

A CIO Strategy Mash-Up:
Presentation to the Army CIO Executive Board

May 26, 2011

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Good Morning.

I'd like to thank Mike Krieger for inviting me to speak today.

I'd also like to express my appreciation to the members of the Executive Board for the important work you do for the nation.

I will focus my remarks today on two economic frameworks - transaction cost economics and scientific management. I will first summarize the transaction cost economics framework and will use the example of the shift from time-and-materials to fixed priced contracting to illustrate the relevance of the framework to Department of Defense Information Technology. Then I'll move to scientific management and I'll discuss how it can help us make better decisions in response to current DoD budget pressures. I'll conclude by describing how a mash-up between transaction cost economics and scientific management can be useful in addressing some of the specific challenges the Army will be facing in getting results from the Enterprise Initiatives on your agenda today.

So let's start with transaction cost economics. In December, 2009, Oliver Williamson, one of my professors from grad school, accepted the Nobel Prize for Economics. I've kept in touch with Williamson because the work he did on transaction cost economics was one of the handful of things I learned in grad school that still seems relevant to my day-to-day work.

By the end of my brief remarks this morning, I hope you'll agree that Williamson's work is important and relevant to everyone in this room. The government and military leaders of the federal IT community, as well as their acquisition officials, special program officers, and project managers can use Williamson's framework to get better results from their upcoming contracts. And an understanding of Williamson's thinking can help all of us, from both government and industry deliver better, faster solutions for the end users of our technologies – our warfighters and the Defense Department organizations that support them.

So bear with me. First, we've got to go over some vocabulary that may sound a bit academic. Second, for truth in advertising, realize from the outset that we'll be talking about a framework, not a

solution. It isn't like Williamson sat down and said, "I'm going to help the leaders of the Army IT community have more successful Enterprise Initiatives." No, he wasn't really thinking about us at all. He was thinking about things like business behavior, markets, hierarchies, bureaucracies, and governance.

Williamson focused on transaction cost economics because traditional economics doesn't do a good job explaining how the real world works, and many market transactions can't be explained or understood using a pure market model. Williamson begins with three core concepts that we can all relate to. First, there's uncertainty. And in an area like Defense Department IT, where the next generation of technology is only 18 months away, where we're introducing (or reintroducing) new strategies like Cloud Computing every few years, where the demands from our users seem to change every month, where implementation projects are full of technical, schedule, and cost surprises, and where ongoing operations can be anything but smooth, we understand uncertainty. We live it every day.

The second fundamental concept behind transaction cost economics is called "bounded rationality". Basically, it means that there are serious inherent limits to our ability to write contracts and other formal agreements that anticipate all contingencies. No matter how good a contract we write, there's always going to be something that comes up that we can't anticipate. Now for simple transactions, like buying a commodity on the open market, the pure market model works – market competition generates a fair price, and buyers get what they asked for. But for more complex transactions, like the complex IT programs you deal with on a day to day basis, the pure market model falls apart. In our world of Defense Department IT, there is no contract that will that will anticipate technology changes, new user requirements or operational glitches. Unpredictable situations, including those due to actions by the government, can drive up costs for industry. Likewise, unpredictable actions or failures to act by industry can interfere with the government's ability to get what they need, when they need it, for a fair price. "Bounded rationality" means that the best possible contract isn't good enough to deal with uncertainty.

The third fundamental principal behind transaction cost economics is that in an environment characterized by uncertainty and bounded rationality, opportunism can rear its ugly head. Opportunism means that players on both sides can take advantage of the situation and behave badly. In our world, the vendor can hold the government hostage, and can charge an arm and a leg to make a contract change to address a requirement or condition that nobody anticipated. The government can also unfairly hold up contractor payments due to a situation that is outside of the contractor's control or, even worse, one that is due to the government failing to take helpful or necessary actions. In the end, the result can generate transaction costs for the vendor, transaction costs for the government, or contract failure.

Transaction cost economics focuses on how markets and hierarchies are organized to economize on transaction costs in situations characterized by uncertainty, bounded rationality, and opportunism. One way markets evolve is that when transaction costs between two entities are high, say between two firms, one firm can take over the other firm to achieve more efficient transactions within a single organization. By redrawing organizational boundaries, transactions that previously took place within markets, such as between companies doing business arms-length using contracts, now take place within an organizational hierarchy. When transactions occur within an organization, you can achieve greater control. You don't have to write a detailed contract that anticipates all contingencies. You have the flexibility to give an employee an assignment, set up an interagency team, establish a program management organization (PMO), etc.

Unfortunately, there are no guarantees that moving transactions from markets to hierarchies will achieve desired efficiencies. Like death and taxes, transaction costs will always be with us. Just like we try to minimize taxes and put off death, economies and hierarchies both seek ways to minimize transaction costs. You'll never eliminate them. If you try to economize on transaction costs by merging two companies, and you don't have effective mechanisms for achieving greater efficiency by conducting transactions within one merged organization, rather than between organizations, you'd be better off, that is, more efficient, keeping an arm's length between two organizations. Those of you in the room who have been through difficult corporate and agency mergers know what I'm talking about. The driving economic principal, according to Williamson, is to minimize transaction costs whether in markets or hierarchies. In markets, the primary way you can do this is by developing more farsighted contracts. In hierarchies, the key is improved governance. We'll get back to both of these remedies.

Now, let's turn to the Defense Department IT marketplace and apply Williamson's framework to the shift from time and materials to fixed-priced contracting. Fixed pricing is an attempt to limit uncertainty and shift risks from the government to the contractor. I believe that we'll see a drive for fixed pricing on major components of most large upcoming federal contracts.

For fixed pricing to work for anything other than commodities, two things must happen. First, there must be enough predictability to allow contractors to develop reasonably accurate demand estimates when they price their proposals. Otherwise, contractors will simply raise their prices to cover the uncertainty, or opt not to play altogether. Second, fixed priced offerings must be understandable and credible by both the government and industry sides, or else fixed pricing will increase uncertainty rather than reducing it, and will lead to all kinds of headaches, some of which I'll get back to in a minute.

Let's look at the predictability of demand. This is extremely important, especially in an area like Cloud Computing where there can be a requirement for big time up front investments in infrastructure, application development, and systems to support billing and operations, as well as the training, marketing and sales costs associated with Cloud Computing product launches. The "build it and they will come" philosophy won't pass muster in the rigorous corporate resource approval cycle. You need a

strong business case, and one component of the business case – probably the most important one – is a credible demand forecast.

One solution here would be for the government to provide some guarantees of demand. This introduces a huge governance challenge. It means that the government needs to negotiate up-front commitments from users. In most cases, this isn't going to happen. If anything, the government is moving in the other direction. Requirements contracting is all but dead except for major weapons systems. Instead, the government is moving more aggressively than ever to multiple-award, Indefinite Delivery, Indefinite Quantity (ID/IQ) contracts, where the only guarantee is that there are no guarantees.

The second best solution is to develop accurate demand forecasts. Now demand forecasting for government IT requirements is a tricky business. In the Defense Department, you don't know when, where, and how large the next military or peacekeeping operation will be. Even when mission requirements are relatively stable, it's tough to predict demand for new IT solutions, such as Cloud Computing, across large, risk averse, highly decentralized federal agencies.

But transaction costs don't arise when problems are easy to solve. They arise when uncertainties, like demand forecasting, create real, tough challenges. Here's an opportunity for both government and industry.

The government can help drive down uncertainty by providing better data that can be used by industry to generate more accurate demand forecasts. Here's a case where open government and greater transparency can be translated into more efficient interactions between industry and government, leading to greater competition and lower prices. Unfortunately, many agencies have embraced multiple-award, ID/IQ contracting without appreciating the importance of providing better data to help reduce demand uncertainty.

On the industry side, of course, better demand forecasting, combined with clever bid strategies, helps companies win big government deals. The company that does the best job building "reality models" of contract demand, and playing this off against the "evaluation model" used to determine contract awards, will gain competitive advantage. Now you could call this opportunism, but you could also call it smart bidding.

Fixed pricing doesn't just exaggerate the risks of demand uncertainty; it also creates risks associated with bounded rationality. What happens when there's a mismatch between fixed priced offerings and the unpredictable requirements that will be placed on these contracts by government and military users? Here's an opening for opportunism, tempting the contractor to take advantage of the situation by demanding costly changes to tailor solutions to meet unanticipated requirements, perhaps to make up for initial low-ball fixed pricing used to win the contract in the first place. Or maybe the

government becomes the bad guy, strong arming the contractor to make costly changes without offering them any additional compensation over the contracted fixed prices.

This bounded rationality challenge can be addressed with transaction cost reduction strategies on both the government and the industry sides. On the government side, there is a need for improved governance mechanisms to support a fair and rapid resolution when there are mismatches between fixed priced offerings and changing requirements. Here I'd argue that the government procurement shop can't do it alone. We need a change in behavior in government Program Management Organizations so that agencies avoid treating fixed priced contract components with a Time and Materials mentality. This means that government users need to come to quick resolution about what is and what is not included in fixed priced contract deliverable items and services. We must also change behavior to constrain government managers from introducing bureaucratic inefficiencies that interfere with the contractor's ability to deliver or implement their pre-defined offerings.

Since it's unlikely that the government will go as far as is needed to introduce new governance mechanisms to avoid haggling and opportunistic behavior, there's an opportunity for competitors to address the problem in their proposals. The government can create more incentives for companies to compete by doing a better, clearer job of defining what they'll deliver for a fixed price. The government can also do more, through changes in contract evaluation factors and award fee incentives to encourage industry to do a better job in designing processes to resolve mismatches between fixed priced offerings and changing, unpredictable government requirements. In Williamson's language, they can win the confidence of government buyers and best the competition by establishing more effective governance mechanisms to deal with bounded rationality.

I'll return to the issue of governance again in my concluding remarks about the Army's Enterprise Initiatives, but now, let's turn to scientific management and, to establish the framework, we need to take a few minutes to wind the clock back. 100 years ago, Frederic W. Taylor published The Principles of Scientific Management. I think of Taylor as the first management consultant. Others think of him as the father of industrial engineering. I'd like to discuss how Taylor's work and his legacy, especially when combined with the Williamson framework, can help us address some of the toughest challenges in today's Federal IT marketplace.

Taylor advocated the application of scientific methods to the workplace. His approach was centered on time and motion studies. His techniques for optimizing workplace productivity contributed to the rise of the United States as a global industrial power. His introduction of quantitative, analytical tools to re-engineer business processes has now been extended and adopted as a central part of the canon of today's management theory and practice. His focus on efficiency is now, 100 years later, deeply embedded in the modern world view. It has become a core value in today's corporate world and frames the way we organize our day-to-day personal activities.

Many of us remember the father from Cheaper by the Dozen, Frank Gilbreth who, along with his wife Lillian, organized his twelve children's day-to-day activities according to the principles of scientific management. Gilbreth, also a consultant, spread the gospel of scientific management through a refined version of Taylor's approach, and laid the foundations for today's continuous process improvement methodologies using a systematic study of motions called "Therbligs", a term based on Gilbreth's name spelled backwards. Another Taylor disciple, Henry Gantt, developed the charts that we still use today to plan project tasks, identify interdependencies, and manage schedules.

A revolution in the industrial mechanization of manual labor automated Taylor's search for efficiency and powered American industry to world dominance. My great grandfather, Samuel Persky, played a small part in this revolution when he came to Brooklyn from Russia at the turn of the 20th century and landed a job with a candy company where he developed machinery to automate manual processes for making chocolate covered cherries and Jordan almonds.

Taylor's main tool was the stopwatch, but he then applied improved analysis, planning, training and supervision to boost the productivity of pig iron manufacturing. Today, our job is to make better use of our main tools – networks and related information technologies – to support and improve the efficiency and effectiveness of military operations.

In Taylor's time, pressures to keep a lid on railroad rates for interstate commerce were a key factor driving the adoption of scientific management in iron manufacturing. Today, pressures to reduce government spending will take center stage, and will drive important changes and create both opportunities and risks in Defense Department IT. The change in Congress and record deficits will result in unrelenting pressures to reduce the Department's spending.

Our central challenge as a community is to develop a creative response to budget pressures – a response that will have long term, positive impacts on the efficiency and effectiveness of our military institutions, just as Taylor's response to the railroad rate pressures of his day led to a transformation in the productivity of American industry. The central challenge for corporations pursuing Defense Department IT contracts is not just to weather the storm brought on by today's budget pressures, but to adapt more quickly and more effectively than the competition during the coming period of marketplace disequilibrium. The central challenge for the leadership in Defense Department Information Technology is to leverage the competitive energies of industry effectively to achieve both the cost saving and the transformational objectives of the Department.

In other words, budget pressures can become forcing functions to help you make needed organizational changes within the government and to leverage industry's creativity and investments more effectively in a direction that helps ensure the successful outcome of the IT initiatives you'll be discussing in today's CIO Executive Board meeting, as well as your progress on important related

initiatives. So let's take a minute to look at this forcing function through the lens of Taylor's scientific management framework.

The political, organizational and technological forces reshaping our environment will put the spotlight on any large, high profile IT initiatives – the “programs of record”. From the political side, oversight committees in Congress – particularly in the House - will be looking for opportunities to hold hearings, write reports, and pressure the administration to limit government spending on new programs of record. Large IT initiatives already launched that experience overruns, delays, or technical problems will also draw fire from the budget cutters.

OMB and the Pentagon will lead the Obama administration's IT cost savings drive. OMB has its dashboards tuned to zero in on the government's top dollar IT works-in-progress. Secretary Gates' five year plan to cut inefficiency and redundancy from the Department's budget to free up funding for combat readiness will give even greater clout to watchdog OMB and Pentagon IT policy and oversight organizations.

This increased oversight from the political and administrative sides will introduce new levels of budget and schedule uncertainty into all large IT programs. The delays, stops, starts and changes we've seen recently on big DoD acquisitions foreshadow even more risks for tomorrow's big initiatives. In today's high pressure budget environment, can Taylor's framework help us avoid centralized IT oversight's law of unintended consequences? Here's the risk: If we're not careful, in the name of improving the management of IT portfolio investments, we will slow down the approval of important new initiatives. In the name of strengthening IT project management, we will add redundant layers of time consuming review and reporting requirements, second guessing the front-line managers who often have a better understanding of the customer environment and the day-to-day technical, cost and schedule challenges than White House and Pentagon overseers.

In dealing with this added oversight from Congress and the Administration, IT leaders will do well to borrow a page from Taylor's playbook. In the current political environment, the language of improved productivity is the best way to sell and defend important programs. The argument is well established – there's the choice between the high costs of doing nothing – limiting mission performance by sticking with inefficient tools and methods – versus achieving improved results by leveraging next generation technologies and processes.

The problem here, of course, is that we're not manufacturing pig iron and the output of our IT investments is tough to measure with a stopwatch. As a result, there's a tendency, especially during times of extreme budget pressure, to focus our measurements on the cost side of the equation. Taylor could measure a factory's output in tons of pig iron, which was the real payoff, not just in savings through personnel cuts. Until we've done a better job measuring the output side of the Defense IT investment equation, we'll be stuck with a losing game of targeting diminishing cost savings by cutting

our investment in the government and contractor personnel, services and systems used to run our IT shops and networks.

We need to tackle the tougher job of measuring output in terms of meaningful results, clearly tied to the military mission. We also need to communicate these results more effectively to our agency leadership, to Congress, and to the American people. Until we do a better job gathering relevant data and applying compelling analytics to communicate credible measurements of the return from our IT investments, we'll be consigned to a fate of slow IT program deaths by a thousand budget cuts.

During this era of constrained IT budgets, the government should also be doing everything they can to help industry do a more honest, objective job (Dare we call it scientific?) of assessing each opportunity's fit with their company's strengths and aligning corporate capacity with realistic growth objectives. In boom times, industry has plenty of resources, and they can get away with a sloppy approach to marketing and sales. During tough times, you want them to focus their limited resources in the right areas. Provide them with more accurate data on your technical requirements, acquisition strategies and opportunity timing. Keep them up to date as your program profiles shift. The advantage to industry is clear – you will help them do a better job assessing risk and aligning their investments to your changing requirements. The advantages to the government are just as important. In many ways, your ability to leverage the creativity and resources of industry is the most important element of the Department's IT strategy. If you succeed in getting industry to put its best and brightest resources on the design and delivery of the right Defense Department IT solutions, you win. If you succeed in getting industry to factor Defense Department requirements for information assurance, reliability and interoperability into their commercial system and service development plans, you win. But if industry executives decide that the Defense Department IT marketplace is crashing at the same time that the commercial marketplace is returning to health, if they redirect resources to consumer technology and ignore your call for better, Defense-ready solutions, you lose.

Today, I believe there is a strong over-reaction in industry to government budget pressures, which means that some of your most important industry resources will retrench, scale back their federal organizations, and undermine your ability to get the top quality support you need. Sure, everyone will have to tighten their belts during the coming budget crunch, but you need to help industry use this as an opportunity to get into fighting form, not to go on a crash diet that weakens the competitive field.

In anticipating a tougher competitive environment, companies will be sharpening their pencils for all of their price drivers – loadings, labor cost, equipment cost, spares and maintenance, warranties, fee, subcontractor loadings, escalation, and procurement overhead. In today's marketplace, they'll need all of Taylor's tools - measurement, analysis, planning, training and supervision – to design and implement more aggressive, innovative pricing strategies. But without better guidance and clearer "rules of the road" from the government, excessive cost cutting will undermine industry's ability to deliver after award. It's never been more important for the government to be clear about contract service level

agreements and other metrics that will determine how the government evaluates the quality of contractor performance. If the government shifts to performance-based contracting before establishing clear performance metrics with precise objectives, in the Taylor tradition, both sides will lose. Industry won't get the fees they're counting on and government won't get the results.

Taylor's scientific management legacy can also point to some additional tools to making firm fixed priced, performance based contracting work. One way government and industry can manage the fixed priced, performance-based contracting risk is to do a better job capturing and analyzing basis-of-estimate data. Taylor and his disciples were obsessed with measurement. They built their recommendations on extensive data collection calibrated in seconds, inches, and Therbligs. Their productivity targets were based on painstaking data analysis, and so were their supervision methods. Today, in too many cases, neither government nor industry has adequate databases for estimating the level of effort required to address complex IT project challenges. As a result, firm fixed priced, performance-based proposals have become big league games of liar's poker: both sides are shooting in the dark, playing "bet your company" or "bet your government program".

In the Taylor tradition, we also need to focus on how to drive costs down and maintain or increase performance over time. The companies that plan and manage their firm fixed priced, performance-based contracts to meet performance objectives while continuously driving down costs will have the luxury of either capturing the savings as profit or enhancing the service features and benefits delivered to their customers. In a fixed priced, performance-based world, Gilbreth's notion of continuous process improvement isn't just a quality assurance goal; it's also the key to competitive advantage. So the goal of industry players should be to keep ahead of the pack by moving along the productivity curve at a greater speed than the other guys, and the goal of the government should be to set up the rules of the game to encourage this race to greater productivity. It will require big changes on both sides, but the easy way out - to pre-specify headcount, throw in small performance incentives, and ask for fixed priced bids - sets a floor on cost reduction opportunities, since labor is almost always industry's big cost driver. It's not just old wine in new bottles, but it freezes today's inefficient processes and encourages a competition for low priced, minimally qualified labor rather than for continuous, mission-focused productivity improvements in the Taylor tradition.

Now that we've taken a quick tour of the Williamson and Taylor frameworks and how they apply to fixed price contracting and today's budget pressures, let's return to your agenda for today and see if a synthesis of Williamson and Taylor can be helpful in achieving the targeted benefits from Army CIO Enterprise Initiatives. Now in my book, Taylor is to Williamson as Newton is to Einstein. Both great thinkers, both very useful, but their work addresses different ends of the problem. Let's see if we can integrate their perspectives and at least sketch out how they can help you get more with less from today's Army Enterprise Initiatives.

We all understand the importance and potential payoff from the Army Enterprise Initiatives. From a technical perspective, we need to invest in an Enterprise Infrastructure and enterprise services and capabilities to allow us to deliver on the promise of the network and the evolving Defense Department cloud. The Department's mission-critical capabilities, including ISR, Command and Control, and collaboration, all depend on a robust, secure Enterprise Infrastructure and a rich, reliable, well designed set of network services. Likewise, our ability to do more with less, to achieve the objectives of the Gates Initiative, and to deliver administrative and support functions within severely restricted budgets, will depend, to a large degree, on the design and operational efficiency of our network infrastructure and services.

But as important as they are, the thing about enterprise level initiatives is that organizational components usually hate them. I believe that there's an inevitable organizational tension between headquarters and the components that report up to headquarters. It's really the dirty little secret of most organizations. It's just as true in the corporate world as it is in the government and the military. You say you're from Corporate and you're here to help? Well, thanks but no thanks. We're doing just fine on our own, thank you very much.

The techniques for resisting enterprise-wide initiatives are legendary. There's outright resistance, there's sandbagging, there's foot dragging, there's malicious compliance. The components can hold back critical information. They can keep shifting the scope of their requirements so headquarters is always shooting at a moving target. They can come up with all kinds of reasons not to play before, during and after headquarters has made its investment in an enterprise initiative. They can limit the scope of enterprise initiatives to only the most basic support functions that interact as little as possible with day-to-day, operational component responsibilities and activities. I could go on, but you get the idea.

In some cases this resistance to getting on board with enterprise initiatives is justified. Headquarters organizations are famous for coming up with heavy-handed, one-size-fits-all projects that fail to recognize the unique mission requirements and operational environments of component organizations. In some cases, the resistance is based on bitter past experience with outright program failures due to poorly conceived or poorly executed headquarters initiatives. But even in the best of cases, where there's a willingness to get beyond yesterday's problems, and a real commitment by component organizations to the success of headquarters initiatives, organizational components have a legitimate interest in self-protection – in conducting due diligence and staying vigilant to ensure that the enterprise initiatives help more than they hurt.

So how can Williamson and Taylor help address this age-old tension between headquarters and components to support the success of the Enterprise Initiatives on your agenda? Remember what I said earlier when we introduced the Williamson framework, about the way markets and hierarchies organize themselves to minimize transaction costs. Well, when you look at the resistance to the kinds of

enterprise initiatives you'll be talking about today – Enterprise E-mail, the Common Operating Environment, and Data Center Consolidation – I think it's useful to look at them in terms of the challenges of uncertainty, bounded rationality, and opportunism that lie at the core of transaction cost economics.

Every one of these enterprise initiatives involves uncertainty. Nobody knows for sure how they'll turn out. Organizational components have worked out their own solutions – effective, ineffective, efficient, inefficient – to create operational systems, processes, and procedures that will have to be replaced by each of your key initiatives. They've got e-mail. They've settled on their not so common operating environments. And they have their data centers, inefficient though they may be. The move to new solutions in each of these three areas may offer theoretical benefits down the road, but they create risks and uncertainty. The new solutions may force some components or sub-components to fit round pegs into square holes. They may not scale. They may be cumbersome. They may interfere with proven operational systems and processes. Their ongoing costs may cut into other component initiatives.

Bounded rationality applies. There's no way to write a contract, memorandum of understanding, or any other contract-like document between headquarters and the components or between the vendors providing the new services and their government contracting entities, that will anticipate all of the potential contingencies on the way to designing, implementing and operating these enterprise initiatives. So we've opened the door to opportunism. Headquarters can take advantage of the components and visa-versa, anywhere along the way to achieving the promised enterprise initiative results.

We have a picture-perfect Williamsonian environment. So what would Williamson recommend for minimizing transaction costs? He talks about farsighted contracts to mediate market transactions, and improved governance to reduce transaction costs within the hierarchy. In our part of the world, this often comes down to Service Level Agreements (SLA), award fees, or other performance management mechanisms to structure vendor contracts. And to address transaction costs within the hierarchy, we can apply Organizational Level Agreements (OLA) and other types of governance structures – Integrated Project Teams (IPT), committees like this Army CIO Executive Board, and other types of ad hoc and formal governance structures, processes and procedures that operate on an ongoing basis to deal with the inevitable twists and turns that the enterprise initiatives will take.

But we also need to add discipline, rigor, and measurement to the governance process so we can see how we're doing as we move forward. Without effective metrics applied in clever ways, we won't know when we're off track in terms of the technical, schedule, and cost objectives of the enterprise initiatives. Even more important, we need to focus the metrics on the mission-related operational benefits that really matter to critical organizational components. So here's where Taylor comes in. Though we're taking many functions away from component control and moving them to the

enterprise, we need to put in place measures to ensure that the new initiatives are actually meeting the needs of the components – because they're the ones who are responsible for delivering results. That is, in return for yielding to headquarters the authority, responsibility, and control for certain enterprise-level functions, the components should be empowered to set and monitor Enterprise Infrastructure performance requirements. They should also be fully engaged in the ongoing process needed to fine tune performance measurements and performance monitoring tools and reports all along the way from the initial conception all the way to the final roll-out and ongoing operation of each initiative.

You may ask whether applying this framework, this mash-up between Williamson and Taylor, will be enough to ensure that these enterprise initiatives succeed. My answer is, of course not. This is just a framework, an approach, not a solution. The real bottom-line question here is whether we can walk the walk that's needed to make things happen when we talk the talk about the importance of the network to operational excellence in the Defense Department.

The Defense Department analog to Enterprise IT Initiatives is joint warfighting. Think about the headquarters/component issues in the interactions between the military services and departments and the Combatant Commands. We've seen the components yielding power and authority to the Combatant Commands. We've seen them working hard to make joint military operations a reality, not a slogan. And we're seeing the benefits in terms of operational excellence on the battlefield.

If we make the same commitment to the establishment of robust network infrastructure, and to the creation of powerful network services and capabilities that we have made to joint military planning and operations, I have no doubt that we can succeed despite the uncertainties, risks, and organizational growing pains. And I'm hoping that Williamson and Taylor will help you get there.

Thank you.