



After years of haphazard attention, the White House IT infrastructure is approaching a state of executive order

AS ASSISTANT TO THE PRESIDENT

for Management and Administration, she runs the White House, Camp David and Air Force One. She is also the steward of the White House's computer and communications systems. But when J. Bonnie Newman wished to illustrate the power of technology, she turned to television.

"I received a note from some acquaintances in the foreign service who saw a profile on me that CNN [Cable News Network] had run," said Newman. "According to their note, what was so ironic was not that they were in Pakistan, but that the broadcast was beamed down from a Russian satellite. Within days of it being filmed here in the White House, the profile was viewed in Pakistan." This underscored for Newman the fact that TV viewers all

PRESIDENT'S COMPUTERS

BY ALLAN E. ALTER

over the world can "pick up live broadcasts when the president wishes to speak to the world. No longer are people wondering about the president, who he is, and what his programs are."

Referring to a time when she her-



J. BONNIE NEWMAN: The IS mission is



to help "effect the president's program through reliable information and effective communications, rather than . . . trying to overcome resistance.

New Hampshire Republican with no IS background but plenty of experience in the Reagan administration. During the interview she generally avoided talking about herself or other presidential aides, preferring instead to exalt the boss. "'A President Who Cares' should be the title of the article," she suggested.

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self appeared on television was somewhat unusual for Newman, a

But referring to TV was quite natural for her as a White House official. As Hedrick Smith, a former Washington correspondent for The New York Times wrote in his book The Power Game: How Washington Works, mastering the art of governing today means mastering Washington's "power games": advancing your agenda, building a favorable public image, forging coalitions and defeating your opponents among them. The Republicans in the White House are widely recognized for their skill at using the electronic media to play the game. Newman mentioned one example—a voice-messaging system that automatically dials and transmits the president's pre-recorded messages over telephone lines to radio stations throughout the country.

However, Newman doesn't speak of computers as an aid to winning Washington's power games. For instance, when asked whether the Office of Management and Budget's computer analyses were used to build the administration's case in such partisan sorties as the budget battles on Capitol Hill, Newman said, no, "we think . . . more in terms of utilizing the technology to effect the president's program through reliable information and effective communications, rather than the concept of trying to overcome resistance.

"Our main concern is keeping the president informed," she said. "The president has three jobs: commander-in-chief, chief executive and head of state. Timely information is essential. [He] must have reliable information in an extraordinarily prompt fashion, and the ability to collaborate with the Cabinet and the government."

Newman stressed that George Bush is a "very hands-on, proactive user of technology—from picking up the telephone, to using electronic mail to communicate with staff here and on the road, [to] retrieving data." However, she added, he does not run the government by sitting in front of a computer screen. Like other presidents, when Bush seeks in-

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formation, he asks others to find it for him. According to Newman, she herself often follows up a presidential request for information.

Abraham Lincoln's assistant for administration probably filled much the same function. But technology has advanced far beyond the 1860s—and the 1980s too. So Newman and her chief aides directly responsible for White House computing—Deputy Assistant to the President Paul W. Bateman, who as director of the Office of Administration is directly responsible for the White House's day-to-day operations, and David L. Stonehill, who actually manages the White House's systems as director of the Information Resources Manage-



PAUL W. BATEMAN: Working to revamp a system whose hardware "belonged more in museums."

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ment Division of the Executive Office of the President (EOP)—are taking a fresh look at the White House's information and computer architectures.

The three are now in the final stages of creating a comprehensive computing plan for the EOP, which not only includes what is formally known as the Office of the White House, but the Office of Management and Budget, the National Security Council, and 10 other non-Cabinet organizations reporting to the president.

All three are new to this task. Neither Newman, Bateman nor Stonehill held IS responsibilities in the Reagan administration. Newman had been both assistant secretary of commerce for economic development and associate director of the Office of Presidential Personnel. Bateman had served with Newman at the Commerce Department and was the nation's coin-maker and currency-printer as deputy treasurer of the United States. Stonehill enjoyed a distinguished career in academic computing. His last post before moving to Pennsylvania Avenue was vice provost for computing at the University of Pennsylvania.

"We came in," Bateman said, "looked at the existing systems . . . and found by and large a very antiquated system, with hardware that belonged more in museums than offices. We have begun a measured program to modernize the equipment

The President's **Not-So-Mobile Phone**

When he goes calling, the chief executive travels anything but light.

herever the president goes, an enormous apparatus follows. Consider Ronald Reagan's overnight visit to then-Senate Minority Leader Howard Baker's home in Huntsville, Tenn., as described by author Hedrick Smith, a former Washington correspondent for The New York

Times and author of The Power Game:

How Washington Works.

Smith quoted Baker as saying: "They sent a technical crew in there, days ahead of time, and asked for 56 telephone circuits into my guest house. And the poor little old telephone company out there, which is an independent telephone company, I don't imagine had 56 telephone circuits or trunk lines for the whole community."

Reagan's team brought in a voice-encoding machine-"you know, one of these secure-line jobs," Baker saidand put it in the room adjacent to the president's. They set up several direct tie-lines to the White House and had direct tie-ins to the airport, the hospital and the highway patrol.

The entire network, Smith wrote, was governed by a portable switchboard, which was run by the Army Sig-



PRES. REAGAN: Always wired

nal Corps out of a communications van. It was parked near the senator's dog pens, "setting up howls from Mr. Baker's beagle and his Saint Bernard," Smith wrote. As the senator recalled, "the dogs were terribly perplexed by all this." -A.E. Alter

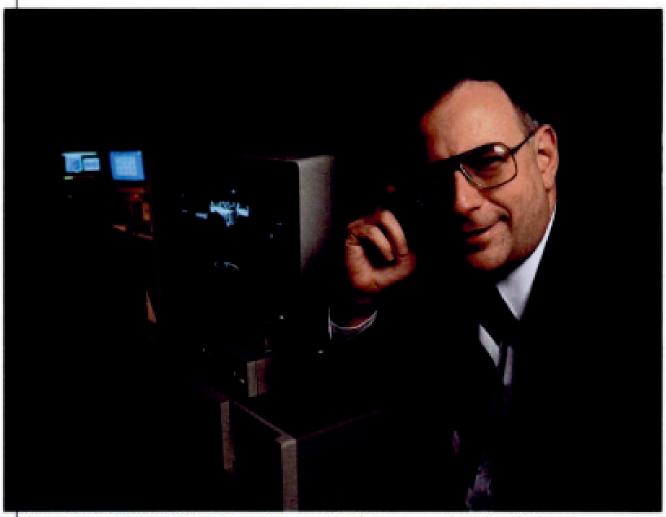
and provide the software and related systems necessary to have a fully linked system, so that all the people here can communicate information in an easy and quick manner.

"It's not meant as a criticism," Bateman continued. "This is a place where a lot of people pass through. Each administration brings its own touches, [but often these are] more quick fixes on top of quick fixes. We have an assemblage of hardware and systems that did not necessarily marry well together." The first

months in the executive mansion were spent assessing the situation, seeing how the new administration would operate, talking to users and looking at "our financial situation to find out what was affordable and do-Newman, they upgraded "the equipment our managers work with daily."

While the EOP's computing budget fluctuates from year to year, on average it runs at about \$18 million to \$20 million for non-classified systems.





DAVID L. STONEHILL: Organization issues are key to long-range planning efforts.

Bateman found another problem when he took his post. Although "people had hardware on their desks, they weren't given the tools necessary to do the things they really wanted to do," he said. "It's not enough to put a PC in someone's office-you have to ask what they really need, then provide training. We didn't have an adequate training program when we came in." People were more or less "plopped down at the terminal and told to figure it out. We now have a training center with regularly scheduled one-on-one training sessions so people can use the systems to their maximum level."

Now the focus of White House IS planning efforts has shifted to the long-term question of creating an organizational infrastructure. Newman, Bateman and Stonehill are rethinking how the White House works with computers, said Bateman—to make it possible, as Stonehill put it, for the staff "to work in new ways."

Technology isn't the problem, said Stonehill. Assembling an enterprisewide network has its difficulties, "but technically, IS people know how to do it." Organizational problems the impact of information on organizations and their management— "those are the key questions we are looking at in our planning."

Computing professionals, Stonehill continued, know little about doing what libraries have done since the Great Library of Alexandria 2,000 years ago, which is "to assemble in"We have a potential to acquire and organize information in response to individual issues and questions," he continued. "The closer we get to understanding an individual's learning and research process, the more we start acting like librarians."

Newman and Bateman referred to another organizational principle behind their efforts to rebuild the White House's infrastructure. Newman said her staff is attempting to construct an organization that "reflects the president's approach to managing government." But, she added, they must also remember that the presidency as an institution transcends the personal requirements of the individual office-holder. "We not only have to think about our needs today," Bateman agreed, "but the needs of those who come after us."

Computers have become a "fundamental part of our daily life here," said Newman. "The world moves too fast and has become too small to try to manage information and make timely decisions without them. I doubt whether we could do our job well on behalf of the president without [them]."

Most of the president's senior officials must agree with Newman. Out

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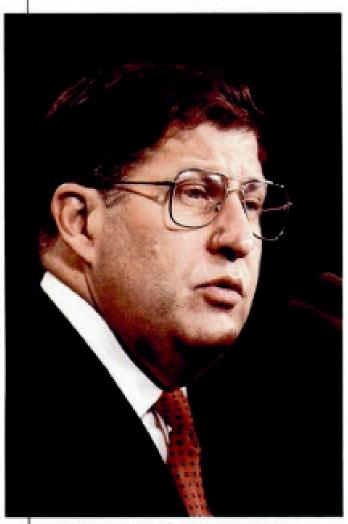
formation to answer a simple question. What should the budget be for this agency? What are all the factors bearing on the political scene in a faraway country? It's a very complex information environment. of a total White House staff of 380, Stonehill said, there are approximately 200 computer users in the White House proper, including senior staff (assistants, deputy assistants and special assistants to the presi-

DTD BY DIRCK HALSTEAD/GAMMA LIAISON

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dent), and their support staffs.

White House Chief of Staff John Sununu, to whom Newman reports, is one high-level official who takes a strong interest in the technology itself. Before entering politics, the for-



JOHN SUNUNU: technology enthusiast

mer New Hampshire governor had been dean of engineering at Tufts University. Newman described him as "a very sophisticated and enthusiastic user of technology."

But while the White House employs "all of the tools of modern-day technology," said Newman, nothing that was discussed is a preview of the 21st century. Technologically speaking, the White House is attempting to catch up with the times. It's worth noting that in doing so, the EOP must follow the U.S. General Services Administration's federal procurement procedures like any other government agency. "We don't have the luxury the private sector has of choosing what [we] want and just buying it," said Bateman. "We have to follow very clear and specific statutory and federal guidelines."

Standardization is an important part of the White House's IS plans. "We are looking at ways to provide cooperative processing," said Stonehill. Word processing would be run on personal computers while file storage, distribution and electronic mail would become "functions of the central machines." Stonehill hopes to move away from the three E-mail directories now in place in the EOP to a "coherent" E-mail system that can be integrated with PCs and WordPerfect. The PROFS system now in use, which became famous during the Iran-Contra scandal, is being discarded. Stonehill said that it "sort of presumes an IBM DisplayWriter base," which is also being abandoned.

Weaning high-powered officials from familiar software to new standards may be difficult in a place where, as Bateman put it, "the urgent pushes aside the important." Up to now, Stonehill's office has supported whatever programs White House staffers preferred. But Stonehill plans to make WordPerfect the only document-interchange standard for transmitting text. Support-such as training, PC configuration and PC consulting-will only be offered for WordPerfect. By and large, said Stonehill, this carrot-and-stick approach to standardization is working.

Executive information systems and management decision-support systems have yet to come to the White House. There is no system in place to help the president and his staff frame issues, set deadlines, coordinate work and ultimately analyze findings and draw up policy. "We have an eye to those types of systems," Bateman said, "[but they] fall into the category of things we are looking into in the out years. They will take a great deal of planning on our part."

white House staffers receive a small forest's worth of paper every day in the form of news summaries and government reports. Now Stonehill's staff is creating an online system that allows officials "one-stop shopping" for "basic, real-time information" at their desktop computers. The system includes the AP and UPI news wires, reports on the financial markets, and updates on Capitol Hill activity. "We are still shopping for [information] services to bring online," Bateman said.

"We are trying to figure out which ones are most useful to our decisionmakers," added Stonehill.

The EOP's systems can also download certain databases maintained by other government agencies into the White House computers. Bateman declined to say which agencies.

Altogether, White House technology tends to run on the conservative

TECHNICAL PROFILE

The Executive Office of the President

(EOP) not only comprises the White House itself, but a dozen other non-Cabinet organizations reporting to the president, including the Office of the Vice President, the Office of Management and Budget, the National Security Council, and the National Space Council. All told, the EOP employs approximately 1,750 people. Except for the National Security Council, which maintains its own computer systems, all of the organizations under the EOP are served by the computers operated by the EOP's Office of Administration. The president and his staff are currently supported by an amalgam of

side. "We try not to be experimental here. We have to live with a zero margin for error." But the White House does have systems that, while not experimental, are certainly out of the ordinary.

The Office of Management and Budget, which is responsible for drawing up the White House's trillion dollar-plus federal budget proposals, employs powerful budget-analysis,

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PRESIDENT BUSH: Unlike some predecessors, "a very hands-on, proactive user of technology," said Newman.

modeling and forecasting systems and econometric modeling systems. They go back to David Stockman's time as OMB director in the early 1980s, but have been further developed. The EOP employs IBM 3083 and 3081 mainframes as hosts; they run MODEL 204 (M204), a software package by Computer Corporation of America based in Cambridge, Mass., that is normally used as a commercial database.

According to Stonehill, the White House uses M204 "more as an application to support analyses demanded by OMB than as a common database." Stonehill first described it as a gigantic spreadsheet of tremendous complexity, but found that to be too trivial a description. Rather, he said, it is an econometric model.

According to Newman, communications links have recently been set up between the federal agencies and the systems used by the OMB. Now there is "little paper flow from one agency to another during the budget process," she said. Not only does this cut the time it takes to draw up the budget, but it permits "a much deeper analysis to take place [using] a higher quality of information."

Some White House systems, of course, are not open to public scrutiny. There is the question of maintaining data security, especially where classified information is involved. Such information is segregated onto an entirely separate computer network. The National Security Council, even in the aftermath of the Iran-Contra affair, remains the only part of the EOP with its own separate computer system. "The principle is: If you can't be connected to it, you can't get at it," said Stonehill. Further than that, the EOP's IS managers would not go. As Bateman put it, "The best security is the security we don't talk about." তেতা

communications networks, personal computers, mainframe hosts and departmental minicomputers. The applications used dayin and day-out by most White House officials are PC-based.

The following is a partial list of equipment used by the EOP; many systems were not divulged for security reasons.

Large and mid-range systems: The EOP employs IBM Corp. 3083 and 3081 mainframes as hosts and uses both IBM 9370s and Digital Equipment Corp. VAX minicomputers.

End-user systems: While the White House is preparing to standardize on the IBM PS/ 2-55SX, most senior officials now use IBM AT or AT-compatible PCs. Microcomputers

from other manufacturers are also in use— Assistant to the President for Management and Administration J. Bonnie Newman uses a GRiD laptop, and White House Chief of Staff John Sununu uses a Compaq '386. (IBM DisplayWriters, mainstays during the Reagan years, are being discarded.)

Software: The White House's mainframe hosts run M204, a software package by Computer Corporation of America. Word-Perfect is now the standard word-processing package. Lotus 1-2-3 is used by many "as a communication and what-if medium," said David L. Stonehill, director of the EOP's Information Resources Management Division. Stonehill's staff is now looking at literature-search, context-search, and presentation-graphics packages.