



United States
General Accounting Office
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Information Management and
Technology Division

July 31, 1991

Belkis Leong-Hong
Acting Director
HQ DCA
Center for Information Management
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Dear Ms. Leong-Hong

Thank you for participating in our panel discussion on information resources management (IRM). The panel discussion's often-lively discussions of the issues provided us valuable information on not only the major barriers to effective IRM, but on possible solutions as well.

We plan to use the information from the panel discussion as a key element in developing our report on IRM barriers, which we will provide to you in the coming months.

As promised, a copy of the transcript of the discussion is enclosed along with the results of the test that prioritized the barriers. If you have any comments or questions please call Alicia Wright at 202-275-0441.

Sincerely,

Jack L. Brock, Jr.
Director, Government Information
and Financial Management

Enclosure

These are the results of the Delphi method used at the end of the panel discussion on IRM barriers. The top six problems, according to the ranking, are listed.

RANKING ON IRM BARRIERS

CATEGORIES	NUMBER OF TIMES MENTIONED	SCORE
Focus on information technology, not on the program mission.	6	36
Focus on the waterfall model which demands set requirements.	6	30
No shared objectives or vision.	6	28
Technical barriers exist for developing, implementing, and maintaining technology with uncertainty about future technological change.	6	27
Lack of skills and knowledge in project management and IRM.	6	23
Lack of an effective IRM planning model.	6	21

August 6, 1991

U.S. GENERAL ACCOUNTING OFFICE
441 G Street, Northwest
Washington, D.C.

INFORMATION RESOURCES
MANAGEMENT:
PANEL DISCUSSION

Held at Room 6119,
AFMD Conference Room,
commencing at 8:30 a.m.

BPA: PC9100002BF
Task Order #: 48

Alicia
Ms. ~~Eliha~~ Wright, IMTEC
(202) 275-0441

TUESDAY, JULY 23, 1991



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P R O C E E D I N G S

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2 MR. BROCK: We will go ahead and get started.

2

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Ralph Carlone, the Assistant Comptroller General for
4 Information Management and Technology is going to open up with
5 just a very few minutes worth of wisdom.

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MR. CARLONE: Well, I'd like to welcome you all.

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Jack said a few minutes. I think when I talked to
him last week, he said why don't you take about 15 minutes and
then as we kept moving on, he said about 10 would be okay.
Mike ^{Gryszkiewicz} ~~Resceovitch~~ caught me yesterday and he said, you're only
going to take 5 minutes, right. So I don't know, I'll take
what I'm going to take.

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I thought what I might do this morning is very
briefly talk about how our work evolved and try to put in
perspective where we've been, where we are today, and some
sense of where we think we're going in terms of the work
focus.

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In looking at the kinds of things we've done over
the last 7 or 8 years, I think our mix of work pretty much
started initially with a focus on system reviews. What I mean
by system reviews in the context of what GAO does is basically
look at individual systems responding to, I guess, congressional
requests on why a particular system is having trouble and
things like that.

25

I guess to give you some examples of that, I think

1 one of the first big systems that we looked at was NORAD.
2 Essentially what we found there and what we were able to say
3 -- well, let me kind of back up.

4 First of all, what we looked at was the replacement
5 system for NORAD. In looking at that replacement system, we
6 essentially found that what they were building, or what they
7 say they were building, was in no way going to satisfy the
8 requirements, was in no way going to work at almost any level.

9 So as we began trying to identify what some of the
10 causes of the problems were, we ran across things like -- this
11 was back I guess in 1988-89 -- we found that there were what
12 they termed 82 major technical problems that hadn't been
13 resolved. In looking at that, essentially we found that those
14 82 problems were known back in 1980 and 1981. So we asked the
15 obvious question, if you've known about these problems for 10
16 years, why hasn't something happened and the taxpayers have
17 \$500 million less in their purse.

18 Essentially some of the things that we found was
19 that they created something like 230 odd boards and
20 commissions to try to resolve these problems and they
21 basically bounced from commission and board to board and
22 nothing really got done.

23 I guess the other question that one might ask was
24 how deep were these technical problems and how much was
25 involved in them? Some were, I think, fairly challenging and

1 still are in terms of resolving, but there were some basic
2 ones.

3 For example, we found that the replacement system
4 was built to a different wiring standard than the system that
5 they had in the mountain, so basically even if the system had
6 worked -- which we found that it wouldn't work in their
7 environment -- there was a different wiring standard in the
8 replacement system than was in the mountain.

9 Most recently -- in fact, someone showed me an
10 article this morning -- we completed a job at Justice in
11 looking at their security. I don't know how to characterize
12 this but we've made the National Enquirer and the headlines
13 were "Kennedy Rape Drives Joan into Booze Clinic," then
14 there's a Michael Landon and then somewhere buried on page
15 five, there's an article about "What A Blooper, Secret
16 Government File Sold in Computers."

17 The quote is accurate and basically it quotes GAO as
18 saying our investigation leads to the unmistakable conclusion
19 that at present, one simply cannot trust that sensitive data
20 will be safely secured at the Department of Justice.

21 I highlight these two in terms of examples of the
22 kind of work that we've done in what we call the systems area.
23 I think the second focus in the evolution of our work is in
24 the governmentwide area. I think we've done several jobs in
25 the governmentwide area.

1 I think the one that we have the most hope for right
2 now in terms of having some impact in changing the way
3 government goes about acquiring systems is a piece that we
4 have done on the acquisition process. Basically, the focus of
5 that piece was to look at the various steps in the acquisition
6 process, to hopefully pinpoint those steps, and make it clear
7 what the soft spots are to help, I guess, mitigate risks.

8 The other focus that we've taken in our work is what
9 we call IRM reviews. In the IRM review area, we basically
10 start with the mission of an organization, the objectives, and
11 try to look at the information, flows of the information,
12 channels that organization has to accomplish that mission. I
13 think in the last 2 or 3 years, we probably completed about
14 half a dozen or so of those and I think we're getting some
15 payoff there in terms of finding some systematic weaknesses,
16 trying to find some root causes, basically getting to what we
17 have set our mission as or, rather, our goal, and that is to
18 try to effect change in how the Government goes about
19 acquiring systems.

20 I think our frustration initially in looking at
21 individual systems was that we were, I think, able to come up
22 with what we call reportable findings, but we didn't really
23 feel that we were making a contribution in terms of coming up
24 with the root causes and systemically trying to change the way
25 Government goes about acquiring these systems.

1 That, I guess, led us to the conclusion that
2 obviously we needed to do more in terms of looking at these
3 root causes. About a year or year-and-a-half ago, we pulled
4 together leaders from the private sector who we felt had had
5 some successful experiences in building systems. These were
6 people like Don Lasher, Fischer from Bank ^{One} N, Jim Grant from
7 the Bank of Canada, and essentially spent about two days
8 asking them the question, what went right, what are the things
9 that you would highlight as things that went right in building
10 the systems that you all built.

11 Off of that, we essentially, I guess, produced two
12 products. One was a report that basically summarized those
13 two-day discussions and a video that also captures that. Off
14 of the symposium, we basically came up with five principles
15 that we said we felt that if agencies followed these
16 principles, it would help in terms of effecting the change
17 that we wanted and that change was to obviously get more of a
18 commitment to appropriately build systems, and I'll mention
19 them very briefly.

20 Those five principles started with commitment and
21 vision at the top and what we've been doing for the last year
22 and a half is trying to meet with the agency leadership and
23 trying to drive that point home, that it's got to start with a
24 commitment and it's got to start with a vision at the top. If
25 you don't have that long-term vision, if you don't take that

1 long-term view, at least our sense was that things begin
2 falling apart.

3 The other principle that we emphasize is
4 partnerships. We emphasize partnerships at a number of levels
5 -- partnerships obviously between the users and the technical
6 folks in an organization, but even more importantly,
7 partnerships with the appropriate congressional committees on
8 the Hill. We think it's crucial that there is a shared vision
9 between that agency or that agency head and the appropriate
10 congressional committees.

11 What we found time and time in our work is that the
12 oversight committees or the authorization committees basically
13 don't understand a particular agency or the particular goals
14 and vision of that particular agency for a system and, in
15 fact, a lot of times -- truth be told -- the agency really
16 doesn't have a long-term vision. It basically is working in a
17 short-term environment putting out fires.

18 I think the other one -- I guess I was surprised
19 that we didn't see a lot of this in the government programs --
20 that was service to the public should be the vision's
21 cornerstone. I think at the time that we were talking about
22 this, there were a few agencies that basically started from
23 the premise of what does the taxpayer want or what does the
24 taxpayer say he or she needs. Obviously you can't do that for
25 every system or that question isn't appropriate for every

1 system. Certainly in systems like the IRS and systems like
2 the Social Security Administration, that at least to us was a
3 question that should be explored.

4 We see some movement in that area where certainly
5 IRS and I think the Social Security Administration in some way
6 I think are beginning to try to catalog what the public's
7 perception or what the public's wants are in those areas.

8 The fourth one was a clear, flexible architecture.
9 Essentially what this provides for or what this says is, once
10 you have your long-term vision, we think it's better to try
11 and build these things and we would encourage you to try to
12 build these things in a modular form so that you can plug them
13 in. The key, again, goes back to having that vision.

14 The last one that I think has been a continual
15 problem in government -- I think it's still a problem today, I
16 think it will be a problem for a number of years and at least
17 in my mind it's one of the key root causes for some of the
18 failures we've had -- and that's management continuity.

19 Having said all of these things, our next step was
20 to pull together an executive council as part of that and they
21 gave us advice on a number of areas. One of the areas that
22 they pointed us to was trying to identify the barriers, the
23 things that get in the way of government agencies doing a good
24 job in building these systems.

25 This is what we're basically here to try to do

1 today, identify and get your input in identifying what you
2 think some of the barriers are.

3 If I might share with you my thoughts about that,
4 I've looked at the paper, Jack, that you all have put together
5 and I think that does provide us with a good start. I'd like
6 to add three of my own and see if we can get some debate on
7 those.

8 One, I think more and more I'm beginning to see and
9 at least think that one of the things that is getting in the
10 way is that agencies don't have a good handle, don't have hard
11 data on their current programs and their current management
12 processes. I think one of the things that we kind of get
13 troubled with when we see that is you recommend that they
14 spend money to get that data before they proceed with
15 automation or is it more cost effective to say "do something."
16 I don't know that I have a resolution of that but it seems to
17 me that is probably one of the areas that I would term as a
18 barrier.

19 Another one is having quantifiable measures for
20 judging success of whether a program is going to meet its
21 objectives. Not to be naive on that, when I say quantifiable,
22 I'm allowing -- at least in my thinking of that -- to either
23 have quantifiable measures or at least something that deals
24 with qualitative kind of measures. I think essentially what
25 I'm saying is we don't see a lot of anything really put down

1 as to how you're going to judge whether you're met your
2 objectives.

3 The last one I think is one that I mentioned and
4 that is that we don't see that shared vision between the
5 agency and the appropriate folks on the Hill, the appropriate
6 committees on the Hill.

7 I guess the other thing I would like to suggest as
8 we talk through this today -- I think for our purposes, Jack,
9 it would be extremely useful if we could link the barriers to
10 the symposium principles. We've laid out five principles.
11 I've suggested some; I'm sure you all are going to suggest
12 some more, but to the extent we can build on what we have
13 done; to the extent we can build upon the principles that we
14 already have and basically ask the question, what are the
15 barriers, what are the things that are going to get in the way
16 of folks really adopting those principles, I think would serve
17 us well because we have a bridge from obviously the principles
18 to hopefully drilling it down more.

19 In terms of, I think, our goal for trying to identify
20 these barriers, my goal, I guess, is relatively
21 straightforward. I think if we can identify those barriers
22 and in addition to that, provide some alternatives for
23 resolving those or getting over those, my hope would be that,
24 at a minimum, we could provide some framework for
25 congressional discussion. I think in the short term, that's

1 probably the best that we're going to be able to do, to say,
2 look, here are the principles, here are some things that get
3 in the way of resolving those principles, and to at least
4 initially start getting some dialogue around those barriers on
5 how you resolve those barriers and start that dialogue.

6 I think the time is right. I think the time is
7 right and I'll end with this, because I see -- I guess from
8 where I sit -- more congressional interest and I think that
9 comes from a number of sources. One -- I obviously don't have
10 to talk to anybody about this -- is the budget situation that
11 we have. Obviously, we don't have the money today to put into
12 the NORAD system, to put into the Social Security system, to
13 put into the FAA system. These were budgets of billions of
14 dollars. I don't think you're going to see Congress being
15 willing to put that kind of money into these systems without
16 asking some of the tough questions.

17 I don't think you had that 5 years ago. I think
18 money was plentiful -- especially in DOD. I hate to say this,
19 Paul, but I think from what I saw from where I was sitting,
20 the money was there and basically the way it looked to us is
21 find some way to use that money. So it was plentiful and we
22 have what we have today.

23 I think more and more, we're beginning to see that
24 authorization committees, appropriation committees are raising
25 a question about accountability. Who is going to be

1 accountable for this billion dollar system, who do we look
2 for? I think that probably will intensify in the future.

3 The other is that I think there are still a lot of
4 committees up there who are going to be asking us -- and we're
5 going to have to look at these things on a system by system
6 basis. They're going to want to know, is this system going to
7 be built, are there problems with this particular system? I
8 think we'll still continue to operate or still continue to
9 look at those kinds of things.

10 Hopefully, that work will somewhat decrease, but
11 we're probably doing about 50 percent of what I call systems
12 work today over what we were doing 8 or 9 years ago. I kind
13 of figure that probably will stay within the 40 to 50 percent
14 of our resources.

15 I think the other thing that you see on the Hill is
16 more of an emphasis on asking an agency for their long-term
17 vision. So I guess to sum that up, you see more -- at least,
18 I see more participation by the Hill in terms of asking the
19 right questions at least on accountability and on long-term
20 vision.

21 I'll stop there. I guess I've taken my 5 minutes.

22 MR. BROCK: Exactly five. Thank you.

23 Before we get into this too much, I'd like to
24 introduce a few people who are working on this. Nancy
25 Simmons, who is sitting directly across from me, is an

1 Assistant Director at IMTEC who is responsible for
2 governmentwide IRM work. Sue Burns, who is sitting in the
3 front row, is the specific assignment manager on this job that
4 we're talking about today. She's being ably assisted by
5 ^{Alicia}~~Alicia~~ Wright who is sitting there in the blue suit. Kevin
6 McCarthy is sitting next to her in a darker blue suit.

7 I guess I would put Ralph's three additional points
8 in our framework. I think the two on data both go under
9 knowledge barriers and the lack of shared vision I would put
10 as a political barrier, sometimes with a "P" and sometimes
11 with a "p".

12 We're finding consistently that agencies don't have
13 the basic information they need to manage. On every single,
14 individual assignment -- some looking at specific portions of
15 an agency, may be even as narrow as the system, some like the
16 reviews we've done in INS or the one we're doing at Customs
17 now, or the one we did at VA -- we're looking at a whole
18 agency where they simply don't know how they're doing.

19 At VA, they don't know how the hospitals are being
20 run. They don't know if patients are getting better or worse.
21 They don't know if veterans are getting the right kind of
22 benefits.

23 It's clear when we talked with individuals at the
24 agency that the people are not trying to do a bad job, that
25 the people are smart, they're intelligent, they want it to

1 work, they want the system to work. Regardless of the
2 stereotype that's sometimes put forth of the government
3 worker, we've come across a group of incredibly dedicated
4 individuals. So it makes you think there's got to be a series
5 of causes or reasons why it isn't working. What are the
6 barriers?

7 What we're doing on this assignment, before we're
8 going out to the agencies, is we're developing and fine tuning
9 a hypothesis that we're going to test at the agencies. We
10 started this basically by reviewing past GAO reports -- not
11 only IMTEC reports, but other reports that were focusing more
12 on program operations.

13 We've had three focus group meetings ^{within GAO} ~~with NGAO~~ that
14 developed the first cut and now we want to bring in other
15 involved parties, people who have a widely different
16 perspective than what we've enjoyed internally at the GAO. We
17 think the discussion we have this morning will be very
18 fruitful in helping us define that and then we can build on
19 the past work that has been accomplished over the last 2 or 3
20 years within IMTEC.

21 Assisting us in this is Chris Hoenig who is also an
22 Assistant Director within IMTEC, who is acting as an internal
23 consultant to the assignment. Chris is new to GAO. He has
24 just recently joined us from ^{McKinsey} ~~Kinsey~~ and Company where he was
25 working with private companies on integrating their

1 information needs with technology.

2 Chris today has agreed to be the moderator and
3 facilitator for the panel discussion that we'll be having for
4 the rest of the morning. We will briefly introduce the
5 panelists to get things rolling. I'll turn it over to you,
6 Chris.

7 MR. HOENIG: Thanks, Jack, and thanks, Ralph, as
8 well, for the background. The biggest thank you I'll reserve
9 for all the panelists for having taken your valuable time to
10 come in here today. We will really try to make as best use of
11 that as possible in the public interest here today. Given the
12 size of the subject we're taking on, the breadth of experience
13 in this room ^{we'll} ~~will~~ just get us started because time is going to
14 be pretty short today.

15 Just a couple of ground rules to get going. First
16 of all, our specific objection, let me just restate that.
17 We'd like to really try and get at the root causes or barriers
18 of why good information resources management is so difficult
19 in the Federal Government. We mean that specifically in the
20 broadest sense, the concepts, techniques and tools that are
21 used to apply information technology to achieve an agency's
22 mission.

23 We'd really like to have an energetic discussion
24 today, to get down to an operational level of specificity in
25 terms of looking at these causes. We also like to meet as

1 informally as we can here because -- and this relates to the
2 second ground rule -- although we're recording these things
3 for the purposes of catching all the bits of wisdom that come
4 out, this is off the record and is not going to be published
5 for any attribution.

6 One of the real benefits of this group is the
7 diverse constituencies, that each bring their different
8 perspectives to the table, so we'd like to get as candid as we
9 can about what's really going on out there today.

10 As far as questions are concerned, we don't want to
11 completely exclude questions from the audience but because
12 we're going to try and do a lot today, we'd like to limit them
13 as much as possible. We're going to look for a break around
14 10:30 or 10:45 but if things are going well, then we're going
15 to shift that to look for a natural break if we need to.

16 Just a couple of themes. As I looked over the
17 background of the participants here today and what we're
18 trying to achieve, one, trying to get down to your comment,
19 Ralph, trying to get down not only to link the symposium
20 principles with the causes and barriers, but also to get down
21 to a level of detail beneath where we went there to bring out
22 the different points of view of the oversight agencies, the
23 contractors, the state level and the agency level here today,
24 to think about the public versus the private sector and what
25 can we really learn from the private sector and where do those

1 lessons stop, and a particularly important one in terms of the
2 congressional framework you identified, Ralph, I think is when
3 we're talking about barriers, where do the control points lie,
4 which ones are really at the governmentwide level out of the
5 agency control and which ones are within the agency's control
6 where actors can actually take the reins and do something
7 about it.

8 So let's get started. We put together a list of
9 working hypotheses and what I'd like to do just to kick
10 things off is go around the table and have everyone react
11 specifically to them. Tell us if you think we're off base or
12 if you think we're right, that's allowed.

13 (Laughter)

14 MR. HOENIG: Please add in whatever you think is
15 most important. If you think there are additions that need to
16 be made, we'll keep track of these as we go along. Vic, would
17 you mind kicking us off?

18 MR. MILLAR: Shall we start with a little ["]who we are
19 and where we come from["]?

20 MR. HOENIG: Yes. Thank you for reminding me,
21 actually. Let me just go around the table and do that. Vic
22 is Chairman and CEO of PSF Management International. He's had
23 experience as a chief executive in business, both with Arthur
24 Andersen and with Saatchi & Saatchi, a very large consulting
25 and advertising firm. The breadth of his experiences spans

1 not only industries but a wide variety of professional service
2 firms of particular applicability I think in looking at
3 government agencies.

4 Neil Stillman is Deputy Assistant Secretary for IRM
5 at the Department of Health and Human Services, a senior IRM
6 official having worked at HHS and DOD, I think, and GSA as
7 well. So we have two GSA perspectives here at the table.

8 Susan Tobin is Chief of the Procurement and
9 Management Reviews Branch at GSA, has wide experience in
10 future and computer operations and has published some
11 outstanding work on the future of IRM in government.

12 Ted Withington, who is a consultant, has been with
13 Arthur D. Little for several decades, worked as a VP for
14 Information Systems there and has a broad variety of
15 experience both with the information industry and with
16 businesses and government.

17 Paul Strassmann, who is the Director of Defense
18 Information at DOD, and previously an executive in
19 information systems at Xerox, brings the chief information
20 officer point of view as well as an academic point of view,
21 and a broad familiarity with research on issues of IT and
22 organizational performance. I have your book on my book shelf,
23 "The Business Value of Computers."

24 Tom Giammo is Assistant Commissioner for Information
25 Systems at the Patent and Trademark Office, senior IRM

1 official with experience at HEW, SSA and DOD, also previously
2 at GAO, so we have multiple GAO perspectives, particularly
3 experienced in software development operations.

4 Al Pesachowitz is Director of IRM at EPA, a senior
5 IRM official there, particularly responsible for strategic
6 planning and management.

7 Bel Leong-Hong is with the newly reorganized Defense
8 Information Systems Agency. She is an Acting Director.

9 We're very happy to have all of you here today. Now
10 we can kick off.

11 MR. MILLAR: On the barriers, as I read these over
12 they all look very familiar to me. There are certain barriers
13 in the business community and I would assume it would all be
14 found in the government environment. Furthermore, they've all
15 been barriers for the last 30 years. I don't see anything new
16 on the list.

17 We do have, over that 30 years, a few companies who
18 do very, very well. We've had some of them represented, as
19 Ralph said, at the last meeting we had here and I presume,
20 although I don't know firsthand, that around this table some
21 of you can name one government agency that has an
22 extraordinary record of doing things perfectly that's held up
23 by everybody else that such an organization exists?

24 [No response.]

25 MR. MILLAR: No? I would think that the place to

1 begin this kind of analysis would be to search out a very good
2 example. I think we typically spend far too much time talking
3 about troubles and trying to blue sky what the solutions are
4 when, in an organization as big as the U.S. Government, there
5 must be people out there who are doing things in a very sound
6 way which could provide lessons that everyone else could use.
7 I think it would be worthwhile to search for the good ones.

8 I know by your background GAO probably gets involved
9 in the bad ones much more than the good ones, so your view of
10 the health of this organization is like a doctor's view of the
11 number of people who have heart trouble when the only people
12 they see are people who have heart trouble.

13 I think that there is an underlying cause. I,
14 again, have believed this for the last 30 years, an underlying
15 cause of the difficulty we have and that cause will never be
16 fixed but it ought to at least be addressed. That is that so
17 much of what we do in this field is intangible. The
18 deliverables are intangible, the process is intangible. It's
19 always compared to putting up a building or building a bridge,
20 but it isn't because it isn't visible to the people who have
21 to pay for it during the period that it's going on.

22 I think the general answer is to be found in many
23 books on marketing. I guess I would point to Ted Levitt's
24 book on "Marketing Imagination." When you're trying to sell
25 something that's very intangible, you have to somehow create a

1 tangible image in the minds of the buyer and vice versa, when
2 you're selling something that's very tangible and
3 commoditylike -- when you're selling soap, you want the buyer
4 to think of spring when he smells the soap. If you're selling
5 bank services, which is intangible, you emphasize the pillars
6 on the front of the structure and the mortar that holds it up.

7 I'm always a little nervous doing business with a
8 bank that's in a house trailer, for example, even though it
9 has nothing to do with the service it offers.

10 The problem in this field has always been that it's
11 very difficult to, at least since the 1960s -- before the
12 1960s, it was a little easier because most of the applications
13 were justified on cost reduction -- but at least for the last
14 20 years, most of the benefits and most of the things that we
15 do in this field tend to be intangible and I think we don't
16 spend enough time trying to define some tangible attributes
17 that everyone can observe, can use to monitor progress during
18 the construction process, and can use to evaluate the results
19 when it's all done. I think that would be an area that would
20 deserve some attention.

21 MR. HOENIG: Here, when we're talking about tangible
22 things, like an architecture, for instance.

23 MR. MILLAR: Right. I think, for example, one of
24 the things that I've done in the last few years is create a
25 paradigm for defining how a professional firm ought to be run.

1 There are 20 parts to it, exactly 20, not 19 or 21.

2 Now, 10 other people could do the same thing and
3 they could have a different number, but for the purposes for
4 which it's intended, it provides a consistent way of looking
5 at professional services firms, as an example.

6 I work a lot with investment bankers and others who
7 really don't know anything about the field and by using the
8 same paradigm over and over and over again, even though it
9 isn't accurate, it's consistent and gives them a basis for
10 understanding and for comparing one against another.

11 In the systems development area, a great many of the
12 firms, private firms, who do this work, have a practice
13 methodology that they consistently use. They train all the
14 young people, they use it to monitor performance, they use it
15 to explain progress to the client, they use it to identify
16 change orders and the impact of the change orders on the
17 process, and so on.

18 The consistency of that kind of an approach helps
19 define some -- helps cause the whole process to be more
20 understandable and more tangible.

21 MR. HOENIG: So we're really talking almost less
22 about tangibility than standardized concepts?

23 MR. MILLAR: No. I think I said --

24 MR. HOENIG: It's the difference between being just
25 consistent as opposed to creating some kind of a tangible

1 image?

2 MR. MILLAR: Again in my mind, the foundation under
3 many of the things here is the lack of tangibility and I think
4 the general issue is the need to somehow create tangible
5 attributes that apply to the basic reason that we're
6 supporting the system in the first place, the process of
7 developing the system, and the basis for judging its
8 contribution to the original objective at the end.

9 Without that, there is a lot of dialogue, a lot of
10 people using their own terminology and very little
11 communication among the parties.

12 MR. HOENIG: Almost a common language?

13 MR. MILLAR: Yes. That's part of it.

14 MR. HOENIG: Anything else that you want to add
15 before we go on ~~to our~~^{the} round table?

16 MR. MILLAR: No.

17 MR. HOENIG: Neil?

18 MR. STILLMAN: I guess I think the barriers that are
19 defined are well thought out. I guess I have some that I'd
20 like to add or take a slightly different slant on.

21 The biggest problem I really see is that technology
22 is progressing faster than the government can assimilate it.
23 The major reason for that is the form of government we have.
24 A democracy, by definition, is inefficient and that's why we
25 can't assimilate as we would like to. If we were a

1 totalitarian state and could make a decision, and the next day
2 implement it --

3 MR. STRASSMANN: It would be worse.

4 MR. STILLMAN: I didn't say it would be better, but
5 I'm saying that's a barrier to us being able to do what we
6 would like to do now.

7 So what we wind up doing is designing systems in
8 1987, for instance, and buying them in 1991, and¹⁰the 4 years
9 that have ensued since the original concept, there have been
10 vast changes in the marketplace and the technology. What we
11 wind up doing is buying a 1987 system in 1991.

12 Unfortunately, we're forced into this by the current
13 procurement process which requires us to define in advance
14 what our system is going to look like several years, 5 to 10
15 years down the pike when we buy a large system. The needs
16 change and the technology changes and we can't react to it.

17 The other issue in this area, as Ralph said,¹⁵lack of
18 vision. What happens is we wind up trying to do the same
19 process faster rather than having a vision and thinking how we
20 can do the process better. A corollary to that is we don't
21 get the users involved, so what we do is we design systems
22 that weren't asked for by the users and then when they get
23 them, they don't do what the user wanted them to do in the
24 first place.

25 Moving down to I guess institutional barriers, I

1 think that to some extent, we're paralyzed by fear and
2 unwilling to take program risks. What will happen is you will
3 find a system that you would probably improve a million
4 percent, but there's a chance -- I'll use my agency as an
5 example -- that the Social Security checks might go out a week
6 late if you fail. It might be a microscopic chance but nobody
7 is willing to take any risks in spite of any great advantage
8 if there's success.

9 So we really kind of punish innovation or we
10 discourage it and try and keep the status quo.

11 MR. HOENIG: In a situation like that, we're talking
12 literally about constraining the solutions base because any
13 alternative, even if we've modeled it and adjusted it for
14 risk, if there's any risk at all, we discard it.

15 MR. STILLMAN: I don't know if we really discard.
16 What we do is we test it to death so that any change before
17 we're ready to implement it, we just expand the horizon for
18 implementation so far that by the time we implement it, it's
19 old and useless. It's basically obsolete by the time we get
20 it into the system.

21 MR. HOENIG: Who is the actor in the system that's
22 creating that disincentive? Who is creating the fear or is it
23 just everyone's afraid?

24 MR. STILLMAN: I think it's just the system. I
25 can't blame it on any one and it varies between agencies. I

1 worked in an agency to be unnamed several years ago where I
2 spent 3 years and I was in planning. When I saw after 3 years
3 that I was working on the same plan that I worked on the first
4 year I was there, we weren't doing anything, we were just
5 continually planning. I'm afraid that we spin wheels in a lot
6 of government doing that. You keep planning and deciding on
7 what you're going to do in the future but you never get around
8 to doing it.

9 The last item I'd like to address is on the
10 political side as far as the political barriers. There are
11 certain changes that are unacceptable as far as the status quo
12 is concerned. For instance -- Tom Giammo will appreciate this
13 one -- we probably ought to address within HHS, closing all of
14 the Social Security field offices for efficiency and doing
15 things through telecommunications and telephones.

16 As far as Congress is concerned and the public,
17 that's unacceptable. We can't discuss that. We may in 10
18 years or something but right now, that's something that's not
19 up for discussion.

20 The same thing with Saturday mail delivery. We
21 talked about cutting back at the post office -- a big uproar,
22 you're never going to get rid of Saturday mail delivery.

23 MR. HOENIG: The Social Security Administration
24 example, is that because there's one in every State?

25 MR. STILLMAN: Yes, absolutely. The constituency,

1 public service and face-to-face, those are principles that are
2 going to be hard to change, although some day they may.

3 Lastly, we have a problem of privacy,
4 interconnectivity and interoperability are the bywords of the
5 day but big brother argues against that. So whereas IRS and
6 Social Security and Veterans Administration all have their
7 independent systems, should we provide standardization and
8 intercon activity now we have all information about all
9 individuals accessible to all and then we have charges of
10 government intervention and big brother.

11 On the privacy side, you also have the e-mail
12 situation -- Ollie North and his computer that stored e-mail
13 messages. So technology is providing us with a lot of
14 problems and because of government fairness doctrine or
15 whatever, we have problems that we would not have at least to
16 that extent if we were a private organization.

17 MR. HOENIG: Susan?

18 MS. TOBIN: I would have to agree with Neil I think
19 that this is a real good starting off point for all of us, to
20 have a discussion. There are a couple of things that came to
21 mind when I read over this and I think what I see most often,
22 every agency who is represented here at this table -- my
23 organization has recently reviewed -- we're just getting ready
24 to publish our final report. In fact, it's in my in-basket.
25 HHS was reviewed a couple of years ago. Paul Strassmann told

1 me he was working on the response to our report and themes
2 that we have run across frequently are that operational goals
3 take precedence over everything. So that acquiring a system
4 or getting a system up and running always takes precedence
5 over any evaluation.

6 You can't really revamp a new system without first
7 evaluating whether or not the system is doing what it needs to
8 do. We're finding a reluctance in agencies to go evaluate
9 major information systems. GAO does it but you don't see
10 agencies do it.

11 In 1980, the ^{Paperwork Reduction} ~~Paper Production~~ Act directed agencies
12 to inventory their major systems and then periodically
13 evaluate them to make sure that they're doing what they're
14 supposed to be doing.

15 Agencies are strapped for resources and the last
16 thing they're going to do is go and evaluate whether or not
17 that system is doing what it was supposed to do because they
18 barely have people to operate the systems that they're afraid
19 to change anyway because of the fear of failure or fear of
20 perhaps revealing that they were wasting a lot of money.
21 There are a lot of very real fears in the hearts of systems
22 managers.

23 MR. HOENIG: In terms of looking at the system, what
24 the rights parts are, whether it's achieving it's mission or
25 not?

1 MS. TOBIN: Right.

2 MR. HOENIG: Do you have a point of view on what's
3 driving that fear, what's the cause of that fear? Is that
4 just habit?

5 MS. TOBIN: I think it's systemic. I think it's
6 insidious. It's in our system. It is in our form of
7 government. There's a certain reluctance to make waves, to be
8 innovative. Being conventional, institutional, and status quo
9 is rewarded in our system of government.

10 MR. HOENIG: Is that rewarded because everything is
11 so complex and so difficult to do something different or is it
12 because someone's going to smash you on the Hill when you do
13 it wrong?

14 MS. TOBIN: Probably both.

15 MR. HOENIG: Anything else?

16 MS. TOBIN: Not at the moment.

17 MR. HOENIG: Ted?

18 MR. WITHINGTON: Chris, you asked for different
19 viewpoints on the problem and I have one which I think relates
20 to what you were just talking about.

21 The viewpoint that I suggest we take for a moment is
22 that of the lowest level of first level supervisor in the
23 typical federal agency, of which there is none. You have, as
24 a first level supervisor, 5 to 20 subordinates perhaps, and
25 you are responsible for production of some kind. You are not

1 a professional. You have to maintain a file or part of a
2 file. You update it and you provide outputs regular or
3 occasional, ad hoc, and if they are wrong, you are in a lot of
4 trouble. You also feel that you have too little resources to
5 do the job right.

6 When you see the typical IRM program coming at you,
7 what do you see? You see probably a conversion of your files
8 to a new medium and/or a new standard and nomenclature, none
9 of which you understand, and if you are asked, it's not much.

10 You see a change required in the habits of your
11 staff. That is, every day they will have to unlearn what they
12 do now and learn to do it a different way. You perceive that
13 the resources offered to make these changes are at least
14 unknown to you, some outsiders, and you may have a firm view
15 that they are inadequate.

16 And, most important, perhaps, you rarely perceive
17 any benefit at your level. You see that management is to
18 gain, the professionals will have nice files to work with,
19 maybe the public gains something, but not you in terms of the
20 things which are hurting you.

21 So who is the actor who is afraid? I say this is
22 the actor who is afraid in the typical case, and you don't
23 know that. It's not obvious because nobody asked you and you
24 are not saying anything about it, but even the average manager
25 understands how you feel and reflects your view in terms of

1 complying with you at the line.

2 In terms of what Vic was saying, something that
3 caught my attention is the need to sell systems. It is this
4 party who needs to be sold and thus the system, in order to be
5 saleable, needs to offer the kind of change in which this
6 person can see a virtue in, which typically means a
7 revolutionary system. That's only sometimes, but sometimes it
8 is true that the most violent revolution attaches the most
9 support at the lower levels.

10 So I don't say that this adds no new dimensions to
11 the problem, but I think if you look at it from this, maybe it
12 eliminates the excellent points which have been listed so far.

13 MR. HOENIG: You have added some new ones though.
14 First of all, you've highlighted skills -- in other words, the
15 skill of the manager involved. The implication of that point
16 of view is that operational managers don't necessarily have
17 the skills they need to do the job. Another is that they
18 don't have the resources -- that could be either people or
19 dollars, the knowledge or experience.

20 MR. WITHERINGTON: This manager presumably feels
21 sufficiently skilled at doing the job the way it's now being
22 done, but the new world is unknown to this person and they
23 will confess they don't have the skills for that, and I'm not
24 sure they ever will have, in my observation.

25 MR. HOENIG: Incentives is another issue you've

1 provided, accountability meaning that would arise if the
2 operational responsibilities weren't delegated down to such
3 low levels that people had responsibility for doing jobs with
4 no authority to do it.

5 MR. WITHINGTON: To put it cynically, the success of
6 the system is somebody else's credit. The failure is your
7 credit.

8 MR. HOENIG: Exactly. In the marketing issue,
9 meaning that to sell anything in a system where so much is
10 going on and it's so difficult to sell it, you've got to make
11 it as big and as grandiose as possible to even get attention.

12 Paul?

13 MR. STRASSMANN: I will not try to elaborate on a
14 one page of barriers because given enough time, I ^{could} produce 5,
15 50 or 500. As a matter of fact, I'm the proud possessor of
16 about 40 inches of IMTEC reports. The IMTEC file clearly
17 would be an expansion of the 500 page list of barriers, so
18 that's not my purpose today.

19 My purpose is to say, well, what the hell do you do
20 about it? I've come here with a specific objective, to try to
21 sell you on the idea that indeed wonderful things are being
22 accomplished in DOD, and in Federal Government. There are
23 isolated areas of unusual, world class accomplishment, which
24 almost staggers your mind.

25 What I would like to suggest, Ralph, is that in

1 addition to the blue series, you initiate a series in pink
2 covers with a gold margin called the Golden Nugget Series. As
3 a matter of fact, as you know, I instituted in DOD, since I've
4 come to DOD, a Gold Nugget Project. We have now 22. As a
5 matter of fact, you are helping me to certify some of them.

6 I believe how you deal with barriers and remove
7 barriers is you shine up what's good, bring it to everybody's
8 attention, emulate it and actually teach Congress where
9 Congress didn't mess things up and helped us get things done
10 well. It is the distinction between those things which are
11 dug in which everybody talks about, importantly the positive
12 contributions which are the gold nuggets which will make a
13 difference. I would like to suggest that may be one of the
14 possible practical outcomes from this meeting.

15 MR. HOENIG: There's an implication of cause in
16 every one of your solutions, and in this one as well. The
17 implication of cause here is that people just don't talk to
18 one another about what's done well and what isn't, or not.

19 MR. STRASSMANN: Let me just tell you about some of
20 the gold nuggets I found. They are usually stuck away.
21 They're usually underfunded. They are usually done by
22 exceptional people who are prevailing despite obstacles. They
23 are usually accomplished out of the way of congressional
24 oversight -- in fact, audit oversight -- or inspector general
25 or OSD staff, including my own MAZAR staff, which is a form of

1 torture in itself.

2 I think that should tell us something ^{about} where
3 excellence comes from. I think the time has come that we
4 ought to emulate excellence, learn from it, and spread it.

5 MR. HOENIG: If we took one of the managers of one
6 of your golden nugget projects and he was right here in front
7 of us today, what would he say about why his project is stuck
8 away, independent, under-funded, and hidden?

9 MR. STRASSMANN: I'll bring them here next time and
10 I'll be very glad -- I think it may be a very useful exercise.

11 MR. PESACHOWITZ: I would bet that one of the things
12 that they would say is it may not be so bad being stuck away
13 and not having to deal with all the rules, regulations and
14 self-regulation that we end up having to deal with.

15 MR. STRASSMANN: Wait a moment. I'm not an
16 anarchist.

17 MR. PESACHOWITZ: I don't mean to say you are.

18 MR. STRASSMANN: In fact, these are extremely
19 disciplined people. As a matter of fact, without exception, I
20 can parade them -- and these are men and women, by the way.
21 They are extremely disciplined, well-organized, well-focused,
22 extremely sharply focused people.

23 MR. PESACHOWITZ: But I think some of our rules
24 force us outside of that focus. I'm not sure that's the case.
25 I agree very strongly on a long-term vision. I think one of

1 our barriers is this pull that Susan was talking about between
2 operations, long-term vision, and the struggle we have in the
3 federal sector related to continuity. The people who are
4 here, at least in some of the agencies, tend to be here for
5 particularly relatively short periods of time.

6 MR. STRASSMANN: Al, let me suggest to you, in one
7 particular case, there was no continuity. So one of the
8 things I would like Sam to do is to take my 26 nuggets and do
9 a barriers column and just check down, was indeed continuity a
10 factor in success? It may or may not be, or it may even be an
11 extenuating circumstance. Besides, I've been here only 4
12 months, so I cannot plead continuity either.

13 Seriously, I'm talking about talking success,
14 success patterns, and gold nuggets very seriously. Instead of
15 talking about barriers, talk about solutions, remedies, and
16 what institutional framework would it take to replicate it?

17 I'm right now engaged entirely in taking nuggets
18 which are dug in somewhere and just replicating them.

19 MR. HOENIG: But it's your experience, your
20 tremendous breadth of experience that allows you to even
21 identify a nugget, one. In a way, your solution addresses the
22 incentives --

23 MR. STRASSMANN: No. It doesn't work that way.
24 People actually bring the nuggets to me. I sit in the office,
25 do nothing, and people actually come. The word is out -- and

1 some of you know about this -- the people actually show up and
2 say -- of course, they know I have the money, but apart from
3 that people actually come, physically they fly in from
4 somewhere, from the midwest or St. Louis, and say, can we show
5 you a gold nugget. I say, come tomorrow morning for a hour
6 and it just clicks.

7 Then it's shown to the public, there must be a way
8 of doing it, and people say, yes, this may be pretty good and
9 there is something to be learned from that process. I don't
10 go out looking because the beach is just too big for me to go
11 around.

12 MR. HOENIG: So the message is, they're changing
13 incentives, meaning there's a guy here that's going to listen
14 to what we say. There is a message about resources and you've
15 got some resources to back it up. Then there's the idea he's
16 actually got some criteria in his head about what the long-
17 term vision is and can discriminate a gold nugget project from
18 one that is -- those are very strong implications.

19 MR. STRASSMANN: But there may be others and all I'm
20 pleading here is start studying those situations.

21 MR. ^{BLOCK}~~BLOCK~~: So you're really practicing what Vic
22 Millar was advocating then?

23 MR. STRASSMANN: Oh, yes. Absolutely. I absolutely
24 agree with Vic.

25 MR. WITHINGTON: One more support of that, the

1 Harvard Business School is currently funding a study of
2 seminal industrial applications, including SABER and the Bank
3 of America's official system on check coding and so on for the
4 purpose of attempting to provide information for prosperity as
5 to what worked well for major change applications -- exactly
6 what you're suggesting here -- only nobody is funding it.

7 MR. STRASSMANN: Just to make sure that everyone
8 understands, I have \$230 million riding next year on gold
9 nuggets.

10 MR. GIAMMO: I'll give you my version of the
11 elephant because I've heard everybody's different versions,
12 different perspectives.

13 The criticism I would have of what's been done --
14 and I don't want to be overcritical, because it's obviously a
15 good start but I think I want to add something to it -- it
16 defines too broad a subject area as though IRM was a
17 homogeneous activity within the government for which you could
18 lay down a single set of principles that apply.

19 I don't think that's true. It's very diverse and I
20 think it pays to make distinctions because I think different
21 areas ought to be treated differently. I think every bit of
22 wisdom that's been offered so far is applicable in some
23 context, but I think it would be a mistake to think it extends
24 to general contexts.

25 In that light, I think what's missing is the sense

1 of an overview, a sense of a forest in place of the trees
2 approach. When you see the thing as a whole, you can identify
3 parts of it so that you can look at different pieces of it
4 that make coherent sense and begin to apply some principles at
5 least within those contexts.

6 I would start off at the very top level -- and this
7 is sort of one of those golden vision kinds of insights or
8 viewpoints -- and that is that we're involved in something
9 that's not completely unique in history but it's rather unique
10 in history.

11 We've seen for the last 30 years, and we will
12 probably see for the next 20 or 30 years, an extremely rapid
13 change in how business is done within organizations. The
14 information evolution is real. Just sort of put yourself back
15 20 years and you see how things were done then. I don't mean
16 just in terms of the individual point processes -- the
17 definition of what constitutes services, how the government
18 should interact with the people that it serves. The very
19 organization and structure of how an organization is set up
20 has fundamentally changed in the last 20 years, and probably
21 should have changed more, and certainly it will change more in
22 the next 20 years as time goes on.

23 I think this kind of a situation that we're in is
24 relatively unique and I think some of the management problems
25 that it brings have to be looked at directly as being a major

1 contributing cause. A lot of these things, I think, are
2 common problems. I could change a title from IRM to something
3 else and replace IRM with procurement management and probably
4 have a fairly similar set. That's good, you have to do that
5 too.

6 If you're going to look at good management practices
7 in a new environment, you have to avoid the trap that I think
8 we always criticize our users of, of building the old system,
9 just making it go a little faster and a little better. I
10 don't think we want to have just the old management principles
11 and blindly extend them to the new. I think we have to look
12 for what's unique.

13 What's unique about what we're doing? First of all,
14 the fact that it's going to induce change, complete change or
15 massive change from one set of doing business, one way of
16 activity to another over time. You want to look at it from
17 that perspective, at the 25 to 50 year perspective of going
18 from one point to another point.

19 If, indeed, we stopped developing technology today,
20 I would argue that we have 20 more years to go before we
21 absorb that technology and rebalance how we want to do
22 business to take advantage of that technology. So underlying
23 this, there is a model that there's a balance between the
24 technology and the capabilities of the technology and how do
25 you want to organize a corporation, how you want to organize

1 an agency, what kind of services it should offer, how the
2 responsibility and authority should be distributed in that
3 organization, and all the processes that go on to fulfill that
4 -- some sort of a Darwinian concept that give me a technology
5 and I will evolve you to that through various kinds of trial
6 and error.

7 One of the values of the principles that you would
8 develop would be it would probably end up in the same place
9 anyway but anybody will probable stumble through survival of
10 the fittest to a good thing. The thing is to make that as
11 straight a line as possible and to avoid cul-de-sacs.

12 What^s different about it is that we don't have a firm
13 base to start with. Typically, when you're going to add
14 something to an existing structure, you assume the existing
15 structure stays the same. Then I can take it and see how the
16 new intersects with the old.

17 We're in the unenviable position of being in the
18 business -- this is the intangibility argument again, in a
19 different way -- where the technology changes what we're
20 supporting. So the perspective I have today of how it
21 operates today, i.e., the current mode of operation, the
22 current way of doing business, is only the roughest guide to
23 how I want to operate 5, 10, or 15 years from now -- not only
24 how my technology is going to effect the current situation,
25 but I have to see how that is going to evolve.

1 I would argue that when you get to the larger scale
2 systems, which is what I believe we should be concentrating on
3 here -- the big showstopper type systems -- this becomes an
4 almost impossible task, to have that kind of vision.

5 MR. HOENIG: Because there is no baseline.

6 MR. GIAMMO: No baseline and you don't understand --
7 their actions are so complex and so subtle and depend upon so
8 many things that you cannot well think out, that it's foolish
9 to even pretend that we can jump 15 years ahead or 10 years
10 ahead or 5 years ahead in the procurement cycle, and with
11 precision write down a set of requirements of that's how I
12 want it to operate.

13 It's not only because technical things are going to
14 change, but the introduction of the capability will begin to
15 induce unsuspected or unanticipated changes in how people want
16 to do business.

17 When we say we're responding to change, when I was
18 at Social Security, I did a study in terms of how many of the
19 modifications and enhancements to the systems were caused by
20 changes in the law, changes in regulation and so forth. It
21 was 2 percent. The other 98 percent was caused by the fact
22 that people wanted to do their jobs, they want to do the same
23 basic jobs, but do different things as time went on. There's
24 no way to anticipate some of that. We're not just smart
25 enough to be able to think that out on any kind of large scale

1 kind of activity. That's the first part of it.

2 Then we're cursed with the second part of it, the
3 damned technology won't stand still on us, so we don't even
4 have the second thing to rely upon. So not only do we have to
5 worry about the interaction of today's technology with the
6 environment, to a large extent we have to worry about the 5-
7 year technology and interacting with the environment.

8 That PTO, for example, is very much a concern of
9 ours. We don't want to introduce things now or begin to plan
10 now when we know indeed this technology is shaky. It's
11 probably going to evolve way beyond our capability and we
12 don't understand well how we can use the next level of
13 technology, much less this one.

14 What that causes, the interaction between technology
15 and change and the fact -- you have a lot of contradictions
16 that apparently arise between what are generally accepted as
17 good management principles. I would argue that on deeper
18 thought and redefining what these principles are to some
19 degree, these are more apparent contradictions than real
20 contradictions.

21 If you just blindly accept them, I will take today's
22 good principle and I will just blindly apply it to the new
23 environment. Take the vision problem. You say we need long-
24 term vision, and everyone agrees. That's obviously a good
25 thing to have. You obviously want to look more than one or

1 two steps ahead and you say top management should have that
2 long-term vision of where it wants to go.

3 But on the other hand, you have pressure to have a
4 very short-term vision because technology is changing, because
5 I'm introducing changes into the processes whose side effects
6 I can't anticipate.

7 How do you meld these two? How do you get two good
8 things to work together? That's, in essence, a problem we
9 have to address because they have to work together in some
10 sense. That means we have to redefine what we mean by vision
11 to some degree, and we have to redefine what we mean by short-
12 term planning, what we mean by requirements definition in a
13 way that allows it to evolve with time and still be consistent
14 with the long-term vision. That's a very, very deep problem.

15 MR. HOENIG: Does that also include the fact that
16 the short-term and long-term perspectives are more or less
17 complete at the governmentwide level but more of the
18 governmentwide process is focused on short-term incentives?

19 MR. GIAMMO: It's the other way around. I think
20 it's one of these where you get in trouble distinguishing
21 cause from effect. What I'm saying so far applies to
22 everything. It doesn't apply just to government. It
23 certainly applies to the larger corporations, any size
24 corporation to some degree.

25 What's different about government, and why I think

1 we're the leader in the negative sense that we're the leader,
2 that we're anticipating a lot of the problems that I think
3 will be more common over time in the private sector, is the
4 scale in the government. We are driven to higher and higher
5 levels of integration, which makes the processes that we're
6 trying to change more complex, harder to anticipate, and so
7 forth. Then below that, we have to integrate. We have a lot
8 of existing systems that we have to keep going and keep
9 integrating. So it's the scale and size of the integration
10 that makes us somewhat unique.

11 If you go to private corporations, you see the same
12 kinds of factors at a lower scale I think happening. Then
13 there are political concerns too. Our failure is a lot more
14 visible. So it's hard to say whether there's a cause and
15 effect relationship.

16 The short term comes I think from the natural sense
17 that it does not make sense to do long-term plans, technical
18 plans, and lock them in firmly because it's a waste of time.
19 You have to have a framework that you stay within and that you
20 evolve within, but to write down what my architecture is
21 exactly going to look like 5 years from now would be silly.

22 MR. HOENIG: So the model you set up for this then
23 is two major forces are at war. One is the inherent rate of
24 change in order for organizations to keep up with --

25 MR. GIAMMO: It's not just technology change, it's

1 change in the requirements.

2 MR. HOENIG: Exactly. It's the first time it
3 changed, the change in the requirements. The second force is
4 the change in the technology. So organizations, government
5 agencies, are trying to respond to these forces of change.

6 In your point of view, is there anything in addition
7 to using old principles and the fact that the scale and size
8 is so great it makes it extremely difficult for government
9 agencies as organizations to respond to this change?

10 MR. GIAMMO: Again, it's the size of the problem as
11 opposed to the characteristics of the agency. Everyone
12 complains about the procurement regulations -- indeed, they
13 are slow but there are reasons why it's slow that we're not
14 going to change. It ought to be slow for very good reasons.
15 It ought to be ponderous for very good reasons.
16 Unfortunately, it hurts us in our environment.

17 I don't worry about things that I not only can't
18 change but I don't think are really susceptible to change.
19 Why are they slow? They're slow because the government is a
20 very powerful beast and can hurt people, can do things in a
21 way, because of its size, that can systemically disadvantage
22 whole classes of vendors and so forth. So you have to do
23 things in a slower way because we're so big and clumsy, and
24 that's just because we are so big and clumsy. It has nothing
25 to do with the fact that we have poorly-written regulations

1 and so forth.

2 Again, I don't see that unique to procuring
3 computers. I see that just as bad when procuring groups of
4 cars or ships or anything you want to do. Why it hurts us
5 more is because of the rapidity of change.

6 The part I want to end up with and get down to is
7 the principles about getting good requirements in place, about
8 having a firm basis before we start, is actually
9 counterproductive in this kind of environment. It's
10 surprising to some degree.

11 It doesn't mean you should give up on it completely.
12 You obviously have to have some redefinition. It's a good
13 principle. You have to have a redefinition of that principle
14 that matches the reality of the situation. It isn't that you
15 have no planning or you have very rigorous planning. There is
16 some way of redefining what ought to be planned for and how
17 that plan ought to exist, how that plan ought to be
18 implemented that captures the fact that we have to crab along,
19 we have to do things in pieces and yet remain consistent with
20 an overall goal.

21 MR. WITHINGTON: If I may interject there, Tom, and
22 support this Harvard Business School work I alluded to, has
23 founded in every case the initial vision was wrong and that
24 the seminal application came out a different way thanks to the
25 perseverance of the actors and the changes.

1 MR. GIAMMO: It's a trip. It's a voyage.

2 MR. HOENIG: It's a dynamic process.

3 MR. GIAMMO: Doing anything on a lower scale when
4 you're really making major changes in the organization, you
5 have to design it that you learn as you go. A good portion of
6 your planning is planning the learning part of it, and some
7 sort of intuition as to where you have to learn and where
8 things might change under you. So you have resting points
9 where you reassess the various points.

10 MR. HOENIG: If I can paraphrase at this point, I
11 just want to make sure I understand, and we all understand.
12 What you're really saying is that any actor that comes into
13 this government arena and says, you've got to have a long-term
14 vision and it's got to be 10 or 15 years, is actually
15 counterproductive because what they really should be saying
16 is, you need a strategic management process that incorporates
17 a vision, short-term steps to that vision and an idea of how
18 one is going to change incrementally over time. It's that
19 strategic management process that counts?

20 MR. GIAMMO: The long answer is about 20 minutes.
21 The short answer is yes.

22 MR. HOENIG: Let's go on. Al?

23 MR. PESACHOWITZ: I think Tom and Ted both kind of
24 hit on a particularly important piece and that is how
25 technology impacts how we're going to change how we do

1 business. Several people around the table mentioned the need
2 to go out to the customer to determine how we're going to do
3 business. Our struggle here is another conflict which Ted
4 mentioned with the regional manager, he or she has a
5 particular view of how to do business.

6 Any customer has a particular view on how to do
7 business, yet they probably don't understand how information
8 technology may change or the strength of it to change or
9 influence how we're going to do business in the future. So we
10 have this kind of dichotomy between yes, we have to ask our
11 customers what they want and try to provide in some sense what
12 they want, yet on the other hand, we're faced with the old
13 issue that I always like to use an example of the bank cards.
14 If you asked people back in the late 1960s what they wanted at
15 a bank, they would never have answered a bank card because it
16 wasn't in their lexicon of pieces that they understood would
17 even be potentially available.

18 So we have this dichotomy between information
19 technology and even us trying to understand what's over the
20 horizon and potentially doable. Then talking to the customer
21 to try to help define what a large system ought to do 5 years
22 down the line.

23 MR. HOENIG: This is a great issue because in the
24 private sector, the gap between what's now and what could be
25 is filled by innovation and that innovation is fueled by a

1 system where are either lots of risks but there are also very
2 real awards for taking risks.

3 The government environment is much different. Was
4 one of the causes of not being able to fill that gap the fact
5 that the government environment is one where there is no
6 reward or no incentive system for innovation at all?

7 MR. WITHINGTON: Competition is a significant
8 factor.

9 MR. GIAMMO: I think it's very good insight. I
10 think one of the things you ought to draw out of this is that
11 there are times when the user driven model is appropriate and
12 that's when you're making small changes within the context of
13 a current mode of operation.

14 There are other contexts where indeed the vision of
15 the system that you are building includes new users or new
16 user procedures anyway. So the user is essentially a cog in
17 the problem, or cog in the solution, as opposed to being
18 someone who will define and dry up the process. You're
19 redefining the users' responsibilities.

20 You can distinguish those -- not perfectly -- but
21 you can distinguish those in most cases. So you come up with
22 one set of principles and say the user is king, the user ought
23 to drive everything, and you get user involvement. You will
24 disadvantage certain projects that require you to have a
25 vision that's beyond the user's ability.

1 MR. PESACHOWITZ: Let me just point out that even
2 today we have some of that conflict between kind of two of the
3 new buzz words around the federal sector. Whether they really
4 help one another or conflict is hard to say. That's "total
5 quality management" versus "reengineering."

6 I've had the discussion of how do you deal with a
7 process that you may want to reengineer when you're focusing
8 on total quality management but supposedly incremental
9 improvement. You go down to the managers and say, let's look
10 at these 14 steps and we can cut out steps 10 and 13. That's
11 one way to look at it.

12 Whereas, another way to look at it is, let's take a
13 look at the process and how information technology might
14 change how we're going to do business and should the whole
15 process not go through 1 through 14, maybe it goes 1a, as a
16 way to go. There is an inherent difficulty in dealing with
17 that in the federal sector and how we -- at least in the short
18 run -- look at the systems.

19 I'm not too concerned -- maybe it's because I'm in a
20 relatively young and relatively small agency. I think there's
21 enough incentives. As Ted mentioned, there's the incentive of
22 competition; there's the old self-actualization, doing it
23 right, keeping up with the people on the leading edge that I
24 think helps keep the federal sector moving ahead and fairly
25 well ahead in terms of information systems development.

1 We do have significant problems given kind of the
2 very long-term views that we have when we try to build major
3 systems.

4 MR. HOENIG: Are there any other barriers that you
5 have in your own work, barriers to you?

6 MR. PESACHOWITZ: I think clearly, again just going
7 back to what Susan said, there is, at least I've found, this
8 constant struggle between operations and -- I don't want to
9 use vision -- but longer term systems development.

10 MR. ^{BLOCK}~~BLOCK~~: I wonder if we're not confusing how
11 we're using vision here. When we're talking about vision, I'm
12 not talking about a vision of technology; I'm talking about a
13 vision of where I want my organization, my business, or my
14 company or whatever to go.

15 MR. PESACHOWITZ: I don't think I disagree with
16 that. I would just say that we can have a vision of where we
17 want to be. In our agency, we're struggling very hard -- and
18 I think Tom mentioned it, I think all agencies are -- in
19 integrating data. It's relatively new in terms of its
20 emphasis. We've built stovepipe systems for a long period of
21 time. Over the last 4 or 5 years, we've started to focus on
22 how do we pull all this together?

23 That's a long-term vision of where we want to be.
24 We want to be able to have all that information not only
25 shared within my agency but we're a tremendous user or

1 customer of information from both the private sector and other
2 federal agencies. We need to figure out a way to integrate
3 that into our systems.

4 The point is that I need something a year from now
5 and how do I balance that operational need versus the longer
6 term goal of broad, as an example, data integration for the
7 agency? That balance is very tricky.

8 MR. HOENIG: To get back to your point, Jack, it's
9 almost adding another element of vision. It's a vision of
10 where you want to go or where you want to be, but also a
11 vision of change, which Tom was talking about.

12 MR. STILLMAN: I'd like to take a shot at vision
13 because I think we have a big problem when we discuss vision.
14 If you take a look at the federal user -- this can be a senior
15 IRM manager, for that matter -- I venture to hypothesize that
16 there are several of them that don't even know how to turn on
17 a PC. It's true of some of the workers too.

18 So, until you get a work force that knows what
19 technology can do for them, you can't expect them to visualize
20 or even help you in finding a way to do anything that they're
21 doing now any better. They're kind of helpless.

22 What you really need to do is to I guess make them
23 aware of technology, train them, and bring them up to speed so
24 that at least they see what technology can provide them. Then
25 they can participate in any vision of the future. Right now,

1 I think a lot of people can't even participate.

2 MR. ^{Brock} BLOCK: To get back to Al's point about the bank
3 customer where a bank customer wanted an ATM card, but I can
4 easily see a bank customer saying, gee, I'd like 24-hour
5 access to my money, and I don't care how I get it.

6 MR. GIAMMO: I don't see him responding to that in
7 terms of a questionnaire.

8 MR. ^{Brock} BLOCK: I think in this case --

9 MR. HOENIG: It's being part of the process --
10 redefining the user in the process.

11 MR. GIAMMO: Of course what Neil said, if you take
12 the Veterans Administration, one of the indictments that Ralph
13 read about the Veterans Administration was that they don't
14 know ~~what~~ their clientele -- they don't know the condition of
15 their clientele, whether they are well or not well. Well,
16 they never have. At one time, that was an unrealistic vision,
17 would have been an unrealistic vision because they had no way
18 of assessing or comprehending that information processing.

19 Now the technology changes and not only is it
20 possible, but somehow it's become mandatory that they know
21 that. That's probably correct. That's the vision that
22 corresponds now to the capabilities of the technology, but
23 it's not so easy to expect the people to see that, especially
24 from Neil's point of view that these people aren't constantly
25 reassessing their activities. They haven't been given the job

1 of constantly reassessing their activities with the knowledge
2 of what the current and future technology will bring and
3 redefining their business goals.

4 I would be very loathe to criticize someone for not
5 doing that well. That's almost impossible. It's very
6 difficult to do. Those things tend to arise from the bottom
7 as opposed to the top.

8 MR. HOENIG: Al, do you have anything more to ad?

9 MR. PESACHOWITZ: No.

10 MR. HOENIG: Bel?

11 MS. LEONG-HONG: I have the advantage of being the
12 last one to go which means that I've got the advantage of all
13 the wisdom that has gone around the table already. By the
14 way, Chris, thanks for promoting me to Acting Director of ^{DISA}~~DEA~~.
15 I'm the Director for Information Engineering within ^{DISA}~~DEA~~.

16 I would like to just add a couple of things to
17 everything else that has been said, I think building on what
18 Ralph has talked about earlier on and Neil, Al and so forth.

19 The idea of a partnership, a partnership between the
20 users and the IRM community, that's something that we haven't
21 seen very keen within the Federal Government. In the last
22 couple of years as I was going around talking with the
23 functional managers about what IRM is, about what information
24 management is, about what information management can do for
25 them, the immediate response is, oh, you are the ADP person as

1 opposed to the information management being an integral fabric
2 of the mission that needs to be performed.

3 So this idea of a shared vision has to start with
4 having the users gain a better understanding about what IRM
5 can do for them, but by the same token, having the IRM
6 committed to understand better the mission of the rest of the
7 organization. That's part of the understanding or the
8 knowledge problem that I see that you have talked about within
9 the paper.

10 The other thing that I would also add, and that goes
11 back to my own background in data, is what you were talking
12 about Ralph, building on the lack of the necessary data to do
13 business. I think in addition to lacking the necessary data,
14 there is also a lot of redundancy going on in the various
15 parts of an organization and the lack of knowledge about the
16 flow of the data within the organization that would allow the
17 organization to perform effectively.

18 I think with that, I will turn it back to the
19 moderator.

20 *Brock*
MR. ~~BLOCK~~ Before we go on, Chris, maybe we ought
21 to ask if there are any burning questions that the audience
22 might have after we've done the one round, if there any points
23 that might need to be clarified?

24 [No response.]

25 *Brock*
MR. ~~BLOCK~~: I take that as a no.

1 MR. HOENIG: Just wait a little while.

2 MR. GIAMMO: If I may just add one point. Bel,
3 that's a very good insight. I think if you talk about an IRM
4 official in the sense of a chief information officer and that
5 kind of context, I think one of the roles that he or she has
6 to play is essentially to be top management not as an
7 ancillary staff activity, but to really embed themselves into
8 the decision processes of the agency.

9 I look at myself within PTO as being the advocate
10 for change. I'm the one who has the accountability, the
11 responsibility for understanding the technology and applying
12 it to the business goals and advocating changes in business
13 goals, changes in overall procedures, because again, I think
14 we've got a situation now where that kind of specialization is
15 necessary.

16 In the long run, I don't think that will be true,
17 but in the shorter term, I think the initiative has to be
18 expected to come from the technology side and not from the
19 business side because the business side hasn't matured enough
20 yet in terms of its understanding of the technology to be able
21 to make those insights.

22 It's actually easier for me to understand patent
23 processing and the interest of the patent community out there
24 and apply my experience in information technology to
25 suggestions, goals and so forth and then fight for them and

1 advocate for them. It is a big part of my job to go through
2 this process.

3 The RFP I was supposed to bring you to day to show
4 you was to put in the system that was going to change the
5 entire process internally of how they handle patent
6 applications. That means people will lose their jobs, whole
7 classes of clerical workers will go away, new classes will be
8 created and so forth.

9 I don't know how to do that, I don't understand the
10 details of how that's going to be accomplished, but there's
11 fanatical resistance. If I went to my users, there would be
12 fanatical resistance against this because each of them has
13 their own perspective from currently doing things.

14 An important part of my job -- I think any CIO or
15 any IRM official -- is to inculcate themselves into the
16 management processes that way so ~~that they~~ stand as an equal
17 advocate for those kinds of changes so that I can sit with the
18 Commissioner for Patents as an equal and argue with the
19 Commissioner that this change ought to be supported.

20 If we wait for leadership to come and we blame other
21 people for not having the vision, I think it's going to be a
22 slower process to getting to where we want to end up being.

23 MR. PESACHOWITZ: Let me just ask a question. Is
24 that issue of kind of this wholesale change that you're
25 proposing unique to the federal sector? Maybe you can expound

1 on that a little bit. There's often this perception that the
2 private sector could kind of implement a system and get rid of
3 3,000 people with a pink slip in a short period of time. I'm
4 not saying that makes it easier to implement a system, I'm
5 just saying it may be a wrong perception.

6 MR. WITHINGTON: The growth in outsourcing as a part
7 of the computer industry, of the IS industry, has been
8 phenomenal in the private sector and one large reason is the
9 failure of managements to be willing, with internal resources,
10 or able, to accomplish reengineering of this. They would
11 rather hand it over to an EDS or an Andersen consulting or an
12 IBM, and they will get rid of, hire or somehow deal with the
13 3,000 people and the 3,000 computers and provide the new
14 service.

15 So that is vivid support of the fact the private
16 sector is doing it to an unprecedented degree, indicating that
17 government probably should too for comparable reasons, and,
18 second, it ain't easy for them either.

19 MR. HOENIG: What does the outsourcing organization
20 have that the ^{CIO} ~~CAO~~, with his internal organization, doesn't?

21 MR. WITHINGTON: Two things are key. One is that
22 today the latest technical troops you need are the wrong ones.
23 You don't have them. They are the people for land management,
24 for telecommunications of integrated media, people for bridges
25 between incompatible systems, people for seed programming,

1 people for interfacing. They are building their own through
2 their own private schools, which is their source of great
3 strength, and you can't hire them much whether you're
4 government or industry.

5 The second thing is they have the courage, if you
6 like, or the lack of career accountability -- what I mean is
7 courage and freedom to fire people.

8 MR. CARLONE: That's pretty much the way Congress
9 got the base closures, or is getting the base closures,
10 outsourcing.

11 MR. HOENIG: If that's the case and if the system is
12 integrated or successful in the private sector, does the
13 government use system integrators effectively?

14 MR. WITHINGTON: Yes.

15 MR. HOENIG: For just this kind of thing?

16 MR. GIAMMO: The RFP we're putting out -- I'll go
17 further than Ted does. One of the reasons why I want to do it
18 this way is because I keep specialists together that have
19 specialties that I would not want to maintain long term within
20 my organization.

21 One of the things we're calling for in the RFP is
22 that I want personnelists, I want people involved with
23 training because this is a human problem, this is a systems
24 problem that involves human participants and I have to view
25 the system as the total, not just as the technology elements

1 of the system. I could never put that together internally as
2 a team, at least for the 2 year duration to get the thing
3 designed and started.

4 MR. HOENIG: Is part of the element when you said
5 short term availabilities, having the skills that you need but
6 not necessarily have to hire them in a long term, solve the
7 problem and then go on to the next one.

8 MR. WITHINGTON: That's typically the case with most
9 of these systems things, you need massive injection of very
10 specialized people that you would have trouble employing over
11 the longer term.

12 MR. HOENIG: Any other comments? I think it's a
13 good time now to give everyone a chance to comment on some of
14 the things that have been brought up so far. Then maybe we
15 can take a break. Are there any other comments on the issues
16 that have come up so far from the members?

17 MR. PESACHOWITZ: I would go back and just say that
18 if I took a vote around the table, I would like to support
19 Paul's premise of really concentrating on what went right or
20 what is going right. I think when Ralph started, he had me a
21 little worried because he went through systems procurement and
22 IRM reviews and what the system's weaknesses were, and what
23 the reportable findings were, and all the kind of negative
24 connotations that may bring out.

25 Around this table, we've all had to deal with that

1 and I'm sure we'll all continue to deal with that in the past,
2 but then he went on to kind of point out that GAO had looked
3 into what went right and what were the five principles of what
4 went right. It might be very helpful to kind of adopt what
5 Paul had suggested earlier which is to not only say what the
6 principles are but actually provide periodically updates of
7 those golden nuggets or whatever that may help.

8 There are not a lot of good examples, one, of those
9 things out there, and two, even those that are out there -- I
10 think we can learn from them, especially since information
11 revolution is here and it's going to continue to grow. We may
12 be very much at the front end of it.

13 Not many are replicable. What Tom is trying to do
14 in patent and trademark and if he's successful, probably would
15 be very or extremely applicable in a sense to something that I
16 might do at EPA, yet it would be important --

17 MR. STRASSMANN: It depends on how you pick them.

18 MR. PESACHOWITZ: Right.

19 MR. STRASSMANN: And it depends how you define them.

20 MR. PESACHOWITZ: What I was going to come back to,
21 what you're saying, there may be very important pieces that I
22 could take out of that and move to my environment or where I'm
23 working, and that's what I was going to say.

24 MR. GIAMMO: Since you mentioned me, let me respond
25 to that. I am making a conscious attempt in what I'm doing at

1 PTO to make it replicable. We are spending a fair amount of
2 time in documenting the methodologies that we're developing.
3 The intent is, and the belief is -- on my part anyway -- that
4 again, for certain segments of the problem, it doesn't cure
5 cancer or all those other things -- for problems that have
6 certain structural kinds of similarities, you can replicate
7 them. You can teach the methodology, you can implement it,
8 you can apply it within the government framework. I don't
9 think enough attention has been paid to that.

10 I congratulate Paul for what he's doing for the same
11 reason, that hopefully he's looking at things that can be
12 replicated. There's no sense in just sort of picking out
13 things that bring out guys who do well, it's just another form
14 of a award system.

15 If you look for things that are replicable -- and I
16 believe they are out there -- and try and draw out of them the
17 principles -- just saying this was a good job is not the same
18 as saying, this was a good job with these reasons and these
19 circumstances; I want you people to imitate or follow this as
20 a model.

21 MR. CARLONE: Tom, would you say that systems are
22 out there like that that are big systems? Let me define big
23 as a billion or more. I think you could find a system under a
24 hundred million that we could find some of those principles,
25 but I think we've struggled with and heard several times the

1 notion of trying to find a success paradigm, find some good
2 apples out there and report on those.

3 The struggle that we have is that we essentially
4 deal with big systems -- the IRS which is a \$7 to \$10 billion
5 system, the Social Security Administration, we're looking at
6 that, that's a \$10 billion system -- and the thing internally
7 that we struggle with is to go out and look at an example of a
8 \$50 million system and try to extend that to a system like the
9 IRS.

10 I'm basically asking a question --

11 MR. STRASSMANN: After we have a break, could we
12 talk about the taxonomy of what's replicable?

13 MR. HOENIG: Let's take a 15 minute break.

14 [Recess.]

15 MR. HOENIG: Let's get started again. We have two
16 new people at the table. Sam Bowlin is the new Director of
17 the Defense Group that's in the IMTEC Division at GAO, and
18 Rona Stillman who is our Chief Scientist and technical
19 fearless leader.

20 We're going to start out this second session Paul
21 suggested with his description of a taxonomy for choosing
22 successful projects. I'd just like to make a couple of
23 comments first.

24 One, I want to make it clear to the group that by
25 focusing on causes and barriers, we do not intend to exclude

1 discussion of solutions, nor do we intend to focus on just the
2 bad and not talk about the good. In fact, the Executive
3 Council sessions we've had to date, which Ralph referred to
4 earlier, have focused on both problems and solutions but at a
5 fairly high level.

6 Our attempt in this effort is not to just talk about
7 the bad but really try for a more in-depth understanding of
8 what's going on as a means to actually creative and innovative
9 thinking about new types of solutions. I just want to make
10 that very clear that that is our perspective.

11 The second point I think is that as we talk about
12 this taxonomy, I'd like to make sure we interpret it from the
13 highest level in thinking about IRM and what the principles
14 going into a taxonomy are that address a coherent strategy for
15 effective and efficient information sources management at the
16 top level.

17 With that, why don't you kick us off, Paul?

18 MR. STRASSMANN: The whole idea of how you achieve
19 organizational learning is really driven by some strategic
20 parameters. The overriding strategic parameter in the
21 Department of Defense is now a 27 percent downsizing in
22 fighting strength. The budget cuts would have required
23 greater downsizing than 27 percent in fighting strength, but
24 Mr. Edward and Mr. Cheney decided that there was assigned to
25 corporate information management a mission of realizing an

1 additional savings of \$70.5 billion over a 5-1/2 year period
2 in order to, through efficiency, preclude further deterioration
3 of our combat strength.

4 So the first thing I would like to point out is
5 unless you have top down, very specific measurable goals, what
6 are the organizational objectives, you cannot stop the
7 process.

8 Having analyzed the strategic direction, the
9 conclusion then was that speed of execution is the attribute
10 that DOD has to acquire very rapidly because we have only 5-
11 1/2 years left to go to achieve those strategic objectives.
12 So as soon as I came aboard in March, I said, show me a few
13 places where you've done things rapidly and well.

14 The search for golden nuggets is iterative. You
15 just say well, here is my strategic objective, show me an
16 example of one. They say, well, sure, we did our
17 demobilization software and fielding of that software, a
18 totally new demobilization scheme for the National Guard in
19 full implementation which is a hundred thousand new lines of
20 code and implementation of 17 bases in 3-1/2 months from
21 concept to full fielding and implementation, and processing of
22 people who are coming back from Desert Storm.

23 Went to see it and you sort of look at the piece
24 parts and out of that came the discovery that behind that
25 achievement in fact there are a number of gold nuggets. The

1 first nugget that was behind it was a small scale project
2 called Rapid which has been around for about 5 years. That is
3 a repository of proven, certified modules of software.

4 The demobilization schema was achieved through 65
5 percent reusable software. It turns out when you analyze
6 typical software configuration -- particularly in the weapons
7 area -- the taxonomy tells you that only very few elements are
8 really new. Most of it is repeatable.

9 The Rapid golden nugget now subject to review by GAO
10 --

11 MR. BOWLIN: We haven't begun it yet.

12 MR. STRASSMANN: But I've asked GAO to come and we
13 have reached the decision at the highest policy level that the
14 Rapid dictionary which was a part of the Army in the rapid
15 repository, it's going to be a DOD asset, pumping major assets
16 into that thing.

17 The other element that helped the demobilization
18 execution was that they were working off an established data
19 dictionary. It turns out there is no data dictionary in the
20 Department of Defense. We now have a commitment to stop all
21 other data dictionaries. We counted 300 and then we stopped
22 counting. We are going to have one data dictionary which will
23 have a total, unquestionable monopoly on reissuing data
24 definitions, in a very formal sense as reusable components.

25 This will cover not only commercial systems but also

1 weapons systems and also command control and intelligence.

2 MR. WITHINGTON: Is the entire DOD one data
3 dictionary?

4 MR. STRASSMANN: Yes.

5 MR. WITHINGTON: Why can't the civilian agencies do
6 it then?

7 MR. STRASSMANN: Third element, when you started
8 looking at the fielding of this application, how did you field
9 the application? They had advance prototyping tools, a case
10 tool, called IDEF which, in fact, was owned and developed by
11 the Air Force at Wright-Patterson. So right there in one
12 morning, you pick up three nuggets of far-reaching -- possibly
13 \$3 billion value over the life cycle of 7 years and all you
14 have to do then is institutionalize those which we have now
15 done, funded and now started deflecting all the funding in
16 that direction.

17 The next event that happened after that is I looked
18 at how they were doing it and, in fact, they were not
19 following the prescribed life cycle management methodology --
20 Phase I, Phase II, Phase III or Phase IV, which sometimes has
21 been called the Waterfall Model of systems develop^{ment}ed and I've
22 called it the Panama Canal approach to systems development.
23 You go into a lock and you can't get out of a lock until you
24 pay the toll.

25 We are now revising the life cycle management

1 process to explicitly encourage evolutionary development. I
2 would consider that nugget a major, major contribution to IRM
3 doctrine in DOD. It still provides all of the necessary
4 safeguards, but an iterative life cycle process is long
5 overdue, a major reform, which, in my opinion, is necessary to
6 enable more effective deployment.

7 At this particular point, I started looking at the
8 quality of the people who are managing our projects. What
9 made particular people who were doing these wonderful things
10 so good? They were professional people, they had done project
11 management as a profession.

12 Then I said, how many professional project managers
13 do we have? As you know, Congress has just authorized the
14 Department of Defense to create a professional corps of
15 weapons managers. We are in the process of embarking now to
16 certify project managers for systems integration and systems
17 execution, and we are going to ask the project managers to
18 follow basically a set of tools that have been proven in
19 Wright-Patterson very successful which means we are going to
20 establish a cadre of certified project managers, equipped with
21 the necessary tools to do project management.

22 In the area of security, there has been a big
23 problem, as you know, with the fact you cannot mix classified
24 information with unclassified information. As you combine
25 business assets, data dictionaries, and a variety of

1 capabilities through consolidation in order to save money, you
2 actually increase the vulnerability of the Department of
3 Defense.

4 I have gone now through a number of vulnerability
5 scenarios. Suffice to say, and that's all I want to say on
6 the subject at this moment, that from the standpoint of
7 potential enemy, whether it's a major power or a terrorist
8 organization, within the next 7 years, our computer networks -
9 - particularly data bases and data centers -- become the most
10 attractive and cheapest target for crippling our military
11 strength.

12 Out at Scott Air Force Base at the Transportation
13 Command, they actually solved the problem. So we are
14 proceeding now with the so-called EMOLOS program and we are
15 using the Defense Intelligence Agency to take over the
16 security aspects and security review of our programs.

17 Again, these things just keep coming out of the
18 woodwork. What I want to show to you -- and there are others
19 -- well, I'll mention them and then I'll tell you what unifies
20 all of these gold nuggets.

21 I asked well, where is there a good user. Everybody
22 this morning mentioned the user and we have to tell them
23 what's good for them and so forth. They say the medical
24 people really have put into place a structure.

25 It turns out that the medical organization, the

1 policy organization side of DOD -- by the way, our medical
2 operations is \$15 billion a year, so this is a very major
3 health maintenance organization in the world, perhaps one of
4 the largest -- had actually a professional staff as part of
5 the Office of the Assistant Secretary of Defense for Health
6 Affairs.

7 Based on that profile, we are, in fact, replicating
8 that success pattern by moving, for the first time in the
9 history of DOD, into the offices of the policymakers,
10 functional integration staff. We are giving them the
11 capability to run projects and we are coming later this week
12 here, with the first set of those people where we have
13 physically transferred people who were conventionally known as
14 IRM. Now we are just bodily moving them into the functional
15 organization because we believe that information management is
16 the job of every manager. It's not something unique to
17 computer people.

18 The last one I want to mention is the whole idea of
19 how you justify information technology from a financial
20 standpoint. When I arrived, I found that the stack of
21 financial justification, so-called feasibility studies were as
22 close to science fiction novels as anything that is in my
23 library at home.

24 The financial series printed very beautifully with
25 laser printers and output from Lotus 1,2,3 is a high state of

1 the art of obfuscation, no integrity and no ability for
2 anybody to ever monitor those.

3 It turned out that the Corps of Engineers in St.
4 Louis has done it right. They've actually integrated the
5 information technology of financial justification right into
6 their mainstream budgeting process. We are proceeding to do
7 that. In fact, we are equipping our people with a set of
8 tools and Bel has started providing business modeling and we
9 are expanding this on a much larger scale to apply the
10 business case model to actually generate explicitly
11 operational indices of performance.

12 I'm happy to report to you, Bel -- this may be of
13 interest -- the blood model was delivered to me on Friday and
14 it is superb. It includes risk analysis and explicit payoff
15 function. It's a discounted cash flow model.

16 What is representation? I think I mentioned to you
17 now 14 gold nuggets on pink paper. What unifies all of this
18 thing is that, in my opinion, is that excellence is made out
19 of small pieces. It's doing lots of things well. You cannot
20 look at one project where the materials have been manufactured
21 under poor quality control and expect some success.

22 One of the things we have learned in manufacturing
23 is that quality in competitive performance comes out of 6
24 sigma or 0 defect contributions of all of the components. So
25 you don't then have to spend time and money on quality testing

1 and retesting too many components into scrap.

2 The strategy that I'm pursuing, although we have
3 ^{over}arching and broad strategic objectives for the Department of
4 Defense which we very well understand, we are very much
5 budget-driven and cost-driven, the smart execution will take
6 place by getting fixes on all of those pieces that really
7 never had the resources or the attention and that were being
8 pursued individually by individual artisans without any kind
9 of standard manufacturing methodology.

10 MR. GIAMMO: Let me ask a question. Let me play
11 devil's advocate for a second.

12 What's your expectation relative to the
13 effectiveness of these changes? Is your Panama Canal problem
14 solved?

15 MR. STRASSMANN: No.

16 MR. GIAMMO: What more needs to be done? I don't
17 mean individually but in general?

18 MR. HOENIG: Do you mind if I rephrase the question
19 so that the other panelists can comment because I didn't get
20 quite all 14 of the points. The ones you did bring up -- the
21 lack of prototype being the decentralized definition of date,
22 the nonreplicable software, the lack of professionalism,
23 career paths and project management -- are those, Tom, Al,
24 Susan and Neil, the kinds of key barriers to good IRM that you
25 see in your agencies as well?

1 MR. STILLMAN: I guess I was going to comment. One
2 thing we haven't talked about is IRM organization and IRM
3 management. A lot of things that I hear, for instance,
4 dictionary is a very interesting situation. At HHS, we are
5 really looking into that. When you look into that you find
6 something that is really amazing. We are not talking about
7 anything very sophisticated. What we find is when we look at
8 the vast systems that exist throughout the department, data
9 elements such as name are inconsistent. Sometimes it's last
10 name, comma, space, first name, sometimes it's first name,
11 space, last name, no middle initial, sometimes it's 30
12 characters, sometimes it's 40 characters. So we're really
13 talking about the basics. That's the easy stuff.

14 DIA was my previous employer, they had bigger
15 problems. They were talking about icons for armored personnel
16 vehicles. They were arguing between the Army and the Marines
17 about what the proper icon was to describe an APV.

18 So you can get into phenomenal problems when you try
19 and standardize on the simplest items. The problem that you
20 have is that this is something that has evolved over time.
21 The IRM organization in the past, at the very beginning I
22 should say, was a centralized organization that tried to do
23 everything for everybody. What happened is, it didn't do the
24 job. So the subordinate organizations built up their own IRM
25 staffs and they built their own stovepipe systems to satisfy

1 their own requirements, with no intercon activity, no
2 interoperability.

3 Basically, through no one's fault, that's the
4 situation that most agencies, most companies, find themselves
5 in. They are just separate systems that do whatever they were
6 meant to do very well but don't provide anything for the
7 corporate good.

8 MR. HOENIG: Because the individual functional
9 departments have developed their own IRM functions?

10 MR. STILLMAN: That's exactly right.

11 MR. GIAMMO: And perhaps properly so.

12 MR. STILLMAN: I think what's happening now though
13 is I think there is a movement back in the other direction to
14 provide some at least centralized guidance and standards in
15 data dictionaries and other things that will at least make
16 everybody play from the same sheet of music, so even if they
17 have their own separate IRM organization, at least they are
18 all striving for the corporate good rather than for their own
19 individual needs and requirements.

20 MR. HOENIG: Because when the stovepipe organization
21 develops like that, the problem that's created is the one Paul
22 described which is that some of the very good projects end up
23 being out there dispersed and hidden and don't get the
24 researchers they need, even though they are high leverage?

25 MR. STILLMAN: Right.

1 MR. GIAMMO: Can I resume my question?

2 MR. HOENIG: This is an ongoing question?

3 MR. GIAMMO: No. I think you interrupted my point I
4 was attempting to make. Just picking up on what I think was
5 said by Neil, this is a strong sense of deja vu. I was with
6 the Defense Department way back in the 1960s and I've heard
7 this before. I've heard data dictionaries before, I've heard
8 waterfall modeling before. I've heard, I wouldn't say all of
9 them, but at least most.

10 MR. STILLMAN: Nothing is new. There is no claim of
11 originality here.

12 MR. GIAMMO: But I would go one step further than to
13 just say that it's not new, that it's not an original. I'd
14 say it's not simple and that it's not necessarily clear that
15 we understand what's causing these problems to persist.

16 The first thing that occurs to me when I see a
17 problem that I've seen for 20 years -- and we all say we have
18 very intelligent people in the Defense Department as well as
19 in the other agencies of the government, we have certainly a
20 wealth of consultants -- to see that problem still here after
21 a period of time means that we don't understand something
22 about it that's making it resistant to change.

23 The fact that it was done well in one environment in
24 one circumstance, for example, just using one, the Panama
25 Canal problem, I've been obsessed with that for 15 years. The

1 more I attempt to solve it, the deeper the understanding I
2 have of how hard a problem that is.

3 I am struggling mightily in one agency with total
4 control of the people under me to try and reform that
5 methodology. That's with direct, day-to-day involvement and
6 it's very difficult. We're succeeding, I think. We're
7 developing the methodology that's turning that around, but
8 it's taking an enormous amount of effort. The idea that you
9 can just pluck out from some place in St. Louis and just
10 publish something and it's going to somehow or other make a
11 difference throughout the entire agency, I think is simple-
12 minded. It's too simplistic.

13 You will find it will flow around you again and
14 people will take those regulations and they'll turn them back
15 into a waterfall on you, whether you like it or not because
16 there are deeper reasons why it's hard to move people from the
17 waterfall that have to do with procurement regulations, it has
18 to do with the way budgets are built up, they have to do with
19 a whole range of things that you have to attack
20 simultaneously.

21 MR. HOENIG: What are the most important of those
22 barriers, things that are going to get in the way, do you
23 think?

24 MR. GIAMMO: Typically, for example, from personal
25 experience, just driving forward, I've run into things where I

1 was absolutely stopped dead. I couldn't get the Department to
2 recognize a plan that was not a waterfall as being a valid
3 plan. They want to see a milestone and how was it going to
4 move from Stage 1 to Stage 2 to Stage 3 to Stage 4. It was
5 not considered to be good business practices to do anything
6 else. So I had to educate all of those people.

7 I'm evolutionary, so I have an increasing softness
8 with my ability to estimate both what I'm doing and how much
9 it's going to cost, and what impact it's going to have as I
10 move out. You try telling that to the OMB budget examiner, I
11 kind of think I'll need \$1.3 billion in 1994, but maybe it's
12 going to be less.

13 MR. HOENIG: This is ringing true with you?

14 MR. GIAMMO: It's good management practices that I
15 don't know that.

16 MS. TOBIN: It's obviously true because no one can
17 estimate what it's going to cost to build a system.

18 MR. GIAMMO: Because there are so many contingencies
19 between now and then, if I'm doing it in evolutionary, I want
20 to leave myself open to those contingencies. I can show you a
21 way of getting from here to there that is plausible, but I
22 have to hedge it with risks, I have to hedge it with the sense
23 that I may learn things that I don't expect as I go along, all
24 which I can bound. I can put it into some sort of boundary,
25 but I can't write down the number that fills the box.

1 MR. HOENIG: So the problem we're talking about here
2 is that no matter how sophisticated the communication is of
3 the long term plan, the decisionmakers, which must include the
4 oversight agencies and the Congress, aren't prepared to cope
5 with the intangibles?

6 MS. TOBIN: They're asking the wrong questions.

7 MR. GIAMMO: I've got the Department trained now and
8 I've got these people we deal with at OMB trained now.
9 They're using us as an example now of how to prepare a plan.
10 You have to recognize from their point of view, there's a
11 legitimate concern. They don't want to give you a blank
12 check. They don't want to say, here Giammo, tell me what you
13 need, come back in a year or two and tell me what you need the
14 next year. They have to have some information, some sense
15 that there are control points involved, that there are
16 scheduled reassessments, that there are boundaries to the
17 process, and that there's something monitorable as we go
18 along.

19 I have struggled mightily to attempt to construct
20 those as part of the methodology. So I have standardized the
21 risk analyses, I have standardized reassessment milestones,
22 and I always have a target requirement, and a target solution
23 I use as the baseline to planning. We've gotten people used
24 to that.

25 MR. HOENIG: You were saying they're asking the

1 wrong questions?

2 MS. STILLMAN: Fundamentally and systemically over
3 the last 30 years, we've only had two choices. We see systems
4 that are consistently over budget, late and don't do what they
5 were supposed to do, and don't serve the users. We can say
6 there's one of two possibilities -- either people are
7 persistently stupid and insist on doing it that way or there
8 is something wrong with what we're asking them to do.

9 If the question is, tell me now the next 10 or 15
10 years precisely what will this cost you, lay it out in
11 milestones and tell me precisely what are your requirements,
12 precisely what is the sizing, precisely what is the
13 performance, you're asking the wrong questions.

14 A more reasonable set of questions would be, what do
15 you know now and what will you know in a year that will help
16 you to define better where you're going? Lay out that
17 program, not the program at the end with everything all sewed
18 up. You can't answer it and that's why we haven't.

19 MR. HOENIG: What you're saying then is a specific
20 result of that incentive, the key decisionmakers, the players,
21 is that the people in charge of presenting these IRM plans are
22 concentrating on the precision of the figures as opposed to --

23

24 MR. WITHINGTON: Chris, I think you haven't been
25 around long enough. This waterfall model, the procurement

1 model which goes back to the 1950s because I was here then, is
2 deeply ingrained in government thinking. You must justify
3 what you're going to spend money for and that's maybe okay on
4 the annual basis but we've got to work 5 to 10 years out, and
5 still, that's the model. You must justify what you're going
6 to spend money for, the life cycle approach.

7 That has turned out to be a poisonous concept and
8 yet it is completely ingrained in the Federal Government
9 thinking. These people who know what they're saying are all
10 agreeing that waterfall model has got to go. Apparently it is
11 permissible to do it, but you've got to educate --

12 MR. GIAMMO: For large scale programs, it's a very
13 good model for probably the bulk of a number of things.

14 MR. WITHINGTON: You will recall our term at PTO,
15 the mini-waterfall model. You guys know -- I'm just an
16 outsider -- apparently this can be specific. GAO can devote
17 itself to killing the waterfall model and selling the mini-
18 waterfall model throughout the Federal Government.

19 MR. HOENIG: Absolutely, but that's exactly what I
20 was trying to get at. I wasn't actually trying to question
21 the point that was being made. I was trying to get who is the
22 actor in the government system that's making the waterfall
23 model the operative system?

24 MR. WITHINGTON: It is the well-educated government
25 manager.

1 MR. GIAMMO: It's probably more you than anybody
2 else.

MS. TOBIN: You, GAO?

3 MR. GIAMMO: GAO. In a different context, I look
4 back at how you justify procurements. This is probably a
5 smaller example.

6 Wally Anderson got involved and looked at that and
7 wrote a beautiful report about 15 years ago saying what
8 constitutes a good justification. That was just a report and
9 it just had that one thing in it. That became the defense of
10 almost everybody in the agencies to do it that way because it
11 kind of had the blessing of GAO. It disarmed the agency
12 reviewers, it disarmed OMB, and everything. Something like
13 that could be done here.

14 For these large scale, highly-integrated,
15 susceptible to massive change kind of programs, lay out
16 criteria, what constitutes a good plan, what kinds of things
17 should the plan address, what constitutes a good requirements
18 analysis? Those are not the obvious, intuitive things that we
19 use now blindly from the waterfall model. You have to rethink
20 out what that is.

21 No one ever asks me those questions as I go through
22 the approval process. They ask me questions I think are
23 irrelevant but they don't hint at the heart -- where am I
24 susceptible to technology change during the execution of this,
25 a stupid question. I better have addressed that question in

1 my plan. Where am I soft in terms of my understanding of what
2 the final requirements probably will look like, where do I
3 suspect I'm going to need iterations?

4 MR. HOENIG: Their emphasis is on the certainty?

5 MR. GIAMMO: When are you going to deploy the 73rd
6 unit.

7 MS. TOBIN: Actually your chances of getting money
8 hinge on whether you can answer the wrong questions right.

9 MR. GIAMMO: That's right.

10 MS. TOBIN: Then when you all come review them --

11 MS. STILLMAN: What we've proven is you haven't
12 answered the wrong questions right, you've just answered the
13 wrong questions.

14 MR. WITHINGTON: Another thing, and I add it with
15 enthusiasm, you are permitted to say, I don't know in terms of
16 technology but I have programs in experiment which is a new
17 waterfall and once I finish it, I will know.

18 MR. GIAMMO: And I have a way of turning back, I
19 have a bound on how bad it can get, and so forth. Those are
20 all the attributes of a good plan.

21 MR. HOENIG: To the point of coming up with
22 something and having it swirl around you and eventually
23 reconstituted. If the mini-waterfall is the new ideal, if
24 that was implemented, would there be something systemic that
25 would prevent it from being successful or is that an answer if

1 the GAO, GSA --

2 MR. GIAMMO: There's a way of screwing everything
3 up. You can have the best methodology in the world and if you
4 don't apply well or intelligently, or you don't have good
5 people, there's still ways to fail. I think it removes a
6 large systemic problem, assuming that's bought into by the
7 right powers to be.

8 I'm on one of the subcommittees for the President's
9 Council for Management Improvement. We've been pushing the
10 same path of a lot of stuff that Ted's been talking about.
11 Let's define that new methodology in some ways that people can
12 recognize.

13 MR. WITHINGTON: As a proponent, I can put out a
14 weakness or potential weakness that it's hard to answer. As I
15 defined it, the mini-waterfall model is about some kind of
16 framework of standards and architecture to begin with such
17 that you can plug in and unplug stuff and that experiments
18 will work later down the road.

19 That has to be established very early very likely, I
20 hope, with the data dictionary. Now, there is a potential
21 weakness because as an opponent or conventional thinker, I can
22 say, you asked me to buy off on this framework and you can't
23 say a word about whether it's the right framework or not. If
24 the framework is wrong, then I'm in a lot deeper trouble than
25 if I just kept everything short-term. Can you prove to me, in

1 fact, that the ISO model for communications will not change,
2 when in fact it will because it's wrong.

3 MR. STRASSMANN: Can I just comment on this because
4 there's a very important piece of research that Barry ^{Boehm} ~~Bean~~,
5 who we're very fortunate to have to be in charge of software
6 at DARPA, has published a very significant paper on
7 effectiveness in IRM development. It's one of these giant
8 contributions.

9 MR. GIAMMO: The spiral model?

10 MR. STRASSMANN: No. He looked at a much broader
11 issue. He said, the Defense Department is now spending \$20
12 billion a year for software. If we do not change methodology,
13 assuming certain productivity gains from off the shelf tools,
14 the projected year 2000 budget will be in the \$50 billion
15 range. Can we afford \$50 billion? The answer is ~~now~~.

16 Then he asked a real pregnant question, which I
17 found very interesting -- what element in that software model
18 will give us the greatest effectivity gain when we look at the
19 next 9 years? This is a strategic kind of paper. This is, by
20 the way, golden nugget. I highly recommend that you ought to
21 get that paper.

22 When he looked at the underlying economics of
23 software and speed of development, he concluded that the
24 number one nugget which accounts for 50 percent of the
25 potential productivity improvement is software reuse, going

1 from the craft mode of software production to what's called a
2 software factory.

3 Once you say software factory, which is an
4 overarching concept -- I will be glad to talk about it -- it
5 turns out that in fact software factories have been worked now
6 for about 15 years. Mitsubishi perhaps is one of the most
7 successful ones in the world. There is much to be learned.

8 There is no doubt that a software factory
9 environment is where you should put your money and that's
10 where the economic justification comes because when you start
11 doing experiments in the software factory, you discover that
12 the payoffs are staggering.

13 That's how you lead then into architecture. The
14 architectures are economically-driven, they are opportunity-
15 driven.

16 MR. WITHINGTON: That's one way to prove the
17 concept.

18 MR. GIAMMO: We're all indebted -- I am, anyway --
19 to Barry because Barry had an AD7 paper for the Defense
20 Department. He was on the Advisory Council when it was
21 authored. He introduced that to me and that's what set me on
22 this particular kick.

23 MR. STRASSMANN: Barry's paper is what's called the
24 spiral model. It's just as good as any waterfall.

25 MR. STRASSMANN: We tried to implement the spiral

1 model, we looked at it, and we did not know how to
2 institutionalize it to satisfy ^{the} audit.

3 MR. GIAMMO: This is what we're attempting to do.
4 We're attempting that and he reviewed me last year on the
5 Advisory Committee.

6 MR. STRASSMANN: We have a paper right now which has
7 gone through two iterations, and you're welcome to look at it,
8 where we have said, yes, we have to comply with the milestone,
9 commitments and OMB reviews and so forth. How do we make the
10 model consistent with the oversight requirements without it
11 being dragged into the Panama Canal?

12 MR. HOENIG: Susan and Neil, you've both come from
13 the oversight perspective, what's your point of view on this?

14 MS. TOBIN: I don't know if I want to answer. What
15 I'd like to do is ask Tom if he could pretend -- you're not
16 really in an agency, you're in a component of an agency,
17 agency being commerce -- and I wonder if you could think in
18 terms of moving from the system development effort, which
19 you're currently heading up -- and you're Reid Phillips --
20 what would you do differently at the department level?

21 MR. GIAMMO: I've thought of the question obviously.
22 It's not a new question. My mind is clouded by the fact that
23 you have to be able to sell it. I know what I want to
24 accomplish and achieve. Maybe what I would do is not a
25 straight line, it's a cycle.

1 I would want to establish, first of all, some
2 characteristics that allowed me to distinguish programs that
3 were at risk; that were large enough to worry about where it
4 can make a difference; and we're at risk because of these
5 various kinds of factors that we talked about. In terms of
6 numbers, most of the programs are not. They don't fall into
7 this category, but in terms of dollar value and import to the
8 agency. So I've struggled to get some sort of definition of
9 that new inventory within the agency to make sure that I knew
10 where they were, and what they were.

11 I would then try and develop some sort of criteria
12 regarding what constitutes planning for these. How would I
13 recognize a good plan? I've gotten into the President's
14 Council the recommendations that were made by the Management
15 Committee and the President's Council for a large scale
16 program development. I got a lot of my thoughts into that.

17 I would develop what constitutes good planning and I
18 would set up certain criteria for it -- does it address the
19 major risk elements in terms of requirements? I have never
20 seen a big program where they started off knowing what their
21 requirements were and for very good reason, because they're
22 probably not knowable.

23 I'd want to see some recognition of that in the
24 plan; I would see as part of the plan a process that discovers
25 the requirements and refines them as it goes on. I would like

1 to look at technology risks, another major risk area, and I
2 would say, how do you accommodate that in your plan, what do
3 you think your technology risks are, and how do you -- in a
4 progressive way -- reassess them and keep yourself flexible
5 enough that you can take advantage of these reassessments as
6 you go through?

7 One of the big things in terms adoption on my part -
8 - this is attacking your problem directly -- in order to have
9 some sort of coherent baseline to have discussions with the
10 oversight people, the budget people, and all the other people
11 that have to say yes in the agency.

12 I have to have a target set of requirements. I have
13 to have some place that I'm going to and I have to have a path
14 that will get me there. I don't have the confidence that it's
15 the best path. I have to be able to justify and sell the
16 program on that basis -- if nothing else intervenes, and I'm
17 positive something else will intervene, I can get here by this
18 path and it's worth doing. This is how much it would cost and
19 this is where I'll be, this is how the environment will look,
20 and so forth, as I go along.

21 Then I have to have a process that refines that
22 maybe once a year to coincide with the budget process and what
23 have you. I will continually get better and better models of
24 where I want to end up, and I will continue to get better and
25 better models of how I want to get there as it goes on, but I

1 want to see that in the process from people that I'm
2 reviewing.

3 The next thing I would do is I would set up basic
4 training, one of the things someone mentioned in here, of all
5 of the skills that I think people lack. You hit on that --
6 the lack of the basic project management tools. To do
7 programs of this size, you need very skilled people who really
8 make use of all of the program tools, that manage complexity
9 of the program and so forth. They're horribly lacking. We've
10 had to train our own and build up skills. The amount of
11 effort and how much that has slowed us down has hurt us, so I
12 would like your idea very much of setting up some sort of
13 program where we can get people who are program management-
14 trained and they are different from the trail horse, which is
15 procurement-trained.

16 That too, you need to some degree, but given the
17 choice of someone who has gone to that or someone who has gone
18 through some sort of rigorous program management, just a
19 drill, just knowing how to set up print charts and what to put
20 in and not put in, how one runs program reviews on a monthly
21 basis, what kind of processes you need to put in place in
22 order to updates/ so that it's accurate and meaningful. Those
23 are skills that are hard to teach and take a while. I would
24 try and get some ability for that.

25 The flexibility, the ability to move good people who

1 are skilled at this from program to program, I'm trying to
2 find a way to do that from the very top level because they are
3 reasonably rare individuals. You want to have the ability of
4 suctioning as much out of them as you can, so you don't want
5 to just put somebody in who sits still and when a program
6 comes by, he manages it and as the initiative passes on to
7 someplace else, he just sits there.

8 This is a specialized skill capability. Let's find
9 those people and let's use them as a core or cadre to at least
10 help people set up programs, review them, and what have you.
11 I think a lot could be done with that over time. I think
12 that's basically the direction in which you're going.

13 MR. CARLONE: Can I try something on you?

14 MR. GIAMMO: Sure.

15 MR. CARLONE: One of the things that we've been
16 doing is working privately with some agencies, especially the
17 ones with billion dollar permits, and essentially what we have
18 come to with this one particular agency is that we ^{were} ~~were~~ still
19 holding toward the notion of putting together a vision. I
20 don't know that this offers a definition of a vision, but the
21 way that we have been talking to the leadership of this agency
22 is basically to say that vision shouldn't be 10,000 pages.
23 We're talking about something that's four or five pages.
24 We're talking in terms of where you see this agency 10 years
25 from now, how you want the taxpayer to interact with you. You

1 want to give the taxpayer the capability to interact
2 electronically with you -- not defining it any further than
3 that.

4 The next level that we've gone to is to analyze what
5 they said was part of this \$8 or \$9 billion modernization that
6 they were doing. I think we got to the point where we said,
7 look, you've got to separate those. You've got to separate
8 those projects from one you're relatively comfortable with so
9 that you know that they, in fact, are going to help you
10 achieve your mission.

11 Then there is a bunch of other projects that are
12 going to help you redefine your requirements. There are
13 projects out there that are testing new technology, that are
14 experimenting with some new technology to be able to help you
15 do that vision better, and in fact, some of that new
16 technology may in fact change your vision.

17 As I think you all were talking this morning, in
18 these informal discussions, we've put it in the category of
19 undefined, unarticulated need -- the notion this morning that
20 sometimes the user really doesn't know or can't articulate
21 what he or she wants.

22 At the same time, we've gone to the Hill to the
23 appropriate authorization committees and appropriation
24 committees and pretty much made that same spiel and said in
25 order for this agency to make some progress, you have to

1 understand here is a vision and in terms of what they define,
2 the projects that they know in fact will help them get there
3 are A, B, C, D.

4 Basically, of that \$10 billion that they're asking
5 for over time, they're kind of locked into that because they
6 have to give you an estimate, their best estimate as to what
7 they see eventually this thing might cost, but you have to
8 understand that \$8 billion, \$9 billion, or \$10 billion number
9 they're giving you may be \$3.5 billion or may be \$15 billion.

10 We are also working with those committees to say
11 once they tell you this is part of the modernization, once
12 they tell you these projects are part of the modernization,
13 the fear is that if they don't put everything, include
14 everything in as part of the modernization, you're then not
15 going to fund these other kind of projects.

16 Basically, what we've been doing in a private way is
17 trying to get the actors together, trying to get the
18 leadership of this particular agency to say, we think this is
19 a sensible way of going and we're kind of struggling and
20 working our way through this, and at the same time, working
21 with the Hill and saying there needs to be some understanding
22 on your part. We will track and monitor and look at this
23 thing on a yearly basis and try to give you some sense as to
24 where they are.

25 How does that fit with the waterfall model? How

1 does that fit with what you are saying? I'm just trying to
2 get a sense -- are we going in the right direction with that
3 kind of advice? How would you all feel about that?

4 MR. GIAMMO: In my mind, the taxonomy isn't quite
5 that neat. Things don't divide that well to make it that
6 clean. I think basically it's the right idea. I'm having
7 trouble understanding what you're conveying.

8 MR. WITHINGTON: If I could jump in for a minute,
9 the reports that I've read of GAO, I think perhaps you are
10 guilty of expecting a little too much in the way of precise
11 visions of the end product.

12 MR. CARLONE: No, this isn't anything we've
13 published.

14 MR. GIAMMO: Maybe it's carrying over into this, I
15 think.

16 MR. CARLONE: No, I don't think you can have a lot
17 of precision on vision. I think, at least in this one
18 particular case, what we've been saying is you need a sense of
19 how you want to do business in the year X and years down the
20 road, understanding that what you say today in terms of how
21 you want to do business may be altered at the end of the first
22 year, but only put in to the projects that you have their
23 strategic plan -- I think it's called their IRM plan. What
24 we've been saying is only put into that IRM plan those
25 projects that you are reasonably comfortable are going to help

1 you get to that vision.

2 The buzz word we've been using is R&D, that the
3 systems that you're working on, the things you're trying
4 outside of that plan in fact may alter some of the projects
5 that you have in your IRM plan and, in fact, may alter your
6 vision or business plan for the future.

7 MR. WITHINGTON: As you just said, the IRM plan does
8 not include the uncertainties, but only the certainties. The
9 R&D are outside the IRM plan.

10 MR. CARLONE: That is correct.

11 MR. WITHINGTON: I don't mind that but it's
12 important that I understand because to me it encompasses the
13 whole effort.

14 MR. GIAMMO: There also have to be more than one
15 vision. I don't think you can get down to a phrase that
16 drives the entire agency design, automation activities over
17 the next 10 years or something like that. It's not quite that
18 simple. I don't think it breaks that simply. I think there
19 are lots of goals, maybe a little tree of goals, three or four
20 levels deep. Possibly you could do that but the dichotomy of
21 this being R&D and this being other --

22 MR. CARLONE: I'm using those words loosely.

23 MR. GIAMMO: It just doesn't break that easily.

24 MR. STILLMAN: Let me try. At HHS, I'll give you a
25 vision. Secretary Sullivan calls it one-stop shopping. Go

1 through the department, whatever it is, when you go into a
2 Social Security office or a HHS office, why can't you get
3 information from Social Security, from Medicare or Medicaid,
4 about new drugs from the Food and Drug Administration, for
5 disease reports from the Centers for Disease Control, for
6 information about something from the National Institutes of
7 Health, all in the same place?

8 One of the reasons you can't is the Office of the
9 Secretary, I represent, I can't tell Social Security what to
10 do anymore than Treasury can tell IRS what to do. I'm in an
11 oversight role. I can set policies and guidelines, I can
12 cajole to try and get some standards, but when I look at the
13 department, we're down to five different financial systems.
14 That's supposedly pretty great, but personnel and payroll is
15 handled differently.

16 We're a long way from being able to handle
17 administrative systems cohesively in any single large
18 department. We're much further away from handling various
19 programs within subelements of an agency. Social Security
20 does their work. They don't see any need to worry about what
21 Medicare and Medicaid are doing.

22 One example I'll give you, I had a discussion with
23 the Medicare folks and the Public Health Service is very
24 interested in Medicare statistics. The Medicare folks send
25 computer tapes by mail over to NIH for analysis. I suggested

1 it might be nice to do this on-line. They didn't see why.

2 MR. GIAMMO: You admit this is a vision, not the
3 vision. How do you decide what's supporting that vision so
4 that you package it as an R&D package?

5 MR. STILLMAN: The problem is there's basically
6 nothing supporting it other than the words because budget and
7 personnel are so tight and there are programmatic
8 responsibilities in all of the subagencies that support of
9 this is unfortunately the last thing on the list.

10 MR. GIAMMO: It's a nonstarter as a vision then.

11 MR. STILLMAN: Well, I'm telling you that we have a
12 lot of work to do. I'm certainly going to try, but it's not
13 something that's going to happen easily.

14 MR. HOENIG: The barriers are the autonomy of the
15 individual organizations.

16 MS. TOBIN: Yes, and their enormous political
17 strength. Generally, as in Neil's organization, the person
18 responsible for IRM is the Assistant Secretary for
19 Administration and Management and those are not typically the
20 most powerful bureaus, even when they get to designated senior
21 officials, the political appointee to go up against --

22 MR. HOENIG: Is that another --

23 MS. TOBIN: It's definitely an issue.

24 MR. HOENIG: Would everyone else agree that the
25 placement of the IRM official, if it's not -- there's no

1 possibility of a direct relationship with the chief executive
2 in the agency -- precludes developing an integrated approach?

3 MS. TOBIN: It's possible but the chief executive in
4 the agency has competing interests. You've got a finite
5 number of resources and you have finite numbers of priorities.
6 Everything isn't as important as everything else. What's more
7 important ~~than~~ⁱⁿ EPA, cleaning up toxic waste sites or cleaner
8 air?

9 MR. HOENIG: Or a data dictionary.

10 MS. TOBIN: Right. In our review of HHS, I sat
11 across from the Deputy Assistant Secretary and read her a list
12 of complaints and then was highly critical of the Public
13 Health Service. When we finished, she said, well, they're
14 curing AIDS. That's their priority. What can I say -- don't
15 do that, don't cure AIDS.

16 MR. GIAMMO: Let me reinterpret what she -- because
17 it's right on the mark. These organizations are autonomous
18 for a good reason. They weren't accidentally autonomous, they
19 have evolved into an autonomous condition because it serves a
20 function of the agency -- other functions, not IRM functions
21 of the agency.

22 Now you're coming up where you're changing the
23 ground rules here because you're saying there are IRM concerns
24 that are cost-cutting that also ought to be considered. It
25 doesn't mean necessarily that you want to throw away all the

1 other benefits that you have by delegating, by having
2 autonomy, by having self-contained units, all of which have
3 positive sides.

4 MR. HOENIG: We're talking about balancing.

5 MR. GIAMMO: But there comes a time when the
6 recognition grows that they are of a sufficient balance so as
7 to create an IRM official and give him certain authority and
8 then it happens. In Paul's case, I think that's happening,
9 because the automation of the armed forces, the Defense
10 Department, is clearly a very, very major economic issue and
11 is directly relatable to effectiveness and efficiency.

12 MR. WITHINGTON: Despite the fact that obviously the
13 programs have their own vitality and autonomy, the one stop
14 shopping concept is not IRM per se, that's programmatic. That
15 is to serve the customer and save money at the same time.
16 That apparently does have the Secretary's attention.

17 So it is conceivable for an IRM politician with that
18 to go directly to a congressional committee staff and say how
19 this program down the road will serve all the programs at one
20 time, and no one else has a way to do that and serve the
21 public better. So I think there's diplomatic ways to get on
22 the front of the wave.

23 MR. PESACHOWITZ: I guess I would come back to what
24 each of you said. I think Neil's boss has a clear vision, but
25 he doesn't have kind of the framework that Paul is running.

1 Paul's boss has a clear vision and also has a clear economic
2 problem that IRM is going to help him or her solve.

3 The problem that Neil faces is kind of the same
4 problem I face. My boss says, I want -- for a change because
5 we want to do more risk management and environmental
6 protection and focus our resources towards higher risk areas
7 as opposed to the old media area -- data integrated in the
8 agency. Well, again, that leaves me -- Neil fighting with his
9 distinct bureaus or departments -- fighting with my distinct
10 program offices to try to bring them along.

11 I don't know what else to say about it other than
12 having that vision stated, doesn't necessarily make it happen.
13 The top management has to provide the appropriate resources
14 and incentives to force that to happen. In your case, that's
15 probably provided in some sense and goals laid out.

16 MR. STRASSMANN: You have to be very, very careful.
17 I think you have to look at the institutional framework. I
18 would like to answer Ralph's concern though.

19 The second largest MIS budget in the world after DOD
20 is that of the IBM Corporation and that exceeds over \$5.5
21 billion. Just for the fun of it, I went to my counterpart at
22 IBM and said, how does top management of IBM -- which does not
23 exactly enjoy prosperity these days -- manage \$5.5 billion?
24 How do you go before your board? How do you explain it? How
25 do you go to your comrades? By the way, these documents they

1 provided are in the public domain, they're available, and so
2 I'll be glad to provide it for you.

3 They came up with a very surprising conclusion for
4 IBM, although this is one of the few things where IBM and I
5 are in total agreement. They've concluded there is no such a
6 thing as an IRM plan for IBM. I think one of the major
7 problem with the laboring here is that we are still belaboring
8 on the notion that it is conceivable to justify computers, and
9 it's conceivable to have an IRM plan.

10 The IBM Corporation, when they review their spend
11 level, they go with business plans where computers are part --
12 it's the biggest part. The only piece that IBM is looking at
13 as separate IRM is the underlying technology base in
14 infrastructure for gaining commonalities and gaining economic
15 leverage, but that is not a \$5.5 billion plan. The IBM IRM
16 plan is less than \$400 million.

17 So let me just translate this thing to where I stand
18 right now because I want to get Ralph's support of this thing.
19 Ralph, I do hope that you will help me -- and I don't have to
20 go ever again with a \$9.5 billion plan before Congress. It is
21 unexplainable. By the way, the number is the MIS plan. There
22 is another piece which is bigger than the \$9.5 which I don't
23 want to discuss.

24 That piece which is the embedded part, in fact, has
25 been handled properly. It has been part of a strategic

1 mission. What I really would like is to try to rethink the
2 basic premises behind the Brooks Act which was there is such a
3 thing as IRM, which was subsequently narrowly defined as ADP.

4 I think the time has come for us to say every
5 manager in the government is an information manager.

6 Management is an information task. Computers can only be
7 justified as part of a managerial set of objectives and then
8 the question is, are you doing it efficiently. In other
9 words, do you have 50 data centers, each running at 25 percent
10 capacity or are you efficient in that thing?

11 Do you have a data dictionary or do you allow, for
12 instance, the Army to defy even the eye color? You're talking
13 about a name format. In the Army, the eye color definition
14 for officers is different from the eye color definition for
15 enlisted men. We train people how to tell the difference, by
16 the way.

17 Those are IRM issues, but in my opinion, that is a
18 \$500 million issue or maybe less. It's not a \$9.5 billion
19 issue. I do hope that GAO will contribute to the dialogue to
20 task mission managers to bring forth mission effectiveness
21 gains as part of mission accomplishment, and then show, by the
22 way, in order to do this mission -- which may be increased tax
23 collection or one point shopping -- as part a mission and here
24 are your options of speed versus tradeoff versus technology.

25 I think Congress ought to look at business cases,

1 which include full functional costs and only look at
2 information technology in terms of efficiency. By the way, so
3 you understand how tough I am on efficiency, I'm tasking an
4 efficiency target that because of the technology we get, we
5 ought to be able to have unit costs of our transactions
6 improve year after year by about 25 percent. That is a
7 legitimate IRM issue which has not been addressed. I hope
8 that's helpful, Ralph.

9 MR. CARLONE: I think we're saying some of the same
10 things. I used the term "IRM Plan" because that's the jargon
11 represented in the government lexicon, but, in fact, what you
12 just described of what is on the table in terms of what
13 Congress and the public is understanding this particular
14 modernization is going to cost is in the high billions.

15 I used the term "IRM Plan" but the plan that we're
16 talking about, whatever way you want to call it, whatever name
17 you want to put on it, basically if it is a plan to drive what
18 that agency is going to do in the automation area for the next
19 year or 2 years, and it is a small piece that may be \$200 to
20 \$250 million.

21 What we're trying to explain to our clients is that
22 you look at this \$9 billion as a direction. You can't put a
23 lot of certainty on that kind of number that goes out 10 to 15
24 years. It gives you an indication that eventually to
25 accomplish this vision, it may be in this ball park, but you

1 need to assess it and reassess it on an annual basis to look
2 at developments in technology.

3 We're also very clearly, I think, saying that even
4 though you put something in place and you've got something
5 that's working, 2 years from now, something may come down the
6 road that you basically need to reassess and you may have to
7 throw out what you put in simply because technology has moved
8 quickly.

9 Basically the model that we're working with, we're
10 tinkering around with is a better way of saying it, is
11 separate those things today that you have some relative
12 certainty are going to help you get to your overall vision and
13 telling the Congress you still have to fund these other
14 things, but don't include those as part of a business plan and
15 IRM plan. I think we're saying the same thing.

16 MR. GIAMMO: I understand what you were saying
17 better. Let me just try a different slant on the same thing.

18 What if I changed the words of what you said and
19 said I'm going to have a certain class of projects that I'm
20 going to allow to be managed waterfall because the waterfall
21 fits. The other half is that I have developmental projects
22 that are high risks for various reasons -- lack of knowledge
23 of requirements, lack of technology change and so forth --
24 those I want to manage a different way, a nonwaterfall way.

25 That I can make a distinction on. Now I can see it

1 belongs to it or it doesn't belong to it. Is that the same
2 set of classes that we're talking about because they start off
3 from a different point but they may end up being the same set?
4 I feel comfortable with that.

5 MR. STRASSMANN: I'm not sure that's the same thing
6 we're talking about. My plea really is to abandon the notion
7 that we can do IRM planning, which is a pretense that has
8 outlived its usefulness. We have a whole set of institutions,
9 procedures, bureaucracies, who do IRM. I think the time has
10 come to either redefine IRM where it should have been, or go
11 back and reexamine the fundamental plan.

12 MR. WITHINGTON: I take it you're equating IRM with
13 the overall waterfall model, the long-range life cycle plan?

14 MR. STRASSMANN: No. The IRM, let's go back.

15 MR. HOENIG: You're talking about focus on
16 information as opposed to the mission.

17 MR. STRASSMANN: I was present when the IRM
18 regulations were promulgated by the head of the OMB, Mr.
19 Miller. I was on the podium with Mr. Miller when the
20 announcement was made. I was part of that Act. What has
21 happened is, what was originally viewed as managing
22 information -- which is much more than computers -- by the
23 way, computers is 7 percent or less -- has deteriorated,
24 degraded to a bureaucratic process that became
25 institutionalized to a degree which I think is only matched by

1 some extreme theological medium of thinking.

2 I think the time has come to disengage from the very
3 narrow view that IRM equals ADP. Somebody said you go and
4 visit somebody and they see you as ADP. I think we have to
5 disabuse ourselves of that view. By the way, I had the
6 privilege of testifying before Congress twice already and when
7 I get up to the Hill, they want to talk about what am I doing
8 about supercomputers, what am I doing about hackers.

9 Damn it, I'm running here a \$70 billion information
10 management program -- is this on record now?

11 MR. BLOCK: As you said before, there's nothing off
12 record in this town.

13 MR. STRASSMANN: Since this is on the record,
14 anyway, I go there and I want to talk about how we're going to
15 increase effectiveness, change the business processes in DOD
16 and the Congressmen and the staff gives them these little
17 cards of questions to ask. The question was what do you do
18 about supercomputers, what do you do about hackers?

19 Here was Paul Strassmann, the ADP guru. That's just
20 a total misperception and it's pervasive, it's universal. We
21 have casts of thousands of people that make their living, you
22 have trail bosses, how you get a computer through procurement
23 faster. It's clearly a worthwhile thing to do, but that is
24 not a way to make a living.

25 [Laughter.]

1 MR. HOENIG: If I had to encapsulate the barrier
2 that you just described, would this be a reasonable attempt or
3 not? This is the problem -- what's an information, not
4 program, mission?

5 MR. STRASSMANN: Focus on computers, information
6 technology. When the people go up and talk and talk about
7 technology, it's "techy" stuff.

8 MR. GIAMMO: There's a business or program process
9 that should be the focus, not just the mission, but you have
10 to define the process which implies that there are information
11 quotas.

12 MS. LEONG-HONG: What Neil was talking about
13 earlier, the one stop shopping, that's a changing in process,
14 changing in business, a changing in the way that the customer
15 sees --

16 MR. GIAMMO: You should organize that by looking at
17 the processes that are involved in making that happen. That's
18 the way to look at it, not look at it as an information
19 collection process.

20 MR. HOENIG: What I'd like to do is start a long
21 journey which we may not make but we've got a half a hour and
22 the destination is called closure. I'm not sure we can do it,
23 but to go back over in the next 10 to 15 minutes, the major
24 barriers that have come up in the discussion today. If you
25 guys can help me get the words right so that I've got labels

1 that people identify with.

2 MR. WITHINGTON: Barrier one is good. Barrier two
3 we had was focus on waterfall model or should we say life
4 cycle planning.

5 MR. HOENIG: The whole idea here is focus on
6 demanding certainties where none exist?

7 MR. WITHINGTON: As opposed to looking for something
8 as an alternative, which let us call a spiral model or
9 whatever. The spiral model has the virtue of being nicely
10 documented.

11 MR. HOENIG: One of the other barriers that came up
12 was one Neil mentioned which was the organizational autonomy
13 barrier. Tom, you cast that in terms of a positive and it is
14 a positive, but it's also a barrier in the sense that as IRM
15 organizations try to construct centralized plans and
16 coordinate that the autonomy is a barrier --

17 MR. GIAMMO: He can when it's positive on a
18 programmatic scale.

19 MR. HOENIG: In terms of power.

20 MR. GIAMMO: The barrier there is the other way
21 around. The barrier is maybe we shouldn't be so single-
22 mindedly looking just at ADP efficiencies.

23 MR. STRASSMANN: Call it industry versus
24 manufacturing.

25 MS. SIMMONS: But that's a different problem.

1 MR. HOENIG: I agree with that one, but not in what
2 we were talking about. I sense it is what we were talking
3 about.

4 MS. SIMMONS: But there's a basic problem. The
5 reason that people try to look on a global scale at ADP is not
6 just for efficiencies like reducing the numbers of data
7 centers. It's in order to do your business better. I need
8 some information someone else has or I need it accurately, or
9 I need it quickly, so it's not a style problem. It's actually
10 a mission problem. There are competing missions.

11 These autonomous agencies have legitimately
12 autonomous programs but they also have --

13 MR. HOENIG: Conflicting missions, you mean.

14 MS. SIMMONS: Separate missions and they therefore
15 have a reason to do their business separately. At the same
16 time, they have information needs that they share in common
17 and they could each do their business better if they shared
18 better. That's the push, that's the drive for this whole
19 barrage. It's a way to do your business better. If you would
20 be a little less autonomous in one place, you could do your
21 business better. It's a difficult balance to strike.

22 MR. STILLMAN: It's as you originally phrased it.

23 MR. HOENIG: Let's go on to the next one. Someone
24 also mentioned the intangibility issue that Vic brought up. I
25 was going to phrase this as nonstandard intangible concepts

1 and product services or is concept the object?

2 MR. GIAMMO: I don't like putting down barriers when
3 I can't imagine the contrary. A lot of things make my job
4 hard --

5 MR. WITHINGTON: As in the first one, it's possible
6 to put down a better alternative in each case which I think
7 would be neat.

8 MR. GIAMMO: The second one is good. The third one
9 I don't understand at all. The fourth one, you have to tell
10 me what I can do about it or what does it imply?

11 MR. HOENIG: I think it's only sterile if we don't
12 all understand exactly what the cause is, but once one
13 understands the real cause and effect relationship, then that
14 does lead to creative thinking about solutions. That's the
15 whole goal. If we can't get there, we can't get there.

16 MS. STILLMAN: Can we rephrase the third one because
17 it makes it look as if the cottage industry is a bad thing or
18 something.

19 MR. GIAMMO: The cottage industry may be
20 appropriate, it may be downsizing. If you take downsizing, it
21 sounds like it's good now, right, as opposed to grand design.

22 MS. STILLMAN: Do you mean more effective
23 information sharing versus autonomy?

24 MR. HOENIG: What we're focusing on here is a
25 solution would be sharing. One of the barriers to sharing is

1 actually overly independent organizational autonomy and where
2 individual regions or departments don't want to share because
3 they want to keep their information to themselves, they want
4 to be too autonomous. Autonomy is the problem.

5 MR. GIAMMO: If you put the word "too" and "overly"
6 in there, I guess you sort of have a self-defining barrier.
7 That's always true, if you overdo anything, that's a problem.

8 MR. HOENIG: You can't understand the problem unless
9 you describe that aspect?

10 MR. GIAMMO: That could be just a mental position
11 which I just disagree with that somehow or other, because it's
12 more efficient from a data-sharing point of view to have it in
13 one place, therefore --

14 MR. HOENIG: That's not the proposition we're making
15 here at all. The question is, do people agree with Neil's
16 proposition that there are cases where data-sharing and
17 coordination would be a positive step?

18 MR. GIAMMO: Is that an intrinsic barrier?

19 MS. LEONG-HONG: I don't think that's a premise. I
20 think the problem that Neil was talking about has more to deal
21 with the shared goals. The goal of the IRM organization may
22 not be the same goal of the Social Security Administration.

23 MR. GIAMMO: It may be a broader goal. They may
24 have a broader goal.

25 MS. LEONG-HONG: I think it has to do more with lack

1 of shared goals.

2 MR. GIAMMO: It's actually the contrary is the
3 problem. Our problem was where we think that because
4 something is more efficient, therefore, it's better.
5 Sometimes we batter ourselves into trying to achieve things
6 that have serious programmatic problems.

7 MR. HOENIG: One of the other barriers that was
8 brought up was poor user IT collaboration and the fact that is
9 a very difficult thing to do. Would agree that is at least a
10 candidate?

11 MR. WITHINGTON: That goes back to the point I
12 started with. Let's just call it organizational inertia and
13 the point that down the line they really see the benefits,
14 organizational inertia particularly at the operational level.
15 This is the barrier to most IRM functions.

16 MR. GIAMMO: How do you get the organization to
17 redefine itself because of technology?

18 MR. WITHINGTON: When all the incentives are
19 otherwise.

20 MS. STILLMAN: Paul has the answer -- a major
21 crisis. In his case, a budgetary crisis.

22 MR. GIAMMO: Steal their money.

23 MS. STILLMAN: Exactly. If that what it takes. It
24 hurts to change.

25 MR. WITHINGTON: In fact, there are examples the

1 other way. Where the new system is so dazzling that even in
2 the operational field, say, well, if that really worked, I
3 would be turned on.

4 MR. STRASSMANN: I want to disassociate myself from
5 starvation because it has been known that starving people
6 makes them die too.

7 MR. HOENIG: One of the other issues earlier was
8 Al's difficulty of customer focus in terms of a barrier and
9 not having a place for the customer in the process. Would you
10 want that up here as a barrier?

11 MR. STILLMAN: Isn't that a part of five, when you
12 say no shared objectives. Everyone is sharing it and the
13 customer isn't a part of it, that point doesn't stand.

14 MR. GIAMMO: One of the barriers is insisting that
15 there's only the customer. In a lot of the situations you
16 have, you don't have a well-defined customer. Social Security
17 doesn't have a customer, an internal customer.

18 MS. STILLMAN: I bet they think they do.

19 MR. GIAMMO: Yes, when they're putting a system
20 together, they don't have a well-defined customer -- I'm doing
21 a system for the field office, who is my customer.

22 MR. HOENIG: Let's not debate that one.

23 MS. STILLMAN: A little humility before we drop it
24 altogether as another class of barriers that we haven't
25 touched. For these enormous systems, there are significant

1 technical barriers. There are technical barriers to building
2 them; there are technical barriers to testing them; there are
3 technical barriers to maintaining them; there are technical
4 barriers to providing security; there are technical barriers
5 to providing interoperability. They are all the legitimate
6 technical problems as well.

7 If all the answers existed clean and shiny as Ted
8 described, then the problems would be a whole lot easier. The
9 problem is that we don't know how to do it well technically,
10 correctly, accurately, the first time with low maintenance
11 costs, effectively, efficiently, on time. It's hard.

12 MR. HOENIG: The question is, who is "we" there?

13 MR. WITHINGTON: The barrier would be technical
14 uncertainty and I think it's worth writing it down that many
15 things follow from that -- lack of trust, overconfidence by
16 the IRM people, bad records so we don't listen to you next
17 time.

18 MR. GIAMMO: There's an incentive to overpromise.

19 MS. STILLMAN: And they are angry at you when they
20 understood you to promise something and you didn't deliver.

21 MR. GIAMMO: There's another one too. It's
22 extremely difficult to get good contractors right now. We are
23 at the level of integration where we're tackling programs now
24 where there just isn't the base out there.

25 MR. HOENIG: Lack of skills and knowledge.

1 MR. GIAMMO: But it's not just within the
2 government, it's outside the government too.

3 MR. MILLAR: I would think lack of contractor would
4 be a line item because if there were a clean track record in
5 an agency or with the contractor, that would provide a great
6 deal more certainty on the part of the people who have to let
7 the contract, on the part of the people who have to award
8 money.

9 MR. STILLMAN: That procurement person, that's
10 inadmissible evidence, the track record of a contractor cannot
11 enter into the decision.

12 MR. MILLAR: I'm talking about the reputation we
13 have as a group for ultimate failures in the last 30 years.
14 This area is greatly suspect, no matter what anybody says.

15 MR. HOENIG: Lack of track record, is that a
16 separate, lack of track record for contractors?

17 MR. GIAMMO: We have outrun the ability to educate
18 in the field.

19 MR. WITHINGTON: Well, the congressional committee
20 might as well be there too.

21 MS. STILLMAN: If we redefine using our mini-
22 waterfall or spiral model, if we redefine what we promise, we
23 might be able to build a decent track record.

24 MS. LEONG-HONG: I would add a lack of tool chests,
25 lack of tools for the IRM manager.

1 MR. WITHINGTON: Skills and knowledge.

2 MR. HOENIG: We've got skills and knowledge. We
3 also talked a lot about the planning process and the barriers
4 to the planning process. We talked about it in terms of the
5 overall process of change. There's a core issue there.

6 MR. GIAMMO: There needs to be an accepted planning
7 methodology that reflects the mini-waterfall or what you.
8 There's a lack of a model for how to do it.

9 MR. WITHINGTON: Lack of modern model, lack of
10 effective model.

11 MR. GIAMMO: Of an effective model for that class of
12 problems.

13 MR. HOENIG: Lack of effective IRM planning model?

14 MR. GIAMMO: Planning, requirements, analysis, the
15 whole set has to be rethought out in terms of the concepts.
16 There's no book to go to yet, there's no institutionalization
17 to that.

18 MR. HOENIG: One of the other things was the rate of
19 technical change. Is that really a barrier or is that just a
20 force at work?

21 MR. STILLMAN: It's the ability to assimilate the
22 technical change.

23 MR. HOENIG: Is that really a barrier? Is that the
24 difference of being the best versus doing well? Is it a
25 barrier to good IRM? The technology is changing fast.

1 MR. STILLMAN: I think what Tom was saying was
2 you've got a moving target. You don't know what's going to be
3 there 2 or 3 years out. Technology is changing, the
4 requirements are changing and you can't adopt -- the ability
5 to adapt to the technical changes is the problem.

6 MR. GIAMMO: You have to rethink out your process.
7 You've got to plan to move in smaller steps and readjust and
8 reassess. The reaction to it, that's the world. The fact is
9 that our need for long term horizons for procurements for 5-
10 year budgets and plans like that outrun our ability to --

11 MR. WITHINGTON: I think whether you intend it or
12 not, the need for long procurement lead time is a direct
13 barrier to a proper planning process. In that case, you have
14 to make commitments for precise dollar sums.

15 MR. GIAMMO: I can stand a long lead time if I'm
16 allowed flexibility in what I'm buying.

17 MR. WITHINGTON: It doesn't permit it.

18 MR. GIAMMO: I have spent a lot of time reading the
19 procurement regulations and you'd be surprised what it allows
20 you to do.

21 MR. STRASSMANN: I think the procurement is not the
22 singular bottleneck.

23 MR. HOENIG: There could be varying levels of
24 leverage and priority in these. I just want to get them on.

25 MR. GIAMMO: We kind of agreed that was not right.

1 What we've agreed is that the way we're interpreting the
2 procurement regulations has made the lead times intolerable.

3 MR. WITHINGTON: Or you might put in parentheses,
4 reg change not needed.

5 MR. GIAMMO: I've been to several conferences where
6 we've sat down and had work groups and we all end up agreeing
7 we could live within the procurement regulations and the lead
8 times if we had the flexibility to specify it the way you
9 needed to and to make the kind of changes. The regulations
10 allow you to do that. The procurement officer typically will ^{not}
11 take the risk.

12 MR. HOENIG: So the interpretation of regulations
13 vis-a-vis procurement.

14 MR. GIAMMO: That goes back to the certainty
15 problem, that they require far more certainty in practice than
16 the regulations require in principle.

17 MR. HOENIG: We also talked about the all or nothing
18 issue and the need to market these huge systems just to get
19 them up on the radar screen.

20 MS. STILLMAN: The awful thing is it makes it almost
21 impossible to kill it for a while. It builds up a head of
22 steam. This thing is alive. People have committed to it,
23 it's got gigantic funds. The thing lives. Dumb as it is, it
24 lives.

25 MR. BOWLIN: As someone said, it's always too early

1 to kill it or too late to kill it.

2 MS. STILLMAN: You bet.

3 MR. HOENIG: The need for large projects to gain
4 priority or poor prioritization process.

5 MR. WITHINGTON: The need to highball projects.

6 MS. STILLMAN: What they try to do actually is in
7 order to guarantee that you'll get support over what they see
8 as the period of a program's life, they describe it in terms
9 that require commitment for years, like to cure cancer --
10 that's what I'm going to do. So for years, they get sort of
11 an agreement for backing, a constituency, and they build and
12 build and build.

13 MR. GIAMMO: And they suddenly realize, you're not
14 going to cure cancer somewhere along the line.

15 MR. HOENIG: One of the other things, Susan
16 mentioned earlier on focus on the operational stuff, focus on
17 the inputs and process as opposed to outcomes, in other words,
18 focus on the machines, the resources.

19 MR. WITHINGTON: Is that different from one?

20 MS. TOBIN: I think that it's been covered in a
21 couple of places.

22 MR. STILLMAN: The argument I had even before I
23 arrived at HHS was you can't make Social Security do various
24 things because the excuse they have is they have to get the
25 checks out. They have to put out \$40 million worth of checks

1 every month -- leave us alone, that's what we have to do.

2 That's the problem that you've got.

3 MR. GIAMMO: But the principle is sound. You
4 wouldn't want them to take an undue risk. The question is,
5 are they using that as an excuse because they're lying to you
6 about the risk, is what you're telling me, that the risk
7 really isn't that high?

8 MR. STILLMAN: They've reformed.

9 MR. HOENIG: On the issue of risk, we also talked
10 about incentives, incentives being a problem. There are no
11 real incentives to take risks.

12 MR. GIAMMO: That's very strong.

13 MS. STILLMAN: There's actually disincentives. You
14 get punished for taking risks.

15 MR. HOENIG: We also talked about professionalism in
16 career paths in project management, that being a major
17 barrier, that there are no real career paths for project
18 managers. They aren't set apart in order to be able to
19 develop their skills and manage careers over time. Is that a
20 fair statement?

21 MR. STILLMAN: It's probably part of eight.

22 MR. PESACHOWITZ: I thought it was part of eight.

23 MR. GIAMMO: I don't think you need a career path,
24 you just need a body of well-trained people. A lot of people
25 call themselves project managers, program managers, and don't

1 know diddly squat.

2 MR. HOENIG: We talked about shared vision
3 objectives. We originally also brought up a couple of things
4 -- lack of programmatic data.

5 MR. WITHINGTON: There's one on the list here which
6 did come up, measurement, lack of performance measurements,
7 lack of either present or future.

8 MR. HOENIG: By performance measures here, we're
9 talking not only about IRM performance measures but also
10 program performance measures.

11 MR. WITHINGTON: If you still believe, after all
12 these years, that it's possible to do it better.

13 MR. HOENIG: One of the things which we haven't
14 talked about which has come up in the past is management
15 discontinuities. Do you guys feel that is a major barrier,
16 people coming in and out, the management discontinuities that
17 make it difficult to keep projects going over time or not?

18 MS. TOBIN: Yes. Yes. Absolutely.

19 MR. STILLMAN: Are we going to change that?

20 MS. TOBIN: No, but I don't think we ought to leave
21 it off just because you know it's built in. We know the
22 average tenure of a political appointee is 18-months.

23 MS. STILLMAN: The reason is it's not voluntary.

24 MR. WITHINGTON: The IRM officials have to be
25 appointed for life.

1 [Laughter.]

2 MS. TOBIN: And you're stuck with them.

3 MR. WITHINGTON: That ties back to my first level
4 supervisors. They are there for a long time. They know that,
5 they just hunker down and wait and get past their resistance.

6 MR. HOENIG: The objectives here includes the
7 different constituencies across the government, in other
8 words, the oversight agencies?

9 MR. GIAMMO: How about refining that and just say
10 that there's no way to arrive at shared objectives? The
11 mechanisms aren't in place to reach shared objectives. How
12 does one advocate something and be heard and have it come to
13 some sort of an accommodation?

14 MS. STILLMAN: There's no mechanism and damned
15 little incentive.

16 MR. HOENIG: Are there any big ones that I'm missing
17 based on the discussion we've had so far? You've got to help
18 me on this because we talked about a lot of them.

19 What I'd like to do now is take 5 minutes and do a
20 quick delphi method on this and have you guys take cards,
21 choose the eight priority items that you think are most
22 important, and we'll send you the results.

23 MR. WITHINGTON: Give me a definition of important.
24 Is it important for GAO to address?

25 MR. HOENIG: Important in principle, something you

1 can do something about. If we're looking for solutions, the
2 eight most important ones of these we should be looking at in
3 order to think about alternatives or solutions.

4 MR. WITHINGTON: Regardless of whether we can
5 apparently deal with them or not?

6 MR. HOENIG: If you can't deal with them, then we
7 shouldn't look at them as a priority. There's nothing we can
8 do.

9 MR. WITHINGTON: That has been discontinuity, for
10 example, and certainly an important one, it would go on my
11 list of eight, except that there's little that GAO can do
12 about it. Should I put others on instead which you can?

13 MR. HOENIG: You should put others on instead which
14 we can do things about. Take that into account.

15 MR. WITHINGTON: So this is the GAO action list.

16 [Simultaneous conversation.]

17 MR. HOENIG: The rank is eight most important and
18 one equals least. So you have a stack of cards with the eight
19 you think are most important in order top to bottom, eight to
20 one, two numbers on each card. Put each one on a card, then
21 you can shuffle them yourselves, and when you finish up with
22 your deck at the end, eight to one, just give it to us. One
23 item on each card.

24 MR. STRASSMANN: This would not pass the Government
25 Paperwork Reduction Act.

1 MS. STILLMAN: This would not pass a GAO audit.

2 MR. HOENIG: It's not meant to be scientifically
3 verifiable.

4 MR. WITHINGTON: Do we put names on this?

5 MR. HOENIG: No. You don't have to put a name on
6 it.

7 MR. PESACHOWITZ: Are we going to get a report out
8 later, I hope?

9 MR. HOENIG: It's only my poor estimation of time
10 which is preventing me from --

11 ^{Brock}
~~MR. BOWLIN:~~ We're going to do a couple of things.
12 One, we're going to assume -- this we mentioned before. The
13 transcript is not being used except to help our own note-
14 taking process. Unless you tell me otherwise, I will assume
15 you're interested in the transcript and we'll send you a copy
16 of it, then we'll send you the results of the vote.

17 One of the things we're finding it difficult to do
18 and we'd like to change some things, is GAO's real
19 accomplished at going in and shooting the wounded and shooting
20 things that are already dead.

21 [Laughter.]

22 ^{Brock}
MR. BOWLIN: It involves a certain amount of risk on
23 our part to see how to improve the process itself. We're
24 trying to do that with this assignment. We're struggling,
25 we're still struggling with the objectives and how we want to

1 go about it.

2 One of the reasons we invited you as individuals
3 here today was because you are all intimately involved, either
4 directly participating or directly contributing or observing
5 the process. We're interested in seeing how we can contribute
6 to making that process better as opposed to coming in after
7 the process has taken place for a number of years and saying,
8 it didn't work, you ought to kill the program. We've gotten
9 real skilled at killing programs but we haven't become very
10 skilled yet at assisting agencies in developing a program that
11 has more feasibility from the start.

12 I think we do have a role in that. I think that we
13 have some credibility that we ought to play with and we ought
14 to capitalize on. So this is sort of the start of our process
15 and we'd like to -- probably not in a formal session like this
16 but at least informally -- speak to you again as this thing
17 progresses and take into account your experience and get some
18 reaction from you as to what we're doing and where we're
19 going.

20 MR. WITHINGTON: I'll be interested too, as you
21 begin to contemplate actions on the basis of this, because the
22 kinds of actions implied are entirely different one from
23 another. Some are just leaning on a problem for the next
24 hundred years, some are going out and trying to make a splash
25 tomorrow.

1 MR. HOENIG: That's the next step, to explicitly
2 start to look at ranges of alternative solutions. In fact,
3 based on the work we've done so far with groups like this,
4 there is a whole list literally of lots of different ideas for
5 solutions that we're just trying to match up with our
6 understanding of costs.

7 MR. ^{Brock}~~BOWLIN~~: Thank you very much for your
8 participation. It is very, very valuable. We wish you a safe
9 trip back to wherever you've come from. I hope you guys
10 learned something from each other as well.

11 [Whereupon, at 12:30 p.m., the panel discussion was
12 concluded.]

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