload. And that can slow your speed down as far as if you're sending someone a file, if you don't have a big upload or a greater upload, it's going to be slower than ... A lot of people say, "Well I can download from the internet in 30 seconds." I say, "Yeah, but when you try to upload that file it takes ten minutes." There's something ...

Eddie: So there's up and down and what are numbers that we're looking at if we're going to ask people to, or try to help them and they need to call their internet service provider and confirm what speed they have? What do we recommend?

Benny: Really depending on the system, right now ...

Eddie: What's low and what's high?

Benny: I would say anything below six is not good. Six meg download. Now with six meg download you're probably look at a quarter or less upload and that's for usually a residential model. Now they do offer, some internet service providers offer more business models where the download and the upload are more even. They give you a higher upload based on if it's business usage.

Eddie: So six on the download is probably so low that people are not going to really enjoy the internet experience. What's high?

Benny: I would say below six you can't really do a lot of video streaming I would say. High? Really skies the limit. The more the better.

Eddie: I mean is a million? Can you go to a million?

Benny: Can't go to a million. Google fiber is spreading.

Chuck: Right now in most areas I think 50 meg down is probably the limit. The bigger cities you're going to see 100 meg down.

Benny: Yeah. They're even moving up to 1,000. They've got Google fiber spreading from Raleigh and Charlotte now.

Chuck: In my opinion, and Benny may differ, but in my opinion cable is always better than DSL.

Eddie: Okay, that's a good comment. Cable is better than DSL. Fiber's better than any of it?

Chuck: Fiber's better than ...

Benny: Fiber's the best.

Eddie: Right now fiber's the best. You mentioned upload speed. What is a low and a high on that? I just want people to be able to kind of know when they talk to their internet service provider, what number range they are hoping for and when they go to speakeasy.net and they do the speed test and see what the reality is at that moment, because that can change based on things ...

Benny: That definitely depends on the download. Like I would say about a quarter of the download, wouldn't you?

Chuck: Yeah, it's usually a quarter or less. If you're getting below one gig upload, you're really slow.

Benny: You're going to run into a lot of problems.

Chuck: You'll run into a lot of ..

Eddie: So you said a lot of people may have 50 download speed, most people are going to pretty happy with. So that means if 25% of that is what they have for upload then that's 25 upload.

Benny: Exactly.

Eddie: Are these normally referred to when we refer to automobile insurance and we think about bodily injury limits, we use slang or terminology of 50/150 to mean bodily injury to property damage, so I'm asking you, as it pertains to this, is there, do we talk 25/50? Do we talk 50/25? Or is that not existent as?

Chuck: It's usually download first and then upload speed.

Benny: Yeah, it will list download first and then you'll have your upload second and they usually keep to mostly the same model unless you can get business accounts like we were saying, which adjust that percentage to give you better upload.

Eddie: And usually, if I call my internet service provider and they say, "We can do 50/25." And you're saying that's pretty good. "But we can also do 25/10." Is the cost, do you normally see the cost being that much more to have the higher speed? Is it well worth it?

Chuck: It depends on how much internet traffic you have. If you've got a lot of internet traffic then obviously you want more. Here, since we do hosting of our agency management system, the more bandwidth we can have the better. You know the upload and the download makes a difference. With most places, if you can get an upload of five or higher, you're usually pretty good.

Benny: That's a good baseline for it, too. And it's good to keep in mind that every agency's going to have a different number of agents. They're going to have different usage requirements, different locations. Many of the agencies I work with are limited in what internet provider they an have.

Chuck: Right, absolutely.

Benny: Based all on location.

Chuck: If you can only get DSL, DSL's better than dial-up for sure. (laughter) If you can still get dial-up. I don't even know.

Benny: Yeah, I don't think that ...

Chuck: I don't know if they still offer it any any markets.

Benny: I think Use-net still offers dial-up.

Eddie: I think I would recommend to most people that when it comes to the network cards, the switch, the computer and the internet speed, I would honestly, I think with insurance agencies working so much every day on a computer and so dependent on a computer all day long every day for weeks and months, for years before that computer's replaced, I think it is so well worth getting that gigabit card and switch and getting, for all practicable purposes, the best internet speed you can get and make sure that computer's just a couple of years old.

Benny: Absolutely.

Chuck: Absolutely.

Eddie: That's everything we talked about because to save a little month, because a few hundred dollars here and there over time amounts to very little and creates a work day that not all that fun and happy.

Benny: Exactly. If you do those small things, that's going to eliminate problems long-term. That's important.

Eddie: All right. Any closing thoughts?

Chuck: I think that's good. If you'll do what we said in episode one and then in this episode, then you should be good as far as speed, computer and network.

Benny: Yeah. That sounds good to me.

Eddie: If anyone has any questions you can visit our website, JenesisSoftware.com or email Chuck, Eddie or Benny at our names, Chuck, Eddie, or Benny @JenesisSoftware.com. Thanks and I hope this episode was helpful.