

Opening Remarks for the 32nd Annual Federal Networks Conference

February 25 – 26, 2019

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Good Morning. Welcome to the 32nd annual Federal Networks Conference.

To kick things off, I'd like to focus my opening remarks on what it will take to achieve success with the next generation of enterprise-level network and cloud initiatives. Everyone in this room has a stake in our success as we move up to the enterprise, and everyone has experienced at least some of the challenges and frustrations involved. I'd like to share ten recommendations to help speed our progress towards enterprise solutions that will deliver meaningful results to support the important missions of our military and government institutions.

1. Get over the illusion that enterprise level network services, cloud services, or any complex enterprise technology should be treated as “Commercial Off-the-Shelf” – it’s dangerous. It’s not just wrong, but it leads to fuzzy thinking, bad policy, and poor program outcomes. The term itself makes it sound like buying COTS is as simple as going to the supermarket and buying a can of beans. From a practical point of view, we all know the challenges and risks involved on both the buyer and the seller sides at every step of the way. You have to get enterprise-level requirements right for a varied array of end-user environments. You have to design and implement an acquisition strategy that stimulates competition for high-value solutions and aggressive prices. You have to assess the real-deal maturity, capabilities and cost-benefits of promising next generation commercial technologies including SDN, Artificial Intelligence, Machine Learning, and 5G. Most important of all, you have to provide the best possible defenses against sophisticated state-sponsored, criminal and insider cyber-attacks that could cripple our nation’s most critical government and military institutions. Now consider the question of scale. The Defense Enterprise Office System, DEOS, for example, a commercial capability that is no-way “off the shelf” due to the complex challenges of the DoD enterprise environment, may eventually serve up to 4.5 million users. The programs we’ll hear about today and tomorrow will need to operate at a scale that dwarfs virtually any commercial implementation. I think we’ll all agree that this ain’t no can of beans.

2. Leverage the insights from behavioral economics to get better results. The fundamental insight of behavioral economics, called bounded rationality, applies to our industry in spades. It says that because of the impossibility of anticipating all contingencies in complex transactions, like the acquisition of enterprise-level network and cloud services, for example, you better not treat them like you would treat the sale of a pure commodity, like, say, a can of beans. The way to overcome this problem is to incorporate insights from behavioral and organizational psychology into your economic theories and practices or, in our environment, into your acquisition strategies, your win strategies, and your project

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management strategies. I'll give some specific examples in the recommendations that follow. If you want to know more about behavioral economics, reading Thinking Fast and Slow by Nobel Prize winner Daniel Kahneman is a good place to start.

3. Use different strategies for different levels of the organization to overcome resistance to the move to the enterprise. The COTS illusion, that I've discussed above, contributes to resistance to large, complex enterprise solutions. The resistance is often targeted at GSA and DISA, the agencies leading the charge in the move to the enterprise. Sometimes it's focused on the fees that GSA and DISA add to cover their costs in developing enterprise acquisitions and operating enterprise programs. It's called a "GSA tax" or a "DISA tax". Now we're dealing with a perception problem, here, so a good place to start is to ask whose perception are we talking about and what's the impact of their perception on blocking an outcome that would be good for the enterprise? Major enterprise initiatives and their associated business cases and cost-benefit assessments are reviewed, assessed, and analyzed to death by those at the highest level of the organization. If OMB, the Pentagon, and the top federal and military decision-makers don't buy into the overall value of the initiative for the enterprise, it ain't gonna happen. The decisionmakers at this level, to use Kahneman's term, are "Thinking Slow", taking the time needed to overcome the irrational tendencies built into our primitive, human brains. They're applying – sometimes over-apply – rational decision-making techniques to the enterprise initiative under consideration.

4. Allocate enterprise initiative costs to the organizational component most willing to pay and obscure them from those most likely to resist. For these leaders, a GSA or a DISA "tax" isn't such a bad idea. It allows the enterprise, at a high level, to absorb at least a portion of the costs that represent the difference between buying a service off of a simple license agreement or schedule and buying a vastly more full-featured and complex one that's needed for the enterprise. I would even argue that, from an organizational behavior point of view, the current taxes are too low. These taxes tend to only incorporate the charges for the acquisition-related activities of the buying organization. They could be extended to include more of the extra costs to pay for extra capabilities that the government needs for enterprise-level success. Added taxes might cover heavy duty enterprise-level network and cybersecurity management and the associated government security operations and network operations centers - the SOCs and NOCs. They could cover the added technology needed to ensure uninterrupted service, especially in the many government and military locations where the available commercial infrastructure needs substantial beefing up to meet the needs of the government. Added investments required to build, test and operate government-unique billing and network management systems could also become part of the tax.

The reason why it would work better to absorb more of these costs at the enterprise level is that the decision-makers who create the greatest resistance to enterprise initiatives are generally not those located at OMB or the Pentagon or in the CIO Council, but those at the next levels of the complex

federal and military organizational hierarchies. They're the ones more concerned with the operations and budgets of their individual programs than with the costs and benefits to the enterprise. They may be, to use Kahneman's terms again, "Thinking Slow" about their local area of operation and control, but they're "Thinking Fast" – relying on the more primitive, irrational, tribal parts of their brain – when they are resisting what's good for the enterprise. So they're less likely to fight tooth and nail if a healthy portion of the costs of enterprise initiatives comes out as a tax at the enterprise level and doesn't hit their component directly. The behavioral trick, here, is to allocate costs to the organizational component most willing to pay and obscure them from those most likely to resist.

5. Set component level costs to drive rational component level behavior: Now you might ask why not absorb the total cost of the enterprise initiative at the enterprise level, but that introduces a different type of irrational behavior. Even if you could absorb all enterprise initiative costs as an enterprise-level tax, which would be an enormous challenge given the complexities of federal budgeting and accounting and the associated "color of money" problems – you wouldn't want to, because you need some mechanism operating at the lower levels of the organization to avoid the perception that enterprise initiatives represent free goods. Not only would this lead to over-consumption of enterprise services but it would also lead to inefficient decision-making at the component levels. Take the issue of ordering circuits, for example. With no costs to the component, they'd be happy to buy lots of high-cost, low capacity circuits. They'd have no motivation to be efficient by performing ongoing network optimization – for example, by identifying opportunities to buy a smaller number of much more cost-effective high bandwidth circuits. The same principal applies to the purchase of cloud services. When it comes to Software-as-a-Service, for example, if the enterprise picked up all the costs as a tax, it would be too easy for components to order Cadillac-level, full-featured licenses for all, even if many only need a basic license. The lack of well-designed market mechanisms at the component level introduces the type of irrational decision-making associated with Kahneman's "Thinking Fast", which leads to inefficient behavior, which undermines the benefit of the overall enterprise initiative. This principal doesn't just apply to next generation enterprise initiatives. We've been seeing evidence of this problem for years in organizational components that buy additional low capacity circuits whenever demand increases and never optimize their portion of the network. The same type of irrationality may explain the large number of unused circuits and phone lines in many component organizations. We need behavior-regulating price mechanisms at the lower levels of the enterprise, but they have to be designed to promote the right type of decision-making at that level. They need to nudge the organization to "Think Slow".

6. Find the sweet spot between enterprise cost allocations and direct charges to the components:

The right answer, from a behavioral economics point of view, is to find the right middle ground to encourage good decision-making at all levels of the organization. It's not just who pays at each level of the organization that matters, it's also how they pay. I'd argue that, on the one hand, we need to unbundle the costs of enterprise initiatives so that some per-user charges for component organizations

are comparable to per-user charges they're seeing on more basic, non-enterprise contracts like Joint Enterprise License Agreements or JELAs. This allows the components to see that they're getting a fair deal. On the other hand, there's no getting around the need to educate the entire organization about the value, and the associated costs, of the move to the enterprise. That's why there should also be additional, separately enumerated charges, some of which may not be optional and many of which wouldn't be disaggregated to the user level, such as those associated with the implementation, transition, cybersecurity, and the ongoing O&M activities needed to achieve the enterprise benefit. These charges may not all be optional, but they do all need to be effectively marketed and sold to the user community as much as the per-user charges. It's the only way to get the entire organization on board for the move. Unless we're effective in selling the value and explaining the costs of the move to the enterprise, there are a million ways for components to delay, to avoid, to sandbag, to undermine the move. Good policies matter. Good organizational communication matters. Good training matters. Good acquisitions matter. Good CLIN structures matter. And, of course, good technology matters. They're all part of what we've been talking about today - making sure that we acquire new enterprise capabilities in a way that leverages the creative energies of industry to directly address the mission needs of those responsible for government and military operations.

7. Help the acquisition communities, program offices and industry interact more effectively: OK.

Let's say that you agree with these recommendations. There's still one more step. Who will implement them? Who will take these high-level recommendations and step up to the hard work of applying them to design the acquisitions that will deliver the government's next generation network and cloud enterprise initiatives most effectively? There are three primary communities with skin in this game, plus assorted overseers and tire kickers. It's a triangle. There's the acquisition community, government program management organizations, and industry. Remember the basic insight of behavioral economics – there are too many unpredictable variables and there's too much messy, irrational human thinking to map out a sure-fire pathway to success for something as complex as an enterprise IT initiative, but we can get closer if we're smart about applying organizational and behavioral insights to the process.

8. Apply greater transparency to price evaluations: Let's start with the industry-acquisition side of the triangle of communities. The two most important tasks are the pre-RFP market research and the development of the acquisition strategy. Get them right and the government incentivizes industry to design the right solutions and implement them in a way that delivers high value results that support the mission. The government has generally been doing a great job of interacting with industry to conduct the market research and design the acquisition strategies for the technical and management components of their major enterprise programs. My one complaint is that the government has had less clarity and less transparency in their price evaluation models and processes than they need to get pricing right, and when pricing is screwed up, it can undermine the ability of the program to support the mission. One example – if your evaluation model pushes vendors to price last-generation TDM services to unrealistically low levels, way below the market, then agencies will have an incentive to design their

task order acquisitions to stick with last generation technologies because they look cheap. Excessively low prices for yesterday's technology becomes a barrier to modernizing. To make matters worse, if agencies then design their task order competitions around these unrealistically low-priced, last generation technologies, the very bidders you want to attract – those offering the strongest next generation technologies – will “no-bid” the task orders because of poor profit potential, leaving agencies with exactly the wrong pool of task order competitors. Here, the irrationality behind the lack of transparency in designing the price evaluation may be that the government's afraid that bidders will “game” their pricing, so the government creates opaque price evaluation models and processes. Just the opposite is true. One question I hear over and over again from industry is, “How can we be sure that there's a level playing field for this opportunity?” The more transparent the government can be in communicating their price evaluation process and models to industry at an early stage in acquisition, the more likely companies will be able to identify opportunities for “gaming” by their competitors or to highlight unintended consequences of the price evaluation scheme, such as in the TDM example, and the more opportunity the government will have to fix these flaws in their price evaluation processes and models.

9. Provide better requirements data to industry at the level of task order competitions: The industry-program side of the triangle is a mixed bag. The program leads for the recent wave of enterprise initiatives have generally been fully engaged and highly interactive with industry, with good results at the IDIQ level. The challenge has occurred at the task order level, where many agency program officials have been unwilling or unable to engage with industry. This behavior may be due to program office concerns that it's inappropriate to talk with industry or because program offices have been tethered by their agency-level acquisition officials. I've seen examples of both. In any case, this barrier to program office-to-industry communication during the acquisition planning period can undo much of the good work that has gone into developing the enterprise-level IDIQ vehicles. One striking example on the EIS program is that even though GSA has invested in helping the agencies develop baseline network asset inventories, in many cases agencies don't share them with industry until close to the release of their Task Order Fair Opportunity RFPs. Releasing these network asset inventories early would be incredibly helpful in getting early feedback from industry that would then help the agencies to design RFPs that would get the most innovative solutions available in today's marketplace. Senior officials at OMB and the Federal CIO levels should be making it clear to agencies not only that interaction with industry at the agency level is an important part of the acquisition phase, but also that the controlled sharing of data, such as the agency baseline network inventories, is not only appropriate but is the best way to get the type of specific feedback from industry that will lead to better agency-level next generation networks and cloud services.

10. Realign acquisition and program organizations to focus on program objectives rather than acquisition constraints: The biggest challenge lies on the acquisition-program side of the triangle of communities. The program officials are the ones closest to the mission. They know, or should know,

the wants, the needs, the constraints, and the environment at the user level – at the point of the spear. Unfortunately, they are too often intimidated, constrained or misinterpreted by their acquisition officials. Yes, program officials may be naïve about what it takes to put together an acquisition. Yes, they may be inclined to favor a particular technical or vendor solution. But they should really be in the driver’s seat, to the extent possible, at every stage in the acquisition life cycle - particularly during the market research and acquisition strategy development phases. One innovative solution to this problem currently being tested is to reorganize by embedding acquisition officials inside program organizations to stimulate innovation – well before the final stages in design of an acquisition. This should help the acquisition officials absorb the culture and adopt the values of the program organization, so instead of becoming an enforcer of constraints, they can become a source of empowerment. Yes, improved training of acquisition officials can help, but merging at least some parts of acquisition and program organizations is not just educational for both sides, it’s important in terms of organizational psychology. The goal is to change the emotional response of the acquisition officials so instead of being motivated by fear of risk, instead of seeing their roles as enforcers of rules, they begin to see themselves as part of a team that is embracing new, creative ways of using technology to support the mission. If done right, this change in organizational dynamics should also encourage the acquisition community to promote more open interactions between program offices and industry, as we discussed above.

So that’s it – Ten recommendations, building on the principles of behavioral economics, that our communities can use to work together more effectively to acquire the next generation of enterprise-level network and cloud capabilities.

1. Get over the “COTS” illusion – it’s dangerous.
2. Leverage the insights from behavioral economics to get better results.
3. Use different strategies for different levels of the organization to overcome resistance to the move to the enterprise.
4. Allocate enterprise initiative costs to the organizational component most willing to pay and obscure them from those most likely to resist.
5. Set component level costs to drive rational component level behavior.
6. Find the sweet spot between enterprise taxes and direct charges to the components.
7. Help the acquisition communities, program offices and industry interact more effectively.
8. Apply greater transparency to price evaluations.
9. Provide better requirements data to industry at the level of task order competitions.
10. Realign acquisition and program organizations to focus on program objectives rather than acquisition constraints.

We’ll need the help of all the communities represented in this room, today and tomorrow, to take it to the next level so that, working together, we speed up the delivery of next generation enterprise

solutions that directly address the most critical challenges of our government's defense and civil institutions.

Thank you.

Warren Suss is President of Suss Consulting, Inc., headquartered in Jenkintown, Pennsylvania. The company has been delivering results for leading corporations and agencies in the federal government information technology community for over 35 years. Suss Consulting consists of over 70 senior professionals in federal IT, networks, and cybersecurity. Suss Consulting provides corporate clients with opportunity identification, capture, and proposal, support, including capture management, price-to-win, competitive analysis, and proposal strategy, planning, management, editing, and writing. Suss Consulting has helped their corporate clients win over \$50 billion in new federal contracts.

The company also provides consulting directly to federal agencies in areas including system engineering, system analysis, and information technology and information management strategy.