POLICY **4981.1**
(Reviewed 03/11)

The decision to select a particular technological approach must take into account the full range of significant factors which will influence the success of the application during its operational life. These significant factors include:

1. **Statutes, Regulations and Policies**-This factor consists of applicable statutes, regulations and policies which could impact a decision to use information technology.

2. **Agency Management**-This factor includes assessment of the agency's prior experience with information technology and the managerial resources it can bring to bear on the use and control of the technology, i.e., whether the agency has an appropriate management infrastructure and agency personnel possess the necessary qualifications.

3. **Cost**-Applications of information technology must be reviewed in terms of their cost justification. Such review must take into account the potential impact of the application on the overall economy of state operations. Assessment of the costs associated with each technological alternative must cover a sufficient time span to allow for reasonable amortization of start-up costs as well as realization of cost savings and cost avoidance potentials.

4. **Nature of the Application**-This factor encompasses (1) the extent to which the application is critical to the accomplishment of the agency's mission, goals and objectives, (2) the degree of centralization or decentralization required for this activity, (3) the data communication requirements associated with the activity, (4) the characteristics of the data to be collected and processed, i.e., source, volume, volatility, distribution, and security or confidentiality, (5) the urgency of the application, and (6) backup requirements for personnel, software, data and hardware.

5. **Hardware Considerations**-This factor includes review of the alternative hardware configuration options capable of effecting the successful implementation of a given information technology activity. Consideration must be given to (1) compatibility with existing hardware, including telecommunications equipment, (2) physical plant requirements necessary for proper operation of the equipment, (3) hardware maintenance, (4) the knowledge and skills required of state personnel, (5) backup processing capability, and (6) the existing capacity, immediate required capacity and future capacity.

6. **Software Considerations**-This factor includes a review of the software options available to achieve successful implementation of a given information technology activity. Consideration must be given to (1) the compatibility of computer languages with existing and planned activities, (2) maintenance of the proposed software, e.g. vendor-supplied, (3) the urgency of the application, (4) the knowledge and skills required of state personnel, (5) the availability of complete documentation, and (6) the availability of necessary security features.

7. **Interagency Considerations**-This factor includes analyzing the agency's interfaces with other state agencies, or federal or local government. Consideration must be given to compatibility of communications and sharing of data.