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HEARING ON IT ASSESSMENT: A TEN-YEAR VISION FOR TECHNOLOGY IN THE HOUSE

HEARING

BEFORE THE

COMMITTEE ON HOUSE ADMINISTRATION
HOUSE OF REPRESENTATIVES

ONE HUNDRED NINTH CONGRESS

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HEARING ON IT ASSESSMENT: A TEN-YEAR VISION FOR TECHNOLOGY IN THE HOUSE

WEDNESDAY, SEPTEMBER 27, 2006

HOUSE OF REPRESENTATIVES,
COMMITTEE ON HOUSE ADMINISTRATION,
Washington, DC.

The committee met, pursuant to call, at 10:10 a.m., in room 1310, Longworth House Office Building, Hon. Vernon J. Ehlers (chairman of the committee) Presiding.

Present: Representatives Ehlers, Mica, Doolittle, Brady and Lofgren.

Staff Present: Peter Sloan, Professional Staff Member; John Clocker, Senior Manager for IT Strategy and Planning; Fred Hay, General Counsel; George F. Shevlin, Minority Staff Director; Charles Howell, Minority Chief Counsel; Sterling Spriggs, Minority Technical Director; Stacey Leavandowsky; and Jared Roscoe.

The CHAIRMAN. Good morning, ladies and gentlemen. The Committee on House Administration will come to order, and I welcome you all here.

I would like to advise all of you to turn off your cell phones, pagers, and other electronic equipment, as I have already done, so that we will not have our business interrupted this morning. Thank you.

Today's hearing is on the IT Assessment Initiative. IT, of course, as everyone in this room knows, is information technology, but our vast sea of listeners throughout the building may not realize that, so I wanted to make that clear.

The Assessment Initiative outlines a 10-year vision for the future years of technology in the House of Representatives. This hearing will focus on several key business decisions called To-Be Visions, which the House needs to agree upon before implementing a strategic technology plan. We will talk about specific technologies to implement these To-Be Visions at a future hearing.

The issue of using technology to improve House operations is not a new one. In 1995, as Chairman of the House Computer and Information Services Working Group, I championed the Cyber Congress Plan, commonly resulting in what is commonly referred to as the Booster Report. As part of that effort, we created a new standardized e-mail platform that would replace the 11 separate e-mail systems used across the House. As challenging a task as it was, today we reap the benefits of being on a common e-mail platform as well as having other uniform software choices that allow for enhanced collaboration and improved technical support.

And just talking about that, information technology churned through my mind because I recall the incredible task we had at that time. Now it is impossible for us to realize today, but back then, as you know, the House operated as a fiefdom, 435 individual operations, each selecting its own computer, each selecting its own software, none of which talked to each other. And I was astounded when I got here and found it was easier to send an e-mail to Timbuktu than to send it 20 feet down the hall to a colleague. And that is why I was given the thankless job of trying to reform it. I am pleased that it all worked out, even though you would not believe the recriminations and criticisms I had to deal with at that time. I think it will be smoother this time.

It is my hope that the findings we will examine today and over the next few weeks may reveal a similar opportunity to invest in the future of the House through the use of technology.

On our first panel today, we are pleased to have Kathy Goldschmidt of the Congressional Management Foundation, and Larry Bradley from Gartner Consulting, who will discuss the results of the study. They were heavily involved in the study from beginning to end.

These findings are the product of extensive research with key stakeholders, including detailed interviews of 128 Members, managers and staff throughout the House and the legislative branch.

The interviews that the CMF and Gartner team conducted were designed to capture the challenges that House staff face each day, the impact of technology on their work, and what improvements we can make in our systems and processes to help House employees do their job better.

As any researcher will tell you, any theory, no matter how well formed, must be tempered with the challenges and complications of real life situations in order to paint an accurate picture of their true effect. To provide this additional practical context, our second panel will consist of several experts on the administration and operations of the House.

Jim Cornell, House Inspector General, will discuss the potential impact on the failure to embrace technology on the future operations of the House. Bill Livingood, the House Sergeant at Arms, will discuss the convergence of IT security and physical security and the implications for IT planning and decision making.

Karen Haas, Clerk of the House, will describe previous efforts to implement new technology into existing processes within the legislative process and the Office of the Clerk.

Pope Barrow, House Legislative Counsel, will provide insight into the challenges of drafting legislative language and how technology could improve that process.

And finally, Jay Eagen, Chief Administrative Officer of the House, will provide a historical perspective on technology in the House, our current state, and where we go from here.

And just reviewing this list of names reminds me of all the interviews and meetings I had with your predecessors 11, 12 years ago, and some of the difficulties we encountered at that time. We have a good team together this time, and I don't think we will have those difficulties again.

I would also like to announce that at the conclusion of this hearing the committee will make available all of the IT assessment research and recommendations on an internal House Web site, http://it.house.gov. Furthermore, we are soliciting general comments from any members of the committee or House staff members on the contents of this study. All may submit your comments at the above-mentioned Web site. The comment period will run through January 2007 in order to provide the 110th Congress freshmen an opportunity to participate.

I thank all of our witnesses for their presence here today, and I look forward to receiving their testimony.

At this time, I would like to recognize Ms. Lofgren for any opening remarks she may have.

Ms. LOFGREN. Thank you, Mr. Chairman. I would like to ask unanimous consent to submit Ms. Juanita Millender-McDonald's statement in the record. She could not be present here today.

The CHAIRMAN. Without objection, so ordered.

Ms. LOFGREN. I don't have a formal opening statement. I did have an opportunity to be briefed on this process as a relatively new member of the committee. And I recall, as you do, first arriving here and being a little bit stunned by the technological situation. Certainly we have made great strides and there is more to do. I look forward to hearing the testimony.

I would note that for reasons I cannot fully understand, since we are adjourning on Saturday, the Judiciary Committee is in markup, and I may have to zip out for a vote or two, but I would certainly not want to disturb the testimony. So proceed if I have to do that for a minute or so. I will be back.

This is important stuff, no matter—we have issues, but then we have the Congress itself, and to have the tools that we need so that we are transparent and efficient is important. And technology I think is the key to that. So I thank you, Mr. Chairman, for recognizing me.

The CHAIRMAN. And I thank you for those comments.

It has been 10 years since the plan was implemented. Ideally we should be doing this every 5 years, not every 10 years, and I hope that will be the pattern in the future.

I would like to welcome our first panel of the day. We have with us Kathy Goldschmidt of the Congressional Management Foundation, and Mr. Larry Bradley of Gartner Consulting. Welcome to you both, and I am pleased to have you here.

And I hate to reminisce all the time, but you would be amazed at some of the roadblocks I encountered. When we did the first report, there were some objections raised on our competence to do it. And someone who had no knowledge of computers was asked to review it and came out with some negative comments, at which point—I am very level minded, I don't get excited too easily—I said I don't mind having my work criticized, but it has to be by someone who is competent. And so we agreed on Gartner Corporation to do the review of our plan. And for an extra $10,000 we found that we were right. And I have always had a warm spot for Gartner Corporation since that time. We always like people who agree with us.

I am very pleased to welcome both of you, and please begin with your testimony.

STATEMENTS OF KATHY GOLDSCHMIDT, CONGRESSIONAL MANAGEMENT FOUNDATION; AND LARRY BRADLEY, GARTNER CONSULTING

STATEMENT OF KATHY GOLDSCHMIDT

Ms. GOLDSCHMIDT. Mr. Chairman, members of the committee, thank you very much for having me here today to discuss the House IT Assessment Project.

As you said, I am Kathy Goldschmidt. I am Deputy Director of the Congressional Management Foundation. We are a nonpartisan nonprofit that has been providing management services to Congressional offices for almost 30 years.

The House IT Assessment Project was initiated by this committee and the Chief Administrative Officer to develop a 10–year vision and plan for technology in the House. To support the project, the House engaged Gartner and the Congressional Management Foundation.

Larry Bradley and I have brought our own expertise and the considerable expertise of our organizations to this project. We have also channeled the knowledge within the House to create a roadmap for technology over the next decade.

Although technology is at the heart of this project, we didn't spend the bulk of our time talking to technology experts; instead, we spent most of our time talking to the people who conduct the work of the House. We let the challenges and opportunities they identified and the processes they use guide us in identifying technology to help them, their offices, and the institution become as effective and as efficient as they want it to be.

We are conducting this project in five stages. First, we did research to understand the current state of technology in the House.

Second, we facilitated roundtables with members, officers and senior managers to provisionally agree on a vision for the House in the future.

Third, we conducted a gap analysis to identify the difference between where the House currently is and where it wants to be.

Fourth has been a working group with House officers to discuss how major technology decisions are made now and how they could be made in the future.

And finally, we are developing a high level strategy, a roadmap to help guide the House in obtaining its vision.

I am going to spend the remainder of my time discussing what we learned about the current state of technology in the House, and Larry will address the vision and the next steps.

As Mr. Ehlers mentioned, to identify the current state we interviewed 128 people, including Members, officers, senior managers, professional and administrative staff, and technology specialists. We also reviewed literature on technology and operations in the House over the last 10 years. Through this research, we identified some findings that have resonated throughout this project, and we have categorized these as forces for change and institutional challenges.

The forces for change are six factors that are exerting pressure on the House to more quickly and thoroughly integrate technology. The first force for change is the budget crunch, which is placing

pressure on the House to minimize costs. Changing how technology is procured and used in the House is one way to save money.

Second is the need for the House to be prepared for future security crises in which technology will play a significant role.

Third is the increasing comfort of new Members with technology, since the businesses and State legislatures they are coming from use technology significantly different from the House.

Fourth are increasing demands by constituents and the press for information, which technology can help meet.

Fifth is the continuing integration of technology into society, which is placing pressure on all institutions to use technology more effectively.

And finally, sixth, are the demands of the legislative cycle which technology can help members and staff meet as effectively as they would like to.

Despite these pressures for change, however, the House faces challenges in its efforts to integrate technology. The challenges are not the result of anything the House has been doing wrong; rather, they stem from practices that have been in place for decades, coming into conflict with modern capabilities and demands. At this time in history traditional operations throughout our society are being tested by modern technologies, and all institutions are being forced to adapt.

The four factors that seem to be the greatest hurdles to technology in the House now are: First, the lack of standard legislative document formats and policies makes it difficult to implement technology to increase sufficiency, enhance access, or reduce the cost of producing legislative documents.

Second, the lack of House wide technology coordination sometimes leads to conflicts, redundancies and higher costs because offices often implement technology in a vacuum.

Third is the fact that the House operates disparate systems throughout the institution, which prevents it from taking advantage of economies of scale, shared support services and enhanced capabilities provided by enterprise systems.

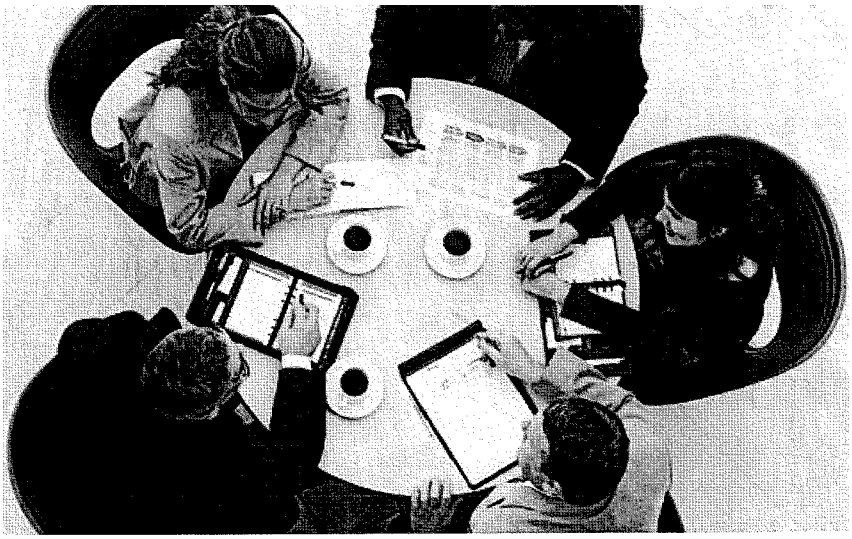
And fourth is the general lack of resources in House offices. Although technology has placed all kinds of new demands on Members and staff, their resources aren't keeping pace with the demands.

The forces for change are exerting pressure on the House to expand its use of technology and the challenges are exerting resistance. For the House to adapt most effectively to the demands of the Information Age, these challenges will need to be directly addressed and overcome.

Through our current state research we laid a solid foundation for the House IT Assessment Project. I am going to leave it to Larry to discuss the vision of the future that the House built on this foundation. I hope that together we will provide you with not only a good idea of what we have done, but also with an understanding of the positive impact this project could have on Members, staff, and the institution in the years to come.

Thank you, again, for having me here today.

[The statement of Ms. Goldschmidt follows:]



Testimony Before

The United States House of Representatives Committee on House Administration

Kathy Goldschmidt, Deputy Director,
Congressional Management Foundation

27 September 2006

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The House IT Assessment Project: Background, Process, and Current State Research

Mr. Chairman, Congresswoman Millender-McDonald, and Members of the Committee, I am pleased to appear before you today to testify about the background, processes and current state research of the House IT Assessment Project. My colleague Larry Bradley and I and many others have invested a significant amount of time and thought over the last two years to make this project a success. The best thinking of Gartner, the Congressional Management Foundation (CMF), this Committee, and the House officers and officials has gone into this project. Our work has been reviewed at key points by Members; senior managers in leadership offices, committees, and Member offices; and high level House technology experts. We have also incorporated the views of staffers throughout the House into this project.

Our goal was to design a process that would engage key people throughout, facilitate collaboration and deliberation, and encourage the best possible thinking about the future of technology in the House of Representatives over the next ten years. Our focus was on the business of the House and the processes that Members and staff use to perform their work. Rather than focusing first on technology, we let the challenges and opportunities Members and staff face be our guide to identifying technology that would help Members and staff be as efficient and effective as they wanted to be. To this end, we wanted to collect the best possible information to allow us to produce solid, defensible conclusions that would generally be agreed on by Members and staff. We believe we have succeeded in our efforts, and we are pleased to present to you a summary of where this project stands, what we have learned, and what the next steps are for completing this project.

1. Project Background

In August 2004, the Committee on House Administration (CHA) and the Chief Administrative Officer (CAO) initiated a project to develop a vision and plan for the future use of technology in the House of Representatives. To support this project, CHA initiated a partnership between Gartner and CMF. Gartner is an internationally-respected technology research and consulting firm with extensive experience assessing and developing technology strategies for federal, state and local governments and *Fortune 500* corporations. CMF is a non-profit organization that provides management services to Congress and, through its work, has developed extensive knowledge of House operations and technology use in the House and in other legislatures. Throughout this project, Gartner and CMF have been working closely with the majority and minority staff from CHA and the CAO and his staff.

This project is being conducted in the following stages:

1. Current state research;
2. To-be vision roundtable discussions;
3. Gap analysis;
4. House IT decision making working group; and
5. Strategic technology roadmap.

We would like to elaborate briefly on each of these stages and provide an overview of the objectives for each, the processes we used at each stage, and the key finding that have resulted.

2. Current State Research

The first phase of this project was to conduct extensive research with House stakeholders and technology experts. We conducted detailed interviews with 128 individuals with expertise on the House, which included interviews with Members; officers and officials; senior managers from leadership offices, committees, and Member offices; professional and administrative staff throughout the House; select legislative branch technology specialists; and individuals outside the legislative branch with expertise on House operations and technology. The focus of these interviews was on the opportunities and challenges Members, staff, and the institution currently face and expect to face in the foreseeable future, and on how technology is being used in the House and the impact it is having on Members, staff, and the institution.

At this phase of the project, we also conducted a literature review of documentation and research on House technology adoption over the last ten years, which included a range of relevant reports, testimony, policy documents, and publications.

Through our research, we identified several forces that are exerting pressure on the House to integrate technology more thoroughly and more rapidly, factors that inhibit technological adoption and change in the House, and some key findings that have continued to resonate throughout this project. Following are descriptions of each of these.

Forces for Change

The forces we identified as exerting pressure on the House to integrate technology more thoroughly and more rapidly were:

1. **The looming budget crunch.** There was general agreement that there will be continued belt-tightening throughout the government in the coming years, and that the legislative branch would need to identify opportunities for cost savings.
2. **Increasing security demands.** In the words of one House officer, "it's not a matter of whether, but when." There was a clear sense that the House needs to be prepared for more security crises in the future and that technology can play a critical role in creating a more secure work environment and ensuring the continuity of House operations.
3. **Increasing comfort of new Members with technology.** Businesses and state legislatures provide capabilities and services that in many cases exceed what is offered in the House. Consequently, new Members are increasingly demanding that the House enhance its capabilities and services.
4. **Increasing communication and information demands by constituents and the press.** Technology has raised public expectation for communicating with, and receiving information from, the House. Member offices are struggling with rising volumes of constituent communications; committees are struggling with demands for greater access to their information and activities; and institutional offices like the Clerk, GPO and the Library of Congress are struggling to keep pace with public expectations. These public demands will continue to evolve and exert further pressure on the House for change.
5. **Continuing integration of technology into society.** The premise that House operations are going to be changed by technology is generally accepted by Members and staff. Over time, our society and our institutions will become increasingly connected; communications capabilities will continue to increase; and information access will continue to proliferate. As a knowledge-based institution, the House will need to be responsive to these trends.

6. **Increasing demands of the legislative cycle.** Technology has enabled documents and legislation to be produced and considered more quickly than ever before. As a result, speed has become a strategy in the legislative process. In this environment, technology can provide opportunities to improve Member and staff access to information and enhance the effectiveness of the institution.

These factors were generally viewed as compelling reasons for the House to think strategically about technology now and to begin planning for change. There was a sense that these forces will impact the House one way or another, whether or not the House is prepared for them.

Institutional Challenges

The House faces some significant challenges in its efforts to most effectively integrate technology into its operations over the next ten years. The challenges are not the result of mismanagement or anything the House has been doing wrong. Rather, they largely stem from policies, practices, and traditions that have been in place for decades increasingly coming into conflict with modern capabilities and demands. The House is experiencing pressure felt by the corporate community in the mid 1990's, and which resulted in e-commerce. The executive branch began to feel the same pressure in the late 1990's, and it is resulting in e-government. The House and other legislatures are now beginning to grapple with similar pressures. Traditional operations are being tested by modern technologies, and institutions are being forced to adapt. The House will be no exception.

The factors identified as being the greatest challenges to more thoroughly integrating technology into House operations were:

1. **Lack of standards.** At present, Member and staff electronic access to important legislative information is limited by lack of standard practices, timeframes, document formats and systems for creating and providing access to official legislative documents (bills, amendments, committee reports, public law, etc.). Because the policies and processes of each organization involved in creation and production of legislation and law – including the Office of Legislative Counsel, Parliamentarian, committees, Office of the Clerk of the House, Office of the Law Revision Counsel, and the Library of Congress – are different, it is difficult and costly to facilitate better, easier, more timely electronic access to official legislative documents. If systems and efforts could be more standardized and coordinated, there would be great potential to increase efficiency, enhance effectiveness and access, and reduce the cost of producing legislative documents.
2. **Lack of House-wide technology coordination or authority.** There is no House office or entity with the mandate or authority to plan and coordinate House technology resources, projects, and expenditures and to ensure they are targeted to institutional goals and needs. There are organizations with authority over some aspects of technology decision-making but none have the mandate or authority to coordinate beyond their own jurisdictions. As a result, conflicts and redundancies occur and costs are higher than they might be if efforts were coordinated.
3. **Disparate systems.** The House is unable to take advantage of opportunities for increased efficiency, effectiveness and cost savings because systems and processes are being developed in disparate "silos." This is a common challenge faced by institutions attempting to make a transition to more thorough technology adoption and use. The political, public, and decentralized nature of the House, however, increases both the difficulty of breaking down and integrating silos and the likelihood of turf battles.

4. **Lack of resources.** Technology has placed new demands on Members by their constituents, parties, and staffs. Members must react more quickly and more frequently to more people than ever before, and their offices depend on technology to operate smoothly. However, Member office resources are not keeping pace with the demands on Member offices to operate what are, essentially, small businesses; be responsive to constituents; and conduct their legislative and political duties.

For the House to most effectively implement the ten year vision, these challenges will need to be directly addressed and overcome.

Key Findings

The findings that resulted from the current state research were extensive, but there were several that have been resonating throughout this project. They encompass a range of issues that have been raised again and again, and they appear to be at the heart of the challenges Members, staff, and the institution face as well as the opportunities for technology to help improve the efficiency and effectiveness of Members, staff, and institutional operations. As a result, these findings have risen to the forefront of this project. They are:

1. **There is a need for enhanced electronic access to legislative documents.** Members and staff repeatedly expressed concern that they do not have adequate or timely enough electronic access to the legislative documents they need to effectively fulfill their duties. Although staff have come to rely on a variety of electronic sources of information, they do not feel these sources provide all of the information they require. They were particularly interested in expanded electronic access to committee information, legislation being considered on the House floor, and "just in time" information related to floor and committee schedules, votes, and recent committee action. Both Members and staff expressed interest in having the best possible electronic access to legislative information, which includes more than just access to resources. They also want information to be available in a timely fashion and in user-friendly formats that improve their efficiency and help enhance their effectiveness.
2. **Members and staff are experiencing information overload.** House offices thrive on information, the volume and pace of which has been steadily increasing over the last few years, which has made it difficult for Members and staff to effectively manage the information and efficiently conduct their work. As a result, workdays have been steadily increasing in length. In this information-intensive environment, Members and staff try to keep up with the demands of their jobs while being bombarded by communications from constituents, the press, committees, leadership, institutional offices and their colleagues. Increases in the volume and speed of information have not been met with increases in resources to help Members and staff manage it.
3. **There is an increasing need for greater Member and staff mobility.** In light of both concerns about maintaining continuity of House operations in the event of an emergency and advances in technologies and capabilities that can support the inherently mobile work styles on Capitol Hill, Members and staff are becoming increasingly demanding of expanded capabilities to conduct their work from wherever they are. Although the House provides capabilities for working remotely, few Members and staff have access to all of their mission-critical information when they are mobile. This significantly decreases their productivity and time-sensitive decision-making capabilities while they are away from their offices or away from the House.

4. **There is a need to minimize the cost of supporting technology in the House.** Although many technological components and services in the House have attained commodity status, offices do not realize pricing concessions or economies of scale that come from purchasing as a large organization, rather than as a single office. While there are House technology standards that drive what is supported, those standards allow for considerable variation, which drives higher support costs from Systems Integrators, their own system administrators, and the HIR TSR's, which must treat each system as unique rather than as a standard model. As a result of these factors, Gartner calculates that the House spends one third more on technology than comparably-sized organizations.
5. **There is a lack of House-wide coordination on major technology projects and initiatives.** IT decision-making is currently conducted in silos across the House, with no individual or organization responsible for coordinating or prioritizing these decisions on an institution-wide basis. This results in higher technology costs, conflicts, and redundancies, as well as technologies that do not meet the most critical needs of Members and staff. Additionally, most senior managers confine their role in technology decision making to determining whether or not their budgets can handle the investment rather than actively setting direction for decisions. As a result, technology decisions that impact important House and office business processes are usually made without the involvement of those responsible for the performance of the House and House offices.

The results of the current state research were described in detail in report entitled *House IT Assessment: Revised Current State Report*, which was delivered to the House in early 2005.

Through our current state research we laid a solid foundation for the House IT Assessment Project. We knew as we moved forward what opportunities the House could realize through technology and what challenges it faces as it continues to integrate technology into its operations.

I am going to leave it to my colleague Larry Bradley to discuss the vision for the House of the future that was built on this foundation. I hope that, together, we will provide you with not only a good idea of what we've done, but also an understanding of the positive impact this project could have on Members, staff, and the institution in the years to come. Thank you, again, for the opportunity to be here today. I look forward to answering your questions.

The CHAIRMAN. Thank you. Mr. Bradley.

STATEMENT OF LARRY BRADLEY

Mr. BRADLEY. Mr. Chairman, members of the committee, thank you for giving us the opportunity to come here today and to discuss the IT assessment with you.

My name is Larry Bradley, and I am an Associate Director with Gartner Consulting. And Gartner is the leading IT research and market analysis firm in the world. Along with Kathy, I have been one of the primary analysts and authors of the IT assessment.

I will spend my time today focusing on the visions for technology in the House over the next decade and the next steps for obtaining these visions.

Once we identified the current state of technology in the House, we needed to define where the House wanted to go, where it wanted to be in the future. To develop these visions, we conducted a series of workshops with members, senior managers from leadership, committees, Member offices, as well as House officers, legislative branch officials and high level IT executives and administrators. Through these workshops, we developed a series of vision statements on which workshop participants provisionally agreed. We grouped these statements into five categories.

The first, for the legislative process, the participants outlined a vision for greater electronic access to legislative information and greater automation of legislative document production. Their vision includes the ability for Members to electronically access relevant documents in Chambers during committee and floor debates. It also includes the ability for Members to see in real time the changes that amendments are making to bills and bills are making to public law.

Another component of their vision is more timely updates to the U.S. Code, so that there is always an official version of public law in order to draft new legislation.

They also identified the need to include electronic documents in the official legislative record.

And finally, they envisioned timely searchable access by Members and staff to all legislation before it is considered on the House floor.

Second, for Member office operations, the participants envision a future where Member offices spend less time and money managing technology, but also realize significant benefits. Under this vision the House will provide commodity technologies, services and support to realize cost savings and improve the level of service.

The vision also provides for staff in both Washington and the district to have improved access to information, services and technical support.

And finally, the participants envision the House providing more services to help Member offices deal with constituent demands.

The third area, for Members themselves, the participants defined a vision where technology would provide Members with more effective information access and improved communications from wherever they are.

Then fourth, in order to achieve these visions, underlying process and capabilities must exist to support the institution. In this area

of institutional operational support, the participants identified a vision where there would be greater coordination of major technology projects.

The House would also provide enhanced services, capabilities and cost savings through greater centralization. Under this vision, the House would assign jurisdiction for technology planning to a single organization. This would help provide a more explicit process for strategic technology decision making, stakeholder involvement, and requirements gathering from Members and staff.

The participants also envisioned involvement of Members in technology decisions that have a significant impact on the House.

And fifth, the participants discussed the role of leadership in technology and decision making, and determined that leadership should have a role in working with the House to determine the direction of institutional technology adoption.

Throughout the process of developing these statements, the participants acknowledged the challenges in attaining the visions and the trade-offs that would have to be made.

The key point that emerged is that technology changes are easier than the cultural and organizational changes. The House would realize significant benefits by attaining the visions, but because they touch on some well-established business practices and cultural assumptions, the changes will require a great deal more than just choosing and implementing new technologies.

Our final task is to develop a strategic technology road map, which we are currently in the process of doing. We will lay out the critical components and milestones for achieving the visions. The steps in this task include: First, providing a more focused description of the House IT visions; second, identifying critical technologies and supporting management processes necessary to implement the vision; and third, developing the final report and conducting briefings with House stakeholders. This road map will provide the House with an IT strategy that includes high level recommendations and direction for achieving the visions over the next decade.

Once this project is complete, however, the House will still have significant work to do over the next 10 years to achieve the visions. The House will need to first vet and approve the House IT strategy. This will require a business case where benefits, risks and costs are thoroughly analyzed, then socializing and communicating the strategy and its benefits with key stakeholders and the House at large to win support.

Second, once the strategy has been approved and vetted, the House will then need to develop individual implementation plans for specific pieces of the House IT strategy, and then the House will be able to begin executing and implementing the strategy.

Again, we thank you for the opportunity to brief you on the House IT Assessment, and we now look forward to answering any questions you may have for us.

[The statement of Mr. Bradley follows:]

Testimony Before

The United States House of Representatives Committee on House Administration

Larry Bradley, Associate Director, Gartner

27 September 2006

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The House IT Assessment Project: Vision for the Future and Next Steps

Mr. Chairman, Congresswoman Millender-McDonald, and Members of the Committee, thank you for the opportunity to appear before you today to testify about the vision for the future of technology in the House of Representatives and the next steps for attaining the vision. My colleague, Kathy Goldschmidt of the Congressional Management Foundation, has already provided you with the background for this project and the results of our research on the current state of technology in the House. What I would like to focus on now is the vision for technology over the next decade which we helped the House develop as well as the work we have done since – and which we are continuing to do – to help guide the House in attaining its vision.

1. To-Be Vision Roundtable Discussions

Using the results of the current state research, the project team identified possible visions to guide House technology adoption over the next ten years and developed a process to vet these visions with different groups of House stakeholders and agree on a common vision for technology in the House in the future.

Between January and July of 2005, Gartner and CMF facilitated six roundtable discussions with high-level House stakeholders. The discussions involved Members from committees responsible for management and oversight of the House, leadership Staff Directors, House officers and legislative branch officials, committee Staff Directors, Member office Chiefs of Staff, and high-level House and legislative branch technology administrators. In a series of meetings, these groups addressed a range of issues related to House culture, policy, process, and technology adoption.

The first four of the roundtables were conducted as a unit. Separate discussions were held with three defined groups: Member office Chiefs of Staff and Staff Directors; House officers and legislative branch officials; and House and legislative branch technology administrators. Because each of these groups had different perspectives on House needs and operations, we convened a fourth roundtable with representatives from each group to reconcile the areas where their visions diverged. Through this process, representatives from each group discussed their views and developed a vision on which the participants agreed.

The result of these four discussions was then taken to the Staff Directors of House leadership offices for review, discussion, and feedback. Through this process, the vision was more finely honed and the challenges and opportunities were further defined. This information was then presented to the Member group, which provided feedback and made decisions about key components of the vision.

Through this process, we identified visions for the five key House business functions:

1. **Legislative process:** The systems and processes that support the movement of a bill from concept to public law
2. **Institutional operational support:** The systems and processes that enable staff in institutional support organizations to provide their services to Members and staff
3. **Member office operations:** The systems and processes that enable Members' personal staffs in Washington and the district to perform their responsibilities

4. **Member activities:** The systems and processes that enable individual Members to personally perform their duties and responsibilities
5. **Party organization:** The systems and processes that enable political party leaders and their organizations to perform their official duties within the House

These visions are presented below. Each section provides brief background and context for the vision, describes the vision identified by the participants, and discusses the tradeoffs the House would have to make to attain the visions.

Legislative Process

Background

Integration of technology into the legislative process is currently compartmentalized. Each organization involved – including the Office of Legislative Counsel, the Office of the Clerk of the House, committees, GPO, and the Office of Law Revision Counsel – is responsible for identifying, acquiring, and supporting technology to conduct its work. Although they contribute to a single final product – public law – there is little coordination or standardization among them of processes, formats, or technologies. In a paper-based environment this has little impact, since there are few benefits to greater coordination and standardization. In an electronic, networked environment, however, significant benefits are now available. To realize the benefits, however, the House must make significant changes. Currently, the standards and coordination that does exist – such as that being employed by the Office of Legislative Counsel, the Office of the Clerk, GPO, and the Library of Congress – is implemented on a voluntary basis. Organizations that do not voluntarily participate must be accommodated or worked around. This significantly limits the potential for greater efficiency, effectiveness, and cost-savings. It also severely limits the ability of the House to make the legislative process more effective by: integrating technologies to simplify and expedite the legislative process; improving information access by Members and staff; and improving the production and publication of legislation, official documents, and public law.

The Vision

1. **During consideration in committee and on the House floor, Members should be able to see the specific changes amendments would make to bills and that bills would make to public law.** Currently, the affect of amendments on bills or of bills on public law can only be seen after they have passed and are included in committee or House report language. Additionally, the Ramseyer Rule (which requires that committee reports document the changes proposed committee language would have on existing public law) is often waived because of the time and difficulty of complying with the rule. As a result, the specific changes legislation will have on public law are unclear until well after the law has passed. This leads to contradictions, conflicts and avoidable redundancies in public law. To help limit these problems, the Office of Legislative Counsel is in the process of developing a system for their own use to automate the preparation of Ramseyers, but progress has been limited by budgetary constraints and the lack of timely compilations of public law.
2. **Members and staff should have timely access to updated U.S. Code after legislation is passed into law.** Currently, there is a one to two year delay after a given Congress before the U.S. Code – the official codification of U.S. public law – is updated to reflect changes made during that Congress. As a result, new legislation – usually based on

existing law – is drafted and considered without access to an updated official version of current public law. This leads to contradictory and redundant legislation and confusing law.

3. **Members and staff should be able to access all bills in searchable electronic formats before they are considered on the House floor.** Although many bills are available in searchable electronic formats prior to consideration, many are not, including some key bills, such as appropriations bills. As a result, Members and staff find it difficult to adequately review these bills prior to consideration.

4. **Members should have electronic access to relevant legislative information during committee and floor sessions.** Currently, Members do not have electronic access in chambers to any legislative information during committee markups or floor consideration of legislation. As a result, Members must either have the relevant paper documents on hand or must consider, debate, and vote on bills and amendments without the benefit of legislative history, information about bills in other committees, the text of public law, or a variety of other resources that could influence their decisions.

5. **The House should automate the management and production of official legislative documents.** Currently, technology is used at every stage of the legislative process, but, for the most part, the systems are not integrated or coordinated among legislative organizations. The Office of Legislative Counsel, the Clerk of the House, the Government Printing Office, and the Library of Congress have developed electronic standards that have enabled them to automate the management and production of most bills and amendments, but since committees are not using these standards, documents produced by committees cannot be automatically managed and produced. Consequently, there are time-consuming and sometimes redundant administrative tasks that must be performed throughout the legislative process that could be eliminated if the House were to adopt uniform standards, systems or processes. For example, the drafters of legislative documents (e.g. the attorneys in the Office of Legislative Counsel and committee clerks and stenographers from the Office of the Clerk of the House) must learn different document formats and processes for each committee. Having to learn and apply more than a dozen different formats for legislative documents takes far more time and requires far more staff and training than it would if all committees used standard formats, systems, or processes.

6. **Electronic documents should be part of the official legislative record.** Currently, only paper documents serve as the official record for the House, although electronic documents are produced throughout the process. This leads to discrepancies between the paper and electronic versions, as well as administrative burdens that could be reduced if electronic documents became part of the official record. For example, the producers of legislative documents from the Office of the Clerk and the Government Printing Office must manually compare every official paper version of bills and amendments against electronic versions to ensure they match, and, when electronic versions are not available to them, they must retype entire documents prior to printing, which adds significant administrative time and effort to the production of documents. Members expressed reservations about making electronic documents the official record, but senior staff viewed this as necessary. As a result of this discrepancy, this component of the vision will require further discussion and clarification before the House develops an implementation plan for this capability.

The Tradeoffs

Attaining this vision will not be easy, but it would lead to significant benefits to the House, including: enhancing Member and staff access to critical information on which to base legislative decisions; improving the flow and production of documents throughout the legislative process; facilitating

easier and more user-friendly access, use, and collaboration on legislative documents; reducing the administrative workload and staff resources necessary to produce legislative documents; and reducing administrative and technical costs.

Technologies already exist to attain the vision, but implementing them will require making difficult tradeoffs. Making changes in this area can have unintended consequences on the legislative process and Member deliberation. As a result, the real challenge for the House will be to carefully consider the benefits, weigh the tradeoffs, and identify the implications the changes will have on the legislative process before developing implementation plans and making large investments. Attaining this vision would also require making changes to existing rules, policies, and practices to enable truly effective technologies and systems to be implemented. These would potentially include: changing how legislation is drafted; facilitating agreement among all House committees on standard processes and document formats; modifying House rules to allow for new processes and procedures; modifying the format, and possibly the content, of the U.S. Code; and preparing and training Members and staff to use and feel comfortable with the new systems and processes.

Member Office Operations

Background

Each Member office independently acquires hardware, software, and vendors to support its operations, with some notable exceptions (e.g. anti-virus, central networks, e-mail, etc.). This provides offices with the flexibility to choose what works best for them, but it also requires that each office devote significant effort and resources to managing these technical matters. In addition, the financial and staff resources expended in aggregate by individual offices, the institution, and vendors to support this decentralized model are significant and could be greatly reduced if efforts were more coordinated. Gartner estimates that the House currently pays 33.5% more for Member office hardware and software than a comparably-sized organization with centralized technical administration.

The Vision

1. **The House, as an institution, should bear the bulk of Member office technology expenses, minimizing the cost to individual offices in exchange for offices accepting new limitations.** Currently, each Member office must use its Member Representational Allowance (MRA) to acquire and support equipment, hardware, and software. As a result, because individual Member offices are small, they cannot realize economies of scale that would come from bulk institutional purchases.
2. **Systems administration services should be provided to Member offices by the House to free Member office staff of those duties.** Member offices currently hire or contract their own systems administration services. In the House's decentralized technology model, these staff are intended to be the primary technical support resources for Member offices. However, many Member offices assign this position to staff without technical knowledge or training, which leaves their offices vulnerable to mismanagement, mistakes, inefficiencies, and security problems. Additionally, there is often confusion and dispute among Member offices, technology vendors, and the House about who is responsible for solving problems that arise.
3. **The House should provide greater information access, service, and technical support to district offices.** The House currently provides basic technical service and support to

district offices, including connecting main district offices to the House network and to Members' Washington offices; providing technical training options on-demand; and providing Internet and e-mail access to staff in the primary district office. The House also provides fee-based services to secondary district offices. However, the House does not emphasize technical services and support for district offices to the same degree as to Washington offices, in part due to the expense and challenges associated with providing for and supporting remote offices throughout the country.

4. **The House should provide greater assistance to Member offices in meeting constituent demands.** Currently, the House does not provide or support technological applications and services that support or facilitate interactions between Member offices and constituents, such as correspondence management systems, advanced Web services, or casework management systems. For the most part, technical decisions related to these interactions have been left to individual Member offices to make. This places offices in the position of identifying and acquiring necessary hardware, software, equipment, and expertise to support their efforts. However, few offices can afford robust systems to support many-to-one and one-to-many communications and information sharing that could potentially be provided by the House as shared services.

The Tradeoffs

Attaining this vision would require the House to move to a more centralized technology service and support model. This would relieve Member offices of most or all of the responsibility to research and acquire equipment and software and maintain and support the systems. They would also likely realize cost savings through bulk purchase rates which would also enable the House, as an institution, to leverage greater control over vendor practices than can individual offices. Additionally, centralizing technical support would increase the level of training and expertise of the staff providing the IT support services.

A more centralized model would also likely reduce the cost to the House of supporting the many systems and configurations currently in use, as well as reduce the House's reliance on systems integrators and support vendors. The greater diversity of systems and configurations in use in an organization, the more difficult and expensive it is to support them, since technical staff knowledgeable in the range of systems must be available. This requires either a technical staff with significant and diverse training or a greater number of technical staff than would be necessary if fewer systems and configurations were in use. Currently, this technical expertise is provided to Member offices mostly by vendors, who factor this diversity and training into their fees. Standardizing on a smaller range of systems would reduce costs, as well as increase satisfaction with technical support, since technical staff would be trained to support the specific systems in use and could more quickly and easily identify and solve problems and replace faulty hardware and software.

However, adopting a more centralized technology service model would reduce offices' autonomy and flexibility to purchase the hardware, software, and service they want. To maximize the benefits, the House would need to standardize systems and configurations or reduce the options from which to choose. It would also possibly require offices to give up physical control – but not security or access control – over some of their data in order to realize the greatest security, cost, and service benefits from centralized services.

A more centralized technology service model would also require modifications to the current technology budgeting structure. Currently, each Member office purchases technology using its

own MRA. If technology service and support were to be more centralized, it would be necessary to modify budgets accordingly. For example, it would be necessary to increase the budget of the office or organization providing the centralized services in order to fund the new responsibilities, purchases and services. This could possibly occur by shifting funds from the MRAs to the central authority or through an increase in appropriations for the central authority without reducing the MRAs.

Institutional Operational Support

Background

In the House, technology support, planning, and decisions are made by each organization independently. Each House office provides technologies and services to fulfill its role. Currently, there is no institution-wide process for coordinating their decisions or establishing priorities and making strategic technology decisions for the House, as a whole. As a result, there is generally little coordination of technology projects, objectives, and budgets at the institutional level, so efforts are sometimes in competition or conflict with one another, and sometimes efforts are duplicated. This results in greater costs and fewer benefits to the House than would be realized if technology planning were coordinated at the institutional level.

The Vision

1. **Effectiveness, rather than efficiency, should be the primary objective of technology in the House.** The House does not currently have an overarching objective for technology adoption. Some efforts are geared toward efficiency, others toward effectiveness, others still toward being as responsive as possible to the demands of individual Members and staff. As a result of this lack of a primary objective, technology goals and strategies are often in conflict from organization to organization, and even, occasionally, within organizations.
2. **The House should minimize the cost of technology to the institution.** Committees and institutional offices, like Member offices, each use their own budgets to purchase hardware and software and hire or contract technical support. Because this model requires each office to be an independent actor, the House, as an institution, faces challenges in taking advantage of significant cost savings that could be realized through bulk purchases, shared system support, and shared services.
3. **The House should assign formal jurisdiction for technology planning to a specific House organization or group.** There are some organizations – including the Office of the CAO, the Office of the Clerk, and CHA – with mandates that cover specific aspects of technology planning for the House, as an institution, but each has a limited jurisdiction. There is not currently a single group or organization with formal jurisdiction over technology assessment and planning for the institution, as a whole. Coordinated technology planning at the institutional level tends to occur only when crises arise, such as the Year 2000 conversion, 9/11, and the evacuations due to anthrax and ricin.
4. **Members should be involved in making technology decisions that impact the entire House.** Although some Members are informally involved in some institutional technology decisions, the current operating principle for making these decisions is that they should be primarily left to staff. There are few formal processes for involving Members in House technology planning, either to provide direction regarding priorities or to review and approve

strategies. While it is true that Members do not come to Congress to manage or plan technology and that the most precious resource in Congress is a Member's time, efforts to change or improve how the House operates, as an institution, are likely to fail without approval or authority from Members.

The Tradeoffs

This vision is strongly linked with those for the Legislative Process and Member Office Operations. To achieve them all, the House will likely need to move from the current decentralized technology adoption and decision-making model to a more centralized or coordinated model. Working to achieve the visions will lay the groundwork for a process that will result in technology that is better targeted to the needs of Members and staff and more cost-effective to the institution. Developing such a process will also enable the House to be more proactive in its selection and implementation of technology. Rather than crises driving institutional technology decisions, the House will establish processes and authority to enable it to strategically adopt and use technology to respond to evolving forces on the House, as well as to avert, mitigate, or more quickly respond to crises.

Additionally, involving Members in technology decisions would increase the effectiveness of those decisions, since they would have the input and authority of Members behind them. Many of the visions outlined in this document will face cultural and organizational resistance which can only be overcome through the visible support of Members.

However, the House will face significant challenges to achieving this vision. Increasing the coordination or centralization of technology adoption and decision-making will reduce the flexibility and independence that House offices currently exercise. The benefits of relinquishing this flexibility and independence will need to be clearly articulated to overcome the resistance the House will face.

Another challenge will be to engage Members and senior staff at key points in the decision-making process. Many already feel overwhelmed by their current workloads, which makes it difficult to involve them in institutional planning processes and decision-making. Additionally, most do not believe they have the technical knowledge or skills to effectively participate in technology decisions. As a result, the process would need to convey the critical importance of Member and senior staff involvement, respect their time, and enable them to make good decisions without significant technical knowledge.

Member Activities

Background

Most technological efforts in the House are geared toward enabling staff to support Members, rather than toward providing Members, themselves, with technological capabilities. Notable exceptions include the House pager system and the BlackBerry system. However, there are potential opportunities for the House to focus efforts on technological projects targeted specifically to Members. Technology can, for example, help facilitate the work of Members when they are out of their offices or traveling in their districts.

The Vision

1. **Members should have greater access to House information and to their staffs when they are out of their offices.** Whether they are in Washington or in their districts, Members seldom stay in one place for very long, but their work is dependent on timely, reliable access to information and communications. However, few of the House systems and information resources are currently developed with Member access and mobility specifically in mind.
2. **The House, as an institution, should provide technology to facilitate greater communications between Members and their staff, their colleagues, and their constituents.** Most of the technologies available to facilitate real time communication and collaboration – such as video teleconferencing; online meeting, presentation, and collaboration tools; and even audio conference calls – are more expensive and require greater technical expertise than individual offices can manage. As a result, there are few offices taking advantage of business tools that other knowledge organizations commonly use.

The Tradeoffs

The major benefits of working toward this vision of Member mobility, access, and communication would be to increase the ability of Members to do their jobs effectively. Attaining this vision would provide Members with access to the latest information from their staffs and from the House, as well as the capability to use this information more effectively. It would also allow Members greater freedom and independence to conduct their legislative and representative activities remotely, as necessary. For example, Members could more easily and more productively meet and interact with their staffs while they are traveling. Members could conduct task force, caucus, party, or committee business with one another without all of them being in the same place at the same time. Members could also more regularly interact with constituents while they are in Washington.

The challenges that would arise with attaining this vision are that Members and staff already feel inundated with information, so capabilities that would lead to more information without better tools to process and use the information would likely meet resistance or fail. Members and staff already have cell phones, laptop computers, and BlackBerry devices, and they are seeing their workdays extend farther and farther into their personal lives. Providing more ways to access and exchange information could increase the amount and speed of this information overload, making Members and staff less effective rather than more effective. For this reason, such capabilities would need to provide *better*, rather than simply *more*, information access and communications capabilities.

Members and staff also strongly feel that face to face interaction among Members is absolutely critical to the deliberative and legislative processes. They are resistant to technologies that would erode or negate this interaction. There are already concerns about the effect that technology is having on the deliberative process and the impact that introducing more technology to enable Members to be more independent may have. They are reluctant to consider anything that might further reduce the amount of time Members spend interacting with one another in person, and therefore, might undermine the deliberative process. As a result, any capabilities the House provides would need to offer ways to strengthen and enhance these interactions that are at the core of deliberation.

Institutional Leadership Organizations

Background

Currently, the institutional leadership organizations – the Speaker, Majority and Minority Leaders, Majority and Minority Whips, Republican Conference, and Democratic Caucus – identify and develop the systems and capabilities they need to support their operations. For the most part, the technological efforts of the institutional leadership organizations are not coordinated with or supported by the institution, nor are the party leaders involved in determining the strategic direction of technology adoption in the House, as a whole. Each leader devotes the resources they deem necessary to perform their duties and accomplish their goals. Often, however, leaders spend resources and develop systems that are replaced by their successors, which results in unreliable tools for Members and staff and high costs to the institution over the long term as a result of investing in sophisticated systems that will be used only during the tenure of a specific leader.

The Vision

1. **Leadership should have a role in working with the House to determine the direction of technology adoption in the House, as an institution.** The participants in the visioning workshops clearly stated that the institutional leadership organizations' party affiliated and official institutional roles need to be viewed separately. The vision states that institutional leadership organizations should continue to adopt technology independently to support their party responsibilities, but that in their official institutional capacity they play a critical role in determining and achieving change in the House. Therefore, in any technology decision-making structure the House must develop processes and mechanisms to include institutional leadership organizations.

   Currently, there are no formal processes for leadership or Members to be involved in determining the strategic direction of technology adoption in the House. This often results in conflicts and tension between the needs and objectives leadership offices have for technology to support their goals and the technological capabilities and support the House provides.

The Tradeoffs

Better coordination between the institutional leadership organizations and the House would result in House-provided systems and services targeted to meet the needs and support the goals of the leadership. It could also result in more reliable, consistent, and cost-effective technological systems to support the institutional leadership organizations.

However, changes in the relationship between the House and leadership offices and in the services the House provides to leadership offices would potentially be difficult to bring about and would probably require the active support of the leaders, themselves. Additionally, getting leadership engaged in strategic technology decisions may require establishing official processes and policies for doing so. Strategic technology decisions ideally support institutional strategic decisions, which the House currently has no process for identifying.

These visions were described in report entitled *House IT Assessment: To-Be Vision Report*, which was delivered to the House in the fall of 2005.

2. Gap Analysis

Using the information collected during the first two phases of the project, Gartner and CMF analyzed the gaps between where the House currently is and where it wants to be in the next decade. This analysis was based on what has been learned from the House over the course of this project, as well as on Gartner's significant technical expertise and CMF's knowledge of House culture, policy, processes and operations.

For each of the five business functions addressed in the House To-Be Vision, Gartner and CMF identified gaps in five categories:

1. **Cost/Budget Gaps.** These gaps address the types of expenditures the House will need to make for new equipment, services, software, or technical systems to achieve the vision. To close these gaps, the House will need to increase investments or modify budget allocations to better support the vision.
2. **Effort Gaps.** These gaps address the areas where existing House staff will be required to expend significant effort to change existing processes or systems or learn new ones to achieve the vision. To close these gaps, the House will need to reassign or retrain staff or devote employee time and effort to attaining the vision.
3. **Technology Gaps.** These gaps address the categories of hardware, software, and technical systems the House will need to develop or acquire to achieve the vision. To close these gaps, the House will need to identify, purchase, and/or develop technology to support the vision.
4. **Cultural Gaps.** These gaps address the areas where the changes necessary to implement the vision will face resistance from Members and/or staff as a result of their current thinking, attitudes and/or methods of conducting business. To close these gaps, the House will need to conduct outreach and/or educational campaigns to persuade Members and staff of the benefits of change and the drawbacks of the status quo.
5. **Policy Gaps.** These gaps address the areas where implementing the vision will require changes to current House rules and/or policies. To close these gaps, the House will need to review and modify current policy or develop new rules or policy to support the vision.

Because of the complexity of the gap analysis, we have chosen not to address it in any greater detail in this hearing. However, the results of the gap analysis can be found in the report delivered to the House in the spring of this year entitled *House IT Assessment: Final Gap Analysis Report.*

3. House IT Decision Making Working Group

The processes, bodies and mechanisms used to make technology decisions within an organization are critical to successfully adopting new technology and capabilities. Therefore, the House IT Assessment included a parallel effort with the Gap Analysis to examine the structures in the House for making decisions about technology that impact the entire institution, key segments of it, or key House processes, such as the legislative process.

House Officers and Officials have been participating in a working group to examine the current technology decision making and budgeting relationships within the House; identify limitations to how technology decisions are made and funded that might prevent the House from reaching the ten year vision; identify options for addressing the limitations; and discuss the options' impact and feasibility in the House.

This portion of the project has not been completed at this time, but, so far, the officers have identified a number of key issues that will need to be addressed in order for the House to effectively make the kinds of decisions that must be made to reach the ten year vision for technology in the House. These are:

- The current model for making significant institutional technology decisions is based primarily on ad hoc or informal relationships and coordination.
- Greater and more formal coordination and cooperation will be required by the offices that provide technology and other critical support services to the institution.
- Members and leadership will need to have a role in making the decisions that must be made to attain the House's vision, but their involvement will need to be carefully considered in order to use their limited time effectively and efficiently.
- The offices responsible for supporting the legislative process will need to establish a collaborative body, which will be integrated into the larger House technology decision-making structure, to address the significant challenges and opportunities of the 10 year vision for the legislative process.
- The House will need to design a formal House technology decision-making structure carefully and thoughtfully to ensure that mandated and traditional jurisdictional responsibilities are respected.
- The House will need to devise a technology decision-making structure which is not overly bureaucratic or inefficient and which enhances, rather than stifles, innovation and progress. The structure must be flexible enough to enable rapid responses to emerging needs while thoughtfully and responsibly planning for the future.
- Although initial options, structures, and ideas have been discussed within the scope of the House IT Assessment, further analysis, refinement and consideration will be required before concrete recommendations and conclusions about a future House technology decision-making structure can be made.

The results and outcomes of the technology decision-making workshops will be documented in a House IT Decision-Making Structure Report to be delivered in late October or early November of 2006.

4. Strategic Technology Roadmap

The final piece of the House IT Assessment project is to develop a Strategic Technology Roadmap. All of the preceding work has been building toward this final report which will provide the House with more detail about and recommendations for processes, technologies, and capabilities the House can implement over the next decade to attain its vision. This report will focus on key technologies and capabilities the House should consider implementing and the trends for the technologies over the next decades; concrete and actionable steps for the House to implement the technologies and capabilities; and critical management and support processes to ensure successful implementation and operation of the new technologies and capabilities. The Strategic Technology Roadmap will be developed in three steps:

- **Focused Vision.** Through extensive analysis, we will provide more detailed descriptions and narratives of the milestones the House will need to reach over time to attain its vision

for technology in the House in the next decade. *This step is in progress and a draft version of the Focused Vision is available.*

- **Strategic Technology and Management Process Analysis.** We will analyze for applicability and feasibility in the House the key strategic technologies and management processes necessary for the House to consider implementing in order to achieve its vision. *This step is early in process.*
- **Final Report and Presentation.** We will develop both a detailed written report and a final executive briefing for key House stakeholders on the final results of the analysis. *This step will begin once the proceeding steps are competed.*

5. Next Steps

Through this project the House has established its desired direction and options for technology over the next decade. However, this project is only an initial step toward achieving the House's vision. Once the Strategic Technology Roadmap is delivered, there are additional critical steps the House must take.

First, the House must vet the vision and strategy with stakeholders to get approval and support for this long term transition that, if realized, will have significant impact on the House. A key component of this vetting process will be to develop a business case that clearly articulates the benefits, challenges and costs to implementing the vision. This will enable stakeholders to make informed decisions about their support for the vision by illustrating its impact on them, their organizations, and the House, and the tradeoffs necessary to realize the vision.

Once the strategy has been vetted and agreed upon by the House, then implementation strategies and plans must be developed to minimize the risk to the House and ensure that the new capabilities are developed in a way that meets the institution's goals. These plans would include stakeholder and user requirements-gathering processes, prototyping new technologies to gain an understanding of their potential benefits and risks, pilots to test new systems and capabilities and metrics and mechanisms to measure success and capture feedback to further refine and improve the systems and capabilities.

As you can see, there is still significant work to be done over the next ten years for the House to attain its vision, but the work will be worth it, in the end. If attained, the vision the House developed for technology will enable the House to reach a level of effectiveness that Members and staff can only dream about today. There are already legislatures that have realized similar visions, and they are already reaping the rewards of increased effectiveness, efficiency and cost savings that the House would like to realize. These change processes are never easy, especially because they often require changes to business process and cultures that have been in place for a long time. Technology is usually the easiest part. It is the changes to traditions and cultures that people are comfortable with that takes the most significant time, thought, and planning. The fact of the matter is, however, that the House is going to have to make these changes someday. Through a targeted and well-planned process, however, the House can change on its own terms, rather than being pressured to change by outside forces.

I thank you, once again, for the opportunity to be here today to discuss this important project. I look forward to answering your questions.

The CHAIRMAN. Thank you very much.

Let me begin with some questions. First one. In your testimony—and I don't recall which of you said that or if it is in the report—you discussed that no office or entity has the authority or mandate to plan and coordinate technology projects. Maybe I am partial to the committee, but I thought the committee had that authority. Are you saying we don't have that authority? And are you saying it because it is dispersed or shared with three officers of the House, or is there some other reason?

Mr. BRADLEY. Yes. When we were doing our research, one of the things we identified is that although the Committee on House Administration does have responsibility for a large portion of the House, there are pieces of it that it doesn't have responsibility for. And so there are other organizations, the Rules Committee, for example, the Committee on Appropriations that all have pieces or they all have responsibility for some areas of strategic technology decision making, and that there is no one office, no one organization that has the ability to look across all the different pieces of decision making. So where Appropriations has the view and most of the finances, House Administration only has a limited view for the areas that it has direct responsibility over.

The CHAIRMAN. All right. Is this clarified in your report as to who has which authority?

Mr. BRADLEY. I don't know if we list all the different components of which areas have authority over what pieces. One of the parallel processes that we are working on is IT decision making workshops, where we did go into more depth on who actually has the ability to make decisions in which areas, and that report will be released as well. In the current report there is some information on that.

The CHAIRMAN. Thank you.

Ms. Goldschmidt, you have mentioned in your testimony disparate systems. Could you explain what you mean by that?

Ms. GOLDSCHMIDT. Right now, as you mentioned in your opening statement, IT was the case in 1995 when you did the work, the previous work, there still are basically 448 or more—actually, more with the committees and leadership offices and institutional offices—different small businesses that make their own decisions or largely make their own decisions about technology. And so although there are House standards and there are some policies to have similar systems, offices for the most part get to make their own decisions about what technology, hardware, software they buy, what equipment they use, and to some degree how they use it, and so they are not always compatible with one another. And it makes the support of these systems more difficult and more expensive.

The CHAIRMAN. Well, that leads to another question. The previous chairman of this committee had a key role in technology in the Ohio legislature where they had adopted a system whereby the computer stays with the office, when you move from one office to another you move from one computer to another. We are currently discussing something similar here. It would save a huge amount of money in our moves every 2 years if we could treat computers as we treat telephones; in other words, they belong to the office. And frankly telephones are now small computers, so the analogy is quite apt.

In your interviews and discussions with Members and staff, was this broached at all? And furthermore, do you have any recommendations on that proposal that we simply move the files from one office to another, but not the computers, not the telephones, not the file drawers, et cetera? Any comments?

Mr. BRADLEY. Sir, we did talk about sort of the ownership of data and the ownership of computers and applications, and it was something that there was concern about where people, you know, store sensitive information on their work stations on their desktops, and so one of the things that would need to be done is to make sure that that information can be removed from the desktop, and then the hard drive being wiped clean so that the person is secure in knowing that their information is not going to be exposed to somebody else. And so that is something that, you know, would provide a great deal of benefit to the institution if those work stations would stay so you didn't have to move them. And there are ways of limiting how much work it will take to move that information from one computer to another, and to quickly wipe those machines clean and prepare them for the next user.

The CHAIRMAN. Did you make any estimates of how much money we would save?

Mr. BRADLEY. No, we did not. But one of the things we did look at is that currently the House spends about 33 percent more on supporting Member offices than similar organizations that have similar, what we call complexity and size profile. And so, you know, we do see that there is significant area for improving the cost savings in the area of supporting Member offices and their computers.

The CHAIRMAN. Thank you. My time is expired.

I recognize Ms. Lofgren for 5 minutes.

Ms. LOFGREN. I am wondering if you have a concept on how we can get more Member buy-in on this. In looking through the reports, I notice that the Members who participated in the interview were all Members of this committee, and there has been an effort to outreach, but an unsuccessful effort.

As my colleagues know, the 435 of us, plus commissioners, are an independent group and will pay attention when they feel that their traditional prerogatives are being abrogated. So I think this is not really a technology issue so much as a sociological issue, how do we do the up front successful integration with them. And I wonder if you have any suggestions on that score.

Mr. BRADLEY. Sure. One of the things that we have developed is the idea of what we call a Mobile Member Working Group. And essentially what we would like to do is recruit technology savvy Members who are interested in developing what the Member of the future would look like.

One of the things that was discussed is that really if you want to get Members' attention, you have to have other Members, so it is sort of a network effect. If we can get a core group of Members who are really interested in technology, in developing this vision of what the Member of the future is going to look like, they can begin working with the technology implementers to develop this vision, to develop how they want to be operating as Members. And then from there, they can act as champions, they can act as the carriers

of the message to the other people, the other Members, and then slowly begin building that.

The other thing is also that if you begin developing sort of a more formalized IT decision making structure, then what you will be able to do is you will be able to target Members and provide them only the information that they need and the decisions that they need to make so you can limit how much time they need to spend either preparing or engaging and answering——

Ms. LOFGREN. Well, our Members are all over the board. There are some colleagues that are white-out-on-the-screen people, and other people who could, you know, build a computer from the parts you buy at Fry's and everything in between. So I think we need a matrix that we don't share with anyone, because none of us—and none of our colleagues wants to admit that they are white-out-on-the-screen people, but whether it is the chief of staff or the Member themselves doing the decision making.

I am wondering—and I am not making this proposal, but I had a chance to go through some of this with the staff, which was very helpful yesterday, and in the course of our discussion we mentioned that this is a very large organization, the House of Representatives, without a CIO. Do you think that that would be something we should look at or not? And have you had a chance to consider the pros and cons of that?

Mr. BRADLEY. Yes, we did take a look at that. And one of the things, as we were going through and exploring how decision making is made in the House, it seemed more appropriate to have more of a steering committee or, you know, a council that made decisions, because with the traditional organization of the House, there are different organizations as we talked earlier, like Appropriations, like Rules, who have specific responsibility for areas in the House and the way the House operates. So it actually seemed to be more appropriate to have, you know, limited steering groups and limited councils of people to make decisions collectively.

Ms. LOFGREN. I will yield back, Mr. Chairman, I know that time is short.

The CHAIRMAN. I yield to Mr. Mica for 5 minutes.

Mr. MICA. Thank you, Mr. Chairman. Interesting. A couple of things I don't know if you considered. One of the things when you get to IT and use of technology is the sort of the loss of documents, too. In the past—and I was talking with a librarian of Congress some time ago, but in the past there has been a great history compiled of Congress and the executive branch through hard documents. I don't know if any thought has been given to technology and how we retain some sort of the legislative history and development. Drafts are wiped out with a click of, you know, a button or a key, that we don't have the history that we had before. Is this something you all looked at—or a record of development of legislation and other documents?

Ms. GOLDSCHMIDT. It is not something that we looked at in depth, but it is an issue that we raised in our discussion of the legislative process. The Library of Congress currently has a project that is looking intensively at this as well. And so, you know, what we suggested is that the House consider looking at and working with the Library of Congress——

Mr. MICA. One of your concerns is that there weren't standards. Probably great histories have already been lost as we have become more reliant on computers and technology because we don't have those hard drafts that we used to have, unless somebody has printed a copy along the way. But it is just a part of sort of a gap that is going—that started and will continue. And maybe there should be some standards for retention of some of this material.

And I noticed that again you have so many different systems, and you cited that, everything sort of being developed on itself. I was trying to buy just a—well, the acquisition of technology is one that just blew my mind. Trying to buy a laptop through the House of Representatives is a 30-day ordeal that never ended. I couldn't find a standard—I couldn't find a model, and then when you got it, the operational capabilities—and I think that is repeated 435 times. That is just an acquisition. Then there are other issues of interoperability that haven't—I don't think have even been addressed with some of the stand-alone equipment or equipment that is taken for granted in the private sector. Is that also something you found?

Mr. BRADLEY. You know, one of the things that we did look at is that, you know, the House has made a couple attempts of putting in some of these more centralized processes, these more centralized capabilities. And generally what it has been is it has sort of grown up from the bottom. So HIR or CAO, they come up with a good idea, and they are trying to put this process in place, capability in place, but because they are having to do it in isolation, and you know, it has—there are a lot of challenges in trying to get it to work correctly. And so as you take sort of these half steps, it makes it difficult to really develop a very efficient process and an efficient way of doing it.

And so, you know, looking at what our findings say is that there needs to be more of a sort of top down buy-in, more of this institutional decision to put in these processes or put in these capabilities, and that increases the chance of them being more effective.

And so we did look at—when we talked to people in our interviews, there was sort of this tension between, you know, the attempts of the House to centralize things or to provide shared services, but that it was never really something the institution as a whole decided to do. It is generally one office trying to do good, and without that coordination, without working together, you know, the obstacles are just too high for most of them.

Mr. MICA. Sometimes it just seems like we are spending a lot of our time inventing and reinventing the wheel.

Maybe this hearing will help us find a better way. Thank you.

The CHAIRMAN. The gentleman's time has expired.

Mr. Doolittle, do you have any questions?

Mr. DOOLITTLE. No, Mr. Chairman.

The CHAIRMAN. Just a few follow-ups. What comments did you find about the availability of technical service, whether TSRs or other means? I sense a lot of frustration in my colleagues about the time it takes, so most of them hire a staff that has at least one IT knowledgeable person of varying degrees of competence to deal with the day by day, and some even hire someone who is basically

full time IT, and they fill their other time with office duties. This strikes me as being an inefficient way.

What did you hear and what is your opinion on that issue?

Ms. GOLDSCHMIDT. We heard comments to that effect, that there is a lot of frustration. The way the House is structured, their technical support right now, the offices do have or are expected to have somebody in the office to do day-to-day things. There is also the House TSRs, and then there are the systems integrators, which are really to provide the bulk of the technical support for an office.

And the frustration, the tension that we heard most was that these are not always coordinated, not always on the same page, and there is finger pointing among them. And this is one of the issues that led to the conclusion or to the vision of a more centralized technical provision. So it would include, you know, commodity hardware and software as well as support being provided by the House. And that would reduce the likelihood of, you know, the dissatisfaction with different people saying different things, doing different things, and not knowing who is responsible for what. There would be one entity with well-trained staff to provide technical support.

The CHAIRMAN. And that leads to my next question, which is having, for example, a centralized server system. And that is rife with political angst on the part of Members, which would have to be dealt with. But I would be surprised if there is any other organization of our size that has this many distributed servers around, basically a server in every office, which adds tremendously to the cost of the total system.

In your discussions with Members and others, did you find receptivity to centralizing servers, taking them out of the offices and ensuring their security to the satisfaction of the Members, which is key. And I know when I computerized the Michigan Senate, the only way I could sell this plan was to have a bank of Republican servers and a bank of Democratic servers, even though as you know they can exchange information as easily as if they are in the next room or as if they are next to each other. What did you encounter in this and what is your recommendation?

Mr. BRADLEY. When we discussed it with Members and their staff, there was a lot of concern about letting go of that physical control. They feel like the server sitting on their desk run by somebody that, you know, they can point to and say, you know, you are responsible for this, it gives them a feeling of comfort, and that there would be a fair amount of resistance to letting go of that. But I don't think it is something that is insurmountable. There are ways of ensuring that security and ensuring the independence of the organization. One of the concerns was if the—if HIR is appointed by the majority, then the minority may have concerns about that. But using the Inspector General, using a lot of modern management processes and technologies, all of those concerns can be alleviated.

A major part of this, though, would be the communication effort and educating people on the fact that really having that server in your office, it drives up cost a great deal, and actually reduces the security of the system rather than improving it; that having that

more centralized function can give you the security and much better performance at a much lower cost.

The CHAIRMAN. Thank you. And the last quick question. Did you interview or talk to individuals in district offices about their likes or dislikes with the system?

Ms. GOLDSCHMIDT. We did. And their primary concerns were the speed and availability of their systems, and the availability of information. They feel kind of—especially those in districts that have significant time zones, Alaska, Hawaii, the West Coast, where it is harder for them to just pick up the phone and call the D.C. staff and get the information that they need. And so they had significant concerns about expanding information available to them so that they could find information on their own, and improving the speed of their systems.

The CHAIRMAN. All right. I can vouch for myself. When I use the computer in my district office, I find it extremely frustrating. And frankly, I use the computer in my home office most of the time simply because it is faster working over the Internet than working over a T–2 connection.

Thank you very much for your responses. This will conclude the first panel, and I appreciate your participation and your suggestions.

I next would like to ask the second panel to come forward.

We have with us Mr. Jim Cornell, House Inspector General; the Honorable Wilson Livingood, Sergeant at Arms of the House; the Honorable Karen Lehman Haas, Clerk of the House; Mr. Pope Barrow, House Legislative Council; and the Honorable James Eagen, Chief Administrative Officer of the House.

I would first recognize Mr. Cornell.

STATEMENTS OF JIM CORNELL, HOUSE INSPECTOR GENERAL; THE HON. WILSON S. LIVINGOOD, SERGEANT AT ARMS OF THE HOUSE; THE HON. KAREN LEHMAN HAAS, CLERK OF THE HOUSE; M. POPE BARROW, HOUSE LEGISLATIVE COUNSEL; AND THE HON. JAMES M. EAGEN, CHIEF ADMINISTRATIVE OFFICER OF THE HOUSE

STATEMENT OF JIM CORNELL

Mr. CORNELL. Mr. Chairman, and Members of the committee, I am pleased and honored to appear before you today in my capacity as Inspector General of the House.

First I would like to commend the committee for the work that has been initiated to increase the awareness of the House's need for a comprehensive strategic IT planning process. We endorse the Gartner IT assessment methodology and concur with their reported findings.

We believe that the House would be well served in considering the visions set forth in the Gartner report and adopting the related recommendations. If fully implemented, they would also address prior OIG audit recommendations. Our past audit work demonstrates that strategic IT planning has been a longstanding need here at the House.

Since 1995, my office has conducted five audits related to this topic. In our June 2002 report, we stated that the House did not

have a plan to project its technology needs or to develop an effective IT strategy. Our report concluded that without a mandate, the House would never have an entity-wide strategic IT plan that would serve the interests of the entire House.

We provided three options for consideration; one, appoint a House level nonpartisan Chief Information Officer; two, create a House level IT Steering Committee; or three, delegate centralized IT planning and management authority to an existing House officer. The Gartner report, which points to a steering committee approach built around key stakeholders and decision makers, meets the intent of this recommendation.

It is important to note that industry best practices call for effective strategic IT planning. The IT Governance Institute, internationally recognized for setting standards and performing research in information systems security and assurance, developed the Control Objectives for Information and Related Technology, commonly known as COBIT, as a framework for assessing, managing and optimizing IT investments. This framework consists of linking business goals to IT goals, providing metrics and maturity models to measure their achievement, and identifying the associated responsibilities of business and IT process owners. The linking or strategic alignment of IT resources with the organizational business strategy is one of the five cornerstones of IT governance.

The Gartner report appropriately focuses on the need for creating a vehicle for setting the strategic vision and carrying out the technology planning process. Once this decision-making vehicle is in place, we recommend that the House consider the remaining areas identified in COBIT so as to achieve the full intended benefit of IT governance—they are value delivery, resource management, risk management and performance measurement.

Looking forward, as the House implements its IT vision, my organization stands ready to assist. Through our independent reviews, we will provide assurance that the strategic IT planning process is designed, implemented and sustained with the appropriate controls to ensure confidentiality and security for all House stakeholders. As we did with the House-wide deployment of Active Directory, where we played a critical role in evaluating and testing the Active Directory forest design and the related alert system, the OIG will provide review assistance dealing with deployment of the plan to mitigate the overall risk to the House, and to ensure integrity and equity in the process.

In closing, I would like to stress that the cost of not implementing a coordinated House-wide strategic IT plan is quite high. Without one, the House will continue to incur increased unnecessary cost for its information technology resources because it will be required to support multiple platforms, maintain overlapping technologies, and will not benefit from the economies of scale experienced by other organizations similar in size.

Nonstreamlined operations and disjointed, incomplete information could also cause a lack of responsiveness to customers and unduly complicate the ability to secure our House technology infrastructure. Case studies have shown these types of failings often result in adverse publicity and decreased stakeholder confidence in the organization.

In contrast to this scenario, a fully implemented, coordinated House-wide strategic IT plan would provide Members with an improved support structure and timelier access to information, which in turn would better enable them to produce quality legislation and make informed decisions.

Mr. Chairman, and Members of the committee, thank you again for providing me this opportunity to share my thoughts with you today, and for your interest and leadership in developing a strategic IT plan for the House.

[The statement of Mr. Cornell follows:]

STATEMENT

James J. Cornell
Inspector General

BEFORE

The Committee on
House Administration

September 27, 2006

"The IT Assessment: A Ten Year Vision for
Information Technology in the House"
James J. Cornell, Inspector General

Statement of James J. Cornell, Inspector General
Office of the Inspector General
U.S. House of Representatives

Before the Committee on House Administration

Chairman Ehlers, Ranking Member Millender-McDonald and Members of the Committee, I am both pleased and honored to appear before you today in my capacity as the Inspector General of the House. First, I would like to commend the Committee for the work that has been initiated to increase the awareness of the House's need for a comprehensive strategic Information Technology (IT) planning process. Based on our prior audit work, our knowledge of industry best practices and our participation in the various round table discussions conducted as part of the Gartner study, we support the Gartner Information Technology Assessment methodology and concur with the reported findings and recommendations. We believe the House would be well-served in considering the vision set forth in these reports and adopting the related recommendations to achieve that vision. If fully implemented, they would also address prior Office of Inspector General (OIG) audit recommendations in this area.

Prior Audit Work. Since 1995, the House OIG has conducted five audits related to strategic IT planning. In an increasingly digital world, how well organizations plan their long-range (strategic) and short-range (tactical) goals and objectives affects their ability to successfully manage information, information systems, and communications. Consequently, a long-range IT vision is a critical management tool for establishing an organization-wide, cost effective process for procuring and maintaining IT resources that enable the organization's overall business goals. While the House has made improvements to become more fully integrated, such as merging its previous eleven separate e-mail systems into one integrated system, the House still lacks a House-wide strategic IT plan. In our most recent report related to this topic issued in June 2002, we stated that the House did not have a plan to project its technology needs or to develop an effective technology strategy. We found that in the absence of a House-wide plan, the Chief Administrative Officer (CAO), with the support of the Committee on House Administration (CHA), initiated strategic IT planning to identify critical House administrative IT support needs and plan the acquisition of infrastructure assets to support those needs. Although the CAO

initiated efforts to include other House offices in a House-wide strategic planning effort, the CAO lacked the authority to make House-wide IT investment decisions. For long-range planning to be effective, planners need clear direction from those in authority and participation from stakeholders, as well as the necessary mandate to formulate plans. Our report concluded that, without a mandate, the House would never have an entity-wide strategic IT plan that would serve the interests of the entire House. Further, the House would continue to incur increased, unnecessary costs for its information technology resources because it would be required to support multiple platforms, maintain overlapping technologies and technical expertise, and would not benefit from economies of scale experienced by organizations similar in size. We provided three options for consideration: (1) appoint a House-level, non-partisan Chief Information Officer; (2) create a House-level IT steering committee, or (3) delegate centralized IT planning and management authority to an existing House officer. The Gartner report points toward a steering committee approach built around key stakeholders and decision-makers. We concur with this approach and believe it meets the intention of our previously reported recommendations.

OIG's assurance role. As with past House-wide deployment efforts, the OIG stands ready to provide assurance that the strategic IT planning process is designed, implemented, and sustained with the appropriate controls to ensure confidentiality and security for all House stakeholders and to mitigate overall risk to the House. For example, during the early design stages of the House-wide deployment of Active Directory, the OIG played a critical role in evaluating and testing the Active Directory forest design and related alert system to ensure the confidentiality and security of House stakeholder data. Now that the centralized Active Directory forest has been fully implemented, the OIG continues to play a critical role by receiving and analyzing alerts related to enterprise administrator activity to ensure all enterprise administrator activity is authorized and appropriate. The OIG would continue to provide this type of assurance in the deployment of a House-wide plan to ensure integrity and equity in the process.

Industry Best Practices. The Sarbanes-Oxley Act and the expanding role of technology have brought to the forefront of public discourse the fiduciary duty that organizations have to their stakeholders to practice IT governance. The IT Governance Institute, internationally recognized for setting standards and performing research in information systems security and assurance,

developed the *Control Objectives for Information and related Technology* (COBIT®) as a framework for assessing, managing, and optimizing IT investments. COBIT consists of linking business goals to IT goals, providing metrics and maturity models to measure their achievement, and identifying the associated responsibilities of business and IT process owners. COBIT identifies strategic alignment of IT resources with the organizational business strategy as one of the five cornerstones of IT governance. Strategic IT planning is a critical component in achieving this alignment. When properly done, a plan of this type provides control over the IT process while being transparent about benefits, costs, and risks of IT investment decisions. This can be achieved by engaging stakeholders in aligning IT strategic planning with current and future organizational needs, understanding current IT capabilities, and providing for a prioritization scheme for the business objectives that quantifies the business requirements. The Gartner reports focus on the need for creating a vehicle (i.e. a centralized decision-making authority) for setting the strategic vision and carrying out the IT planning process. Since the lack of a centralized decision-making authority is the foremost obstacle to strategic technology planning at the House, we agree that their efforts were well-placed in focusing on this topic. Once this initial decision-making vehicle is in place, we would recommend that the House consider the remaining areas (i.e., value delivery, resource management, risk management, and performance measurement) identified in COBIT to achieve the full intent and benefit of IT governance.

Where is the rest of the government? The importance of an effective IT strategy was also recognized by Congress in the mid-nineties. The Paperwork Reduction Act of 1995 and the Clinger-Cohen Act of 1996 require a better linking of IT planning and investment decisions to program missions and goals. Goals are supposed to address how IT contributes to program productivity, efficiency, effectiveness, and service delivery to the public. Leading organizations define specific goals and objectives and describe how IT outputs impact operational customer and agency program requirements. Additional requirements of these two Acts are to develop and implement a sound IT architecture and to develop and maintain a strategic Information Resource Management (IRM) plan that describes how IRM activities help accomplish the mission.

In its January 2004 report on Information Technology Management, the Government Accountability Office (GAO) stated that only by effectively and efficiently managing IT resources through a robust investment management process can an agency gain opportunities to make better allocation decisions among many investment alternatives and further leverage investments. GAO's experience has shown that attempts to modernize IT environments without a model showing current operations, desired future operations, and a plan for migration often result in unconstrained investment and systems that are duplicative and ineffective. GAO stated that if IT investments are not managed effectively, it can result in wasteful spending and lost opportunities for improving delivery of services to the public. Executive Branch agencies are at various stages of implementation, many having both noteworthy accomplishments and remaining challenges. While we are not endorsing the approach used by any one specific agency, the House should adopt some variation of House-wide IT governance that builds upon lessons learned and incorporates industry best practices.

What are the Potential Costs of Not Implementing a House-wide Strategic IT Plan?
Without coordinated strategic planning, technology investments are less likely to assure interoperability and scalability of systems across the House infrastructure. Industry case studies have repeatedly shown the costs of decentralized IT management or a lack of organizational strategic IT management. Increased risk of business failure and adverse publicity have been linked to poor planning of major enterprise initiatives. Losses of significant dollars due to duplication, waste and project cancellations, as well as decreased stakeholder confidence in the organization, are consequences of poor strategic IT management. Non-streamlined operations and disjointed, incomplete information can cause a lack of responsiveness to customers and changing business conditions and unduly complicate the ability to secure our House technology infrastructure. Further, our current decentralized model limits the ability of House stakeholders' to reap the financial benefits from economies of scale experienced by other large organizations. Lastly, needless waste of scarce resources can result from spending on projects of low or no value to the entire organization. In contrast, centralizing IT management would provide Members with improved and timelier access to information, which would better enable them to produce quality legislation and enhance their ability to make informed decisions.

Mr. Chairman, Ranking Member and Members of the Committee thank you again for providing me with the opportunity to share my thoughts with you today and for your interest and leadership in developing an IT strategic vision for the House.

The CHAIRMAN. Thank you.
Mr. Livingood.

STATEMENT OF THE HON. WILSON S. LIVINGOOD

Mr. LIVINGOOD. Mr. Chairman, and members of the committee, I am honored to appear before you today to discuss the Information Technology Assessment and ten-year vision for IT in the House of Representatives.

I am here to provide you with my thoughts on the impact of this 10-year vision as it relates to the functions of the Office of the Sergeant at Arms.

My staff and I were active participants throughout the study, providing input for the current state report through interviews with personnel from Gartner and CMF. In addition, my staff participated in the focus groups as part of the To-Be Vision, and IT decision-making workshops. We found the study to be thorough and complete. Gartner and CMF included all pertinent offices within the House that support service operations, and also acquired feedback from the many stakeholders that participate in transmitting data through the House.

The use of information technology within the Office of the Sergeant at Arms is mainly focused on supporting the security functions of the House. The production of identification badges, distribution and inventory control of parking permits, wireless communications inside and around the House Chamber, and during special and emergency events are all areas that rely on IT infrastructure for consistent and reliable operations.

There are a number of instances where centralizing and standardizing the information technology functions and equipment in the House could be useful to my office. As a member of the U.S. Capitol Police Board, I have seen the impact of information technology on the physical security systems of the Capitol campus. The ability of autonomous systems to share information is dependent on compatible hardware and software, in addition to the proper information, security controls to ensure the data is not compromised.

One example of this is communications during emergency events, both among the office staff and with outside offices and agencies, which relies on various forms of wireless communications—from BlackBerry devices to two-way radios to cellular devices. The ability to utilize these forms of communication to notify Members of an emergency situation and to provide accountability of Members during these events could be more effectively implemented in a centralized IT environment using systems that are interoperable.

Another area that could be beneficial to House operations is the idea of a Federal identification badge. Currently, the agencies of the executive branch of the government, pursuant to the Homeland Security Presidential Directive 12 are implementing an identification badge that will be valid across all agencies of the executive branch using digital authentication.

Although current business processes in the House do not provide an effective means of implementing all the requirements of this directive, my office, in conjunction with the U.S. Capitol Police, has been reviewing these standards to determine if certain points or

portions of the directive could be more easily achieved should the IT process change.

Another area of interest I have been exploring is the use of so-called SmartCards to blend the ideas of physical security and access security. SmartCards are ID badges with computer chips built in to store large amounts of data. These cards could be used to provide access to secure areas of the Capitol complex, and also as a means of authentication for House staff to access their computer accounts and e-mail. To implement this vision, however, the physical security access control systems managed by the Capitol Police, the Active Directory authentication system managed by HIR, and possibly the ID badging system managed by my ID section would have to share information across various platforms. Centralization and standardization of information systems would be necessary to implement a system such as this.

Mr. Chairman, I thank you for the opportunity to give you my thoughts on this vision, and hope that we have been able to share some insight into the effect and the need for standardization and centralization of IT services in the House of Representatives.

[The statement of Mr. Livingood follows:]

Statement of
Wilson Livingood
Sergeant at Arms, United States House of Representatives
Before the
Committee on House Administration
U.S. House of Representatives

September 27, 2006

Mr. Chairman and Members of the Committee, I am honored to appear before you today to discuss the Information Technology Assessment and Ten Year Vision for IT in the House. I am here to provide you with my thoughts on the impact of this ten year vision as it relates to the functions of the Office of the Sergeant at Arms.

My staff and I were active participants throughout this study, providing input for the Current State Report through interviews with personnel from Gartner and CMF. In addition, my staff participated in the focus groups as part of the "To-Be" Vision and IT Decision Making Workshops. We found the methodology of the study to be thorough and complete. Gartner and CMF included all pertinent offices within the House that support service operations, and also acquired feedback from the many stakeholders that participate in transmitting data through the House.

The use of information technology within the Office of the Sergeant at Arms is mainly focused on supporting the security functions of the House. The production of identification badges, distribution and inventory control of parking permits, wireless communications inside and around the House Chamber and during special and emergency events

are all areas which rely on IT infrastructure for consistent and reliable operation.

There are a number of instances where centralizing and standardizing the information technology functions and equipment in the House could be useful to my office.

As a member of the Capitol Police Board, I have seen the impact of information technology on the physical security systems of the Capitol campus. The ability of autonomous systems to share information is dependent on compatible hardware and/or software, in addition to the proper information security controls to ensure the data is not compromised. One example of this is communications during emergency events, both among the office staff and with outside offices and agencies, which relies on various forms of wireless communications – from Blackberry devices to two-way radios to cellular devices. The ability to utilize these forms of communication to notify Members of an emergency situation, and also to provide accountability of Members during these events, could be more efficiently implemented in a centralized IT environment using systems that are interoperable.

Another area that could be beneficial to House operations is the idea of a federal identification badge. Currently the agencies of the Executive Branch of the government, pursuant to Homeland Security Presidential Directive 12 (known as HSPD-12) are implementing an identification badge that will be valid across all agencies using digital authentication. Although current business processes in the House do not provide an effective means

of implementing all of the requirements of HSPD-12, my office, in conjunction with the USCP, has been reviewing these standards to determine if certain portions of the directive could be more easily achieved should the IT processes change.

Another area of interest I have is exploring the use of so-called "smart cards" to blend the ideas of physical security and access security. Smart cards are ID badges with computer chips built in to store large amounts of data. These cards could be used to provide access to secure areas of the Capitol Complex and also as a means of authentication for House staff to access their computer accounts and email. To implement this vision however, the physical security access control systems (managed by the USCP), the active directory authentication system (managed by HIR), and possibly the ID Badging system (managed by ID Services) would have to share information across various platforms. Centralization and standardization of information systems would be necessary to implement a system such as this.

Mr. Chairman, I thank you for requesting my thoughts on this vision and I hope that I have been able to share some insight into the effect of standardization and centralization of IT services in the House on the operations of my office.

The CHAIRMAN. Thank you.
Ms. Haas.

STATEMENT OF THE HON. KAREN LEHMAN HAAS

Ms. HAAS. Thank you. Mr. Chairman and members of the committee, I am pleased to appear before you today regarding the 10-year technology vision for the House of Representatives.

I was introduced to this project shortly after becoming Clerk late last year, but the Office of the Clerk has been engaged in this project since its inception in 2004. Hopefully my testimony will further our efforts to ensure the House of Representatives proceeds along a path of greater efficiency.

Due to time constraints, Mr. Chairman, my brief comments will focus on three examples of technology advancements and the importance of a long-range plan to resolve outstanding policy questions.

The Office of the Clerk has been a longtime active partner in advancing technology in the House. Since the late 1990s we have worked with the House Legislative Counsel in cooperation with the Secretary of the Senate, the Library of Congress, and GPO to implement a vision of this committee to bring standardization to the creation and transfer of legislative documents.

An agreement was reached to use extensible markup language otherwise known as XML, for the exchange of legislative documents. To date, customized XML based applications allow House Counsel to draft 98 percent of bills, resolutions and amendments in XML. This represents the cross-organizational standardization of text that needs to occur in order to more fully exploit the electronic dissemination of legislative text.

Ms. HAAS. There is more work to be done before we reap the full benefits of a fully electronic process for creation, distribution and presentation of legislative documents. The scope of the initial effort must be expanded to allow every entity in the legislative process access to these tools.

Future plans should include the creation and exchange of additional legislative documents in XML, committee reports, hearings, House Calendars and journals. This is not a simple endeavor and can only happen if the effort is part of a fully coordinated plan that ensures that all parties are committed to its success.

The second technology advancement is electronic authentication of digital signatures. In between the issue of standardization and access to data is the matter of the official version. Currently, paper is regarded as the official version for legislative documents. For example, although an electronic version accompanies nearly 99 percent of introduced bills, an original signed hard copy must be submitted on the Floor of the House while in session in order for it to qualify.

While respecting the primacy of the printed version as the official version, we must consider the importance of having a means to associate the electronic version of legislation to the printed official version that derives from it. This is critical if Members and staff are going to be allowed access to reliable electronic documents.

The solution to this problem lies in the area of electronic authentication. We have deployed the first and only official use of elec-

tronic authentication in the form of an outsourced digital signature certificate for the filing of lobbying disclosure forms. We would envision an agreement on an electronic authentication standard, a mechanism suitable for legislative and other documents, would be one of the critical areas of concern for the House in the near future.

With regard to on-time availability of legislative information in committee and the House Chamber settings, I share the views of those who recognize that it is not just a matter of deploying equipment and software, but rather it is a fundamental policy issue of determining how our rules and procedures would have to be changed to accommodate the immediate access being discussed.

The third technology advancement is electronic filing for lobbying disclosure. Since electronic filing became mandatory in 2006, we have realized over an 80 percent on-time compliance rate, with the filings becoming instantly accessible for public viewing on our terminals at the Legislative Resource Center.

Under current law, the information that must be provided to the Senate and House by a registered lobbyist is mandated, but the process for filing is not. As you are aware, in the House we require registrants to file electronically, while the Senate does not. This has resulted in two entirely different computer systems and databases that provide challenges to the filer, challenges to the Office of the Secretary of the Senate and the House Clerk, as well as additional expense.

These are only a few examples where coordinated policy guidance and established procedures could help the efficiency of our process, reduce costs, and benefit Members, staff and the public as we strive to make accurate information available as quickly as possible.

Mr. Chairman, in conclusion, I would liked to again thank the Committee for the invitation to appear here today. The Committee should be commended for the leadership you have shown in moving the House forward technologically, while recognizing many of the important challenges we must deal with as an institution. I look forward to continuing the partnership that has developed through this process and to further advancements in the use of technology in the legislative process.

The CHAIRMAN. Thank you.

[The statement of Ms. Haas follows:]

Testimony before the Committee on House Administration
The Honorable Karen Haas
Clerk of the House
September 27, 2006

Mr. Chairman, Madam Ranking Member, and members of the Committee, I am pleased to appear before you today regarding the ten-year technology vision for the House of Representatives.

The Office of the Clerk has been engaged in this project since its inception in 2004. My predecessor, Mr. Jeff Trandahl, and key senior managers of the Office have lent to the effort their insight, institutional and operational knowledge, and their opinions of how the House of Representatives can best deploy technology to the greater good of the institution and the public that it serves. I was introduced to the project shortly after becoming Clerk late last year, having had the opportunity to attend a roundtable discussion with other House officers and officials. I hope the information I am providing here today about the technology role of the Office of the Clerk will help further the progress of our efforts to ensure the House of Representatives proceeds along a path to greater efficiency.

My comments, Mr. Chairman, will focus on: 1) our role as a provider of electronic information to Members and staff; 2) the automation of the management and production of official legislative documents; and 3) other issues and challenges for the institution and related agencies.

Dating to the 1970's, the Office of the Clerk has been an active partner in advancing technology in the House. Such advancements include: the first automation of the financial and payroll systems by one of my predecessors; the management and operation of electronic voting following its introduction in 1973; the televised Floor proceedings beginning in 1978; the introduction of extensible mark-up language for the creation and editing of legislative documents; providing an extensive resource of legislative and institutional information through the Clerk's website; and the first House deployment of electronic filing and the use of digital signature authentication in 2004. Throughout the years, the Office has responded to growing demand for information and access.

Earlier this year, in partnership with the Chief Administrative Officer, we successfully migrated LIMS, the Legislative Information Management System, from the House mainframe to a state-of-the-art UNIX platform and assumed complete responsibility for the system. This culmination of a five-year project will yield both cost savings for the House and provide greater performance and versatility of the system. LIMS is unknown to many outside the institutional legislative community, but its importance is unrivaled, as it provides the foundation of metadata that makes possible public access to legislative information through the Library of Congress THOMAS

system and GPOAccess. Since its inception in the early 1980's, Clerk staff have been the primary users of LIMS, managing the input of legislative information into a system which to name a few of its applications, numbers bills, reports, and documents; creates and prints the daily Calendars of the House; and provides the on-line, real-time summary of House Floor proceedings.

On the subject of automating the management and production of official legislative information, the Office of the Clerk, since the late 1990's, has been a partner with various legislative entities within and outside of the House to implement a vision of this Committee to bring standardization to the creation and transfer of legislative documents. Following a Committee-supported feasibility study, conducted by the Office of the Clerk, in conjunction with the Secretary of the Senate and the respective Legislative Counsels of both Houses of Congress, this Committee and the Senate Committee on Rules and Administration agreed on the use of extensible mark-up language, otherwise known as XML, for the exchange of legislative documents. Since then, and through the support of this Committee, Mr. Chairman, the Clerk and the House Legislative Counsel, in cooperation with the Secretary of the Senate, the Library of Congress and the Government Printing Office (GPO) have customized XML-based applications which allow House Counsel to draft over 98 percent of bills, resolutions and amendments in XML. This is important and relevant to the issue at hand because it represents the underlying cross-organizational standardization of text that needs to occur in order to more fully exploit the power and range of electronic dissemination of legislative text.

At the core of this effort was the establishment of a coordinating body involving all the parties, the XML Technical Committee, that ensures that all documents exchanged are developed in a manner that is coherent to all organizations. The success of this project is illustrative of the advantages of an integrated, institutional approach to the production of legislative documents electronically. The process of producing legislation has been simplified, and the tools provided to the drafters allow them to focus on the contents of the document and free them from other considerations. Cooperative efforts with LIS at the Library of Congress are designed to expand access to these documents and to facilitate search, merge, and presentation of selected data. In addition to this, the technology embraced by the Office of the Clerk opens the door to abundant generic tools which make it easier for interested parties to search through documents, compare different versions and highlight their differences, and provide access to merged views of contents stemming from different documents.

We have primarily focused our development and implementation on the relationship amongst the Clerk, the Secretary of the Senate, Legislative Counsel, and the GPO. With help from the Committee, XML development outreach has progressed with various committees of the House and we have been working as well with the Office of the Law Revision Counsel and the Rules Committee to coordinate and share with them our expertise in this area.

Nevertheless, there is much more work to be done before we reap the full benefits of a fully electronic process for creation, distribution and presentation of legislative documents. The scope of the initial effort was limited in its inception and must be expanded to allow every entity in the legislative process access to these tools. Future plans should include the creation and exchange of additional legislative documents in XML, committee reports and hearings, House Calendars, and journals. This is not a simple endeavor, and will require significant resources and involvement from all those who are party to the legislative process. Different entities will have to come together and agree on adopting common standards and procedures that constitute a viable compromise for all involved. All this, in turn, can only happen if the effort is part of a fully coordinated plan that ensures that all parties are committed to its success.

In between the issue of standardization and access to data is the matter of the official version. To date, paper is regarded as the official version for legislative documents. For example, with introduced bills, although an electronic version accompanies nearly 99 percent of introduced measures, an original signed hard copy must be submitted on the floor of the House while it is in session in order for it to qualify. While respecting the primacy of the printed version as the official version, it is important to consider the importance of having a means to associate the electronic version of a piece of legislation to the printed, official version that derives from it. This is critical if Members and staff are going to be allowed access to reliable electronic documents.

The solution to this problem lies in the area of electronic authentication. As I mentioned earlier in my remarks Mr. Chairman, we have deployed the first and only official use of electronic authentication in the form of an outsourced digital signature certificate for the filing with the Clerk by outside entities of Lobbying Disclosure Act filings. Since electronic filing under that program became mandatory in 2006, we have realized an over 80 percent on-time compliance rate, with the filings becoming instantly accessible for public viewing on our terminals at the Legislative Resource Center. We would envision that agreement on an electronic authentication standard and mechanism suitable for legislative and other documents would be one of the critical areas of concern for the House of Representatives in the near future.

With regard to on-time availability of legislative information in committee or House chamber settings, I believe I share the view of those who have preceded me, and Members and officials, who recognize that it is not just a matter of deploying equipment and software – but rather it is a fundamental policy issue of determining how our rules and procedures would have to be changed to accommodate the various types of immediate access being discussed.

There are additional examples of areas that could benefit from standardization of technology and requirements. Currently, the House lacks uniform standards for the drafting and production of committee reports. This makes it very difficult to provide the Committees a set of universal tools that could be used for report drafting.

Yet another area where we desperately need improvement is with documents required for filing with the Congress. For example, under current law the information that must be provided to the Senate and the House by a registered lobbyist is mandated but the process for filing is not. As you are aware, in the House we require registrants to file electronically while the Senate does not. This has resulted in two entirely different computer systems and data bases that provide challenges to the filer, challenges for the offices of the Secretary of the Senate and the House Clerk as well as additional expense.

These are only a few examples of areas where coordinated policy guidance and established procedures could help the efficiency of our process, reduce cost and benefit members, staff and the public as we strive to make accurate information available as quickly as possible.

Mr. Chairman, in conclusion I would like to again thank the Committee for the invitation to appear here today. The Committee should be commended for the leadership you have shown in moving the House forward technologically while recognizing many of the important challenges we must deal with as an institution. I look forward to continuing the partnership that has developed through this process and to further advancements in the use of technology in our legislative process.

The CHAIRMAN. Mr. Barrow.

STATEMENT OF M. POPE BARROW

Mr. BARROW. Mr. Chairman, members of the committee, thank you for the opportunity to testify at this important hearing.

First let me briefly explain the functions and duties of our office. The Office of the Legislative Counsel is the legislative drafting service for the House. We provide assistance in connection with virtually every bill, amendment, and conference report produced by the House.

The office is nonpartisan and neutral as to issues of legislative policy. We maintain strict confidentiality with each client. We also provide some services ancillary to drafting. One of these is the preparation of reported bills for the committee in the format needed by the Clerk of the House and the GPO. We also prepare a portion of each committee report showing the changes made in existing law. This is known as the Ramseyer.

We participated in the preparation of the Gartner Report, and we concur by and large with the findings of the report. Our operations are highly dependent upon information technology and upon interaction with other House offices, especially the Clerk of the House and the various House committees. Unfortunately, when it comes to information technology, coordination has fallen short.

Members and their staff often ask us questions relating to our software systems. For example: Why does it take so much longer now for your office to prepare drafts than in the recent past? How can we edit your drafts with our software and send them back to you for your review and further revision? Why are you having so many problems producing Ramseyers for the committees? Why did you stop giving committees up-to-date versions of the laws in our jurisdiction?

These questions can only be answered if you understand the limitations of the information technology that we and other House offices rely on and how it is currently put in place. Each House office involved in the legislative process, including ours, to quote the Gartner Report, "is independently responsible for identifying, acquiring and supporting technology to conduct its work with little coordination or standardization of processes, formats and technologies."

Let me first briefly describe the recent history of our document composition software. We were using a very old, essentially an obsolete, text-editing system. A few years ago it began to break down completely. We needed to bring a new IT solution on line. With no IT expertise of our own, when the Clerk of the House offered to develop a new bill-editing software for us as well as for the Clerk's own use, we accepted.

The new software using XML, extensible markup language, allows for instant publishing on the Web and offers other opportunities for the Clerk's Office to function much more efficiently. We now use the XML program for the composition and editing of all legislative documents.

The cooperation between our office and the Clerk's Office is an unusual example of two House institutions working together to bring an IT solution on line. That is the good news.

The flip side is that the software is designed best to fit the Clerk's operation and is not ideal for our office. It is also not well adapted for use by other House offices with which we need to collaborate.

The developers were aware of this, but did not have the authority or the budget to expand beyond the scope of the Clerk's functions and our basic functions. An example may help. Our clients often wish to revise draft legislative language provided by our office and have that highlighted in text. This is known as red-lining. But no Member staffs are working with the XML editor, nor are many committee staffs. And even if they did, they couldn't collaborate in this way because the program does not provide this feature.

Another example: Members who have served in State legislatures often ask why bills amending existing law do not show the changes made in existing law. There are several reasons. As I mentioned above, we do prepare a document, the Ramseyer, showing these changes in connection with reported bills. This is required by the House rules. We prepare this manually. It is now more difficult than ever before because we need to get our old software and the new XML software to work together, and it is a tricky process.

The result is that our ability to provide these Ramseyers to the committees on time has deteriorated. This failure has a House-wide impact because a committee report without a Ramseyer does not comply with the House rules. To consider the bill, the rules have to be waived, and the waiver can sometimes be controversial.

It would be possible with XML to automatically and almost instantaneously show the effect of proposed bills on existing law. State legislatures and other foreign legislatures already do this. Within our office we are attempting to build a solution on our own so that we can better meet the committee's need for Ramseyers. However, even if we built it, we couldn't deploy it throughout the entire House for use by Members and committee staffs.

There is another reason why it is so difficult to depict changes made in existing law, and it has nothing to do with information technology. The reason is that we do not have an accurate, current, and official version of existing Federal law, as amended, on paper or in electronic form. Nor does anyone else. To be positive Federal law, the kind you need for legislative amendments, a U.S. Code title must be enacted as such by Congress. Only 24 of the 50 titles, less than one-third of the volume of Federal laws, is officially codified.

The effort to codify all Federal law in the United States Code foundered many, many years ago, so most Federal law is not part of codified positive law titles. The nonpositive law titles are completely different in form and numbering and cannot be used for legislative amendments. Members who have served in State legislatures are used to having all State laws in a single official State code easily available in printed or electronic form on a current basis. That is not the case in the House. So we are left with most Federal law in uncodified form. There is no entity responsible anywhere for providing an official amended version of these laws.

Our office, various universities, private businesses, various other people, all cut and paste each new Public Law, often many new Public Laws, into the original to provide a best guess as to what

the official amended law would look like. None of these documents are official, and the degree of accuracy is unknown. So that means that any document provided by anyone showing changes made in the existing law would rely on an unofficial, and possibly an inaccurate, base.

To draft amendments to these nonpositive laws, we need to manually maintain the best current electronic database of them that we can, albeit unofficial and possibly inaccurate. We used to use this database to provide committees, upon their request, compilations of the various laws in their jurisdiction. These would be unofficial, but the committees often found them very useful and printed them for their members and staff. Some posted them on their Web sites.

We can no longer provide the committees with these documents. Our database of Federal laws have become so difficult to maintain, with part of it in XML and part being done in the old software, that we are unable to continue providing this service. I have been hearing some complaints from a number of committees about this.

The solution to these problems really requires an overall entity of some kind with responsibility for providing IT solutions that work for all components of the House, including our office, the Clerk's Office, the Members and the committees.

We endorse the conclusions of the Gartner Report specifically regarding the fragmented feudal structure of IT planning and implementation in the House with individual compartmentalized silos of IT development leading to inefficient business decisions. The ultimate solution, we feel, will require the imprimatur of the Majority and Minority House leadership.

Mr. Chairman and members of the committee, thank you again for the opportunity to present my perspective on the information technology issues addressed by the Gartner Report, and I am happy to try to answer any questions you may have.

The CHAIRMAN. Thank you very much for your accurate, but depressing report. I came from a State legislature and had the same questions. I finally came to the conclusion that the present system was maintained to deliberately confuse new Members, and no one has yet disproved that. Thank you for your comments.

[The statement of Mr. Barrow follows:]

The IT Assessment: A Ten-Year Vision for Information Technology in the House

Committee on House Administration

September 27, 2006

Testimony of M. Pope Barrow
Legislative Counsel
United States House of Representatives

Thank you for the opportunity to testify at this important hearing. First let me take this opportunity to explain functions and duties of our office.

Functions and Duties of the Office of the Legislative Counsel

The Office of the Legislative Counsel is the legislative drafting service for the House of Representatives. Under our statutory charter, the purpose of the Office is to advise and assist the House, its committees, and Members in the achievement of a "clear, faithful, and coherent expression of legislative policies" (2 U.S.C. 281a). Using the services provided by our office is voluntary, not mandatory. However, in practice, we provide legal assistance in connection with virtually every bill, resolution, amendment, and conference report introduced or offered in, or under consideration by, the House or one of its committees or subcommittees.

The office is nonpartisan and neutral as to issues of legislative policy. Since our inception, we have provided legislative drafting assistance to Members representing all political viewpoints while maintaining confidentiality with each client.

We also provide other related assistance to committees in connection with our basic legislative drafting responsibilities.

One aspect of this ancillary assistance is the preparation of reported bills on which we have worked. We provide these bills in the format needed by the Clerk of the House and the Government Printing Office. We also prepare a portion of each committee report in which the changes made in existing law are depicted. (This is known as the Ramseyer, so named after the Congressman who sponsored House Rule XIII (3)(e) requiring that such changes be depicted in each committee report.) These functions have gradually been centralized in our office on a de facto basis because it is more efficient to do them in one place and because we are the only office in the House with both the software and a database of existing laws needed to create these documents.

The work of our office is highly dependent upon information technology and also upon being able to interact efficiently with other House institutions, especially the Clerk of House and the various House committees. Unfortunately, however, when it comes to information technology, coordination has fallen short, especially between our office and the various House committees. This sometimes leads, as the Gartner Report observes, to chaos and inefficiency. It impedes our ability to fulfill our mission. It is certainly not in the best interests of the House.

IT Related Questions We are Often Asked

Here are some questions related to information technology that attorneys in our office are often asked by Members and their staff.

Why does it take so much longer now for your office to prepare drafts than it did just a few years ago?
Why can't we edit your drafts with our software and send them back to you to review and revise?
Why can't you show me in the bill what effects amendments will have on the bill?

Why can't you show me what effect a bill will have on existing law?
Why is your office no longer giving our committee up-to-date versions of the laws within our jurisdiction?
Why can't we always amend the United States Code instead of individual Public Laws?

The Gartner report addresses all of these questions. I will address them one by one.

Key Findings of the Gartner Report

The Gartner Report discusses the existing IT structure of the House of Representatives and offers a vision for the possible future of IT management in the House. I agree with the findings of the Gartner Report, particularly with respect to the fragmented structure of existing IT planning and implementation. I agree that the individual compartmentalized "silos" of IT development lead to business decisions that are inefficient and not supportive of the mission of the entire House of Representatives.

I also endorse the recommendation in the report that IT decisions should be coordinated among all House offices and that a single entity be responsible for ensuring that the technology decision-making process serves the needs of the entire House. I endorse the conclusion that the key to solving the IT problems in the House and bringing the House into the twenty-first century is not a question only of which software to buy or how many servers are needed. Instead, the key is deciding how IT decisions, and related business decisions, can be made for the whole House in a manner that will further the interests of the whole House.

The report describes how each office involved in the legislative process, including our office, is "independently responsible for identifying, acquiring, and supporting technology to conduct its work...[with] little coordination or standardization of processes, formats, or technologies." (Vision of the Future of Technology in the House of Representatives, page 2.) The report describes the redundancies and inefficiencies inherent in the existing system. The vision section of the report explains how these could be eliminated as well as how the House could expand electronic access to legislation, provide more timely access to materials, and improve the ability of Members to see and understand the changes to existing legislation proposed by new legislation. The report points out that many of these capabilities have already been put in place in state and foreign legislative bodies.

The key findings in the report are consistent with our own experience. All of our existing software was developed either in our "silo" or in the Clerk's "silo," without the participation of the committees and Members whom we serve.

Let me address how this situation developed. In the past few years, our existing document composition software has become obsolete, and has begun to suffer massive memory breakdowns on large bills. Rather than continue to train new people in such an antiquated system, we needed to bring a new IT solution on line. Without IT expertise of our own, we usually rely on other House offices.

About 20 years ago, the GPO developed XYWrite with GPO locator codes, and we adopted and used that software until the Clerk's office provided us with the new XML application.

The focus of the Clerk's solution, like the GPO solution years ago, was necessarily limited because neither our office nor the Clerk's Office has the authority, responsibility, or funding to do anything on an

institution-wide scale. Clearly, we have no authority to provide IT solutions for committees or Members. But who does?

This question requires an institution-wide answer such as that envisioned by the Gartner Report. The envisioned solution would take into account the overall needs of the entire House and all of its various elements when particular IT services and equipment are purchased or developed in-house by a House office.

The XML Editor: An Example of Compartmentalized IT Development

For almost 10 years, the Clerk of the House has been working to replace the obsolete text composition and editing program (XYWrite with GPO locator codes) used by the House and Senate Enrolling Clerks to process legislation and by the GPO for printing. XYWrite is a DOS program that is no longer supported by Windows-based computer operating systems. The company that developed XYWrite has long since disappeared.

The Clerk, with the cooperation of our office, has been developing new document composition software to replace XYWrite using XML (extensible markup language) for all bills and resolutions of the House and Senate. The new software allows instant publishing on the Web and offers a number of useful search features for downstream users of legislative documents. Most important, it provides opportunities for the Clerk's office to function more efficiently by automating numerous aspects of the Clerk's work.

We participated in the development of this software in order to replace our 30-year old software. We are currently using the Clerk's XML program for the composition and editing of most legislative documents.

While cooperation between our office and the Clerk's office is an unusual example of two House institutions joining together to bring an IT solution on line, the final software product is still a product that best fits the Clerk's operations. Unfortunately, it does not fully meet our needs. The needs of our clients in other House offices were also not included. The former Clerk was aware of this problem but did not feel that he had the authority, or the budget, to expand the project beyond the scope of his own duties. We were included because it facilitated the Clerk's effort to process legislation in XML to have it created in XML to start with.

Despite some advantages for downstream users, the new XML software is significantly slower, less reliable, and more difficult for the attorneys in our office to work with than our previous XYWrite system. The XML system is highly structured and automated to the point where the system itself can create drafting errors beyond the operator's control. This has caused stress not only within our office but also between our office and our clients, who often have tight deadlines.

The Gartner Report mentions that staffs of Members and committees are very frustrated by the difficulty they experience trying to revise and edit documents produced by our office. (Gartner Consulting: Information Technology Assessment, To-Be Vision Report, page 23). Our clients often wish to revise the draft legislative language provided by our office and have that language highlighted and inserted into the text we provided to them. No Member's staff is working with the XML editor. No committees can use it even at a rudimentary level. Since these staffs do not have access to the XML editor

used by our office and the Clerk's office or the requisite training, and--more important -- since the program does not provide the capability to track changes, this collaboration between our office and our clients is not possible. By contrast, in other business situations the ability to perform this kind of collaboration is taken for granted.

Even though the XML editor could potentially be further developed to meet these collaboration needs, the Clerk could not justify expanding the effort very far beyond the needs of his own office. It also would have been more expensive and would have added even more complexity to the job of customizing an already complex piece of software.

I would reiterate that the failure to provide collaboration features in the XML editor was not purely a technology question. It was also a question of the limited mission and budget for developing an IT solution.

Why Can't Members See How a Bill Would Change Existing Law?

Why is it so difficult to determine the textual changes in existing law made by a legislative proposal?

A number of Members have raised that question with me. Members who have served in State legislatures, where this feature is not only available but required, are particularly puzzled as to why this capability is not available in the House. The Gartner Report notes that committee and Member staffs indicated a strong desire to better understand the effect of proposed bills on existing law (Gartner Consulting: Information Technology Assessment, Final Gap Analysis Report, page 47; Information Technology Assessment, To-Be Vision Report, page 8). Clearly the technology can be built to do this and is in place in other legislative bodies. Why not here?

Again, the answer is not purely an information technology question.

Reason One

One reason is that in building XML software, the mission did not include the needs of committees and Member's staff. The XML software was limited to bill, amendment, and resolution composition and editing. It did not address the other critical functions that our office performs for the committees, including the preparation of Ramseyers for committee reports and the maintenance of compilations of existing law.

The unfortunate result of our inability to build Ramseyers in the new XML editor is that we either needed to continue using our old software to perform that function or create new XML software on our own. We chose the second alternative. But while we are developing new software, we are still trying to prepare Ramseyers manually, using our obsolete XYWrite program. The manual preparation of Ramseyers is a time-consuming and exacting process requiring at least three trained paralegals. In recent years, the time between the date on which a committee orders a bill reported and the date on which the committee report, including the Ramseyer, is filed has been much abbreviated, allowing us less time.

The result is that our ability to provide those services to the committees has deteriorated or, in some cases, disappeared entirely.

This failure has a House-wide impact. A committee report without a Ramseyer does not comply with the Rules of the House. To consider the bill, the Rules must be waived. Such a waiver can be controversial.

The software to automatically produce electronic versions of Public Laws, as amended by subsequent Public Laws, and the software to show the effect of proposed bills on existing law is possible to create. This could be done with a substantial degree of automation, requiring less human intervention than is now the case. Other legislatures are already using this kind of technology. It would markedly improve our productivity.

In fact, within our own "silo," the Legislative Counsel's office is attempting to build some parts of this kind of software so that we can better meet the committees' need for Ramseyers.

However, by developing this technology in our own "silo" without any coordination with other House offices, duplication of effort and inefficiency will still exist.

Reason Two

The other reason why it is difficult to depict for Members and committees the changes made in existing law by a bill is even more fundamental. We cannot show the effect of a bill on existing law in an accurate and official way unless we have an accurate, current, and official version of existing law. We do not have this for most Federal law. Nor does anyone else.

It is little known that, for most Federal law, there is no current official as-amended version either in paper or electronic form. This is almost an emperor-has-no-clothes kind of thing. Most people are amazed to learn that, because the bulk of Federal law is not part of the codified "positive " law titles of the United States Code, there is no official version in existence anywhere showing amended Public Laws, as amended by subsequent Public Laws. The non-positive law titles are completely different in form and numbering and cannot be used in legislation. Even those laws which are codified in positive law titles of the US Code are often not available until months or years after Congress has amended them.

The Law Revision Counsel is responsible for providing the official printed volumes containing the positive law titles of the United States Code and for assembling the other laws into other volumes of the United States Code. However, they do not have the technology or budget to provide any of this material on a current basis or in electronic form in the XML format now needed by our office.

Members who have served in State legislatures are used to having all State laws in a single official State code, usually available in printed or electronic form on a current basis. That is not the case for Federal law.

Most of the United States Code titles are not "positive" Federal law. Even the positive law titles are not available on a current basis. To be positive Federal law, a US Code title must be enacted as such by Congress. Only 24 of the 50 titles, less than one third of Federal law, are officially codified in the US

Code. The effort to codify all Federal law in the United States Code foundered many years ago due to the fact that there is no great constituency pushing for it to happen. The Judiciary Committee has the sole authority to bring a new US Code title to the House floor, but this is a huge job. Making it more difficult is that fact that most titles cover substantive matters that are not within that committee's sole jurisdiction. Other committees would be very wary of not being involved in a codification of laws over which they have jurisdiction since the codification process inevitably involves making some changes in structure and language.

So we are left with about two-thirds of Federal law in uncodified form.

The official versions of non-positive laws are the Public Laws certified by the Archivist of the United States. However, after one of those Public Laws is amended, there is no entity charged with the responsibility for providing the Congress or the public with an official amended version. Anyone in government or outside of government is free to cut and paste the new public law (often many of them) into the original and provide their best guess as to what the official law, if it existed, would look like.

Our office, various universities, and private businesses all do this. However, none of those documents are official, and their degree of accuracy is unknown.

This means that any document provided by our office or anyone else that depends on an amendment to existing law will rest on an unofficial source, regardless of the technology used.

Our Compilations of Existing Law

Since we are often called upon to draft amendments to an amended law (and prepare Ramseyers) almost immediately after that law has been amended, our support staff has been, for many years, manually preparing a current electronic database of frequently amended Federal laws. We adopted this "work-around" solution to enable us to draft new amendments to laws that have previously been amended and to provide Ramseyers to the committees. As an ancillary service to that work, we have also provided to committees, upon request, "compilations" of the various laws within their jurisdiction, even though they are unofficial. The committees often print those documents for their own use.

With the introduction of XML, this unofficial database has become increasingly difficult for us to maintain. As explained above, the XML software does not allow us to create and edit our in-house compilations of existing law or to easily extract material from those compilations to be used in the drafting process or for the creation of Ramseyers. In order to create and use these essential documents in XML, we need to develop additional software to work with the XML program. In the meantime, we have ceased making customized compilations of existing law available to committees.

We have begun attempting to convert this database to XML and to automate the manual updating process in XML. This is essential if we are to continue to be able to meet the needs of our clients for a quick turn-around of legislation amending existing law and to be able to have the database of existing law for preparing Ramseyers.

Here again, however, we only have the authority and budget to provide a software solution that works within our own office. If the committee staffs and the Law Revision Counsel were working with us

on this project, there would be an opportunity to develop software that would enable the House to provide, use, and maintain an updated version of Federal laws, whether codified in the U.S. Code or not. This is another instance of how the fragmented system of information technology development and deployment can lead to a dysfunctional situation and a duplication of effort.

In addition, we are also using unofficial XML versions of the codified titles of the US Code for purposes of drafting and Ramseyer preparation because the Law Revision Counsel (the office with responsibility in Congress for preparing the official version of the US Code) does not have the manpower and technology to provide this to the Congress or the public on a rapid as-needed basis.

Why Can't Members and Staff See How Amendments Would Change a Bill?

As noted in the Gartner Report, Members and staff would like to have the ability to see on their computer screens the textual effects of amendments on a pending bill at the time the amendment is offered. This would enable Members and staff to quickly and easily understand the effect of pending amendments, especially when a highly complex series of amendments is offered in committee or on the House floor.

If done manually, showing the effect of amendments on bills would be so laborious as to be nearly impossible. Theoretically, with XML technology, this could be done with further development of existing software. We would like to develop such a tool and use it for our own office. The necessary software could be based on the Ramseyer tool mentioned earlier that we are trying to develop. However, even if we were successful in building such software, our office certainly does not have the budget or authority to deploy it throughout the House. Nor would it be likely to be an ideal tool for other House offices.

There is no office within the House with the authority or ability to develop and deploy such a software tool for Members, committees, and subcommittees and on the House floor. Again, the Gartner Report has suggested the solution to the problem, an overall entity with responsibility for providing IT solutions that work for all components of the entire House.

Conclusion

A key question raised by the Gartner study is the question of whether there is a technology solution to the questions and issues I have mentioned in this testimony.

The answer is "no." Compartmentalized software development by individual offices is not going to resolve these issues.

A unified House-wide approach to new IT solutions instead of the "silo" approach is needed. More important, the ultimate solution must have the imprimatur of the majority and minority House leadership.

Mr. Eagen, for the final word.

STATEMENT OF THE HON. JAMES M. EAGEN, CHIEF ADMINISTRATIVE OFFICER OF THE HOUSE

Mr. EAGEN. Thank you, Mr. Chairman, Ms. Lofgren, Mr. Doolittle. Thank you for your time, and I am very excited to be here to participate in this hearing.

The CAO was very pleased to participate in the development of the House IT assessment, and we are supportive of many of the recommendations and observations in the report.

I would like to thank the committee for sponsoring the initiative and for establishing the comment period that the Chairman referenced in his opening statement. This approach is consistent with the recommendations of the study to make House IT decision-making more transparent.

I would also like to recognize Kathy Goldschmidt and Larry Bradley for their work. They had an arduous job of listening to 128 different people give their take on the challenges of IT decision-making and the state of our systems, and to compile them in the manner they have has been very helpful and very effective.

The Chairman has noted that he intends to have another hearing on the more detailed aspects of the recommendations in the study, so I would like to focus on what I consider to be some high-level, important aspects of the study for the committee's consideration.

First, the title of the study may give the wrong impression that what we are doing is picking nifty technology bells and whistles. It is not. The primary focus needs to be on business processes. How does the House see its primary business processes evolving in the next decade? And then and only then how can technology be employed as an enabler of those evolving business processes.

Many of the House's business processes today flow from traditions and precedents established over the past two centuries. As we look to the recommendation of the assessment, it is important that we first consider our processes and institution and how Members, staff, and the broader House community, including the public, believe those processes may need to evolve to better support the legislative process and operations of the House.

The many innovations recommended in the 10-year road map will require a coordinated and collective vision that includes processes and procedures to improve decision-making with regard to House information technology.

Second, when contemplating a new vision of House business processes, it must be done with an eye to the future; not just the next 10 years, but well beyond. When I consider the future of the House of Representatives, I think of my son and the rapid pace of change he will see in his lifetime. He is 8 years old, and I think there is a very good chance that he will live to see the year 2100. In the next century, technology will be even more integrated into our daily living than it is today. This will result in profound changes to the institution of Congress, for its Members and for our American citizens.

We can expect an increased demand from constituents to have access to their Representatives and their government on a real-time basis. This will mean that notions mentioned in the House IT

assessment, such as mobile Members and expanded electronic access to legislation and the legislative process, are inevitable. Through technology, I fully expect that Members and staff will be legislating anywhere, any time.

My point here is simple. If we ask ourselves, do we expect technology to have a significant impact on the House by the year 2100 within our young children's and grandchildren's lifetimes, and the answer is yes, let's bring that same mind-set to this study and begin that process now.

Third, and finally, when we consider the technology and its impact upon our institution as fairly recent, we must look to the future and consider how decision-making must mature to keep pace with these changes, which leads me to what I believe is the fundamental recommendation of the House IT assessment: Improving IT decision-making.

We must recognize that while Congress has existed for over two centuries, the use of technology as we define it today is still in its infancy. I first arrived on Capitol Hill in the early 1980s, about a quarter century ago, when we were still using typewriters. There was no e-mail. There was no Internet. House Information Services had only come into existence a few years before. We then evolved to large word processors the size of refrigerators, then to desktops and laptops, and most recently to today's ubiquitous PDAs or BlackBerries.

Within the CAO we have already begun operating under an inclusive and coordinated model with the development of our Balanced Scorecard Strategic Plan, the CAO Technology Strategic Plan, our Capital Investment Planning and Control Strategy, and the establishment of our Portfolio Management Office. This oversight in strategic planning allows us to look to the future and align our resource planning accordingly.

We are also establishing these plans and oversight procedures to ensure that once we have committed the resources to delivering solutions, they are delivered as cost effectively and efficiently as possible. Even with these efforts, we won't achieve our grandest goals on behalf of the House because we cannot reach them in isolation. We support establishing a structure to coordinate institutional technology decisions in a way that effectively involves stakeholders, leadership, Members, committees, staff and technology experts throughout the process.

Mr. Chairman, Members, the various volumes of the House IT assessment contain a set of well-thought-out, high-level goals for the institution, a myriad of specific technology solutions and even a draft road map on how they may be carried out over the next decade. Speaking for the employees of the CAO, we look forward to working with the committee to deliver them. And I will be happy to respond to any questions you may have.

The CHAIRMAN. Thank you very much.

[The statement of Hon. Eagen follows:]

Testimony
The IT Assessment: A Ten-Year Vision for Technology in the House

Jay Eagen
Chief Administrative Officer
September 27, 2006

House IT Assessment – September 27, 2006

Opening Statement

Mr. Chairman and Members of the Committee, I am pleased to appear before you to discuss "The IT Assessment: A Ten-Year Vision for Technology in the House" and provide the perspectives of the Office of the Chief Administrative Officer (CAO). The CAO was pleased to participate in the development of the House IT Assessment and is supportive of many of the recommendations and observations in the report.

History of Change

To begin, I believe it is important to place the recommendations made in the report into the context of the broader history of the development of information technology (IT) in the U.S. House of Representatives.

The past 20 years have seen a significant change in technology and its use in the House. As an employee of the House for nearly 25 years, I have witnessed the changing role of IT firsthand. I have seen the evolution of technology from typewriters to laptops and from obtrusive, large word processors, to ubiquitous, handheld personal digital assistants (PDAs).

I first arrived on Capitol Hill in the early 1980s and at the time, technology was already in its early stages of development. House Information Services (HIS) was created in the 1970s and had begun work on building the infrastructure for the early networking of computers. By 1978, the House began training for word processors such as Wang. Other developments in the 1980s included the introduction of local area networks (LANs) and Correspondence Management Systems (CMS).

In the 1990s, House IT was enhanced in part by the creation of the Office of the Chief Administrative Officer. Much of the IT management of the House was centralized into the CAO. During the 1990s, the first leaps were taken in moving from a primarily paper-based operation to becoming increasingly electronic. The House deployed access to the Internet for the first time in the 1990s, and the financial management of the House budget was migrated into an electronic form. The widespread deployment of personal computers also occurred. It was during this decade that the use of e-mail began to significantly reshape the institution in fundamental ways, in terms of communicating both within the House and with constituents.

More recently, House IT was clearly shaped by the events of 2001, the tragic events of both 9-11 and the anthrax incident. The years since 9-11 have seen a greater emphasis on more mobile communications and on a need to be able to work anywhere, anytime. This is true in both normal daily operations and in emergencies that may arise, whether in Washington or in District offices. We witnessed this firsthand as the CAO provided support to District offices impacted by Katrina and other hurricanes during 2005.

These events have led to developments such as the Alternate Computing Facility (ACF), issuance of satellite phones and SecurIDs, and Virtual Private Networks (VPNs) that allow confidential, secure access to the House networks from remote locations. All these technological developments enable the Members to conduct crucial House business anywhere, anytime.

The past 20 years serve to help us shape the next 10, and the House IT Assessment is an informing body of work as the CAO and the broader House look to the future.

House IT Assessment

In developing the House IT Assessment, the CAO was pleased to partner with the Committee on House Administration (CHA) and the contracted support provided by Gartner and the Congressional Management Foundation.

CAO staff were closely involved in many aspects of the project. CAO staff provided input to the process by participating in workshops and providing comments to the series of documents developed as a result.

I personally believe the process of receiving input from our customers and stakeholders was critically important. I would like to extend my thanks to the many Members and staff who personally contributed their time to participate in workshops and provide input.

The bipartisan and cross-cutting input from across the House community contributed to a useful series of recommendations. The CAO was pleased to be an active participant in developing the vision for the House and we look forward to working with the Committee to deliver on the recommendations of the House IT Assessment.

Future of Technology in the House

In reviewing the vision and the road map that has been provided through this study, it is essential to understand that fundamentally, the House needs to make business decisions about how it sees itself operating in the future. Yes, the study is labeled an IT assessment, but not for IT's sake. Investment in technology needs to be driven by business need, and I think that is where this study provides a great service to the House as an institution. The study attempts to

look into the future and present key business decisions that can now, and in the future, be enabled by technology. But the business decisions must come first.

I would like to focus on three of the five key areas mentioned in the *10-Year Road Map for Technology in the House of Representatives*. Specifically I would like to address recommendations for the Commodity and New Enterprise Shared Services, Mobile Member Capabilities, and IT Decision-Making. It is in these areas where the CAO is already focusing much of its efforts in information technology. In fact, the CAO has already developed an IT strategic plan that aligns both to our CAO Balanced Scorecard objectives and to many of the recommendations in the *10-Year Road Map*.

Commodity and New Enterprise Shared Services

The first key area is "Commodity and New Enterprise Shared Services." As noted in the *10-Year Road Map*, "Currently, each House office independently acquires hardware, software, staff and vendors to support its operations, with some exceptions (e.g., anti-virus, central networks, e-mail, etc.). This provides offices with the flexibility to choose what works best for them, but it also requires that each devote significant effort and resources to managing technical matters."

The *10-Year Road Map* recommends that "commodity technologies, capabilities, and services would be identified and provided centrally to save offices from having to acquire them individually; to reduce costs to the institution, overall; and to support offices in performing as effectively as possible." The CAO supports this vision of the future.

In fact, the CAO has already begun to pilot a similar idea, known as Seat Management, within our own organization. This project has centralized management of the CAO employees'

desktops to an outside vendor, meaning that the lifecycle management and replacement of personal computing equipment would be handled by an outside vendor seamlessly integrated with the CAO technical support staff. This program has allowed CAO staff resources to be reallocated to become more proactive solution providers. We believe Seat Management will increase efficiencies and improve service in the long term.

We believe that centralizing support, while still providing choice, is an important balancing act. We are committed to working with the Committee to see that such a vision is built in the coming years.

Mobile Member

The second area of focus is "Mobile Member." In our CAO Balanced Scorecard, one of the core themes is delivering support "anywhere, anytime." The *10-Year Road Map* notes that "… in the future, however, the House would initiate technology projects targeted specifically to Members, particularly focusing on technologies, capabilities, and services to help facilitate Members' work when they are out of their offices or traveling in their Districts."

We support this vision, and again, are already hard at work to make this a reality. We currently have 4,480 active SecurIDs in the House. SecurIDs in combination with technologies such as "air cards" issued by mobile providers are allowing both staff and Members to securely access their House networks remotely anywhere, anytime. We also support more than 7,000 BlackBerry devices across the House, allowing Members and staff to be able to access e-mail, documents, and the Internet from anywhere, anytime.

We recognize that more work is ahead of us, as Members and their staffs become more mobile. Our CAO Strategic Technology Plan has already been developed, with the key tenet

being the need to support mobile staffs and Members. We look forward to working with the House community to further implement this recommendation.

IT Decision-Making Flow

Foundational to the ability of the House to implement many of the recommendations of the House IT Assessment are the recommendations regarding the "IT Decision-Making Flow." The many innovations recommended in the *10-Year Road Map* will require a coordinated and collective vision that includes processes and procedures to improve decision-making with regard to House IT.

As noted in the *10-Year Road Map*, "In the House, technology planning, budgeting, and decision-making is conducted by each organization independently. Each office provides technologies and services to fulfill its role. There is currently no organization with authority for institutional technology planning, nor is there a process for coordinating, at an institutional level, decisions that impact the entire institution or establishing technology priorities for the House, as a whole."

The CAO has already begun operating under a centralized, coordinated model with the development of the CAO Technology Strategic Plan, our Capital Investment Planning and Control Strategy, and the establishment of our Portfolio Management Office. This oversight and strategic planning allows us to look to the future and align our resource planning accordingly. We are also establishing these plans and oversight procedures to ensure that once we have committed the resources to delivering solutions, they are delivered as cost effectively and efficiently as possible.

The CAO believes developing such programs for the House could be a critical aspect of delivering on the House 10-Year IT Vision. We support establishing a structure to coordinate institutional technology decisions in a way that effectively involves stakeholders throughout the process.

It is the establishment of this "IT Decision-Making Flow" that I believe is the key vision to come out of the House IT Assessment. We look forward to continuing to work with the Committee and further exploring how such processes and procedures can be established.

Closing Remarks

In closing, the House IT Assessment is a positive step forward in helping shape the House of the future. For the past 10 years, the CAO has played a significant role in delivering solutions to the House that have helped our customers evolve with the ever-changing demands of their jobs and their constituents. While the last 20 years have been witness to significant evolutionary — and sometimes revolutionary — change, I believe that the next 10 will bring as much, if not more, dramatic change to the House and to the nation. We already are taking action both to deliver this change and prepare for future innovation.

Thank you, Mr. Chairman, for the opportunity to address the Committee today. We look forward to working with the Committee to deliver on the recommendations of the House IT assessment. I am pleased to answer any questions you may have.

The CHAIRMAN. And I thank all of you for your excellent testimony. It is clear to me that there is much work to be done, and a great deal of it rests with coordination among all of you.

That raises another question, which, Ms. Haas, you referred to in a sense in your work with the Senate. I recall that over the years that has often been a stumbling block. At the same time we have so much to gain from working more closely with each other.

I just wanted to ask all of you, do you see any hope of developing a much closer working relationship, perhaps using combined resources, with the Senate, with regards to information technology? Or do you think this is a bridge that is too hard to cross or even build?

Ms. HAAS. If I could speak to that first, Mr. Chairman, I am optimistic. We are working with them currently within our XML Working Group. They are participating, as you are aware. But we are also working with them on another front, and we are reaching out to the Secretary of the Senate when it comes to electronic lobbying filing, and we have—they may be considered baby steps at this point—but we are working very closely with them, sharing information and supporting them, because we both have a very important stake in this process.

And so at this point, I am very optimistic. We are still very early on, but we have a lot of work to do.

The CHAIRMAN. Does anyone else wish to comment on that?

Mr. EAGEN. I do, Mr. Chairman. I have three very tangible practical examples of hope in this area. And I concur with Karen's perspective that the chances are good that those opportunities can be accomplished.

The first is as a practical example that traditionally the telephone exchange, the telephone operators that have been doing services for the House and the Senate have been organized as a joint facility between the House and the Senate. It was located on the Senate side, run by Senate managers, but the House supplied half of the personnel. Over time we came to recognize that this was an inefficient management structure, that half the people were paid by one organization and so forth, and through negotiations with the Senate, came up with an arrangement where now they are all Senate employees, and the House has a contract with the United States Senate to provide telephone exchange services to both institutions. And as far as I know, there has not been a single complaint. No one even noticed.

The second example is that after the anthrax and 9/11 circumstances, we obviously had to do quite a bit of reinvention of our mail systems here in the House, and part of that was to add security features and make sure that the mail was delivered safely. And the Senate is now contracting with the House for some of its mail processing, packages specifically. And so we are doing those House and Senate packages together at one facility.

Finally, and probably the biggest example of success comes with the institutions' alternative computer facility. After 9/11 and anthrax, the institutions made a decision that we were quite vulnerable with our redundancy systems, and we needed to establish those kinds of capabilities at a remote location. We could have done it independently and probably doubled and tripled the cost. In-

stead, the House and Senate agreed to work together to establish a central facility, and in the end the Library of Congress, the Government Printing Office, the Congressional Budget Office, the Capitol Police have all joined us together to save costs and work together across those normal invisible barriers that exist in the Capitol.

The CHAIRMAN. Thank you. I think each of you has a different set of problems. We could have a meeting like this every week to try to work through those. And in some respects I think we need an IT czar for the House or perhaps eventually for the Hill to try to work out all of these issues and coordinate everything.

This has been a constant problem. In the previous reorganization and planning, we had to work it all out. It took endless amounts of time to meet the needs of every user, and now we are facing precisely the same problem.

So let's tuck that in the back of our minds as perhaps eventually an objective to develop a combined system. But the immediacy of the problems that we face means that we have to take action on a lot of things right now, too.

Mr. Livingood, you mentioned the IT and emergency services, and, frankly, I have been very disappointed in the progress in that area. For example, when we evacuated the building, I personally received an all-clear on my BlackBerry after I was back in the building. Now why didn't I wait for the official all-clear? Because it came over television that there was an all-clear in effect, so we all went back in the building. We shouldn't have to depend on local TV stations.

Similarly, the event this past week with the deranged person racing through the halls of the Capitol armed with a pistol, I was shocked. I was in Michigan at the time. I got the message that said, "Please stay in your offices and lock the door," and I discovered that message was sent out some time after the perpetrator had been captured.

We have to have immediate notification of emergencies like that. Do you see that possibility developing?

Mr. LIVINGOOD. Very definitely. We have the technology. In those two instances—and we have been working on this, not only the technology, but the human error. Those two instances that you mentioned were basically human failure. And——

The CHAIRMAN. It seems to happen over and over and over again.

Mr. LIVINGOOD. Well, it has happened at least in the last 6, 7 months several times, twice that I know of. And we have taken steps as late as yesterday evening to try to remedy that with the command center of the Capitol Police. And we are taking action to increase—we have been told they would have a communicator in there to run these systems. That was not quite the case. That has not been the case.

So we have asked that they again rededicate someone on all shifts that will be right at the equipment to immediately transmit on the annunciators or whatever method we need to transmit it on instructions to the staff, Members and visitors in the buildings.

The CHAIRMAN. Thank you. My time has expired.

Ms. Lofgren you are recognized for 5 minutes.

Ms. LOFGREN. Well, I think this is a very helpful hearing. And, Mr. Eagen, as you were talking about when you first came here, I was remembering when I first came here as a staffer right out of college in 1970. And we had—it was precomputer. We had what was then called a robotype machine, which was a paper with little holes. It would break about every fifth letter, and we would have to tape it together. And we would—rather than get our copies of bills on line, because we did not have a fully formed Internet, we would go over to the bill room over to the first floor of the Capitol, and it was very quaint, and you would have to physically get the bills. So we certainly have made progress since then, but there is much more to do.

And as I listened, I mean, there are technical issues, but I think really the more serious—the technical issues can be solved. It is the policy issues that are going to be tougher to do, because really what we are talking about is making this whole thing more transparent to the public. You know, the lobbying registration should be on line and searchable to the public. You shouldn't have to come over to the Capitol to see that.

As the legislative process proceeds, the public as well as Members ought to see what is being discussed in draft form, and that is not really the way we legislate today.

So I think that there are going to be some difficult policy issues that are going to take some leadership within the House through the House leadership and the committee structure. And it is really a change of the way we do business in the House that we are talking about. And I think that may be a hard adjustment for some, but it will be welcomed by the public, and it is really the way we ought to do the public's business.

I was going to ask about the Senate as well, but I think we are not really completely all on the same page on our side of the Hill yet either. We have a lot of work to do.

The one thing I did want to mention, you mentioned your 8-year-old son. I have two children a little bit older than that, and thinking back to 1906, 100 years ago, and hopefully our children will be here to greet the next century, we have lost so much. And I worry, and I know the Librarian is focused on this, too, about the electronic records. They won't turn to dust, they will—we will have no history. And there is a group that is formed out in Silicon Valley to look at open standards for documents so that we can make sure that we actually have accessible to historians or our successors what it is we are doing today and in 100 years or 200 years, because our Republic will go on.

Have you had any interface with that broad group yet? And if not, any of you, how might we help pull their energetic efforts together with the government with the goal of preservation?

Ms. HAAS. I haven't had any dealings at this point with this organization. I would love to get more information from you. As was mentioned previously, there is an ongoing working-group-type structure with the Library of Congress in conjunction with the National Archives. So this is something that is very active and ongoing, so if I could get that information from you.

Ms. LOFGREN. Maybe we ought to work it through the Library if they are taking the lead.

Ms. HAAS. Absolutely. I think that is an excellent idea.

Ms. LOFGREN. Thank you very much.

And I guess the only other question I had was for Mr. Barrow. You know, we stopped codifying a long time ago, and I can't actually imagine that—I guess the Judiciary Committee has the major role, but not the exclusive role—that the committee which I have served on now for 12 years is actually going to drop everything else and go into codification. That is just not going to happen.

Do you think that the lack of codification is substantively a deficit on a policy basis for our country? And if so, legally could we form a commission to do the detail work? Obviously, the Congress would have to adopt it, but a commission to really move us forward on codification? Do you think that would be worth doing?

Mr. BARROW. I am not sure what the solution is. The Law Revision Counsel which currently is the institution in the House that has the responsibility for the codification of Federal laws. They do have the technical capability to do that and have been doing so at a very slow pace, because there is no constituency pushing for this. Like you, I can't see the Judiciary Committee taking time off to do this from all the things they are being pressed to do.

Additionally, when they codify a series of laws that are currently uncodified, other committees have jurisdiction over all those laws, and there is going to be some friction over the actual language that is involved, because it is impossible to recodify an uncodified title without changing something. The numbering, the wording, and other things are going to be changed and that makes people very nervous.

So it is a difficult process. They do every 3 or 4 years manage to get another title codified, but it has been a very slow process.

Ms. LOFGREN. And we are getting farther behind.

Mr. BARROW. Yes, they are getting farther behind. I talked to the Law Revision Counsel yesterday, and he feels that the bulk of the uncodified laws is growing faster than they are able to codify. This is relevant to the IT situation because we can't provide electronic official documents if there is no official document anywhere, electronic or paper. It becomes an institutional impediment.

Ms. LOFGREN. Thank you.

The CHAIRMAN. The gentlewoman's time has expired.

The Chair recognizes Mr. Doolittle for 5 minutes.

Mr. DOOLITTLE. Thank you.

Just so I understand, Mr. Barrow, is one of the reasons we don't have more codification that frequently laws are put under appropriations bills? Does that have something to do with it, and therefore they are, by definition, uncodified?

Mr. BARROW. No, I don't think that is the reason. The bulk of our laws are amendments to these Public Laws, and there are official copies of each Public Law. But when that Public Law, no matter what committee it came from, is amended at this point, there is no official version of the law, as amended, that anyone has responsibility for maintaining unless it is amendment of a codified U.S. Code title. In those cases, with 24 titles, we do have that.

We don't, however, have that on a current basis even now because the Law Revision Counsel does not have the resources or the manpower to be able to provide those documents at the time we

need to make amendments. It takes 18 months to 2 years to get those documents from them.

Mr. DOOLITTLE. Well, it sounds like we have been applying the same approach in the past to our border security that we apply to this. It is just not important enough to do? With money, couldn't we solve the problem? It sounds like it.

Mr. BARROW. It would take more resources, but I think it would also take some impetus from the leadership essentially that this is an important thing to do.

Mr. DOOLITTLE. This is the first time I have ever heard that stuff is going on. It is interesting to hear it. I would certainly—I mean, the State legislatures, it works just fine. It is amazing that we can't do it here. Can we subcontract with commercial services or something to have them do it?

Mr. BARROW. You could do that. The Law Revision Counsel has the ability to do this. With additional resources, they, I am sure, could do it. What happens, however, is they get a title ready to be codified, and it may take 4 years or so or longer even before anything happens politically. Sometimes it just does not happen. And now they are down to the more difficult titles where there is much more political controversy, so it is even less likely to happen.

Mr. DOOLITTLE. I am interested in this, but I have two or three other areas that I want to ask about. So I will learn more about it.

Mr. Eagen, for 5 years I have been trying to get—it turns out they are called "nodes," put around the campus so that we have BlackBerry reception wherever we go, and we don't lose it in HC–5 and other places, and that Verizon isn't having better service than Cingular or any of the others. And every time I ask over these 5 years, I am told, yeah, we are going to do that. It is 6 months away.

So it is 5 years later, and I am wondering, and I am told that 4 months ago my staff was assured that in 6 months from then we would have these nodes in place. So we have 2 months left. Are we going to have these things installed by Christmas?

Mr. EAGEN. Actually all the House buildings are done and have been done for about a year.

Mr. DOOLITTLE. Awesome. They are done, but they are not turned on?

Mr. EAGEN. No. They are turned on, and all the carriers are using the repeaters.

Mr. DOOLITTLE. Are you intentionally blocking HC–5?

Mr. EAGEN. I meant the House buildings. The Capitol is the last—I was going to say something, and I held back fortunately—the Capitol is the last location that needs to be done, and, of course, the CVC will need to be done as well. We have a contract in place to do that. There are some issues with that contract at the moment, but our plan is to finish that work, yes, and have it all be accessible.

The Capitol was held off as the last location for two reasons. One is the sensitivity of the architecture, and that putting those—they are repeaters, I think is the name that is used in the industry, and the wiring that goes to those repeaters is always more challenging in the Capitol. And secondly then security sensitivity, and we had

those same challenges in the House office buildings that in locations where there has been security-sensitive briefings or hearings and those kinds of things, you have to handle those locations in a different manner and plan them out more carefully so that there could be positive disconnects and so forth established so that penetrations through that technology don't have an adverse effect on the content of the discussions.

Mr. DOOLITTLE. When would you anticipate that the Capitol will be up to speed in this area?

Mr. EAGEN. I will have to get back to you Mr. Doolittle. I don't have them at my fingertips, the planned completion date. I do know that we have had recently a contractual issue that we are working through right now that impacts that completion date. So I will have to get back to you.

Mr. DOOLITTLE. Would it be reasonable to believe that this should be completed at the time the visitor center comes on line?

Mr. EAGEN. I know that we had established a contract and agreement with the Senate as to how the visitor center would be handled. I think, without having the completion dates at my fingertips to give you with a valid assurance, I think, yes, that is generally the plan. But I would want to get back to you and confirm that before you hold me to it.

Mr. DOOLITTLE. Well, please do. I am interested in having that situation taken care of. Thank you.

The CHAIRMAN. The gentleman's time has expired. I appreciated your questions, as I had some of those same questions.

Just one final wrap-up.

Mr. Eagen, you discuss seat management, which is the term that is used for what I talked earlier about, treating computers like telephones. From your standpoint, and you would bear the burden of setting this in place through your office and HIR, do you see anything that would give us cause in trying to pursue this, other than the political and perception problems?

Mr. EAGEN. I think it is definitely worth pursuing in the House. We need to go into it with our eyes wide open. And actually I thought Mr. Doolittle might ask about the subject, because it is something that he has been equally interested in in the past. And as a result of some of his inquiries, we actually are doing a pilot with seat management and using CAO as the pilot audience.

And so we have made a shift over where we have gone to a contractor and have installed so far about two-thirds of our organization on a seat management methodology. And to explain seat management, there is a lot of different flavors of it, but essentially it is taking the desktop that all of us use, or a laptop for that matter, and treating it as kind of a commodity, and that the hardware and potentially portions of the software are centrally managed and centrally acquired and standardized.

In CAO, that is somewhat relatively easy to do. We do have some places where we have some high end users where a standard desktop configuration, either from the power of the machine or the software, may need to be adapted.

In Member offices, though, or even committees for that matter, it becomes a bit more of a challenge because historically the operating principle here has been to give offices full discretion and full

choice. And therein lies the trade-off. With standardization you have the potential for economies of scale on the acquisition of the hardware. You have opportunities for standardization of support because you are going with certain desktop features. But it is certainly a challenge to choice and discretion. And where does the House want to be positioned?

I think there are prospects to do that, but it goes back to business decision-making. Are we going to stay with as much decentralization and as much choice as we have traditionally offered Member offices, or are we willing to move somewhere to the middle? I could see a seat management that offers perhaps tiers of support.

You were mentioning the different kinds of Members that we have around here with the White Out versus those that are high-tech. Perhaps there are tiered levels of seat management support depending on the office's business practices and preferences. The more choice you have, the less standardization, the more cost, but less customization as well. So those are the trade-offs as I see it.

The CHAIRMAN. Yes, it is a difficult problem, and a decade ago I went through this. Actually it is very difficult, as I found out, to network 11,000 computers and do it properly. And that is a very challenging technical problem. But I found the political problems were much, much greater than the technical.

Mr. EAGEN. Mr. Chairman, if I may, there is another aspect to this that would certainly directly confront this committee, and it would be the budgetary aspect. Right now through the Members' representational allowance, most of the control over the in-office technology decisions is vested with the Members. And so if the House wanted to contemplate some kind of method like this, that would be one of the hurdles to confront. One option would be, well, you add more moneys perhaps into my budget, and we do this centrally; but, of course, that adds more money to the House budget, and we are in relatively challenging budgetary times.

The other option would be to have a pooled share of resources, and would the Members be willing to make contributions from their accounts to something like that?

The CHAIRMAN. Well, there are technical problems, there are budgetary problems, but the political problems outweigh it. At least in my experience, having 435 system analysts in 435 offices, plus the committees, telling their boss that I am an idiot because I was trying to do something that might cost them their job; and their Member of Congress then would go to Newt Gingrich and tell him I am an idiot. I fought a lot of political battles to get what we got, and I gave up on the centralized service system. That was an impossibility at that time. I think it is a possibility now, but it will not be easy.

Mr. EAGEN. Actually, you shouldn't give up hope. We are moving in that direction.

The CHAIRMAN. Well, we already have it in one facility, and so there is no reason not to have it in two. We need to remember the budgetary issue, as it does save money for the institution. So that is something we have to investigate.

Let's see, I was going respond to one comment you made, but I have forgotten it. Do you have any further questions?

Ms. LOFGREN. No, I just—obviously we are about to adjourn, but I think this is a topic that we will revisit, and I am glad that this will be posted not only for current Members, but freshman Members to review. For the freshmen, this is something I am sure that they have no idea what they are walking into. But I think that if we could make some decisions in the early next year time frame, that we will be making progress. And I really appreciate the participation of all the witnesses. Very helpful. Thank you.

The CHAIRMAN. I second that. And what is heartening about this, every year we get new freshmen who are far more computer literate than the people they are replacing in general.

I also just wanted to comment, Ms. Lofgren, on your issue about preserving records. I was involved in the state of Michigan in allowing all the county clerks to maintain their records in electronic form, but no one had thought about long-term preservation. I managed to get an amendment, which to my knowledge is still working well, that they had to maintain the algorithms and the software, and whenever there is a major change, they had to change everything over to the new algorithms and new software in order to maintain a permanent record. That is troublesome, but it is important. Otherwise we will lose the records in 5 years.

Ms. LOFGREN. On that point, Mr. Ehlers, it is not just the legislative branch, but we are really failing governmentwide on that whole issue. We might be a leader in changing that.

The CHAIRMAN. Actually we are failing nationwide, not just govermentwide.

Mr. Doolittle has another question and is recognized.

Mr. DOOLITTLE. Well, I would just like to—I don't know if you were hinting at this or not, Mr. Eagen, but now that Apple has moved to the Intel chip, is that making all of this desired harmony a little easier? Or is that just a tiny part of what you are even talking about?

Mr. EAGEN. It is really just a tiny part of it.

Mr. DOOLITTLE. Well, okay. Thank you for your work, and encourage you to make these things happen as quickly as possible.

The CHAIRMAN. Now that you have two Macintosh aficionados here, we assume that will be part of the next step in improving information technology in the House of Representatives.

With that, I thank all the witnesses for their participation. Speaking for myself, it has been extremely beneficial to get a better handle on not only the issues, but also the problems that each of you face. And it helps me to recognize all the different things that have to be done. And it has been very, very helpful to me, and we will continue to have dialogues on this topic in the future, more frequently and in a less formal setting than this.

Thank you all for your ideas and your participation. With that, the meeting stands adjourned.

We have just a few wrap-up things. I ask unanimous consent that Members and witnesses have 7 calendar days to submit material for the record, including additional questions of the witnesses, and for those statements and materials to be entered in the appropriate place in the record.

Without objection, the material will be so entered. [The information follows:]

Gartner/CMF IT Assessment Hearing on House Technology Roadmap

September 27, 2006

10:00 AM

1310 Longworth House Office Building

OPENING STATEMENT OF

REP. JUANITA MILLENDER-MCDONALD, RANKING MEMBER

Good morning Mr. Chairman, guests, and witnesses. Thank you Mr. Chairman for holding this important hearing on the future of technology in the House.

Given this technological age in which we live, the House must make changes to its operations to take advantage of technology in its application and communication programs, and the utilization of devices and systems of all types.

How people will adapt to a changing work environment and where technology will lead us will be the challenges for all offices here in the House.

Successful businesses of all sizes understand that an efficient technological infrastructure is a major asset which enables them to successfully compete. While the House is not a business, it can certainly benefit from streamlining its operations to take advantage of powerful and ever-evolving technologies. This is complicated, and it involves changes in the way we legislate, research, and oversee laws, as well as the way we represent our constituents.

I hope the panelists can present a series of clear choices for this Committee to make, so that we can find the right balance between people, processes, and technology. Members and staff have become very aware of how technology -- such as Blackberries, cell phones, e-mail, and the internet -- can affect their lives, as well as serve the institution. These changes have all arrived within the last decade, and have become embedded in how we operate today.

But more technology is not necessarily better. We will have to understand what will work in this setting and what will not work. Some technology could even have the potential to impair the legislative process. People engaged in sensitive negotiations need an opportunity to reflect on them and reach compromises. Also, technology which discourages face to face meetings among Members and staff could prevent agreements from being reached within the chamber and between the two chambers.

Our institution is steeped in precedence, process, and people. Too much technology, too fast, may be difficult for the institution to embrace. So we must anticipate just how much our colleagues will be willing to incorporate into their operations each year, and adjust our sights accordingly. Some Members are still using manual typewriters, and we must be able to support all Members – not just those who are tech-savvy.

I recognize the importance of a technological vision. But we must be sure that this optimized and cost efficient vision is not overly complex, inflexible, or difficult to manage, with high built-in costs.

Ideally, I hope this hearing will result in a framework that moves us toward a more efficient House of Representatives. I look for us to create a process that will empower the Members to better legislate and to serve their constituents. I look forward to hearing from our panelists.

Thank you, Mr. Chairman.

A Report for
The United States House of Representatives

Information Technology Assessment: To-Be Vision Report

25 October 2005
Engagement: 220685901

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Prepared for the U.S. House of Representatives by
Gartner Consulting and the Congressional Management Foundation
under the direction of:
The Committee on House Administration and
House Information Resources
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A Ten Year Technology Vision for the House of Representatives

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1. Introduction

In August 2004, the Committee on House Administration (CHA) and the Chief Administrative Officer (CAO) initiated a project to develop a vision and plan for the future use of technology in the House of Representatives. To support this project, CHA initiated a partnership between Gartner and the Congressional Management Foundation (CMF). Gartner is an internationally-respected technology consulting firm with extensive experience assessing and developing technology strategies for federal, state and local governments and *Fortune 500* corporations. CMF is a non-profit organization that provides management services to Congress and has developed extensive knowledge of House operations.

The first phase of this project was to conduct extensive research with key stakeholders. Gartner and CMF have been working closely with the majority and minority staff from CHA and the CAO and his staff. The project began with detailed interviews of 128 Members, managers, and staff throughout the House and the legislative branch to discuss the challenges they and the House face, how technology is impacting work in the House, and how the House can help them do their jobs better. The views of both Republicans and Democrats were included.

Using the information collected in the interviews, the project team identified possible visions to guide House technology adoption over the next ten years and developed a process to vet these visions with different groups of House stakeholders. Through these discussions, a ten-year vision for technology in the House of Representatives was created. This report provides a summary of this vision.

This report concludes the second phase of the House Strategy and Technology Assessment project. The final phase of the project will provide strategies and a roadmap for how the House can successfully implement this vision. Research for the final phase will include roundtable discussions with key stakeholders to determine how technology in the House is governed, analysis of strategies and technologies, and cost estimates.

2. Methodology

Between January and July of 2005, Gartner and CMF facilitated six roundtable discussions with high-level House stakeholders. The purpose of the discussions was to identify and vet visions and principles that should drive technology adoption in the House over the next ten years. The discussions involved Members of committees responsible for management and oversight of the House, leadership Staff Directors, House officers and legislative branch officials, committee Staff Directors, Member office Chiefs of Staff, and high-level House and legislative branch technology administrators. In a series of meetings, these groups addressed a range of issues related to House culture, policy, process, and technology adoption.

Participating in the roundtable discussions were representatives from the:

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- Speaker of the House
- House Majority Leader
- House Minority Leader
- Majority and minority Whips
- House Republican Conference
- House Democratic Caucus
- Majority and minority Committee on Appropriations
- Majority and minority Committee on House Rules
- Majority and minority Committee on House Administration
- Office of the Chief Administrative Officer
- Office of the Clerk of the House
- Office of the Sergeant at Arms
- Office of the Parliamentarian of the House
- Office of Legislative Counsel
- Office of Law Revision Counsel
- Office of the House Inspector General
- Office of Emergency Planning, Preparedness, and Operations
- Government Printing Office
- Congressional Research Service
- Congressional Budget Office
- Government Accountability Office

Also included were interested Chiefs of Staff and Staff Directors recruited based upon their active participation in the first phase of the project.

The first four of the roundtables were conducted as a unit. Separate discussions were held with three defined groups: Member office Chiefs of Staff and Staff Directors; House officers and legislative branch officials; and House and legislative branch technology administrators. Because each of these groups had somewhat differing perspectives on House needs and operations, we convened a fourth roundtable with representatives from each group to reconcile the areas where their visions diverged. Through this process, representatives from each group discussed their views and developed a vision on which the participants agreed.

The result of these four discussions was then taken to the Staff Directors of House leadership offices for review, discussion, and feedback. Through this process, the vision was more finely honed and the challenges and opportunities were further defined. This information was then presented to the Member group, which provided feedback and made decisions about key components of the vision.

3. Context

In addition to identifying a ten-year vision, the participants identified two principle factors that are exerting pressure on the House for technological change: evolving forces on the House and institutional challenges faced by the House.

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Evolving Forces on the House

The following factors were identified by the House stakeholders as exerting pressure on the House to integrate technology more thoroughly and more rapidly.

1. **The looming budget crunch.** There was agreement that there will be continued belt-tightening throughout the government in the coming years, and that the legislative branch would need to identify opportunities for cost savings.
2. **Increasing security demands.** In the words of one House officer, "it's not a matter of whether, but when." There was a clear sense in the discussions that the House needs to be prepared for more security crises in the future and that technology can play a critical role in creating a more secure work environment and ensuring the continuity of House operations.
3. **Increasing comfort of new Members with technology.** The officers have already seen a shift in new Member attitudes toward technology. Businesses and state legislatures provide capabilities and services that in many cases exceed what is offered in the House. Consequently, new Members are increasingly demanding that the House enhance its capabilities and services.
4. **Increasing communication and information demands by constituents and the press.** Technology has raised public expectation for communicating with, and receiving information from, the House. Member offices are struggling with rising volumes of constituent communications; committees are struggling with demands for greater access to their information and activities; and institutional offices like the Clerk, GPO and the Library of Congress are struggling to keep pace with public expectations. These public demands will continue to evolve and exert further pressure on the House for change.
5. **Continuing integration of technology into society.** The participants in our roundtable discussions accepted the premise that House operations were going to be changed by technology. Over time, our society and our institutions will become increasingly connected; communications capabilities will continue to increase; and information access will continue to proliferate. As a knowledge-based institution, the House will need to be responsive to these trends.
6. **Increasing demands of the legislative cycle.** The leadership Staff Directors indicated that technology has enabled documents and legislation to be produced and considered more quickly than ever before. As a result, speed has become a strategy in the legislative process. In this environment, technology can provide opportunities to improve Member and staff access to information and enhance the effectiveness of the institution.

The participants saw these forces as compelling reasons for the House to think strategically about technology now and to begin planning for change. They agreed that these forces are going to impact the House one way or another, whether or not the House is prepared for them. Consequently, the stakeholders concluded that planning for the inevitable change would strengthen the House and make it more effective, while reacting to these forces in a fragmented, piecemeal fashion would weaken the House and prove far more costly.

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Institutional Challenges

The House faces some significant challenges in its efforts to most effectively integrate technology into its operations over the next ten years. The challenges are not the result of mismanagement or anything the House has been doing wrong. Rather, they largely stem from policies, practices, and traditions that have been in place for decades increasingly coming into conflict with modern capabilities and demands. The House is experiencing pressure felt by the corporate community in the mid 1990's, and which resulted in e-commerce. The executive branch began to feel the same pressure in the late 1990's, and it is resulting in e-government. The House and other legislatures are now beginning to grapple with the same pressure. Traditional operations are being tested by modern technologies, and institutions are being forced to adapt. The House will be no exception.

The factors identified by the participants in our roundtable discussions as being the greatest challenges to more thoroughly integrating technology into House operations were:

1. **Lack of standards.** At present, Member and staff electronic access to important legislative information is limited by House culture and policy, and by the nonstandard practices of committees. For the most part, each committee defines its own practices, timeframes, document formats and systems for creating and providing access to the official legislative documents within its jurisdiction (bills, amendments, committee reports, etc.). Because each committee's policies and processes are different, it is extremely difficult and costly to streamline document management and facilitate better, easier access to these documents by Members and staff. If systems and efforts could be more standardized and coordinated, there would be great potential to increase efficiency, enhance effectiveness and access, and reduce costs. One example where this potential is already beginning to be realized is with the electronic standards being incorporated into documents produced by the Office of Legislative Counsel. These standards have made it much easier, more efficient, and less expensive for the Office of the Clerk, the GPO, and the Library of Congress to manage bills, committee prints, and other statutory documents produced by the Office of Legislative Counsel.
2. **Lack of House-wide technology coordination or authority.** There is no House office or entity with the mandate or authority to plan and coordinate House technology resources, projects, and expenditures and to ensure they are targeted to institutional goals and needs. There are organizations with authority over some aspects of technology decision-making – including the Office of the CAO, the Office of the Clerk of the House, and CHA – but none have the mandate or authority to coordinate beyond their own jurisdictions.
3. **Disparate systems.** The House is unable to take advantage of opportunities for increased efficiency, effectiveness and cost savings because systems and processes are being developed in disparate "silos." This is a common challenge faced by institutions attempting to make a transition to more thorough technology adoption and use. The political, public, and decentralized nature of the House, however, increases both the difficulty of breaking down and integrating silos and the likelihood of turf battles.

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4. **Lack of resources.** Technology has placed new demands on Members by their constituents, parties, and staffs. Members must react more quickly and more frequently to more people than ever before, and their offices depend on technology to operate smoothly. However, Member office resources are not keeping pace with the demands on Member offices to: operate what are, essentially, small businesses; be responsive to constituents; and conduct their legislative and political duties.

For the House to most effectively implement the ten year vision, these challenges will need to be directly addressed and overcome. However, because they touch on some of the long-standing House traditions and practices, resolving them will likely require involvement of House leadership, senior staff, and Members, in addition to technical staff.

4. Ten Year Vision for Technology in the House

The House of Representatives is an institution that thrives on information and communication. As a result, technology is critical for supporting the key business processes of the institution:

- The legislative process;
- Member office operations;
- Institutional operational support;
- Member activities; and
- Party organization.

For each of these business processes, stakeholders identified a ten year vision for technology. These visions are presented below. Each section provides brief background and context for the vision, describes the vision identified by the participants, discusses the tradeoffs the House would have to make to attain the vision, and raises additional views gleaned from discussion of the visions by senior staff and Members.

Legislative Process

Background

Integration of technology into the legislative process is currently compartmentalized. Each organization involved – including the Office of Legislative Counsel, the Office of the Clerk of the House, committees, GPO, and the Office of Law Revision Counsel – is responsible for identifying, acquiring, and supporting technology to conduct its work. Although they contribute to a single final product – public law – there is little coordination or standardization among them of processes, formats, or technologies. In a paper-based environment this has little impact, since there are few benefits to greater coordination and standardization. In an electronic, networked environment, however, significant benefits are now available. To realize the benefits, however, the House must make significant changes. Currently, the standards and coordination that does exist – such as that being employed by the Office of Legislative Counsel, the Office of the Clerk, GPO, and the Library of Congress – is implemented on a voluntary basis. Organizations that do not voluntarily participate must be accommodated or worked around.

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This significantly limits the potential for greater efficiency, effectiveness, and cost-savings. It also severely limits the ability of the House to make the legislative process more effective by: integrating technologies to simplify and expedite the legislative process; improving information access by Members and staff; and improving the production and publication of legislation, official documents, and public law.

The Vision

1. **During consideration in committee and on the House floor, Members should be able to see the specific changes amendments would make to bills and that bills would make to public law.** Currently, the affect of amendments on bills or of bills on public law can only be seen after they have passed and are included in committee or House report language. Additionally, the Ramseyer Rule (which requires that committee reports document the changes proposed committee language would have on existing public law) is often waived because of the time and difficulty of complying with the rule. As a result, the specific changes legislation will have on public law are unclear until well after the law has passed. This leads to contradictions, conflicts and avoidable redundancies in public law. To help limit these problems, the Office of Legislative Counsel is in the process of developing a system for their own use to automate the preparation of Ramseyers, but progress has been limited by budgetary constraints and the lack of timely compilations of public law.
2. **Members and staff should have timely access to updated U.S. Code after legislation is passed into law.** Currently, there is a one to two year delay after a given Congress before the U.S. Code – the official codification of U.S. public law – is updated to reflect changes made during that Congress. As a result, new legislation – usually based on existing law – is drafted and considered without access to an updated official version of current public law. This leads to contradictory and redundant legislation and confusing law.
3. **Members and staff should be able to access all bills in searchable electronic formats before they are considered on the House floor.** Although many bills are available in searchable electronic formats prior to consideration, many are not, including some key bills, such as appropriations bills. As a result, Members and staff find it difficult to adequately review these bills prior to consideration.
4. **Members should have electronic access to relevant legislative information during committee and floor sessions.** Currently, Members do not have electronic access in chambers to any legislative information during committee markups or floor consideration of legislation. As a result, Members must either have the relevant paper documents on hand or must consider, debate, and vote on bills and amendments without the benefit of legislative history, information about bills in other committees, the text of public law, or a variety of other resources that could influence their decisions.
5. **The House should automate the management and production of official legislative documents.** Currently, technology is used at every stage of the legislative process, but, for the most part, the systems are not integrated or coordinated among legislative organizations. The Office of Legislative Counsel, the Clerk of the House, the Government Printing Office, and the Library of Congress have developed electronic

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standards that have enabled them to automate the management and production of most bills and amendments, but since committees are not using these standards, documents produced by committees cannot be automatically managed and produced. Consequently, there are time-consuming and sometimes redundant administrative tasks that must be performed throughout the legislative process that could be eliminated if the House were to adopt uniform standards, systems or processes. For example, the drafters of legislative documents (e.g. the attorneys in the Office of Legislative Counsel and committee clerks and stenographers from the Office of the Clerk of the House) must learn different document formats and processes for each committee. Having to learn and apply more than a dozen different formats for legislative documents takes far more time and requires far more staff and training than it would if all committees used standard formats, systems, or processes.

6. **Electronic documents should be part of the official legislative record.** Currently, only paper documents serve as the official record for the House, although electronic documents are produced throughout the process. This leads to discrepancies between the paper and electronic versions, as well as administrative burdens that could be reduced if electronic documents became part of the official record. For example, the producers of legislative documents from the Office of the Clerk and the Government Printing Office must manually compare every official paper version of bills and amendments against electronic versions to ensure they match, and, when electronic versions are not available to them, they must retype entire documents prior to printing, which adds significant administrative time and effort to the production of documents. Members expressed reservations about making electronic documents the official record, but senior staff viewed this as necessary. As a result of this discrepancy, this component of the vision will require further discussion and clarification before the House develops an implementation plan for this capability.

The Tradeoffs

Attaining this vision will not be easy, but it would lead to significant benefits to the House, including: enhancing Member and staff access to critical information on which to base legislative decisions; improving the flow and production of documents throughout the legislative process; facilitating easier and more user-friendly access, use, and collaboration on legislative documents; reducing the administrative workload and staff resources necessary to produce legislative documents; and reducing administrative and technical costs.

Technologies already exist to attain the vision, but implementing them will require making difficult tradeoffs. Making changes in this area can have unintended consequences on the legislative process and Member deliberation. As a result, the real challenge for the House will be to carefully consider the benefits, weigh the tradeoffs, and identify the implications the changes will have on the legislative process before developing implementation plans and making large investments. Attaining this vision would also require making changes to existing rules, policies, and practices to enable truly effective technologies and systems to be implemented. These would potentially include: changing how legislation is drafted; facilitating agreement among all House committees on standard processes and document formats; modifying House rules to allow for new processes and procedures; modifying the format, and

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possibly the content, of the U.S. Code; and preparing and training Members and staff to use and feel comfortable with the new systems and processes.

Officer and Senior Staff Discussion

Despite the challenges, the officers and senior staff saw compelling reasons for working toward these capabilities over the next ten years. They viewed the current administrative and management processes as untenable over the next decade because of their inefficiency, ineffectiveness, and high cost. They felt that attaining the vision would provide great benefits to Members, staff, the institution, and the public. They stressed, however, that any effort to move the House toward this vision would require significant coordination and collaboration of the House officers and high level staff and oversight or approval of Members, themselves, since the issues involved in this vision would potentially have significant impact on the legislative process and Member deliberation.

Member Discussion

The Members also considered most of the components of this vision to be logical and necessary changes that should be made over the next decade. They felt the House should be working toward means to increase efficiency and effectiveness and provide Members and staff with information to better enable them to produce quality legislation and make informed decisions. They stressed, however, that technology should not make the legislative process so efficient as to eliminate the necessary debate and deliberation that must occur in a legislative body. Nor should it be used to reduce the face-to-face interaction among Members that is so critical to the legislative process. They also noted that any efforts that significantly impact the House legislative process must also involve the Senate. Finally, they stressed that, although these capabilities could also be used to broaden public access, there is a need to carefully reflect and define when and how to provide public access to legislative documents.

The one capability for which the Members expressed reservations was making electronic documents the official record. They articulated concerns about public access to electronic documents, Member comfort with electronic documents, and the challenges associated with archiving and preserving electronic documents. The officers and senior staff did not share these concerns. They saw these issues as challenges that could and should be overcome to provide the necessary capabilities and greatest possible benefit to Members and staff. They also felt that making electronic documents part of the official legislative record would be a prerequisite for attaining the rest of the vision.

Member Office Operations

Background

Each Member office independently acquires hardware, software, and vendors to support its operations, with some notable exceptions (e.g. anti-virus, central networks, e-mail, etc.). This provides offices with the flexibility to choose what works best for them, but it also requires that

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each office devote significant effort and resources to managing these technical matters. In addition, the financial and staff resources expended in aggregate by individual offices, the institution, and vendors to support this decentralized model are significant and could be greatly reduced if efforts were more coordinated. Gartner estimates that the House currently pays 33.5% more for Member office hardware and software than a comparably-sized organization with centralized technical administration.

The Vision

1. **The House, as an institution, should bear the bulk of Member office technology expenses, minimizing the cost to individual offices in exchange for offices accepting new limitations.** Currently, each Member office must use its Member Representational Allowance (MRA) to acquire and support equipment, hardware, and software. As a result, because individual Member offices are small, they cannot realize economies of scale that would come from bulk institutional purchases.
2. **Systems administration services should be provided to Member offices by the House to free Member office staff of those duties.** Member offices currently hire or contract their own systems administration services. In the House's decentralized technology model, these staff are intended to be the primary technical support resources for Member offices. However, many Member offices assign this position to staff without technical knowledge or training, which leaves their offices vulnerable to mismanagement, mistakes, inefficiencies, and security problems. Additionally, there is often confusion and dispute among Member offices, technology vendors, and the House about who is responsible for solving problems that arise.
3. **The House should provide greater information access, service, and technical support to district offices.** The House currently provides basic technical service and support to district offices, including connecting main district offices to the House network and to Members' Washington offices; providing technical training options on-demand; and providing Internet and e-mail access to staff in the primary district office. The House also provides fee-based services to secondary district offices. However, the House does not emphasize technical services and support for district offices to the same degree as to Washington offices, in part due to the expense and challenges associated with providing for and supporting remote offices throughout the country.
4. **The House should provide greater assistance to Member offices in meeting constituent demands.** Currently, the House does not provide or support technological applications and services that support or facilitate interactions between Member offices and constituents, such as correspondence management systems, advanced Web services, or casework management systems. For the most part, technical decisions related to these interactions have been left to individual Member offices to make. This places offices in the position of identifying and acquiring necessary hardware, software, equipment, and expertise to support their efforts. However, few offices can afford robust systems to support many-to-one and one-to-many communications and information sharing that could potentially be provided by the House as shared services.

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The Tradeoffs

Attaining this vision would require the House to move to a more centralized technology service and support model. This would relieve Member offices of most or all of the responsibility to research and acquire equipment and software and maintain and support the systems. They would also likely realize cost savings through bulk purchase rates which would also enable the House, as an institution, to leverage greater control over vendor practices than can individual offices. Additionally, centralizing technical support would increase the level of training and expertise of the staff providing the IT support services.

A more centralized model would also likely reduce the cost to the House of supporting the many systems and configurations currently in use, as well as reduce the House's reliance on systems integrators and support vendors. The greater diversity of systems and configurations in use in an organization, the more difficult and expensive it is to support them, since technical staff knowledgeable in the range of systems must be available. This requires either a technical staff with significant and diverse training or a greater number of technical staff than would be necessary if fewer systems and configurations were in use. Currently, this technical expertise is provided to Member offices mostly by vendors, who factor this diversity and training into their fees. Standardizing on a smaller range of systems would reduce costs, as well as increase satisfaction with technical support, since technical staff would be trained to support the specific systems in use and could more quickly and easily identify and solve problems and replace faulty hardware and software.

However, adopting a more centralized technology service model would reduce offices' autonomy and flexibility to purchase the hardware, software, and service they want. To maximize the benefits, the House would need to standardize systems and configurations or reduce the options from which to choose. It would also possibly require offices to give up physical control – but not security or access control – over some of their data in order to realize the greatest security, cost, and service benefits from centralized services.

A more centralized technology service model would also require modifications to the current technology budgeting structure. Currently, each Member office purchases technology using its own MRA. If technology service and support were to be more centralized, it would be necessary to modify budgets accordingly. For example, it would be necessary to increase the budget of the office or organization providing the centralized services in order to fund the new responsibilities, purchases and services. This could possibly occur by shifting funds from the MRAs to the central authority or through an increase in appropriations for the central authority without reducing the MRAs.

Officer and Senior Staff Discussion

The officers and senior staff saw significant benefits to the House moving Member offices toward a more centralized technical environment. Member office Chiefs of Staff acknowledged frustration with having to spend significant time and money on technology when there are things that all offices use and which the House could easily and more cost-effectively provide. However, they stressed that in order for them to be comfortable with a more centralized model

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they would have to have some choice, such as a low-end, medium, and high-end office configuration. They also indicated that technical support would have to be responsive, highly competent, knowledgeable about the business of Member offices, and accountable for providing high-quality and timely solutions to problems. Finally, they were emphatic that they would need strong assurances that their data would be secure and that they would control access to it for them to willingly give up physical control of it.

The officers viewed this from a slightly different perspective. They strongly felt that a centralized environment will be necessary in the future, especially given current security concerns. To preserve continuity of House operations in the event of an emergency that closes the House office buildings, they saw the need for standardized systems in Member offices and more centralized data storage. Otherwise, reliable, effective, efficient, and comprehensive continuity of House operations can really only be achieved with great effort, coordination, and expense. Additionally, the officers viewed the task of securing House data as an increasing challenge that will require better trained and more qualified technical staff than Member offices' budgets can provide.

Member Discussion

The Members viewed this vision as necessary for future efficiency, effectiveness, and cost savings. They acknowledged that the House could realize significant cost savings by standardizing Member office hardware and software. They also were aware that, for the most part, there is little variety in the hardware and software used in one Member office versus another. There is variation in brands and configurations from office to office, but most require the same basic capabilities. As a result, the Members determined that the benefits of a more centralized technical environment for Member offices outweigh the current benefits of choice and flexibility.

Institutional Operational Support

Background

In the House, technology support, planning, and decisions are made by each organization independently. Each House office provides technologies and services to fulfill its role. Currently, there is no institution-wide process for coordinating their decisions or establishing priorities and making strategic technology decisions for the House, as a whole. As a result, there is generally little coordination of technology projects, objectives, and budgets at the institutional level, so efforts are sometimes in competition or conflict with one another, and sometimes efforts are duplicated. This results in greater costs and fewer benefits to the House than would be realized if technology planning were coordinated at the institutional level.

The Vision

1. **Effectiveness, rather than efficiency, should be the primary objective of technology in the House.** The House does not currently have an overarching objective

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for technology adoption. Some efforts are geared toward efficiency, others toward effectiveness, others still toward being as responsive as possible to the demands of individual Members and staff. As a result of this lack of a primary objective, technology goals and strategies are often in conflict from organization to organization, and even, occasionally, within organizations.

2. **The House should minimize the cost of technology to the institution.** Committees and institutional offices, like Member offices, each use their own budgets to purchase hardware and software and hire or contract technical support. Because this model requires each office to be an independent actor, the House, as an institution, faces challenges in taking advantage of significant cost savings that could be realized through bulk purchases, shared system support, and shared services.
3. **The House should assign formal jurisdiction for technology planning to a specific House organization or group.** There are some organizations – including the Office of the CAO, the Office of the Clerk, and CHA – with mandates that cover specific aspects of technology planning for the House, as an institution, but each has a limited jurisdiction. There is not currently a single group or organization with formal jurisdiction over technology assessment and planning for the institution, as a whole. Coordinated technology planning at the institutional level tends to occur only when crises arise, such as the Year 2000 conversion, 9/11, and the evacuations due to anthrax and ricin.
4. **Members should be involved in making technology decisions that impact the entire House.** Although some Members are informally involved in some institutional technology decisions, the current operating principle for making these decisions is that they should be primarily left to staff. There are few formal processes for involving Members in House technology planning, either to provide direction regarding priorities or to review and approve strategies. While it is true that Members do not come to Congress to manage or plan technology and that the most precious resource in Congress is a Member's time, efforts to change or improve how the House operates, as an institution, are likely to fail without approval or authority from Members.

The Tradeoffs

This vision is strongly linked with those for the Legislative Process and Member Office Operations. To achieve them all, the House will likely need to move from the current decentralized technology adoption and decision-making model to a more centralized or coordinated model. Working to achieve the visions will lay the groundwork for a process that will result in technology that is better targeted to the needs of Members and staff and more cost-effective to the institution. Developing such a process will also enable the House to be more proactive in its selection and implementation of technology. Rather than crises driving institutional technology decisions, the House will establish processes and authority to enable it to strategically adopt and use technology to respond to evolving forces on the House, as well as to avert, mitigate, or more quickly respond to crises.

Additionally, involving Members in technology decisions would increase the effectiveness of those decisions, since they would have the input and authority of Members behind them. Many

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of the visions outlined in this document will face cultural and organizational resistance which can only be overcome through the visible support of Members.

However, the House will face significant challenges to achieving this vision. Increasing the coordination or centralization of technology adoption and decision-making will reduce the flexibility and independence that House offices currently exercise. The benefits of relinquishing this flexibility and independence will need to be clearly articulated to overcome the resistance the House will face.

Another challenge will be to engage Members and senior staff at key points in the decision-making process. Many already feel overwhelmed by their current workloads, which makes it difficult to involve them in institutional planning processes and decision-making. Additionally, most do not believe they have the technical knowledge or skills to effectively participate in technology decisions. As a result, the process would need to convey the critical importance of Member and senior staff involvement, respect their time, and enable them to make good decisions without significant technical knowledge.

Officer and Senior Staff Discussion

The officers and senior staff recognized that there could be significant benefits to providing more centralized technology services and better coordination among the institutional support organizations, but there were concerns about how this would be accomplished. Member office Chiefs of Staff and committee Staff Directors expressed significant concern about the potential for systems and services to deteriorate or fail to meet their needs. While they recognized the benefit of saving money by centralizing some services, they stressed that they would need to be assured that the services would meet their needs for them to agree to move to a more centralized environment. They cited examples of how past attempts to provide more centralized services had failed to provide the promised value. They felt it would be extremely important for senior staff to be able to have regular input if the House were to move to a more centralized technology model. They also indicated that they would like some flexibility to develop or acquire technology to support capabilities not provided by the House.

The officers and officials generally agreed that the House would benefit greatly from centralizing many services, but they were also concerned about how this would be attained. Much of the discussion centered on how centralized services would be planned, coordinated and provided. The officers and officials felt that, ideally, the process would be Member-driven and endorsed, but doubted whether this was feasible, due to Members' already heavy workloads and the officers' perceptions of a general lack of interest among Members in being involved in technology decisions. Instead, they believed that a process for planning and coordinating decisions would need to be conducted at the officer and senior staff level and recommendations would then be taken to Members for feedback and approval. The officers also felt strongly that planning and coordinating major technology decisions would require that overarching institutional goals and priorities be identified through some process, probably at the Member or leadership level. They felt that without such goals and priorities it would be difficult to provide centralized technology services.

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The leadership staff directors also saw the benefit to centralizing many services, but expressed concerns about how the coordination and planning of these services might be conducted. They expressed the need to know more about how this planning and coordination might take place and what areas it would cover before they could fully endorse it.

Member Discussion

The Members felt that the discussions about technology that were being conducted in these roundtable discussions were extremely important to the future of the institution, and they viewed their input as critical to the process. They indicated that Members must have the best possible access to information that would enable them do their jobs as effectively as possible. The Members involved in the project said they were willing to participate in technology decision-making, especially as it relates to broader issues facing the House. They agreed that technology will play a significant role in the future of the House and that it would need to be managed carefully to protect the core processes and values of democracy and the legislative process. To do this requires the House to look ahead and plan technology carefully so it strengthens, rather than weakens, the institution.

Member Activities

Background

Most technological efforts in the House are geared toward enabling staff to support Members, rather than toward providing Members, themselves, with technological capabilities. Notable exceptions include the House pager system and the BlackBerry system. However, there are potential opportunities for the House to focus efforts on technological projects targeted specifically to Members. Technology can, for example, help facilitate the work of Members when they are out of their offices or traveling in their districts.

The Vision

1. **Members should have greater access to House information and to their staffs when they are out of their offices.** Whether they are in Washington or in their districts, Members seldom stay in one place for very long, but their work is dependent on timely, reliable access to information and communications. However, few of the House systems and information resources are currently developed with Member access and mobility specifically in mind.
2. **The House, as an institution, should provide technology to facilitate greater communications between Members and their staff, their colleagues, and their constituents.** Most of the technologies available to facilitate real time communication and collaboration – such as video teleconferencing; online meeting, presentation, and collaboration tools; and even audio conference calls – are more expensive and require greater technical expertise than individual offices can manage. As a result, there are few offices taking advantage of business tools that other knowledge organizations commonly use.

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The Tradeoffs

The major benefits of working toward this vision of Member mobility, access, and communication would be to increase the ability of Members to do their jobs effectively. Attaining this vision would provide Members with access to the latest information from their staffs and from the House, as well as the capability to use this information more effectively. It would also allow Members greater freedom and independence to conduct their legislative and representative activities remotely, as necessary. For example, Members could more easily and more productively meet and interact with their staffs while they are traveling. Members could conduct task force, caucus, party, or committee business with one another without all of them being in the same place at the same time. Members could also more regularly interact with constituents while they are in Washington.

The challenges that would arise with attaining this vision are that Members and staff already feel inundated with information, so capabilities that would lead to more information without better tools to process and use the information would likely meet resistance or fail. Members and staff already have cell phones, laptop computers, and BlackBerry devices, and they are seeing their workdays extend farther and farther into their personal lives. Providing more ways to access and exchange information could increase the amount and speed of this information overload, making Members and staff less effective rather than more effective. For this reason, such capabilities would need to provide *better*, rather than simply *more*, information access and communications capabilities.

Members and staff also strongly feel that face to face interaction among Members is absolutely critical to the deliberative and legislative processes. They are resistant to technologies that would erode or negate this interaction. There are already concerns about the effect that technology is having on the deliberative process and the impact that introducing more technology to enable Members to be more independent may have. They are reluctant to consider anything that might further reduce the amount of time Members spend interacting with one another in person, and therefore, might undermine the deliberative process. As a result, any capabilities the House provides would need to offer ways to strengthen and enhance these interactions that are at the core of deliberation.

Officer and Senior Staff Discussion

The issue of technologies to facilitate Member activities was not specifically raised with the officers and the senior staff because this topic was best addressed by Members, themselves. However, during discussion of the other business functions, they did raise some relevant points. The officers and senior staff recognized the need for Members to have high quality communications and information sharing with their staff, especially while they are in their districts or traveling for official business. They also indicated that Members must have access to the best possible information to enable them to do their jobs effectively, and that technology offers innumerable opportunities to provide better information. However, they also noted that providing the high-quality information and access necessary to support Members everywhere they might travel would require significant planning, support, and cost.

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Member Discussion

The Members strongly supported the concept of providing them with the highest quality and most reliable access to information and communications possible. They felt that, to do their jobs effectively, they need the best and most timely information possible to enable them to make the best decisions possible. Currently, they felt that they had adequate communications access, but could use better information resources. They indicated that this was especially true on the House floor and in committees, where they feel they would benefit from better and more timely access to information on which they must base their decisions.

Party Organization

Background

Currently, the party organizations – the Speaker, Majority and Minority Leaders, Majority and Minority Whips, Republican Conference, and Democratic Caucus – identify and develop the systems and capabilities they need to support their operations. For the most part, the technological efforts of the party organizations are not coordinated with or supported by the institution, nor are the party leaders involved in determining the strategic direction of technology adoption in the House, as a whole. Each leader devotes the resources they deem necessary to perform their duties and accomplish their goals. Often, however, leaders spend resources and develop systems that are replaced by their successors, which results in unreliable tools for Members and staff and high costs to the institution over the long term as a result of investing in sophisticated systems that will be used only during the tenure of a specific leader.

The Vision

1. **Leadership should have a role in working with the House to determine the direction of technology adoption in the House, as an institution.** There are currently no formal processes for leadership or Members to be involved in determining the strategic direction of technology adoption in the House. This often results in conflicts and tension between the needs and objectives leadership offices have for technology to support their goals and the technological capabilities and support the House provides.

The Tradeoffs

Better coordination between the party organizations and the House would result in House-provided systems and services targeted to meet the needs and support the goals of the leadership. It could also result in more reliable, consistent, and cost-effective technological systems to support the party organizations.

However, changes in the relationship between the House and leadership offices and in the services the House provides to leadership offices would potentially be difficult to bring about and would probably require the active support of the leaders, themselves. Additionally, getting

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leadership engaged in strategic technology decisions may require establishing official processes and policies for doing so. Strategic technology decisions ideally support institutional strategic decisions, which the House currently has no process for identifying.

Officer and Senior Staff Discussion

The officers and senior staff in Member offices and committees viewed it as necessary for leadership to be engaged, at some level, in establishing institutional goals and providing strategic direction to institutional efforts to implement technology. They did not feel that leadership offices should necessarily be involved in the minutiae and management of these decisions, but that direction or authority should come from leadership.

The leadership staff, on the other hand, were unsure of the role their offices would have in making technology decisions for the House. They acknowledged that, as the political leaders of the House, they have significant authority over House operations, but they did not view their responsibilities as hands-on. They delegate authority for House operations to officers and committees, rather than being directly involved.

Member Discussion

Due to lack of time, the vision for technology to support the party organizations was not resolved with Members. This will require further discussion with Members before plans can be made.

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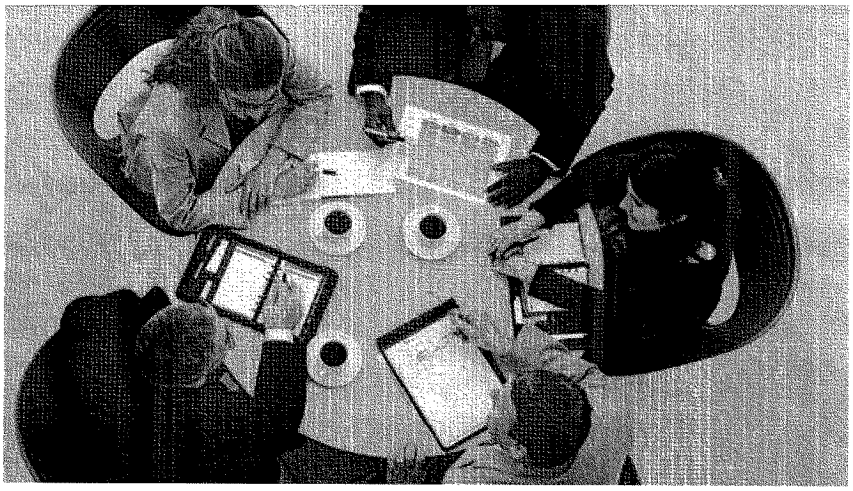

The CHAIRMAN. I ask unanimous consent that staff be authorized to make technical and conforming changes on all matters considered by the committee at today's hearing. Without objection, so ordered.

Having completed our business for today and for this hearing, the committee is hereby adjourned.

[Whereupon, at 11:51 a.m., the committee was adjourned.]

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