Electronic supervision technologies are information-gathering tools that can enhance supervision of defendants and offenders in the community. Before implementing electronic supervision, it is important to understand that the potential of such technologies is best realized when used as a supplement to existing programs and that the chosen system must be congruent with the agency’s values, vision and mission to achieve optimal success.

Agency Needs

Electronic supervision can be flexible and used in many ways, for example, to enhance public and victim safety, hold offenders accountable, foster offender behavior changes, reduce jail or prison populations, and provide correctional services economically. A needs and resource assessment process should examine the entire system to determine how electronic supervision would be most beneficial. Electronic supervision strategies may be appropriate at several points within the criminal and juvenile justice systems and for different classes of offenders. The assessment also should review the available technologies to determine which form of electronic supervision might be most useful.

Legal Issues

The legal status of those who may be supervised with electronic technologies must be distinguished to plan appropriate program goals, strategies and responses to violations. Prior to trial and adjudication, defendants are considered legally innocent and their rights are protected from the power of the state, although they may be confined to ensure their appearance for trial or to protect the public. Supervision with electronic technology may be substituted for pretrial confinement to achieve these same purposes. After adjudication, electronic supervision may be used for offender punishment, rehabilitation and public safety. Further, policies and procedures that protect offenders’ due process rights must be in place before anyone can be deprived of his or her freedom. As with other types of technology used in criminal justice cases, the technology must be accurate and meet scientific standards acceptable to the courts. Should a revocation be based solely on the technological evidence, the methodology used must have a high degree of accuracy. Because of these issues, it is important that all parties set clear program goals. “The rules and expectations for the offender are usually clearly defined and confirmed by the offender as understood and agreed to, minimizing the potential for disputes during [supervision],” says Eric Hanselman of Tracking Systems Corp. in Harrisburg, Pa.

Available Tools

Several technologies are available to provide information that can help achieve a variety of offender supervision goals. Automated reporting systems may be most effective with low-risk, low-need offenders to simplify and streamline the supervision process while still holding offenders accountable. Automated reporting can be done using a telephone or computerized reporting system and is useful in that the offender’s identity and location can be recorded at the time of the report. This and other less restrictive supervision techniques can be used as rewards for offenders who have been in consistent compliance throughout their supervision.

Identity verification devices can range from personal identification numbers to biometric verification that recognizes different parts of the human body to ensure the reporting person is the intended offender.

Remote alcohol detection devices operate in a similar fashion to a breathalyzer. Users are required to blow into the device, which is usually in the offender’s home, to measure blood alcohol content. When prompted, users must blow into the device for a long enough period of time to ensure that deep lung air is expelled. The results are recorded by a computer to determine compliance with conditions of no alcohol.

Ignition interlock devices are linked to the electrical systems of automobiles and also operate in a similar fashion to a breathalyzer. The driver must expel deep lung air into the device to operate the vehicle. If the driver’s blood alcohol content is registered above a predetermined level deemed unsafe to drive, the vehicle will not start. This type of electronic supervision allows offenders to participate in society while reducing their risk of driving while intoxicated.

Programmed contact systems or automated calling systems are some of the most widely used types of electronic supervision tools; however, they do not all work the same way. Although a wide variety of technologies are involved, programmed contact systems are all used to contact and verify the location of offenders in their homes or elsewhere. They may be used with offenders who are placed on home monitoring and must stay at home virtually all the time or they may be used for offenders who are restricted to their homes at various times but can come and go for approved activities. The backbone of these systems is a central computer that either receives telephone calls.
from or makes calls to offenders in one or more locations.

Continuous signaling devices are battery-powered and transmit a radio signal two or more times per minute. These are placed on the offender’s wrist or ankle with a tamper-resistant strap, and must be worn at all times. All manufacturers should incorporate tamper-resistant and alert features in their transmitters. A receiver should be installed in the offender’s home and attached to the telephone. The receiver detects the transmitter’s signals and conveys a message via telephone report to a central computer when it either stops receiving the radio frequency or the signal resumes. Receivers can detect transmitter signals from a range of up to, and in some cases, exceeding, 150 feet when installed in a typical home environment. Receivers should have tamper-resistant features to prevent offenders from moving or disabling them.

Victim alert/notification systems are most often used for domestic violence victims. This type of system alerts the victim when the offender is approaching his or her residence. A variation of the continuously signaling devices has been developed for victim alert and notification and offender compliance with stay-away orders. A transmitter is worn by both the offender and the victim and a receiver is placed at both residences. If the offender approaches the victim’s home, the system will alert the victim.

Field monitoring devices, or “drive-by” units, are another type of continuous signaling technology. Probation or parole officers or other authorities use a portable device that can be hand-held or used in a vehicle with a roof-mounted antenna. When within 200 to 800 feet of an offender’s ankle or wrist transmitter, the portable device can detect the radio signals of the offender’s transmitter.

Group monitoring units allow supervisors to monitor several offenders in the same location, such as for verifying attendance of multiple offenders in a day-reporting program or monitoring offenders confined in a residential group setting. Each offender in a group setting wears a transmitter to allow for electronic supervision by a stationary or portable receiver unit.

Location tracking systems, also known as global positioning systems, use 24 satellites orbiting the Earth and are among the most complex electronic monitoring systems. The hardware for this system consists of a transmitter worn by the offender, a portable tracking device that the offender must carry or be near at all times, and a charging unit for the portable tracking device that remains in the offender’s home. Receivers detect satellite signals that include the exact time the signal is sent and the identity of the satellite sending the signal. This information is processed to determine the person’s location. This more expensive technology typically is used for high-risk offenders. It can determine when an offender leaves an area where he or she is supposed to be (inclusion zone) or enters an area where he or she is not allowed to be (exclusion zone).

Using the Information

Although planning to use electronic supervision tools is a multifaceted and detailed effort, its effectiveness will be measured after implementation. As such, the human element in the implementation of an electronic supervision system should not be downplayed. Technology’s role is to generate information; the decision-maker is the one who must decide how that information will be used. Sound decisions must be made based on information gathered by these systems. Without sound policy and decision-making, information gathered from such systems is of minimal value.

“Electronic monitoring is just a supervision tool and in no way replaces the supervising officer,” says Hanselman. “If an electronic monitoring program does not have clear goals, if the supervising officer’s caseload is too large to permit proper analysis of electronic monitoring data or if sanctions for non-compliance are not defined, readily available and implemented when necessary, the success of the electronic monitoring program may be lessened.”

The issues in this article were discussed by a 21-member working group of criminal justice professionals and outlined in Offender Supervision With Electronic Technology, a report prepared by the American Probation and Parole Association (APPA) under a cooperative agreement funded by the National Institute of Justice (NIJ). NIJ will publish a summary of the report and APPA will publish the complete report, both of which will be available later this year.

Ann H. Crowe, M.S.S.W., Ed.D., is a project director and research associate for the American Probation and Parole Association (APPA) in Lexington, Ky. She has been the coordinator of APPA’s project on electronic monitoring, which was funded by the National Institute of Justice.