

Transcript from Cyber/IT Workforce Town Hall held Jan. 26, 2011, at the DON IT Conference in San Diego

Mr. Terry Halvorsen, DON CIO: Thank you all for taking the time to come to this meeting this morning. I hope it is less of a meeting and more of a discussion. I don't have any slides; I don't actually like slides; probably because we all get to see enough of PowerPoint in our jobs.

I'd like to tell you a little about me, where I come from, little about where I think we are going to head with some Department objectives and why I think we have some challenges. We have the Marines here, and Janice Haith from N2/N6 will be here in a little bit. It is my intent that as the Department of the Navy CIO that we really handle our CIO issues in a true partnership with the Marines and the Navy.

I will tell you as the CIO that I have three big customers. One of them is the SECNAV, the Under Secretary, and the Secretary of Staff. The other two that are just as important to me: the Navy and the Marine Corps. One of the things I have told my staff is that we are going to work on a scorecard. That scorecard will help us evaluate how we serve those customers. I want to know what the value added is to getting our objectives done. That's a hard measure. What's my time worth, what do I get back in having that discussion for the Department?

One of the things I want to do with the DON CIO is, what's the value of the DON CIO to its customers? Frankly at the end of the year, if we don't think the value is high enough we will change something. Change could be, I don't know, maybe we don't need a DON CIO. Don't know. I think we do or I wouldn't have taken the job, but we are going to have some metrics to measure that.

Every chance I get to have one of these discussions I'm going to have my Navy and Marine Corps partners in on these discussions. The good news is that when I get a question I don't like I can give it to Janice and the Marines.

I just left as the Deputy Commander for CYBERFOR and before that I was the Deputy Commander for Navy NETWARCOM. I think it gives me an interesting perspective. Because of that I bring a new perspective to the DON CIO than it's had in the past, coming from a mission standpoint and an operational business standpoint.

One of the things I was taught early as an Army officer was don't write a policy you can't enforce. We really need to remember that rule at the policy level. We write a lot of policies, and I think that frankly we have no way to enforce them, and we probably haven't thought of the effects on the poor people that try to implement them.

We want to try to make sure that as we press forward on IT that we make decisions that are effective. The big E, when you are talking about effective and efficient, is effective. I truly believe that when you are effective, you will be efficient. I'm sure some of you will have some questions about where we are heading with efficiencies. We have to get through them [by] being effective. You can't sacrifice the mission; you can't break the mission to save money. That's just dumb, you can't do that.

So I really worry that as we make our efficiencies, we make sure we get the effectiveness. We are not a business, we want to behave where it makes sense as a business, but we are not a business in many ways. We can't go out and borrow money. The other thing is we have a very precious bottom line. You are all supporting DoD and DON and our bottom line is Marines and Sailors and civilians that go out to support them. That's our bottom line. You make a mistake on a card number and you send some Marine platoon out on a firefight who needs ammunition, toilet paper. That's a bad problem. We laugh at that, but that's a bad problem. IT systems contribute to those problems. They help solve some of them but they also contribute to problems.

The other thing we have to remember is efficiency and effectiveness at the same time. The other thing we want to think about is you can get efficient and do no harm and that's OK too. Let's say you make a decision that saves you money, nothing else gets better and nothing else gets worse. That's OK, as long as you are sure nothing else got worse, or you are sure that the places that might break don't operate that precious bottom line. That's some of the things I worry about.

We are in a financial crisis. That is a fact. You will hear some people say that it's a zero sum game for DoD. My personal belief, so if you quote this please quote my personal belief, we are not in a zero sum game, we are in a negative game. We are going to go down, DoD and DON are going to have less money, we are going to have less people, than we have now. That's a fact. That's not a zero sum game.

We are going to grow a certain area. We want to grow Cyber. I think there will be some growth in Cyber. Where's that growth coming from? It's coming from something else already inside. And here's an interesting perspective, if you want to grow Cyber, and Cyber has some skill-sets you need, it's the same sets of people. So we have an interesting dilemma, in the IT business, in the Cyber business, call it the Information Business – I like that better. It is a narrow set of people with a narrow set of skills. So if Cyber is going to grow from people already inside our business, they are going to come from other areas that probably aren't well-manned either.

We want to make investments today in things that are really critical. We want new technologies, we want to be able to move more data, we want better Knowledge Management – and we will have a discussion on that later. I don't like the term Knowledge Management, but I'm going to use it today. All that stuff though has to move over some really unsexy, basic infrastructure. You gotta have circuits; you gotta have the right download equipment to get it to the ships. We have some concerns in our infrastructure in our ability to transport data, and in some cases ships are disadvantaged users. Marines out at the end are certainly disadvantaged users. It's really hard to run the T1 out in the foxhole. We have to do better helping them get the data and defining what pieces of data they really need.

Another myth we are going to have to rebuff, everybody's data is not critical T1 level data. Some data is more important than others. We have to have that dialogue and not be afraid to have that with all players, including industry. We are wed to some industry products. I don't know why we can't say that, we are. We have some big industry partners. Maybe in three years we won't have that, but today we do. We are going to use their product. How do we influence them to make their products better suit our needs? One of the things we need to have a dialogue on. I don't

know how to do that more effectively than we are doing today, but we've got to get more effective in those dialogues.

We also have to tell a better story. My opinion again, the DON has told a terrible IT story. Who runs the single biggest integrated network in the world? The DON, with the two service partners. I guarantee you ask that question; rarely would you get the answer. Who has more enterprise services than anyone else? Department of the Navy. You won't get that answer. We have not been very good, there's this big belief the Army is way ahead in identity management.

I spent some time with the Army; the Army did a great thing. Army is a great service. The fact is, I believe, we in DON and the two services are ahead of the Army in identity management. I think I have some pretty good facts to make that case. We have not shared our facts publicly very well. So I am going to ask you all how you think we do that. I think we need to use our magazine CHIPS better. How do we get that message out? That's not bragging, but how do we get the facts out. This is what's out there. This is what the Department has done, this is what the two services have done, so that we are understood when we have the dialogue.

Within the Department we are going to focus on the big E, I like it because it makes a good acronym, the Department of the Navy Enterprise: the DONE. I believe there is really great power to get more effective and efficient using the Department of the Navy Enterprise approach. We are going to do that. But we gotta get there. That said, I also understand bigger is not always better. So where do we make the right choices? Where do we do things that are done by Mission Business Case analysis? When the Mission Case analysis tool is approved I'm going to share it with everyone; I'm going to share it with industry. Soon as the lawyers tell me I am allowed to do that. I think they ought to know – this is what I want.

These are the factors we gotta look at. How do we grade the score of, this saves money, but it fails this mission? Well then that's off the table, because that's not being effective or efficient if you are not meeting the mission. We have to have that dialogue. I think we have to change some of our business sense. We are not, I don't think: get in our IT systems world, some of the big investments we would like. I don't think we will be able to get some of the dollars to do that. So I think some of our investments will have to be a little smaller, a little more staggered in the way we do them. Invest small, get some back, invest more, and build on it. That's a little bit different mindset that many of us have had for the last 10 years. We have been on an increasing budget trend. We are now going to go the other way. That's going to change our mindset a little bit on how we do business.

If you all look at the how you manage money and the way ahead, you are going to have to ask questions. The biggest question is what am I not going to do and what am I going to do less of because something over here is more important? And we are going to have to follow up when we say we are going to stop this. And it's really hard to stop doing something. That's because most things we did were good, they are just not as good as something else in today's environment. That's the environment I think we are in. I think the good news is, out of crisis comes opportunity. I think the opportunity is here for us to do a lot of good things. I think ideas will get a lot more traction in today's environment, especially if they show how we can be more effective and efficient at the same time. People are going to listen, partnerships are going to be formed that

we haven't thought of before. We might even use an Air Force data center. That's a joke. But we are going to have that discussion. I say that because I've recently had some time to go talk to the Army and Air Force G6 CIOs. It's not a surprise that when I walk in with my list of problems that their problems are the same. Our operational problems are the same.

The good news is we have a common set of problems to work on; the hard part is getting the solutions. That will take everyone's help – everyone being candid and honest. One of the things I encourage my staff to do, if I'm in a meeting and I'm a little aggressive, I need you to come back and say that's not right. And that's OK. We need to know what you all think. Why isn't it right? What's a better plan? Speaking of listening, I'm going to shut up now. Colonel, do you have anything to say?

Colonel: We've got to determine what is more important, and do that risk analysis on the basics. What can we eliminate because we need to use those precious resources on other warfighting requirements?

Mr. Halvorsen: What other questions do you have?

Audience member: Welcome, Mr. Halvorsen. My name is Ernest Carter and I work for the Naval Service Warfare Center. I've been fortunate enough to participate with you staff over the past five years. I am a supporter of what you do here. These forums allow us, below that Ech. II level to hear the policies before they come out, and that is critical. You mentioned something I've got to take back to my command about the zero sum game. With that said, being effective and efficient without breaking the program is what I am going to take back. How can we do what do for less? Have I got that Mr. Halvorsen?

Mr. Halvorsen: Partly, you do. Here's what I am also going to tell you: I think the math reality is that we can't do everything we are doing today. We are going to look for every opportunity we have to generate efficiency while maintaining effectiveness. And that's going to generate some money to let us do the things we want to do. But at a certain point, there's not going to be enough money, just out of the efficiencies. So I think in addition to doing more with less, we are also going to have to do less. I think that we are going to have to have some fairly serious conversations in that area. I think that there will be some topics that are going to be really hard to talk about. I think that's where we are. So yes, I appreciate your comment, but we are just going to do less in some cases.

Audience member: What you did, what your team did, in the conversion on 1 October was transparent to users, so thank you for that. The second part is, I've got my customer here, they have money in international banks, and they use our systems. So my question is, is there going to be a time when our partners can use our systems?

Mr. Halvorsen: I don't know the full answer to that, but there is concern about our international partners. From PACFLT and PACOM, all of the combatant commanders have international partners; we have to think about our coalition allied partners all the time. I think that it is a fact that as we go forward in our operations that we want more partners. To do that, our partners have to be able to access information in a way that they can technically get to, and in a way they can

financially afford. That's a challenge. The other side of that is, we have to secure our data, not all data do we want to share. How do we do that? That is a hard question. It's one I think we will wrestle with more and more every year with new partners. The answer is yes, we have to think about that. We can't forget them, they are big partners. Everybody is faced with financial crisis. It is not limited to our military, I think everybody is looking at that, how they share and how we can share DoD wide. As we learn to do that better we are going to start looking out a little wider to share with our allies.

Audience member: Last fall, the president gave pretty clear public instruction indicating the way we approach information assurance is both ineffective and inefficient. We were supposed to overhaul how we approached that. Can you share how the Department of the Navy is taking steps to overhaul the approach to information assurance?

Mr. Halvorsen: Well I think we are trying to do a couple things. I think the dilemma is, well yes we have to do that. There are lots of people that need data; we want to make it more accessible. We are in a dilemma of how do we do that while maintaining and improving our information security. We are looking at different types of ways to protect data. There is some good technical work on that. You could do something like one-way doors, so that data can go one way but not the other. I think we can write our policies better.

One of the taskings we have in DON CIO and the two services is to overhaul our current instruction policies. So we are going to do that. You will see some of that as we overhaul instruction policies about what makes data secure; particularly data that might have operational consequence. There is another element to that we can take on more and help a wider audience.

I am always interested about what people do at home on the Internet. The Internet is a really good place to go, but like every good place to go it has bad actors. I like to go to Naples, the city – there are places in Naples where you have to be extra careful. There are places on the Internet where you have to be extra careful. Part of what we could do is make sure everybody understands that, because if you understood that and what practices to take where, things would improve. Technically that is a bit of a challenge, but first you've got to educate everybody that that's the case.

One of the things we wrestle with all the time is the balance between security, mission, speed. When I was in a different business, one of the systems we used would allow me to talk over this system so that I could yell "duck" to the guy ahead of me and he would duck when he needed to. Someone at some point came up with the thought that it needed to be encrypted. The problem was, when you encrypt it, it slows it down just a little bit. That little bit is, when I yell "duck," by the time it got there it was too late. We've got to think about that across the board. What is the value of the speed of data and what's the risk?

Two things I think we need to understand along those lines. First is the first level of risk. What happens if we do this? Secondly, what is the full consequence of the downside? There's the chance of something happening, and that's the risk. On the other hand, I've got something that's really important, and there's a chance of it failing 10 percent of the time, but I can fix it in 10 seconds, then who cares? That's probably an acceptable risk. We've really got to get better at risk

math. And that includes the financial risk math. How do we do that? I think we have to get better at that.

Audience member: For companies that have new technology, some with tremendous savings and capabilities, any suggestions on how we bring those technologies to the Navy?

Mr. Halvorsen: I have an answer, but I want to think a second. First of all, bring me proof. Put some of your own capital at risk. Not to be derisive of industry, but everybody says they have that. I take all kinds of briefings, and I'll ask the question "where did you prove it?"

We will have to think about ways we partner and work more creative ways to make that happen. We are going to ask upfront questions about due diligence. More important is that we have got to form a better way to do upfront dialogue with a requirements definition. Right off the bat the requirements definition should be exactly right. But what we tend to do is write a definition and industry comes back with an answer, and we miss dialogue in between. We need more dialogue about what do you have, and what do we need?

One of the things I think we are guilty of, is we pick a technology that is going to do X for us, then we say it could do X plus Y, and then X + Y + Z, and we forget what we wanted it to do in the first place. I think we are guilty of not having that dialogue. Industry is in it to make money, there's nothing wrong with making money, but there needs to be some boundaries. Part of that is our fault, because we didn't figure out what we did. We need better dialogue and ongoing discussion about requirements and get faster in IT or information. Our systems are designed to buy hard physical things. Many times what we are buying in the Cyber, Information/IT is not exactly a hard thing. Our rate of change is faster. How do we accommodate that? It's hard. Acquisition is a hard challenge. I don't know how to balance it. Business rules are good, we need rules. But you have to balance that with what's happening in the IT world, especially if we are going to depend a lot on COSC.

Audience member: I'd like to get your thoughts on the DoD 8570, specifically how we are going to pay for it, and keep people trained.

Mr. Halvorsen: Are we the IT people? We are, right? We are supposed to know how to use the networks and all. Why haven't we figured out a way to incorporate this training into our day-to-day actions? That doesn't seem that hard to me. There's a lot of stuff out there, but we don't seem to be able to crack that. I will tell you this, I am not happy with our current training. We are going to do something about that. How we are going to pay for it I haven't figured out yet, but we are going to do something about it. Send me an email with any ideas, I would be happy to hear them. We need to think about, what's the minimum and who do we have to talk to?

Everybody in DoD, for the most part, has some understanding of weapons. They know, if I see one lying on the ground, I probably shouldn't touch it. And we go up from there. So we have the same thing in IT. There are people who are the casual people who have to know some basics. I don't think we have done a good job teaching them the basics. Then we have the people that IT is their basic weapon and they operate it every day. They need a much deeper understanding. We first have to get the majority of people trained in a way that makes it impactful. That is a huge

challenge. What's the majority of our workforce? How old? The majority is young. I am not a big believer of the whole digital native concept that because we all are over 40 that we don't know how to use technology. I do believe that there is a bigger understanding of how to integrate it in your life like the younger generation who grew up with it. One of our strengths has always been, in our military, that we told our people why they had to do something. This is one of the things that make us different from most of the services. We've got to do that on the Internet too. We are going to look at all that and do some training and some level of certification. I think there is some good work done that we can capitalize on but we have to make changes and deliver training products that are useful.

Audience member: I'd like to get your opinion on the transformation from DIACAP and what you see as the Department's future on C&A (certification and accreditation).

Mr. Halvorsen: I think C&A is costing us too much money. It is an area where we've got to do a more global look at the process. We've got to look at how many times do we test the same piece of software? There are reasons we do some of that, because it has to run on various networks that don't have all the same standards. That might be problem one. We need to figure out how to get the same standards. How do we look at how we are testing? We aren't going to have the money to do testing like we do. What's the risk analysis?

In the Department, a specific example, we have NMCI, NGEN and ONENET. What is the different testing that is required? You could throw CANES in there too. How do we get to CANES? It's going to impact everybody. If we've shared our infrastructure right, why can't it go to CANES? How do we modify systems where it makes sense? Where can we reuse? We need to think about how we reuse data centers. Or in some cases how we don't use data centers and they go away.

Here's a question for you, how many places do we store social security numbers? What's the authoritative source? There's only one, the social security office. I would ask you how many of your databases actually pull SSN from anything removed from the SS database. How many times do we need the same data? If we could figure out a better strategy, we could shrink all the data we store. One of the things I think we have to go after is a data strategy. We've got to think about how we go after that in ways that are meaningful. We have to look at where does our data come from? Could it come from two places? If we could get our data structure that way it would be immensely powerful and less costly.

We are going to do the same with data centers. This is going to be a hard one because most people believe their data needs to be under their desk: Gotta have it when I need it. That's true of some data, but for a real small amount of data. Technology can help get it to you faster. We are paying a lot of money for data storage. We also have an effectiveness issue; how do we get a DON data strategy? We figure out what's right working with the two services. When we figure that out we go talk to DoD. Data doesn't care who it belongs to. My own belief is that's more cultural than techno.

Audience member: Over the last five years as an end user I've been able to work with functional data center council. It's a cultural change. My data, I feel like it's my child and I have to see it where I can touch it. However, if it's in a bank somewhere, net centricity will get it to me.

Mr. Halvorsen: The other thing we've got to work on is applications. We are running many instances of the same or modified applications and in many cases it's crippling the network. That's got to change. Some cases we're running applications to our fleet Marines and fleet Sailors that do not work. That is inexcusable. That is a jihad. We are going to get at the applications because that is day-to-day stopping Sailors and civilians from getting what they need. We cannot tolerate that. You will see some changes. FAM process needs an overhaul. We have a process that has let us duplicate applications that do not give us what we need. How do we make that work? We've got to attack that, and we are asking you to help us.

Audience member: My question is about USB. Is there is a solution yet Navy-wide to introduce USB devices back into the field?

Mr. Halvorsen: No, there isn't. There is not a solution yet that has been approved DON or Navy wide. We are working on it. My opinion, we've got to be real careful with that because people are really creative. I don't think they mean harm, but they are creative. What we have gained in terms of security by not being able to do some of the things we used to do is a lot and with minimal operational impact. I'm hesitant even when we have a solution. This is much as cultural as technical. You still find people who will try to plug iPods into high side networks. I am worried about the cultural change. I don't know that we have educated the workforce well enough to make the change even when we get the technical solution.

Audience member: Are we any closer to a telework tool so people can use their home computers to telework?

Mr. Halvorsen: I think we are. But again there are some dilemmas. I think we need to go through some processes. We may solve the technical problem but that's not the big issue. How do you keep time for teleworkers? It is a problem. The federal laws about labor and pay aren't written for telework. They're written for showing up and clocking in.

Then we have capacity issues. If everybody went to telework, it'd be really slow. We are going to do more, but there's going to be some issues we are going to have to wrestle with. We are looking at some technologies. The reserves have done some stuff. We have to figure out how to take what they have done and scale it. It still uses the basic network infrastructure but allows you to work at home. There are some legal implications because when we do that you have said we can take control of your computer. There are some people who don't like that, but we aren't going to allow you to telework unless you agree to give us control.

Ms. Janice Haith (N2/N6): We've been working with OPNAV N1 and they actually have a good plan and process in place. We also went to DISA to ask about capacity and got the proposed bill for Navy. We then went back and said what about the rest of DoD? They will be using the same network for teleworking. It's been floated back to DISA to figure out how to accommodate all of DoD. They also have to work with our commercial vendors, like Verizon

and Comcast. If they can't handle all of us and their commercial customers, then that's when problems will start.

Mr. Halvorsen: How well are we network structured in the country? That's an interesting question we will have to discuss. You know, as they say, if you build it they will come. Another myth is we have an increased bandwidth afloat. It's hard to keep with the increases in technology, however. I mean, you have cell phones now that have more bandwidth than existed 30 years ago. Keep that in mind as technology grows.

Audience member: One of the things that I see is we have a young workforce that is really smart and really creative and I don't think we tap into that as much as we should. A lot of solutions we are looking for are right within our own workforce. They already have learning and training and I don't think we tap into that as much as we should. Some of the policies we have kind of limit that, and I would like to see a more open way to communicate with policy creators and the people who are down on the front line who have these ideas and see things.

Mr. Halvorsen: I agree with your idea that we certainly have not communicated well enough. Hopefully we will get better. As we write policy one of the things we are trying to do is bring the right people in and get comments from the services. We don't want to write policy we cannot enforce. I do think we can tap better into the workforce in general. There is a flip side to that. One of the things that has been a learning experience for me, there is no more complex network environment than the DON. If you ask even the commercial guys that do this, they will tell you it's the most complex environment to work in. Sometimes people have really good ideas except they don't understand the complexities. Hopefully you will see more communication. Email me in about three months if you don't think we are doing any better on communications.

Audience member: Quick comment, in the engineering community we use to get people together from different classes to rewrite manuals, maybe you could look at some sort of a wiki process for working on policies.

Mr. Halvorsen: Good thought, one of the things I think we need to work on is how we take advantage of all of the wikis, blogs, all of the things that are out there. One of things we haven't figured out is, you want all the independence that informality brings, and how do you bring it together to use it effectively? I think that is Knowledge Management. How do you balance the informal structures that we want with some formal structure that lets us use it more globally. We've got to wrestle with that.

Audience member: Two requests for leadership in your area, first being a bottoms up review on everything we do with IT, with a look to eliminate those non-value-added policies that slow down execution. Second area is elimination or reduction of data calls, and the right place to start I think would be in fixing our official data repositories, like DADMS and make those useful tools that would eliminate reach backs.

Mr. Halvorsen: Two comments on that, I would echo yes to both. Then I'll say that's not a new problem. We've had the data call problem forever. I've got to throw this out, how well have all of you done in making sure the data you put into DADMS is accurate? Some of you do, but some of

you don't, and that's a fact. I'm willing to do that part about let's get it right, but it's going to take some investment from everyone down to the lowest level to get it right the first time.

Streamlining is going to take time. It's going to have to be a partnership that comes up down and down up. We have not done a real good job with capturing that data accurately. There are some pockets that have done well and some poorly, and most are in the middle. The other point is, I, what I hope the data call changes to is a level of analysis and impact that we need to be able to get to. But what does data actually mean as a whole? It may mean different things. What are the impacts if we change something? I may see a simple impact at the DON level, sign something out, but all of you are going "what did that idiot sign?" On the other hand I have been guilty of "I don't quite want to share this data yet," so I just won't share. Or I'll give you the first part but never get to the second part. There is some trust we've got to build up.

Audience member: Given that you're pushing for cultural changes, what's the best way to bring the acquisition community and testing community together to get the efficiency you are looking for?

Mr. Halvorsen: I actually don't know the best way to do that. One of the things that bothers me in this job is I can see a lot of the problems and I'm use to having more ideas on how to solve them.

The good news is you all are really smart. So, get at it and start sending us ideas on how to solve this stuff. I don't have a lot of the answers, and that's my fault. I spent Monday with the Marine Corps because I don't understand all of their issues. I grew up in the Army and then went to the Navy. So I don't understand them and I need to get educated. I am not by training an IT guy. My wife calls me a poser because I am not a technical guy by trade. I think I've learned a lot. But I think what they pay me for is to ask questions a lot of other people won't ask.

I apologize up front for not having a lot of the technical answers. This is going to be a hard dialogue. At times it's going to be frustrating. At times it's going to be fun. Now, I'll take one second to explain the word fun. I think you have to have fun, but all of us are going to spend a lot of time at work, so you just change your definition of fun so you have more time for fun. We are going to have some very spirited, and sometimes loud, discussions. I hope no one gets turned off by that. I believe that we need to have that level of passionate discussion to get to the real solutions. Compromise is not always the answer. Sometimes there's a right answer and a wrong answer. We've got to be smart when to pick what. There will be different factors that influence that. There will be technical, financial, operational, and there will be cultural issues that impact our decision making process. We've got to get them out or we will make the wrong decision.

I'm not sure what the right way is to expand our ability to communicate up and down the chain. I hope this session was valuable, but I also hope that if you found it a total waste of time that you will please say that in the surveys. If it's a total waste of time, I don't want to do it again. If it was valuable, say that, say why, what should we change. But think about in general: what is a valuable way for us to have dialogue that will produce discussions and results we have to get at? I don't know how to do that, I'm asking for your help. Some of you may have heard I don't blog, so if you miss the blog I'm sorry, I don't blog; haven't found it to be valuable. Some people do,

but it's just not me. I will work on how to better communicate and if in the end I'm told I need to learn to blog, I will go blog. What are some ways to communicate? Does webcast work? Maybe we get together virtually. Maybe we do a focused webcast monthly. I am open to input. I'd ask you to do one other thing when you say you want to try this, take a stab at what would be the metric that we would measure its success or lack thereof.

Audience member: The transition from NMCI to NGEN includes a forecast for an increase in manpower based on a zero sum intake, are we looking at how to address those forecasts?

Mr. Halvorsen: I'm going to be very blunt on this one, I think the forecasts were flawed to begin with. One of the things that baffles me, we supposedly keep getting better with our management of running our networks, and better tools, and I compare what we are doing that work with to sizable industry, and our numbers don't seem to align. One of the things we've got to look at is there better ways to have people work. There will be some manpower issues. We've got to look at how many times we are sharing that work across different networks. One of the things we have to look at is how do we get inside the Enterprise for some commands? We are going to conduct, at least COSC, using the same manpower structure. There was some intention that under COSC we would pick up some of the work that was done at the Echelon IIs and IIIs and find a manpower solution to that. The decision was made we are not going to do that. Again, what do we do and what don't we do? There is no new manpower coming. You may see a shift in priorities. 10th Fleet's got an interesting dilemma; they need some new bodies. There aren't any new bodies. Where are they coming from? They are going to come from somewhere, think about the skill sets they need, and they are going to come from a pretty small domain of people that have the skill sets we need. So it's going to come to the question of what's more important, what's less important, how do we use technology and tools, how do we make better use and get better tools out to the people that run networks? That will help us in our whole manpower picture.

Audience member: Contractually, I suspect if I was required in the way we were building the systems that the testing part might go much more efficiently. So, that's more of a suggestion that a question, unless I say how can you make that contractual requirement on us?

Mr. Halvorsen: Probably a valid concept. I don't know either. We could look at how we write contracts differently to make testing more a part of that. The contract might cost more then, so we will have to do value proposition. We are focused on up front, and right now. Good suggestion, I'll make sure we get that to the right players to look at that. But I do have to leave now, thank you for listening, thank you for your questions, please send us any thoughts you have. Thank you.