

## **Paige Speech**

**[Intro., thank you for invite]**

**[First time here]**

Good Morning.

It is a pleasure to be here this morning to talk with you about reinventing and reengineering efforts in the Department of Defense. I know that many of you in the audience help us in those efforts as tool vendors and consultants. Others assist through committees that are working hard to standardize many of the methods we use in business reengineering. To all of you, I want to take this opportunity to say thank you because what you do is very important to our success.

**[What will he say]**

**[General comments on the state of DoD efforts]**

**[specific intro. to comments on Reinvention]**

In the time I have with you this morning, I want to discuss some of things we are doing in DoD to reengineer our business processes and share several examples of initiatives that we believe contribute to the overall reinvention initiative of the Clinton Administration.

As Assistant Secretary of Defense for Command, Control, Communications and Intelligence, I have a major responsibility for the Department's business process reengineering program. This program gives our managers the guidance, methodologies, and tools they need to reengineer DoD's complex functional processes and activities. Reengineering DoD is not easy. The Department has been around a long time. Many of our agencies have been doing essentially the same job since the American Revolution. Their major functional processes have evolved over many years and convincing people that change is needed is hard work. Add to that the size of DoD and you can readily understand the complexity of our challenge.

**[General Comments]**

**[Come a long way in three years]**

It was only a short three years ago that then Secretary Cheney formed an Executive Level Group chaired by David Hill of General Motors to review DoD's business functions and report on how they could be improved. That report made the senior leadership of the Department realize that many of our functions were broken; and that systems managed by defense offices and military services could often not even talk to each other. Even worse, the majority of these major systems were old, duplicative and incompatible with each other since they had been built based on stovepipe processes with little common data. In short, we had let obsolescence overtake us and our own data needs overwhelm us.

In response to the Executive Level Group's report, the Department announced the Corporate Information Management Initiative (CIM) under which we would begin to reengineer our business and command and control processes. A series of Defense Management Reports produced decisions that began to require reengineering of processes and systems, consolidation of systems through a migration process that would produce common target systems, and consolidation of information support resources, especially computing and information development resources within the Department. Based on successful industry practice, we developed a methodology to support business reengineering efforts that we began to undertake under this initiative.

Looking to industry, and to some of our own painful lessons learned, we knew that the processes and activities of the Department could not and did not operate in isolation. Interrelationships that exist are difficult to identify and manage because of the incompatible data and systems. The depth of our problem was enormous. We identified over 40,000 separate systems with the potential of over 1 million data elements. It quickly became apparent that our problem was twofold; the size of the enterprise and the lack of a roadmap for that enterprise.

**[Pleas'd by voluntary efforts of vendors to assist DoD effort]**

Our decision was to tackle the roadmap first. We created a business reengineering methodology that describes techniques and tools to facilitate the documenting of our business processes, how to define relationships among those processes and how to collect information on data required to perform them. We also adopted an approach to collecting our unit activity costs so that we could better determine estimated costs of improvements as we considered various alternatives to our current way of doing business.

We also defined a method of creating models of our business and tactical processes as a baseline against which we could plan improvements. We found that significant numbers of planners in industry and government

were using techniques which the Air Force had developed in the 1970's to model and execute process improvements. As a result, we adopted the Integrated Definition Language (IDEF) to model business processes and data and, to the extent possible, collect costs of activities being performed.

We also developed an Enterprise Model of the high-level processes of the Department. That model provides a template against which other modeling efforts at various levels can take place knowing that the results of their efforts can be integrated into higher level process and data models and map up to the top level enterprise. While much more still needs to be done to complete this model, it is available for use today as a high-level example which lower level efforts can emulate and has been exceptionally well-received by our functional managers.

Finally, we needed a plan of execution supporting of our goals and objectives to manage through common data and systems operated department-wide in open, cross-functional environments. We are now staffing an Enterprise Integration Plan that fully describes the end-to-end requirements of CIM and creates a framework for understanding how each step in reengineering and implementation is accomplished and how further improvement opportunities are identified in a continuous process improvement cycle.

Our bottom line, one important to all of us as taxpayers, is to eliminate wherever possible non-value added activities, consolidate information support of our functions in common systems supported by common data, and reduce our costs while improving service to our customers.

**[methodology for reengineering is open]**

**[FIPS Process]**

**[not constrained by tools but facilitated]**

**[we look to new tools to simplify process]**

**[links to I-case]**

The methodology for reengineering that supports this effort is very robust. It is also open in that a wide range of techniques are available and others can be added, as appropriate, as individual projects require them. We are doing the same with tools that support those techniques. IDEF is the basis of our reengineering toolset. Historically, people used many different tools for modeling and other tools for system development. We look to toolsets to facilitate and simplify the overall process. Many vendors in the information engineering and Computer-

Assisted Software Engineering (CASE) environments are now offering IDEF as an alternative in their tools. This means that models can be created once and stored, then reused when needed for later efforts.

I can assure you that we don't want to develop tools ourselves. We want to buy them off-the-shelf whenever possible provided that they can do the job and the cost is not prohibitive. Our desire is to identify tools that work well together and are cost-effective. By providing a very open repository environment, we can collect information through models, simulation tools, architecture tools, databases, cost data, and a wide range of other sources and be able to store it in a common way that can be utilized by any other tool in the toolset.

The industry has supported us well in this effort. I am thankful for the cooperative effort that resulted in the issuance of the Federal Information Processing Standards on IDEF in less than 10 months. We were pleased to be able to help facilitate that effort.

**[Specific Reinvention comments]**

**[National performance Review]**

**[Defense Performance Review]**

We began these business reengineering efforts several years ago, when the dramatically changing world situation and a rapidly shrinking Defense budget made it imperative for us to find better, smarter, less expensive ways to run the Department.

Shortly after taking office, President Clinton chartered a National Performance Review under the leadership of Vice President Gore. Many of you read the initial report. It called for elimination of costly, duplicative and unnecessary services in government; reduction in government regulation; and empowerment of agencies to set priorities in critical services. In simple words, the President and Vice-president called for government agencies to reinvent themselves. These goals are clearly compatible with our BPR program, and we have found that BPR provides a robust toolset for the managers who are striving to meet the reinvention mandate.

DoD has its own performance review underway to look at major areas in which we can improve and reduce costs consistent with the goals and objectives of the National Performance Review. This is particularly important to us since the DoD mission is not changing -- we still need to be prepared to react to global situations and be capable of responding when a military or humanitarian request and approved from anywhere in the world.

However, the funding available and personnel authorizations are also being significantly reduced. This means we have to do the job more efficiently at lower cost without impacting readiness.

Implementation thus far of our CIM Initiative has put us over two years ahead of many other federal agencies. That alone is not enough. We need to show fundamental improvements quickly and are moving in several areas, such as acquisition reform, centralized finance and accounting systems, comprehensive health care, and logistics management, among others to effect those improvements. I want to share some examples of those efforts with you today.

In the tactical environment, we have created a number of initiatives designed to optimize our performance in areas that carry significant costs. The Persian Gulf War reemphasized that we have communications and logistical problems in supporting large concentrations of military organizations. To us as citizens nothing is more important than assuring that our soldiers, sailors, airmen and marines are protected to the extent possible so that can reduce losses due to death and injury. We learned many years ago that the faster wounded can be removed from the combat area to hospitals outside the war zone for comprehensive care, the better chance we had to conserve life. Nonetheless, with evacuation by air common since World War II, we were still faced with problems, primarily in the communications necessary to effect evacuation and regulate the process.

The military services control in-theater wounded with the Air Force responsible for long-haul evacuation to the United States and other countries. The lack of a comprehensive, compatible communications and information system often meant significant delays in evacuation, large commitments of resources, particularly planes for evacuation, and considerable confusion since the process often relied on telephone and message traffic. The result was that wounded military were often shunted around on available planes until a final destination was reached. That final destination was frequently not the intended destination and far from the hometown of the wounded service member. More importantly, identification of the wounded by name once they departed the war zone was difficult. Service members were classified by wound rather than name which often made the situation for the military service and the family intolerable as well as costly.

Following the Persian Gulf War, United States Transportation Command, our primary carrier of military personnel, undertook a project to improve this process. Using a system not unlike the civilian airline reservations systems, a wounded service member was assigned by name in a direct path to a hospital closer to home which could provide the necessary care. An information database was created that enabled by-name tracking. Direct

costs through this process have reduced an individual reservation from \$129 to \$11 and returned a large number of military support aircraft to the tactical inventory. This will result in fewer cargo and transport planes being purchased over the long-haul, at millions of dollars each, while assuring that patients receive early, optimal care in places where families can be a part of the convalescence.

### **[Prime Vendor]**

Another example of the early actions we are taking involves what we call the prime vendor program. Military medical equipment and supply inventories involve costs of several billions of dollars. Nearly \$800 million alone is invested in disposable equipment - used once and discarded - in large warehouses throughout the world. Regrettably, our processes for replenishing and keeping track of this materiel are cumbersome and not particularly effective. The result has been ever-increasing inventories as orders are increased to assure that equipment is available.

The civilian medical community long ago learned that major medical suppliers can and will provide expedited delivery of supplies under contract that often results in costs lower than even traditional bulk purchases. Further, the medical supply distribution centers can have ordered supplies on hand, usually within 4 hours to one day and do the restocking themselves. As a result, civilian hospitals warehouse only non-disposable equipment in reduced amounts.

The medical logistics community conducted a series of reengineering studies addressing this problem. They found that with a series of competitive contracts they could reduce their inventories from nearly \$800 million to less than \$250 million over 5 years. Further significant savings could be made in not having to maintain extensive warehouse and logistics support facilities. Overall medical care would improve through ready availability of current medical supplies.

This alone is a tremendous improvement in the way we do business. The plan approved for Prime Vendor could be extended to other areas of the Department, such as facilities management, engineering and housing services, and other agencies which require large amounts of supplies and warehousing. As we proceed with acquisition reform within the Department, I can assure you that the lessons learned from the Prime Vendor project are being considered for expansion to other areas.

The reengineering process is important to us and to the rest of the government. The decisions that have to be made are not easy to make. What we have found in the over 400 projects completed or underway in the department is that often we can optimize a process, reduce its cost, and do so without significant loss of personnel since many of these personnel have skills that can be used elsewhere. I want to emphasize that the reinvention effort is not primarily a personnel-reduction process. It is an effort to identify and optimize critical processes that can be performed at less cost through modern methods and technology. There will be personnel losses where processes are abolished or materially changed. Our challenge is to effect this change utilizing our best people to help make those decisions even if it does mean job loss. Not an easy challenge.

**[looking to future]**

**[reducing the costs of tools]**

Projects such as these are significant in that they represent ways to implement improvements fairly quickly with impressive results. We look to these projects to show us how to be equally effective as we tackle the more complex issues. With over 400 projects under our belt, we are confident that we have traveled in the right direction and, as we implement our enterprise integration plan and move toward common systems and data, we will have accomplished fundamental change within the Department.

I want to ask you to do a few things. First, among the vendors, we need to bring down the cost of tools that support reengineering. Currently, we have organizations out there that literally cannot afford to initiate projects. We try to help by providing loaner toolsets and training support, as well as limited facilitation. This is not enough. We need tools that can do the job for smaller clients at significantly lower costs. All projects do not require full-scale toolsets, rather, something 'lite' that creates and prints and saves models is sufficient in some instances. I urge tool vendors to consider alternatives such as this in their future plans.

Another area in which the vendors can help is in expanding the capabilities of electronic meeting systems to be able to perform more of the steps involved in end-to-end reengineering efforts. We do quite well in reducing costs in creating IDEF models in the groupware environment. We need to look as well at Activity Costing, Simulation, rapid prototyping, data standardization, and even migration systems planning using this technology. From our experience, we believe that cost savings and quality of results are significant when this technology is used properly.

We are very proud of the relationships we have established with the consultants that facilitate many of our reengineering projects. We couldn't be as far along as we are without your efforts. To you, I suggest that the models in our DoD IDEF repository can be a ready source of reusable modules that can reduce time and cost in modeling efforts. We have arranged for training and access to the repository for our contract services and urge you to make more use of that facility. I also urge you to get the models you are creating into the repository as quickly as possible so that others can use them as well. We all learn from what others have done before us.

Finally, to the IDEF USER's Group itself, I have several items on my wish list. We desperately need to move toward the object-oriented modeling environment and I urge you to expedite your efforts on moving that method toward standardization. We stand ready to help in any way we can to achieve results in this area. Secondly, We need a completed Interface Definition Language to move models among vendors and repositories without expensive and time-consuming delays in translation. Third, we need to expand the creation of research and technical papers on the interrelationships of modeling to information engineering and vice-versa. Lastly, we need to find more ways through education and training to make managers and practitioners IDEF-literate so that reading a model becomes no more difficult than reading a standard operating procedure.

We rely on organizations such as the IDEF User's Group to assist us in our efforts. You represent the guardian and developer of modeling standards which we have adopted along with industry to enable us to describe both our baseline of current operations and create a description of how we want to look in the future. More importantly, you represent the pulse of the community in the tools and techniques of the art.

[Questions from the Audience]

I thank you

Look forward to the future.

**[Closing Comments]**

**Thanks again**

**Look forward to working cooperatively in the future**

**You are important to our effort**