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## PANEL — THE ISSUE OF DEDICATED AND SHARED SYSTEMS

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The issue of dedicated versus shared computer systems in criminal justice is being debated, frequently passionately, across the country. We would probably all agree that the discussion of the issue is frequently producing more heat than light.

There are many aspects of this problem which must be considered by all of us if we are to arrive at a reasonable solution. We all recognize that our own parochial interests play a part in this, but we are at a point where solutions *must* be developed, as was pointed out yesterday by Congressman Wiggins and Mr. Velde.

Our panelists will attempt to address many aspects of the problem this afternoon. *They are not going to debate*, but rather to put before you some of the views currently prevalent, and hopefully generate some reasoned inputs from the audience.

It is doubtful that we can resolve issues here today, but perhaps we can, by openly reviewing concepts, viewpoints, and real problems, determine how best to proceed to solve the problem. Obviously, a major issue such as this deserves a systematic approach toward its solution.

I submit to you, therefore, that if the systems professionals — including all of us here — do not soon arrive at *workable* solution steps — then the solution will be dictated to us by whomever we abdicate our responsibility to.

All is not gloomy, however. As you've noted in several of the papers presented today, both shared *and* dedicated systems are in being in various locations. Perhaps we can have some enlightening inputs this afternoon from people who have been over the path of implementing such systems.



## **PANEL — THE ISSUE OF DEDICATED AND SHARED SYSTEMS**

### **PANELISTS**

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## THE ISSUE OF DEDICATED AND SHARED SYSTEMS

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Our panel chairmen and the lateness of the hour have taken all the fun out of this. I can think of some times gone by when we have had some real fun and some real table-pounding sessions regarding this subject.

The SEARCH Project published "Technical Report No. 2" which deals primarily with systems' security and individual privacy rights. The previous panel, of course, discussed one of the publications that Dr. Gallati alluded to. It barely touches the hotly contested area of who should own and operate the computer. However, the book has weathered many, many storms since we started committee work on it in 1969 and finally published it in the summer of 1970. It seems so long ago and the subject is still stirring around.

In this book one of the things that was printed and alluded to as sort of a guide (not God, but a guide) was the rule of access and the use of system data. I'm going to make a direct quote here:

"Direct access to the system should continue to be restricted to public agencies which perform as their principal function, crime prevention, apprehension, adjudication, or rehabilitation of (criminal) offenders.

And secondly, In order to limit access, the following restrictions should be made:

- a. Participating states should limit closely the number of terminals within their jurisdiction to those they can effectively supervise.
- b. Each participating state should build its data system around a central computer, through which each inquiry must pass for screening and verification. The configuration and operation of the center should provide for the integrity of the data base.

And thirdly, Participating agencies should be instructed that their rights to direct access encompass only requests reasonably connected with their criminal justice responsibilities."

We further found after terribly long hours of heated debate that the system should remain fully independent of non-criminal justice data systems and should be exclusively dedicated to the service of the criminal justice community.

Recently introduced legislation, which has been referenced several times in the last couple of days, in the United States Senate, has a bill provision to the effect that all criminal justice information systems funded in all or in part of the Law Enforcement Assistance Administration be dedicated to law enforcement purposes and be under the direct management and control of a law enforce-

ment agency. LEAA didn't draft that bill. The FBI didn't draft that bill. SEARCH didn't draft that bill. The bill sponsors and their research staff did their home work and studied the many resources for information on this subject. The man with the keys to the computer and its operating personnel has power. We can use little subtle phrases, nice phrases to say other things, but the truth is: he has power.

Now, should one administrator have tax billing, water billing, revenue producing systems, highway engineering calculations, in every conceivable computerized operation in the state under his control, or not? This question is so fraught with political and emotional implication it has completely obliterated rational communication in many quarters today. I feel quite strongly about this subject and when I was a little younger and perhaps a little less able to believe I could be wrong about anything I took a position on, I would probably be pounding on the table about it to prove I knew the bills proposed were dead wrong; and I think some of you who have known me a good many years know that that is the truth. Today I have mellowed considerably and I have found that the world works with compromise all the time. It's the only way we get anything done at home or any place else; somebody has to make a decision, sooner or later, whether it is right or wrong, we can move on.

Today I am going to take a position of dedication to the criminal justice system rather than to a strong dedicated criminal justice computer. I don't want to get into an "Agnew-type" controversy about the fairness of the news media but I will state that many computer-oriented publications have taken a stand that appears to be opposite my "conservative policeman" type stands on many issues regarding the present subject matter. On many occasions I have been opposed to some stands taken by the editors of *Computerworld*. I know we've got *Computerworld* personnel in the audience today. Yet, in January this year they stated in a full column editorial that they are in full disagreement with the concept of centralized data processing facilities; i.e. the criminal history records being managed by consolidated systems people. They agreed emphatically with the late J. Edgar Hoover's contention that law enforcement or criminal justice agencies are held responsible for the confidentiality of information and the computerized version of their criminal records; there-

fore, they should exercise full management control over the system. Earlier I mentioned concern over the dedication rather than the dedicated system. Our personal observation over the years has been that the revenue production, payroll generation, and other types of administrative functions seem to take a priority over the management and the operational needs of the police and the courts.

I want to conclude this in just a minute but I feel strongly about a subject I heard a few days ago, and I must relate this to you. I don't feel as if I have the liberty and the license to reveal the state — but in a major State, an industrialized State in this country, a state police chief told a gathering in Washington a few days ago that he couldn't get service from the State data processing section. There are 1700 programs ahead of him! The policemen doing the dirty work on the dark deserted streets or lonely stretches of the highway need tools to function properly all day long and all night long. They don't take their leisure when you and I do. A court administrator, who is taking more and

more heat today trying to get the courts unplugged, needs to have management data "real time," not "some time." Sheer bulk of management problems gives similar headaches to the corrections people.

The price of small effective systems today puts computers into the economic ball park of all states, no matter how restricted they are for resources. Maybe one of the reasons they are poor is because they aren't effectively doing the job they are commissioned to do, and the use of a small computer system consolidating the data and resources of their criminal justice community would actually effect great economies or at least level off their budget in this area.

I'm for total dedication to a consolidated system servicing the criminal justice community, and for the business functions of the State being done in a business-oriented government data center elsewhere. I do not advocate the integration of criminal justice matters with other government business.

# THE ISSUE OF DEDICATED AND SHARED SYSTEMS

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## INTRODUCTION

My position is one of shared computer systems as opposed to dedicated computer systems. The person who invited me to speak pointed out that I would be the only person on the panel appearing to endorse the shared approach; also the only panelist to speak for courts and corrections as well as for law enforcement; and further, the only panelist to represent the regional, county and municipal input. Well, I thought that was a very nice blank check to be given, but some eavesdropping cynic quickly pointed out that I had just been given enough rope.

## BACKGROUND

However, as I have listened to the speakers over a period of time, especially on the first day, I became quite comfortable. Although the panelists may not support the position I do, I feel that many of the prior speakers have. Perhaps my function is more to summarize and to bring into focus some of the view points that have already been presented.

More specifically, Charles Wiggins, the keynote speaker, recognized the need for sharing data. However, he stated that management control must be exercised by law enforcement; but also stated that access would be by law enforcement and criminal justice agencies. I think this is a fairly accurate paraphrase. Here we have an encounter with a terminology problem -- perhaps with more than just a terminology problem. Many people interpret law enforcement as meaning a police agency. Other people interpret law enforcement agencies as meaning the prosecution, sometimes the defense, the adjudications and the corrections people. I would suggest that when you study the issue of shared vs. dedicated systems, and when you hear people speak about management control that you listen closely to whether they say law enforcement management control or criminal justice management control. And, if it is criminal justice control, attempt to ascertain what agencies they might be talking about.

Paul Wormeli spoke on SEARCH's "Identity Crises." I would suggest that on this panel we are

discussing one of the identity crises of SEARCH. I am addressing, not the Federal position on dedicated systems or shared systems, nor the State position. I am addressing the local input. I would suggest that local input to the SEARCH and to NCIC has been minimal considering the overall efforts to date. Paul referenced Toyfler's book on *Future Shock* and its discussion of Adhocracy and it seemed to shock the future out of Pete Velde. Mr. Velde went on and indicated the basic control lies with the State and its locality which I interpret as municipalities and regional government. He also pointed out that Shared vs. Dedicated Systems is a luxury we can no longer afford. He probably looked ahead on the program because he did suggest that we sit down immediately and discuss this issue hoping that a compromise could be reached.

Thomas J. Madden also raised the issue of Shared vs. Dedicated Systems referring to his *National Goals and Standards* publication, which is expected in the spring of next year.

Charles Friel stated that the traditional approach can never tell you just what, where, when, who and what is happening; however, all agencies should be involved in the situation.

Ron Beatty pointed out in one of his retirement speeches (I am sure, knowing Ron, we will have many retirement speeches from him) that the utilization is the whole issue. Who is going to use this type of data? In referencing "Utilization" I think he was talking about the combined "OBTS-CCH" approach.

Donald F. King pointed out that cities and counties must be included in OBTS; that fundamentally the system of justice is for the locals to manage.

George E. Hall endorsed the CCH-OBTS combined approach. He also referenced crime and delinquency, which is one of the first times during this symposium that we have heard delinquency mentioned. In Los Angeles, we are developing a combination system addressing the adult felon, minor misdemeanors, and juveniles. Further, George also recognized that it is the local government's problem to address.

Now I know that I have paraphrased speakers in such a way that it fits my particular context. I hope that any speaker will take issue with me if I haven't been fair to him.

## SPECTRUM OF PARTICIPATION

My basic position is that the Dedicated vs. Shared Systems topic is very inappropriate. I do not believe that this is a *binary* issue, but rather is one of a spectrum of participation regarding a spectrum of ingredients. There are a set of alternatives beyond the two choices of "dedicated" or "shared." This is but one issue in a set of security and privacy issues. And the security and privacy issues are but one set of issues relative to the improvement of justice. We should not lose perspective of this technological issue in perhaps compromising our overall strategy for improving the system of justice.

## DISCUSSION OF THE ISSUES

I'd next like to, very briefly, cover what are the real issues and what might be some hidden agendas or tangential arguments. Perhaps in the question and answer time we might be able to address what are some suggestions or what might be a strategy for addressing the issue. Someone pointed out that California was a very rich state and that if any place in the country can afford a dedicated computer system at the local level it is in the Los Angeles area. Yet we have not taken a purely dedicated approach. We are taking a shared approach, as opposed to a *strictly* dedicated approach. Actually, it is an economic compromise; various things are shared; various things are dedicated. I would also point out that the two biggest cities in the county have justice applications that are non-dedicated computer systems right now according to what I believe is the current NCIC interpretation.

I would point out that when we talk about dedicated vs. shared computer systems much of the talk is centered around the computer criminal history. As if we all don't know, there are many, many other applications. You have only to appreciate the many functions of the system of justice to realize the number of other computer applications: booking, intake investigation, complaint, petition, arraignment, detention hearing, preliminary hearing, indictment, arraignment, trial, adjudication, sentence disposition. In following the case-following approach, probation is not at the tail end of the system. Probation is involved throughout that system, not only for juveniles but also for adults. The prosecutor is involved throughout the system. The court is very much interested in receiving disposition data back, as is law enforcement. The justice agencies have many applications underway throughout the United States besides the

criminal history effort. Making a "shared vs. dedicated" decision based on one area of computer application may unnecessarily limit our options in other areas.

We in Los Angeles look at the state as being responsible for maintaining offender history but do not look at the state's self-imposed constraints as being necessarily beneficial at the local level regarding the issue of Shared vs. Dedicated Systems. It may sound a little pedantic to point out that crime in the street occurs within the city limits, the parish, and the county borders; that local elected officials have as their responsibility the solution of the problems of their electorate. Crime is one of their problems to solve. To inhibit local government by undue constraints having a financial impact appears at this time to be unnecessary.

In way of providing a perspective in the overall issue of "Shared vs. Dedicated" systems, this appears to be a security-oriented approach. The security approach has several other aspects besides just the issue of Shared vs. Dedicated systems. There is the approach of disperse and confound, which is very much a non-dedicated approach; move things around, don't publicize to people where facilities are. Another approach is encode, incript, and camouflage. Take the name off the building is one of the simplest forms. To insure, having somebody else to do the work for you, is yet another security measure. The fortress approach was discussed by the man from Scotland Yard who pointed out they have a very secure installation today. There are many other approaches for the security of the system rather than dedicating it under the management control of a single organization within the many organizations at the local level. There are also many information priorities, improved crime reporting, arrest and disposition data, sentencing and disparity and correction programs. In maintaining a perspective on this issue of Dedicated vs. Shared computer systems, remember that to improve one part of the system, law enforcement and/or the police agencies, is to unbalance the entire system, that to improve the system of justice we need to improve the overall system. All justice agencies should be involved in the management of mutually dependent systems.

What is the real issue? I think the real issue could be addressed by trying to answer the question, "What is the objective of a dedicated computer system at the local level?" Some of the tangential arguments against sharing are specious and get the people off the track of what are the real issues in the Shared vs. Dedicated. We are not



talking about a national data bank. I haven't heard anyone advocating this except one gentleman from the audience. The argument of using property files and local data is not an essential argument to deciding whether we should have Shared or Dedicated computer systems at the local level. Response time is a function of hardware and software, not a function of dedication. Frequently we hear that law enforcement is not getting enough service. Miss-set priorities giving a law enforcement poor service is a management problem that will not be solved by resolving the Shared vs. Dedicated computer systems question.

Asking for an effective cost benefit analysis is a very germane question to ask, although some

people think that is inappropriate. Your local legislators as well as state and Federal people are going to ask you, "How much does everything cost? Is there a way to reduce costs?"

## SUMMARY

In summary, I would suggest first define the objectives of a criminal history system relative to other applications; then generate the solutions, one of which may be the Shared or the Dedicated approach. Then adopt one particular approach or, perhaps, a spectrum of approaches from a spectrum of participation.



## THE ISSUE OF DEDICATED AND SHARED SYSTEMS

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For those of you who don't quite understand what my title means, I am a State DP Czar, or at least that's what some people call me. In addition, I also represent Kansas on the National Association for State Information Systems, (NASIS), which is a counterpart to SEARCH in the area of general information systems for the States. As a matter of fact, when I was first appointed to SEARCH, because of my prior association with NASIS I felt a little bit like somebody's ugly, unmarried sister at a party for swingers. I didn't know if I really belonged, but I was sure that I was having some impact.

As everyone who knows me is aware, I have two abiding interests: one is in privacy and security and the other is in getting rid of the question of dedicated computers. With respect to the former, I think that Project SEARCH and, in particular the Privacy and Security Committee, is to be commended. The four documents that have been produced by SEARCH represent the most substantial work available anywhere in identifying significant issues in confidentiality and security areas, and I would highly recommend them to you.

There are really three separate issues involved: privacy, confidentiality and security. These questions, in turn, lead into the subject of dedicated and non-dedicated systems. But privacy is largely outside this discussion, since privacy has to do with whether or not you collect the information in the first place. Given that you don't collect it, it cannot be mishandled, but given that it is collected, Murphy's law holds with information as it does with other things. Confidentiality and security, on the other hand, deal with the issues of once having collected information (1) who is allowed to use it (confidentiality) and (2) how do you protect it from improper access or loss (security).

The rules that are proposed by the NCIC Advisory Policy Board really deal with confidentiality and security. There are *two requirements particularly important to the discussion of dedicated vs. shared computers: (1) that equipment, personnel, and facilities must be dedicated to the criminal justice system and (2) that management control — the ability to hire and fire personnel — be vested in a criminal justice agency.* Of the two,

the latter seems to be the most important, since in those instances where people have been disallowed access to computerized criminal histories, lack of management control by criminal justice has been the principal stated reason. However, I feel strongly that the questions of dedicated systems and management control (especially as defined by NCIC) are really overly simplified approaches to a very complex management and technical question. In fact, if we are not careful, the software and hardware technology may do us out of a good fight. It appears likely that we may be able to develop what I call a Virtually Dedicated System, to which I will not attach an acronym. (We won't explore virtually dedicated systems here. They may be the ultimate answer, but I haven't yet been able to put their definition in terms that the FBI will rule on).

As a member of the administrative arm, as contrasted to a representative of a functional group in the criminal justice area, I try to point out in discussions such as this that many people, including governors, budget officers and legislators, still consider criminal justice as an integral part of government and not a fourth separate branch. And I also try to stress that those of us in NASIS are not unaware of the problem of security and privacy. In fact, we have many extremely sensitive areas: in revenue, in welfare, in employment data, and in civil rights to name but a few. Nor are we insensitive to the problems of service or responsiveness.

Oftentimes when we get into discussions regarding who should do what to whom, we end up comparing our ideals with somebody else's practice. We say on the one hand if we have control it is going to be great, but on the other hand, look what a terrible job that guy with the Model 20 and two keypunch operators did running the central service bureau. I once asked a friend of mine who was opposed to shared computers how many times someone who had a computer ever came up and explained what a crummy job he was doing in his own data processing shop. I think the unwillingness to look critically at ourselves explains in many respects why the questions get so heated. Having tried to work on both sides of that counter, I recognize how difficult it can be to be fair, but on the other hand, I also observe that there are very few large police agencies which will allow the patrol division or the records division or any other

individual division to have its own computer system.

You might ask, considering all the questions which have been raised over whether anyone else can really service an operational group, "Isn't that imposing a shared approach?" To which the answer would be, "Yes! We can't afford everyone's having his own." Well, state and local government administrators feel the same way. They must be shown why they cannot share their expensive computer resources for the good of all agencies as long as they meet the security requirements.

Along that line, there are some basic questions that we administrators have:

1. Is criminal justice data more sensitive than other kinds of data? (e.g., income tax, employment security, welfare?)
2. Where do you draw the line between criminal justice and non-criminal justice systems? For example, how much highway safety should be included in a criminal justice system, or how much civil justice has to be included in any court system? Some court administrators say; if you are not going to help me with civil cases, don't help me with the criminal justice portion alone, because I cannot afford to run two systems.
3. Are the current NCIC rules consistent with the most economical, efficient, and responsive solution to today's and tomorrow's technology? To paraphrase Jerris Leonard in a recent letter, does dedication insure privacy and security? Does management control? Can a system be self-policing? If your

real concerns are confidentiality and security then you are probably better off putting everything in a shared environment with a lot of people watching it than you are by putting it in a dedicated environment behind lock and key and assuming that the problem will go away. Additionally, we must deal with the most serious problems first, namely, the terminal and terminal operator. A number of people have admitted that in the NCIC/CCH System security and confidentiality starts with the terminal and the terminal users. The terminal presents by far the greatest opportunity for breakdowns in the systems security.

4. Is NCIC policy being used to frustrate the organizational goals of local government in general? This question is often part of the hidden agenda at meetings such as this. It would be nice to help our friends have their own computer systems but that's not the function of national rules and regulations nor does it go unnoticed at home.
5. Is giving data to a third party equivalent to giving it away? It has been said that there is a difference in interstate transmission of criminal history over other systems because we are sharing our data with someone we don't know or trust. However, other Federal agencies who deal with consolidated or centralized data processing operations don't seem to feel this way. They hold the agency to whom they gave that information responsible, but the owner can process it as he pleases as long as he insures that the basic guidelines are met.

In the last half dozen years, I have been convinced that other branches of government are every bit as serious as law enforcement about security and privacy; the question is whether or not we all, including those in criminal justice, can come to believe that.

## THE ISSUE OF DEDICATED AND SHARED SYSTEMS

Scott W. Hovey, Jr.  
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Last summer a gentleman approached me at a state meeting in Jefferson City. He was obviously a government sort, probably from the Highway Department, and he asked me for my views on shared vs. dedicated systems. I was very quick to point out that criminal justice agencies ought to have their own system in order to preserve privacy, and to retain control over their information data base, etc. He looked a bit skeptical at first, but finally nodded in agreement and said, "Yes, I guess you're right. I'm with the Supreme Court and we are presently debating having our own system independent from your police system."

I think most people here are quite familiar with the arguments for and against shared systems and I'll wager that many of you have used both arguments on different occasions, depending on just whose system was at stake. It is a little more difficult to take a position in the abstract. Nevertheless I believe in dedicated systems over shared systems in almost all instances. My reasons are privacy and certain inevitable events.

Alan F. Westin has written considerably about privacy. His *Privacy and Freedom* is probably the best scholarly work on the different types of privacy. In it he tells about the need for individuals to have privacy in order to drop their public image, to relax, and to be themselves without having to put up a public front. He also identifies the need of privacy for free association and discussion with other individuals, and the individual's right to control the disclosure of information about himself. A little further on Westin talks about the need of privacy for organizations, both private and public organizations. He observes, and I very much agree, that the same privacy requirements are necessary for organizations as well as for individuals — the right to have other than the public self, the right to control disclosure, etc.

I think Larry Beddome stated the problem very succinctly when he noted that computers represent power. I believe that the capabilities of a dedicated system should exist at every level of government. By a dedicated system I mean the ability to sort, retrieve, manipulate, and communicate information without operational dependency upon any

other governmental organization with, perhaps, the exception of IBM or AT&T.

I predicate the development of dedicated rather than shared systems on several things that will come to pass. One of them is organizational. It is the disappearance of agency heads and administrators who prefer, or are willing, to leave computers and "all of that technical stuff" to data processing specialists or computer "czars." There has been a long-standing conspiracy between governmental heads and ambitious "technicrats" such as myself and my peers. The administrators, in fear of technology, have been overly quick to say "All that technical stuff is too complicated for me. You take care of it." And we have been overly quick to oblige with the knowledge that computer support for any function will be increasingly important and a centralized data processing organization will become increasingly powerful. I believe that this is going to pass. The ability to manipulate information for internal purposes is going to be so vital to every organizational level that it is going to get its own data processing capability. The data center with overly centralized systems control will disappear and the pure information system specialist will also disappear much like the letter writers in ancient Egypt who wrote for the illiterate.

The other conditions for widespread dedicated systems are technical in nature and rapidly approaching. One is a marked decrease in the cost of information systems and software. A second is an increased ability by small systems to access bulk disinterested processing power on a utility basis. By disinterested, I mean something comparable to a commercial time sharing system or service bureau. The third is the development of the necessary standards, communication procedures, and equipment for providing secure authorized dial-up interface to data banks of privileged information.

With respect to the present world where money and information processing skills aren't as available as we would have them, the issue is criminal history and access to it over shared or dedicated criminal justice computer systems. This goes right back to the issue of privacy and the rights of individuals and organizations to control the disclosure of information. There are a lot of criminal history records that were provided to the federal government by the states on the assumption that they would be used solely for criminal justice pur-

poses and remain under the control of criminal justice agencies. As Director Plants of the Michigan State Police has put it, "I don't care what Kansas or California does with its own criminal history records, but we are talking about criminal histories of Michigan citizens collected on the assumption

that they would only be accessible to criminal justice personnel. We want to keep it that way." I agree with Director Plants but also see the restrictive policy as another step in the proper move to dedicated systems.



**END**