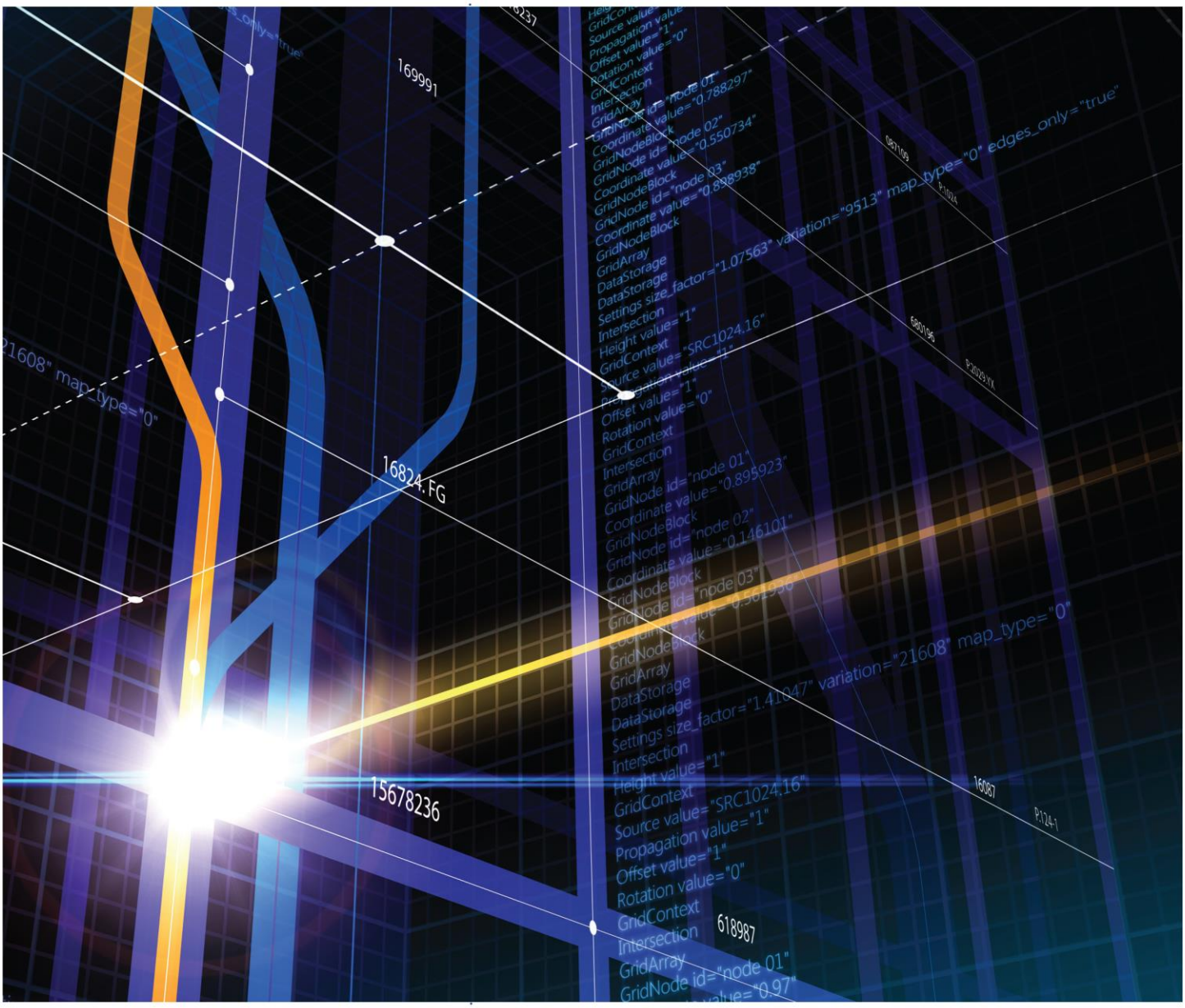
A Roadmap for Sustainable IT Acquisition Reform

A Transformational Guide for the 44th President and our IT Leadership

Draft Congressional Summary, Volume I



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2009 Congressional Summary, Volume I
"A Roadmap for Sustainable IT Acquisition Reform"

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THE DEFENSE INFORMATION TECHNOLOGY ACQUISITION PROBLEM

Information Technology acquisition accountability is a delicate subject and, unfortunately, encourages defensive behavior. The daunting nature of the technology causes leaders to refrain from involvement and shield themselves from the impact.

But we would argue that all of information technology is about implementing a leader vision for the change as we evolve with the rapidly changing capabilities and possibilities of Information Technology "Waves" of change, and that it is imperative that the leader be involved far more directly than we see today.

Transparency in the area of Information technology is good for the funding agent, good for the clients, and good for the affected parts of the organization. In this regard, communication about the change that is coming is also the purview of leadership.

The selection of a project manager should come after the plan has been approved, and the larger the project the longer the period that the leader should be seen as the project manager. When finally delegating to a project manager, the detailed plans should contain an endorsement that they do not alter the leader vision.

Oversight through earned value systems and periodic reports does not relieve leadership of conditioning stakeholders to the leader's vision as it will be implemented in the product.

PURPOSE OF INFORMATION TECHNOLOGY INVESTMENT

Investment in any technology supports ongoing activity in the operation. Presuming that it is not initial investment, which would be under the authority of investors or early senior management, subsequent investment is largely to facilitate expansion of operations or to increase the productivity of ongoing operations. If the operation is undergoing an expansion, then this will cause a redistribution of the productive resources and training for any new personnel to handle the expansion. In either event, senior management would want to be involved to determine the right allocation of the people and resources and the reasonable mission accomplishment for the expansion.

If the investment is to increase the productivity of the operation, this introduces as much change to the culture as if an expansion had occurred. Nominally this is where information technology has its greatest

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impact; and finds its problems. The substitution of technology for human resources has always driven cultural change, and never more so than in the case of substituting Information Technology. Cultural change is a moment for leadership, a moment for management and a moment where they overlap. The reason is that when change comes people get nervous about their position relative to continuing value. With change come an opportunity for error, and therefore a change to the value of the individual. Reassurance comes from operation leadership, rebuilding the confidence and therefore value of the residual workforce.

As the value of the Information Technology Investment increases, it does so almost in direct proportion to the impact on the operation; and therefore the involvement of senior leadership becomes, as well, directly in proportion to the value of the investment.

EXPECTATIONS FOR RETURN ON THE INFORMATION TECHNOLOGY INVESTMENT

Every investment carries with it the expectation of a return; whether it comes from a government satisfying a service requirement for the constituents, or a company satisfying its customers. One of the most difficult, "Return Expectations" comes from investment in cost centers that operate on a budget; and service internal customers; and therefore don't consider themselves to be subject to the normal pressures of the expected return market. Unfortunately here is precisely where Information Technology investments are targeted. These kinds of investments do serve to increase the capacity of operations by allowing for smoother internal processing of routine paperwork or routine accounting records. They might also serve to standardize or control processes such as machine production, or inventory ordering models that directly impact the customer perception of the operation, and more directly reflect upon the management and leadership of the operation as to rigor and quality.

The less visible or transparent the expected return is from an investment; the greater is the responsibility of the enterprise manager, sponsor, or leader to be involved in the requirement development, and the specifications for the information technology. This is because the affected employees must perceive the benefit for the operation for all the change they are being asked to absorb; and the manager must recognize the business plan and expected objective from the investment prior to its approval and commencement. Because of the internal and therefore less financial visibility that might be accorded to the Information Technology investment; the rigor for both analyzing and completing the project business plan remains the responsibility of senior operations leadership. They alone can communicate with the employees as to the purpose of the investment; and with the stakeholder community as to what the expected returns are; and the impact to the operation for the investment.

This principle is seen to have merit and the complete involvement of the senior leadership during the initial approval cycle; but then the rigor of continuing involvement tends to diminish. This diminishment introduces objective drift; and ultimately confusion as to the project intent, and perhaps loss of the value of the investment.

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IMPLICATIONS OF RE-ENGINEERING PROCESSES AND THE ROLE OF THE LEADER

Establishing the "As Is" Condition

As we have discussed, the investment in Information Technology implies there's to be a change in the way that the operation operates. As the saying goes, the problem with change is that you have to change. The involvement of the leader and senior management is crucial in establishing trust with the employees that will be impacted; and communicating with the Information Technology professionals the specifics of what is the current operation; and what will be the new operation given the insertion of the Information Technology System being invested in.

Establishing the "To Be" Condition"

This difficult collection identifies all of the front end interfaces to replicate or enhance the sources of process inputs as well as intermediate flows and outputs that the system is expected to produce. As well, for the immediate operation, this would identify all of the process outputs and what happens to them as well as where do they go and what they impact during the present operation. All of this should be very recognizable to management and leadership, as well as the employees as the 'As Is' Condition. Very importantly, these "As Is" inputs and outputs begin to form the specifications for the Information System Developers. **Only senior management and leadership can comprehend the total scale of the throughput;** and therefore making certain that the present process is replicated as the "As Is" condition is a vital piece of Information Technology design.

Planning the transition from the "As Is" to the "To Be"

The next step is leader dependent, as this is where the rigor starts for this is where the 'to be' condition will be developed. This also frames whether or not the Information Technologist can in fact design the improved process, and begins to frame expectations for returns. By ensuring that all the inputs to the old system are accounted for, and all the users and outputs are satisfied, this allows the designer to range into how the system can be simplified; and the process improved. The **absence of a leader's vision as to the purpose of the Information Technology investment reinforces the status quo**, and will lead to automating the current practice. This builds present inefficiencies into a more expensive system, and rarely results in improvement.

Once designed, initially planning the transition by contemplating what will be changed is a helpful exercise. This includes requiring high leader content, and essentially socializing the change prior to its occurrence. It lets the employees into the process directly, and will be the start of the planning for installation, beta test; and full implementation as the project comes to fruition. This transition plan, sketchy that it may be, is also the brochure and template for the actual plan which will come as a result of the actual implementation of the new Information Technology System.

Simply automating the old process will not result in improvement, though it may speed it up. The leader needs to drive for the expected return, and not miss the issue of designing the 'to be' process. By

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conducting this process review, the system specifications can be generated cooperatively, and employee expectations properly valued.

ROLE OF LEADERSHIP

1. **Addressing the culture**

   As we alluded to in the previous section, the leader has a significant role in creating and executing the vision and design of the information technology. The leader maintains consistency with the culture of the organization. Further, the leader must inspire the workforce to lend their talents to driving the specifications and describing the human interfaces to allow improvement in the operation.

2. **Make security and integrity of the new system a primary goal**

   The leader must go beyond operational goals to establish external goals as well for the IT system as it is developed. For example, goals supporting system integrity to assure that quality will be higher under the new system; and with Cyber Theft a reality, system security to make sure that the goal of improvement doesn't result in a lack of trust to the entire operation.

3. **Maximizing communications and understanding**

   The organizational leader must also build trust in the people through a communications campaign to drive the purpose of the investment and secure buy in from the people to support and help create the new or 'to be' system. Ultimately the advocacy to the funding agent must be demonstrated by the leader as to need, purpose, and description of the return or business plan to include the transition plan from the described 'as is' condition to the forecasted 'to be' system.

4. **Being the senior review official and configuration czar**

   The funding agent will hold the leader(s) responsible for their advocacy; and therefore expect their involvement in the project from **the start to the returns reports**. The best role here is to appoint a project manager, while retaining responsibility as senior review official and be prepared to become the configuration czar so that any suggested revisions must be tracked back to the initial vision for change and be seen to enhance that goal.

5. **Providing support to program manager**

   As the system is better and better defined, the leader must be supportive to project management to continuously drive configuration control and the tested result to maintain tight controls over the ultimate design; and stay true to the employees as to what the outcome will be.

   The appointment of a project manager as described above often comes too early in the process of information technology investment. Organizational Leadership must be the driver in initial design.

   Project manager should have a detailed description of the vision, the "as is" condition and "to be "condition with a draft transition plan. The leader serves in the role of project manager to get initial specifications and interfaces for the new system. This initial configuration and system design

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becomes the path to the Leadership vision; and serves as the baseline configuration control document. After this is accomplished, the leader can turn over project management to a systems expert with the mission of satisfying the vision.

So with a defined path, the project manager must complete the detailed planning document, looking for flaws in the interface controls; and detailing the process flow to assure completeness. This requires preparing detailed specifications and getting signatures from suppliers and clients for interface control documents and human interaction specifications so the systems designer is constrained to the leader vision and the organization's definition of the "to be" condition. If the vision is for installing Commercial Off The Shelf (COTS), this should be a part of the leader vision and incorporated into the interface control sign-offs. This eliminates custom design right up front, and demonstrates strong leader influence. When these interfaces are left undone; processes can be mis-defined; and there results confusion as to just how the system is to work.

Human interfaces include screen design and layout to allow early testing as to adequacy of the design. This may drive the data architecture if a data base system is involved. The role of project management here is to find disconnects and define them very early. Waiting for the systems test in information technology is the same as waiting for final assembly to find subsystem defects in physical platforms-- very expensive. These disconnects and impacts to the established order of process, or to other elements of the operation, or to clients must be brought to the attention of the Leadership and resolved. If they result in system redesign; **the leader must be the approving official**.

With all this preliminary work; the project manager can now get to the actual project management. Establishing schedules, setting interim performance goals, for the detailed specifications establishing an internal configuration steering board to evaluate trades and either ask for appropriate delegation or bring decisions to leadership for resolution.

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IN SUMMARY: PREREQUISITES FOR EFFECTIVE DEFENSE ACQUISITION CHANGE

CULTURE CHANGE --Congressional and Agency leadership must drive culture change and accountability through the establishment of incentives and measures of effectiveness. All stake holders must have a clear picture of success and associated rewards for contributing positively to the value chain.

LEADERSHIP --IT is a transformational technology: **it requires greater leadership support, accountability, and authority to be effective.** This was the intent of the Clinger-Cohen Act.. Leadership must be engaged and drive cultural, process and technology changes.

OVERSIGHT -- Congress and Agency leadership must codify and re-certify program vision, architecture and outcomes through the entire lifecycle, especially when leadership/PM changes occur.

Senior leadership attention and commitment to success must come from the top and be driven all the way down to every stakeholder and partner (especially during leadership changes). It should also learn from Commercial Governance Best Practices that have proven effective and timely, reducing duplication of efforts and reporting overload.

Oversight must focus on outcomes and move away from a policy focused activity. Conformance rarely assures implementation success.

INFORMED WORKFORCE -- IT requires unique disciplines, experience and market knowledge often not present. The work force must be bolstered in a significant way, ensuring qualified and experienced staff who understand the technology domains they are supporting.

The Federal Acquisition Institute (FAI), the Defense Acquisition University (DAU), and the National Defense University (NDU) should build out their current programs to not only train, but mentor Acquisition Program Managers (PM's) to make sure they are vested in the success of the program.

NEW IT PROCESSES; (ARCHITECTURE, ACQUISITION & METRICS) -- Information Technology (IT) acquisitions (excluding Weapon Systems' imbedded IT), drive very different architecture and acquisition approaches, cultures and processes, requiring an adaptation to drive change and manage risk.

PMs must solidify, validate and propagate an actionable/measurable Solution Architecture and Acquisition Strategy. A standardized IT Acquisition Playbook, Training Program and Process guide are needed to address the unique challenges of the fast-paced IT market. Vague requirements and statements of objectives do not work for IT.

Every stake holder and value chain participant should sign off on the required interfaces, business process changes and willingness to live with the 80% solutions. Business Process Re-engineering is a critical success factor and must be part of the lifecycle process in order to achieve desired efficiencies and outcomes.

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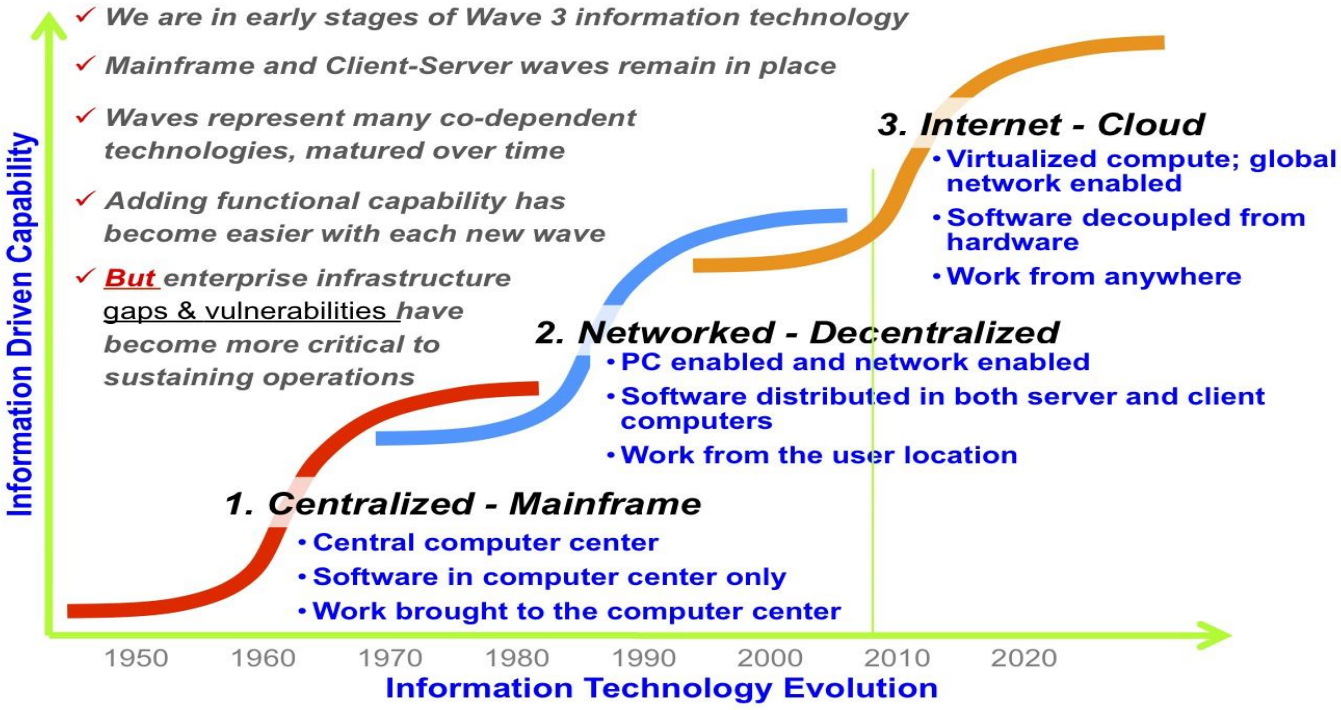
VALUE CHAIN OPTIMIZATION: With so many organizational participants involved in an IT program, agency acquisition strategy must clarify roles and responsibilities of all participants, seeking to optimize contributions and buy-in from the entire value chain. This requires limiting FFRDCs to their research function, deconflicting the planning and architecture process, protecting innovators and small businesses, and keeping users engaged at each stage of the lifecycle. We have professed concepts like Michael Porter's Value Stream Analysis but failed to put this into practice.

KEY POINTS EXCERPTED FROM "A ROADMAP FOR SUSTAINABLE IT ACQUISITION REFORM"

The contributing members of ITAAC have considered a critical situation in the world of Defense Information Technology Acquisition.

Our assessment considered the misunderstanding that Information Technology acquisition is somehow a subset of Weapons Systems or Platform Acquisition, utilizing methods, requirements and procedures appropriate for this. This would be similar to saying that Information Technology Acquisition is a subset of Real Property Acquisition or the early tension between Computer Hardware and its Embedded Software. As the world of IT has progressed, we found that Hardware became more accommodating and generic and then Software needs began to drive hardware requirements.

In order to understand the challenges and requirements of Defense Information Technology acquisitions, an understanding of the three "waves of Information Technology Acquisition" is important. See chart below:



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Information Technology Wave 1, Centralized, Main Frame

The first useful computers began to emerge in the early 1950's, and this was the "First Wave" of Information Technology. This was the era of central computer centers, with software in the computer center only, and work was brought into the computer center.

Information Technology Wave 2, Network, Decentralized

We continue to use main-frame computers but they have become a high performance computer format for legacy and computer intensive Wave 2 functions. We are in a "PC enabled and network enabled" world, with software distributed in both server and client computers.

Information Technology, Wave 3, "Internet, Cloud"

We are in a world of virtualized computers, global network enabled. Software is decoupled from hardware, and work can be done from anywhere.

Because most of us have lived a majority of our lives within the Wave 2 information age, it is less obvious that a Wave 3 "S" curve has been underway for almost a decade. Wave 3, which is associated with the Web 2.0 buzz, is enabled by globalization of the Internet, augmented with high-bandwidth Internet service to home users using infrastructure built-out by television cable providers, Internet enabled telephone providers, and satellite television providers.

The real essence of Wave 3 IT is the simplification of IT usage by non-IT savvy business professionals and home computer users. Unlike Wave 2 where every user is a self directed IT administrator (directing our software upgrades, printer driver installations, and communications parameters), **Wave 3 is moving toward a ubiquitous IT cloud infrastructure that provides the majority of our applications as software services.**

We cannot develop the desired application and information agility needed to support modern warfare if we continue to apply Wave 2 processes where Wave 3 would be far quicker and more effective. By Wave 2 process, we refer to our current JCIDS (Joint Capability Integration and Development System) requirements process, combined with our DODD (Department of Defense Directive) 5000 acquisition process, and funded through our PPBE (Planning Programming Budgeting Execution) process.

Each of these has evolved over decades of bureaucratic reforms designed to guard against misapplication of public funds for military capability. Taken as a whole, these interdependent processes have value for the overall purchase of DoD materiel. **But when viewed within the specific framework of Wave 3 IT, these processes are detrimental to both warfare IT intensive capability, and to the resources allocated to acquire IT capabilities.**

Defense Information Technology Acquisition needs to embrace Wave 3 IT. We cannot emphasize enough the need for high level leadership in order to secure the change needed in people and acquisitions in order to secure the benefits of Wave 3 IT as quickly as possible. **The dangerous world we live in requires it.**

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We hope you have seen -- throughout this roadmap -- the impact of leadership and the role it plays in determining the success of implementing the benefits of rapidly evolving Information Technology.

Many times, leaders only play an oversight role; they must be both overseers and facilitators. Questions surrounding the accreditation of program managers and business process reengineering to design the new process that is the foundation of the system falls to the leader.

Becoming the advocate for the system implies not day-to-day management, but insight and foreknowledge to foster communications between the user community and the program manager.

- Though it is clear that there actions have been taken within the Federal Enterprise, much more needs to be done.
- This report highlights not only the seriousness with which senior leadership needs to approach the acquisition process, but the impact on efficiency and cost savings that can result from a successful Information Technology deployment.

RECOMMENDED ACTIONS FOR INFORMATION TECHNOLOGY ACQUISITION, AND THE EVOLUTION INTO "WAVE 3" IT

In even the smallest of Information Technologies, wherein only a subsection of an organization is affected; the role of the leader remains visionary. The role of information technology is to satisfy goals that are subordinate to the vision. So it can be recommended that the leader be involved in every information technology investment, at least to see that it in fact reinforces the overall vision and goals for the organization.

In the same way, as each will impact the organizations culture, driving change through the organization; this is the purview of the leader. But the leadership is stretched, and time is limited. None the less, the involvement of the leader in the initial design and goal setting for systems is important; and so having leadership sign off on IT investment and allowing the funding agent to see the reinforcement of the vision is a good thing.

As the scale of the investment becomes larger relative to the scale of the operation the dedication of the leader to greater and greater detail is recommended. Concepts that force the leader to delay delegating to an implementing project manager and design greater detail into the systems plan accomplishes many objectives. The leader becomes more and more familiar with the total impact and expectation for the investment.

This will demand a greater understanding as to the "as is" condition, and in the design of the "to be "condition. There are times when automation is not the answer, as automation can inhibit human interaction not enhance it, so problems don't get resolved, they only get documented. Involving the leader in the 'to be' design will allow them to be exposed and take ownership of the ensuing organizational design.

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The leader familiarity will also support ultimate system integrity, through rigorous test and checkout. Identifying scalability and choke points in the process is very important and impacts the achievement of returns on the investment.

The plan is the leader's plan, implemented by management, and so is subject to configuration control at the Leadership Level, and should require a certification and commitment to involvement by the leader. The project manager should have a standard certification that they submit periodically that there has been no change introduced that alters the leader's plan. This will reassure the stakeholders that the system stays true to the vision.

Trust but verify, via annual or bi-annual reporting by the leadership to the funding agent, identifying and justifying any changes to the Leader owned plan is important.

1. The Organizational Leadership should be the sponsor of any Information Technology Investment, and submit a top level plan that is the leader's plan
2. The appointment of the project manager should follow the development of the leader's plan, and not precede it
3. The project manager should prepare and submit a detailed plan that includes an expansion of the leader plan and goes to the detailed specification of the project to include completed interface control documents signed off appropriately, and initial designs for human interface
4. This plan should include a certification to the funding authorities that the detailed plan does not alter the leader's plan.
5. The organizational leader should accompany any reporting, and should endorse any reports.
6. Congress should provide clear guidance as part of ongoing Acquisition Reform. While Information Technology acquisitions should fall under DoD 5000 they should be tailored such that they follow a streamlined capability assessment method conforming to the following:

   This capability assessment method should be a three phase approach with:

   - Capability Determination and Prioritization
   - Service Component Specification and
   - Solution Assessment. Involvement of the Agency Leadership through the provision of a report emanating from this process should constitute the milestone B within the context of DoD 5000

7. Agency leadership should enter into a business reassessment that underlies the requirement for the Information Technology Acquisition and develop a methodology for re-engineering the process to provide to OMB the complete analysis of alternatives, one of which should be to re-engineer only using the present system.
8. The agency leadership should become immersed in the proposed improvements or updating of the process that the unit or agency will rely on for the next several years. Cultural Change is

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many times necessary to extract maximum potential; and should be carefully led by unit or agency leadership.

9. Program Managers should be empowered to facilitate and obtain support and assistance from agency leadership to clear away problems at the highest level and gain support, as well as informing leadership as to progress.
10. In turn, leadership should be the submitters of required reports to Cabinet Secretaries, OMB and Congress to assure compliance across the board to statute, and policies.

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CHARTER

The Information Technology Acquisition Advisory Council (ITAAC)

Bringing Government into the 21st Century by Creating a Transparent and Effective Technology Acquisition Process

(how the feds can save $20 Billion without reducing capability**)**

The Obama-Biden Challenge;

"We must use all available technologies and methods to open up the federal government, creating a new level of transparency to change the way business is conducted in Washington and giving Americans the chance to participate in government deliberations and decision-making in ways that were not possible only a few years ago." **Obama-Biden Plan**

Key Objective;
"Restore Honesty, Openness, and Commonsense to Contracting and Procurement: The Obama-Biden Administration will realize savings by reducing the corruption and cost overruns that have become all too routine in defense contracting. This includes launching a program of acquisition reform and management."

"Executive departments and agencies should use innovative tools, methods, and systems to cooperate among themselves, across all levels of Government, and with nonprofit organizations, businesses, and individuals in the private sector."

Background: Due to an antiquated federal IT Acquisition processes, the US is losing billions each year in failed IT programs while losing its leadership position as the engine of IT innovation while impacting critical government IT capability delivery. Furthermore, in spite of numerous laws, GAO Report, blue ribbon panels, and best efforts from our acquisition community, the Federal Government has achieved very limited progress in achieving meaningful IT Acquisition Reform as sought by the Clinger Cohen Act. Twelve years following the signing of the CCA, program failure rates and cost overruns are still between 72 and 80% (GAO, IDG, Gartner) of the estimated $150 Billion in annual IT investments. The cost to the tax payer is an estimated $20 Billion wasted each year that could be saved if the core root causes of these failures were to be systematically addressed and real business process re-engineering were to occur. IT-AAC preliminary analysis derived from prior government studies and blue ribbon panels indicate that the root causes of these failures to be multi-facetted;

- An overwhelmed Acquisition Community who does not have access to critical decision data on market capabilities or real vendor past performance

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- Antiquated Acquisition rules, policies and processes that compromise transparency and fail to comply with the Clinger Cohen Act mandates
- The fast pace of the IT market that exacerbates current acquisition processes, methods and oversight mechanisms
- Duplicative IT infrastructure imbedded in each major IT program, increasing cost by 70% (Gartner) and impeding interoperability and security objectives
- Duplicative IT research, assessments and testing of commercial solutions, putting an unnecessary burden on both agencies and solution suppliers. NDAA directed Clearinghouse efforts to enable reuse and sharing have been beset by rice bowls and special interests.
- Under funded Open Architecture and Innovation Labs mechanisms needed to expose proven innovations of the market. Outsourcing of these functions to large system integrators has proven ineffective and contrary to the interest of small business and open source concerns.

Crushing financial burdens and deficits, coupled with increase demand for innovative solutions mandate a revamping of IT Acquisition Process and a move away from "build to spec" to a more economically viable model of "Open Source Architectures" and "Commercial Off the Shelf" solutions that have already been proven in the market. As reflected in the September 08 OSD ATL Strategic Objectives document issued by the Honorable John Young, it is clear that "perfection is the enemy of good enough". Yet, we continue to discover that "we cannot solve today's problems with same kind of thinking that got us their in the first place". Failure is no longer an option.

Beginning when the Clinger/Cohen Act was drafted in 1996, many recognized that the federal government is no longer the source of innovation in the information systems market (both processes and technology) that it once was during the cold war. Many recognize that DoD and Intelligence agencies need to "establish new processes" and embrace "non-traditional contractors" to better leverage emerging technologies and associated best practices residing in commercial industry. Clinger-Cohen strongly encourage acquisition leaders to leverage innovations of the market (COTS, Open Source) that have significantly lower lifecycle cost and lock-in, objectives that are contrary to the incentives currently offered to Lead System Integrators and FFRDCs. These challenges can be overcome with agile acquisition processes, greater financial incentives for leveraging innovation and COTS/Open Source, and delivering on time and within budget. The Interoperability Clearinghouse was charted on 9-11-00 to usher in commercial IT approaches and methods, working within forwarding thinking organizations and public service group have emerged that could bring relief to this problem, and with appropriate stewardship and leadership. By expending this humble public/private partnership, and overcoming the root causes of failure, some $50 Billion in failed programs could be redirected to re-establish the US leadership in IT while improving the effectiveness of core government mission elements that are technology dependent.

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IT-AAC Focus: The IT-AAC is organizing as a public/private partnership made up of concerned citizens and public interest groups working together for the common good and overcoming the barriers to failed reform efforts of the past. Its mission is to provide the Obama-Biden Administration and National IT Leadership with a trusted collaborative structure and a 500 Day Transformation plan that details a roadmap for Streamlining the IT Acquisition Process and thereby assuring critical mission elements that are highly dependent on IT (Info Sharing, Cyber-Security, E-Health, E-Gov/E-Biz, Green IT).

The President's FY 2009 Budget documents $71Billion in funding for federal IT investments, not including the Intelligence Community budget estimated at $26B or imbedded IT systems comprising another $80B.

MITRE Corporation assessment of ICH "… the concept of the Interoperability Clearinghouse is sound and vital. Its developing role as an honest broker of all interoperability technologies, no matter what the source, is especially needed. Such efforts should be supported by any organization that wants to stop putting all of its money into maintaining archaic software and obtuse data formats, and instead start focusing on bottom-line issues of productivity and cost-effective use of information technology."

1) CHANGE: IT Acquisitions (excluding Weapon Systems imbedded IT), drives very different architecture and acquisition approaches, cultures and processes, requiring an adaptation needed to drive change and manage risk.

2) LEADERSHIP: IT is a transformational technology that creates more distracters than advocates, it requires much greater Leadership support, accountability, and authority to be effective. This was the intent of the Clinger Cohen Act. Good policy, poor implementation. Leadership must be engaged, and drive cultural, process and technology changes.

3) OVERSIGHT: Congress and Agency leadership must codify and re-certify program vision, architecture and outcomes through the entire lifecycle, especially when leadership/PM changes occur. Senior leadership attention and commitment to success must come from the top and be driven all the way down to every stake holder and value chain partner.

4) WORKFORCE: IT requires additional disciplines and skills often not present. The work force must be bolstered in a significant way, ensuring qualified and EXPERIENCED staff who are encouraged to understand the technology domains they are supporting. FAI, DAU and NDU should build out their current programs to not only train, but mentor Acquisition PMs to make sure they are vested in the success of the program. Failure risk mitigation must trump process rigidity.

5) ARCHITECTURE & METRICS: PMs must solidify, validate and propagate an actionable/measurable Solution Architecture that freezing requirements and measurable outcomes. Vague requirements and statements of objectives do not work for IT. Every stake holder and value chain participant should sign off on the required interfaces, business process changes and willingness to live with the 80% solutions. An architecture without Performance Metrics and SLAs will not survive.

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6) ROLES & RESPONSIBILITIES: With so many participants involved in an IT program, agency acquisition strategy must clarify roles and responsibilities of all participants, seeking to optimize contributions and buy in from the entire value chain. This includes "contracts" with users, overseers, CIOs, CMOs, CPOs, Congress, standards bodies, FFRDCs, non-profits, COTS/Open Source developers and Systems Integrators. Entry/Exit criteria must be established up front to set expectations and time lines.

The goal is to provide decision makers within white house, congressional and agency leadership in revamping IT Acquisition policies and processes required to ensure the effectiveness, timeliness and transparency of its estimated $177B investments as it evolves into "Wave 3 Defense IT. If properly applied, this effort could effect a major economic stimulus for one of the nation's greatest industries. An actionable IT reform roadmap would improve effectiveness and reduce the failure rate of major IT programs and the critical missions they support. The IT-AAC and its membership offer the administration a conflict free structure, body of knowledge, expertise and analytical mechanisms needed to enable sound decisions on critical issues confronting our national leadership.

The IT-AAC builds on the Interoperability ClearingHouse public/private partnership structure, seasoned thought leaders, and significant body of knowledge associated with 8 years of root cause analysis. The IT-AAC leadership recognizes the increased role technology plays in furthering our nation's defense, intelligence, healthcare and e-government missions, and brings forth the knowledge and experience needed to make transformational decisions on policies, processes and investments.

To avoid "reinventing the wheel" the IT-AAC is aggregating existing study efforts and communities of practice needed to tap into our Nation's most experienced and respected experts on IT Acquisition Reform. To support this effort, the Interoperability Clearinghouse (ICH) has assembled a significant body of knowledge in the form of Best Practices, Industry Study Groups, Blue Ribbon panels, GAO reports, Public Interest Consortia and other objective sources to better enable effective policy decision making.

The resulting emergent public/private partnership will provide our national leadership with collaborative structure, reusable solution frameworks and validated sources not available from traditional contracting mechanisms. The IT-AAC will focus on the changes needed in current acquisition policies, processes and collaborative structures by the fast-paced Information Technology market. We can no longer depend on failed approaches that take too long and cost too much.

Furthermore, the federal agencies are experiencing unacceptable IT program failure rates (72-80%) costing the tax payer tens of billion per year and impeding the delivery of mission critical

IT capabilities (not including the Intel Agency budget which is estimated to add another $5B to the problem).

This effort also aligns with the administration's commitment to "Invest in the Nonprofit Sector"

- "Create a Social Investment Fund Network": Use federal seed money to leverage private sector funding to improve local innovation, test the impact of new ideas, and expand successful programs to scale.
- Social Entrepreneurship Agency for Nonprofits: Create an agency within the Corporation for National and Community Service dedicated to building the capacity and effectiveness of the nonprofit sector.

CONOPS: The IT-AAC will operate in the public interest, as a public/private partnership "think tank" (following E-Gov Act operational guidelines), pooling resources and expertise drawn from multiple government and industry communities of practice. As the ICH and its partners have been deeply involved in IT Acquisition reform efforts, it will bring to light documented gaps and root cause analysis already performed, and put into an operational context.

It will establish a 500 Day IT Transformation Plan that will identify IT Acquisition process gaps, standards of practice, cultural impediments, and policy impediments that have impeded prior reforms efforts. By applying the Scientific Methods and Evidence Based Research, our leadership will be assured maximum transparency and objectivity in making decisions that that will empower effective governance and technology leadership required improving IT Acquisitions and mission outcomes. The IT-AAC will offer the new administration with a unique collaborative structure focused on overcoming policy, process and cultural impediments to IT implementation success, recognizing that *"we cannot solve today's problems with the same kind of thinking that got us their in the first place".*

Purpose - To inform the administration leadership and career leaders on the specific challenges agencies face in executing existing IT policy and agency mission objectives. Offer potential solutions for a way ahead in the form of an implementation roadmap, gap analysis, and leading practices that have already demonstrated to be effective.

Method - through analysis of existing studies and use cases by an experienced panel, determine the critical areas requiring immediate attention that identify interdependencies and establish contextual framework. Form focused work groups to make specific recommendations regarding challenge areas and offer a framework for a long range national IT strategy via a 500 day plan.

Root Cause Analysis – The ICH has participated and/or assembled dozens of studies on IT Acquisition failure patterns with many of the federal agencies including Office of the Secretary of Defense, AF, Navy, Army, DHS, GSA, PTO, GPO, GAO and the Intelligence Community. Additional studies produced by Defense Science Board, AF Science Advisory Board, DAPA,

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Markle Foundation, CSIS, CIO Council, Industry Advisory Council, NDIA, RAND, and NCOIC has been analyzed and repurposed for the IT-AAC leadership, providing the administration with a clearinghouse of knowledge and expertise needed to effect much needed acquisition reform decisions.

Senior Leadership Board - will be comprised of thought leaders from multiple communities of practice. Selection will be based on prior contributions to public service and commitments to transparency. Individuals representing primary suppliers to the Federal government will be limited so as to avoid any appearance of conflicts of interest. Those selected from primary federal suppliers will be asked to fire wall their activities from their respective company interests.

Operational Activities will include;

- Leadership Committees that pull from the IT-AAC diverse membership that will tackle key policy challenges.
- Focused Working Groups that will leverage existing bodies of knowledge and repurpose to provide administration leadership with actionable plans and roadmaps
- IT Acquisition Educational Forums (E-HealthCare, Information Sharing, Cyber Security, etc). These will follow the very successful Secure E-Business conference structure established by OSD C3I during the 2000-2003 periods. Forums will expose best practices and lessons learned for the IT acquisition community. Collaborate with universities (i.e.; CMU SEI, DAU/NDU, UofMD, UVA, GMU, etc.).
- Solution Architecture Integration Lab (SAIL) where innovations of the market can be quickly explored, validated and exposed in an open and conflict free forum to support innovation research pilots and better inform IT program lifecycle; visit www.ICHnet.org/sail.htm for detailed approach, OMB recommendations and industry white papers.

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IT-AAC Outcomes: The ICH, under oversight of the IT-AAC leadership, will identify and leverage collaborative mechanisms, work products, root cause analysis reports, governance structures and contract vehicles already in place, providing both public/private partners with an array of mechanisms needed to guide measurable improvement in policies and programs. The IT-AAC will provide federal IT Leadership with 500 Day plan establishes specific decision milestones that;

- Identify policy shortfalls and overlaps.
- Help Streamlined IT Acquisition Process and establish separate swim lanes based on proven approaches already applied by forward thinking agencies and public interest concerns
- Improve information sharing and coloration mechanisms that leverage existing innovations and proven IT capabilities needed for critical mission capabilities
- Significantly improve the effectiveness, efficiency and transparency of federal IT investments, assuring the maximum use of US IT innovations. Today, most innovators are locked out of the Federal IT Acquisition processes.
- Help establish IT Acquisition standards of practice,
- Established Educational forums with existing universities for the Acquisition Community where best practices and lessons learned can be shared and leveraged.
- Reduce lifecycle costs of acquiring new IT and sustaining legacy IT, avoiding failed IT acquisitions, potentially saving an estimated $15 Billion per year.
- Enable acquisition of IT using a Services Oriented Architecture with measurable outcomes
- Provide government leadership with a research coop where innovations of the market can be readily assessed and leveraged.

Policies alone have not been effective, and often had an opposite effect. This is why the IT-AAC will build on the ICH's non-profit research institute structure, providing stake holders with necessary tools to enable sound decision making;

- Decision Support Reports and Roadmaps
- Reusable Solution Architecture Frameworks
- Analytical and Advisory Services (cost recovery model)
- Senior Leadership Working Groups
- Acquisition Peer Reviews
- Domain specific CxO Summits and Town Hall Meetings

Domain Working Groups; identify key mission areas that are highly dependent on an agile acquisition process to perform their mission objectives. Due to the critical importance of successful IT Acquisition to our country's mission objectives, this committee will address domain specific impediments and opportunities that should be addressed in terms of culture, policies, procedures and partnerships needed to assure implementation success. Key mission areas that would benefit from this public/private partnership structure include;

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- Healthcare; focus on standardized patient record for independent system interoperable information exchange
- Cyber Security; collaborative research and assessment technologies that improved non-repudiation, information integrity or trusted information environments
- Interoperable Information Sharing; overcoming cultural impediments and improved comprehensive analytic opportunities. Identify approaches and emerging approaches that have been effective.
- Business Systems; truly leveraging industry best practices associated with architectures, acquisitions and assessments, recognizing that legacy acquisition processes have not been effective, and often violate existing policies directing agencies to apply industry best practices and emerging standards.
- Shared IT Infrastructure; eliminating redundant application infrastructure by establishing a common set of infrastructure services within a SOA governance model.
- E-Government; putting teeth in the E-Gov Act. Re-invigorating CIO Council activities that drive true sharing of proven solutions. Improve use of public/private partnerships to leverage untapped resources and lessons the burden on government.

Periodic out briefs to the public will be coordinated with the both political appointees and agency leadership through Town Hall meetings and forums. Public reports and briefings will be posted at www.ICHnet.org.

Additional details and meeting schedules will be posted at www.ICHnet.org and http://my.barackobama.com/page/event/detail/gpt3sr.

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IT-AAC Leadership:

Chairman: VADM Kevin Green
SVP Policy: Bob Dix
CIO/CISO: John Weiler
Fellows: Dr. Marvin Langston, Gary Wang, Tony Scott

The following council leadership has been assembled based on prior contributions and public service contributions made towards improving government IT acquisition process (a criteria for membership). The IT-AAC recognizes the need to cut across communities of practice and represent the best and brightest in their respective fields of expertise to provide an objective and balance advisory.

Government members will not be asked to contribute to any recommendations.

Assessing the Problem, leveraging existing sources of evidence

" There is broad agreement on the need for acquisition and contracting reform in the Department of Defense. There have been enough studies. Enough hand-wringing. Enough rhetoric. Now is the time for action. "

With growing GOA and DoD IG evidence pointing to common failure patterns in federal architecture and acquisition of IT systems going back to 1990s, the Interoperability Clearinghouse (ICH) and has focused its efforts in identification of the root causes of these failures and establish mechanisms that enable fact based decision making at each stage of the IT architecture and acquisition lifecycle. Following a Lean Six Sigma approach to process transformation, ICH has incorporated lessons learned and failure points identified in Blue Ribbon panels, GAO reports, DoD IG Audits, and other objective sources that point to a pattern of failure in both DoD's acquisition lifecycle and performance assessment collection mechanism.

Numerous blue ribbon panels have identified these root causes of failure and recommended means of implementing major policy initiative like Clinger-Cohen, President's Management Agenda and most recently, OMB's FEA-PMO. Those studies already identified include but not limited to;

- 1997 Clinger-Cohen Act: Required commercial best practices and use of commercial IT offering as the 80% solution (COTS).
- June 1999, Electronic Commerce Conference Working Group report on Software Quality and Interoperability. It recommends that DoD change its architecture methods (C4ISR) to make them more inline with commercial standards and best practices. These

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recommendations led to the creation of an Interoperability Clearinghouse public/private partnership.

- April 2000, AF Science Advisory Board Report on "Challenges of inserting commercial items into missions systems". This report strongly encourages DoD to establish a clearinghouse of commercial best practice to help DOD PMs avoid common pitfalls. This report is posted at www.ICHnet.org
- September 2002 NDIA-SEC report on "Information Systems Interoperability". It recommends creating verifiable interoperability standards around commercial technologies and standards such that DoD IT leaders can review and evaluate viability of a system and its components BEFORE contract award.
- February 2003, Industry Advisory Council Enterprise Architecture Special Interest Group, an industry group that advises OMB and the Federal CIO Council on how to achieve better implementation of the President's Management Council. These OMB approved recommendations encourage government to update current architecture processes and technology evaluation metrics. This report and others are posted at www.ICHnet.org/sail.htm
- March 2003, Carnegie Mellon SEI report on "An Assessment of DoD's Architecture Framework." Again it details inherent limitations of DoD's "one size fits all" architecture methodology and recommends adoption of commercial standards and best practices. This too is posted on ICH's main web page.
- January 2006 Defense Acquisition Performance Assessment (DAPA) Report coordinated by Mr. Dave Patterson, former OSD Comptroller.
- April 2009 Defense Science Board report on IT Acquisition http://www.acq.osd.mil/dsb/reports/2009-04-IT_Acquisition.pdf
- May 2009 Center for Defense Information, America's Defense Meltdown, http://www.d-n-i.net/dni/wpcontent/uploads/2008/10/america_defense_meltdown_exec_summ2.pdf
- IAC/ACT report on IT Acquisition http://www.actgov.org/actiac/documents/pdfs/Enabling_Federal_IT_Innovation.pdf
- GAO Report on Navy ERP http://www.gao.gov/new.items/d05858.pdf

When looking at the cultural impediments to change, one might reflect on the advice and observations of Nicolai Machiavelli, in 1513 AD, *"Nothing is more difficult than to introduce new order. Because the innovator has for enemies all those who have done well under the old conditions and lukewarm defenders in those who only may do well under the new".*

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