

CITY OF ALPENA, MICHIGAN  
STANDARD OPERATING POLICY

SUBJECT: City of Alpena Technology Plan

SOP No.: 34

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Copies to: City Council, Department Heads, And Full-Time Employees

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**PURPOSE:**

The purpose of this policy is to establish guidelines for all City departments to ensure the effective use of City technology and plan for future operations of the City's information systems and role of the Management Information Systems (MIS) Department in supporting these operations.

**STATEMENT OF POLICY:**

Computer-related technology is in a state of constant change. To better manage future change, a clear plan is needed for the City of Alpena. This document, the City of Alpena Technology Plan, will function as a plan for internal operations at the City and will be used as a guide to implement strategies to accomplish goals and objectives that correspond with the City of Alpena Vision Statement and the Management Information Systems Department Vision Statement.

The Technology Plan outlines the operations of the MIS department and the computerized systems it supports. The foundation of the plan is to describe the broad standards and the framework of technology used throughout the City of Alpena. The Technology Plan acts as the encompassing guideline for the computer technology used at the City, supported by specific appendices, that details the operations of specific systems. Additionally, the plan, through its appendices, acts as a repository for specific operational processes and procedures that are essential to the continuity of operations. These appendices are constantly evolving documents that will vary in form but will contain valuable operational content.

The Technology Plan is developed to be a concise representation of management information system operations at the City of Alpena. The Technology Plan will attempt to be an effective and up-to-date tool for reference and planning that will assist all departments with their use of technology. The Technology Plan will be maintained and used as a guide for ongoing MIS operations as well as the operations manuals for critical systems and as a disaster recovery plan for all City computer-related technology.

Management Information Systems Department Vision Statement

The City of Alpena Management Information Systems (MIS) Department's purpose is to assist and coordinate user/system support and development in the planning, implementation, and administration of

computer and related technology in an effort to assist City staff to effectively accomplish their duties and achieve goals as proposed by the City of Alpena.

### MIS Department Overview

The primary responsibility of the MIS Department is to maintain and administer Citywide computerized systems. Additionally, the MIS Department is responsible for assisting in administration of departmental systems, coordinating and developing cross-departmental efficiencies, and coordinating the City of Alpena Web Site. The goal of the MIS Department is to accomplish its responsibilities by maintaining systems in such a manner to keep systems running efficiently and productively. The MIS Department will accomplish this objective by reducing downtime, implementing stable and effective systems, maintaining security/firewall/antivirus procedures, and investigating streamlining processes for all departments.

MIS staff members are not expected to be experts on every individual work process but can advise users where to search to find specific answers (i.e. manuals, technical support, Internet sites, or user training). MIS staff will be available to advise all City Departments on technical issues such as disaster recovery, security, and computer industry standards. The MIS Department will also contribute technical expertise, as needed, for the administration of non-computer technical equipment such as copiers and telephone systems.

### Current Considerations and Future Outlook

Computer technology will continue to develop and allow for more efficient operations. The City needs to be aware of new technological opportunities that become available and be prepared to implement proven technologies as they become beneficial. Computer systems need to be maintained in an up-to-date manner, which will allow for future progress as needed within the City. The MIS Department is responsible for evaluating and recommending when to implement upgraded or new systems that will maintain or expand the level of service provided by the City. To do this effectively, the MIS Department will monitor technology trends and standards to gauge when new systems mature and are stable enough to be implemented in a way that is advantageous to the City. Consideration for future features and requirements of hardware systems need to focus on areas such as emerging technology trends, connectivity options, and computer hardware for workstation and mobile computing as well as other future alternatives. Consideration for future capabilities and prerequisite hardware for software systems need to focus on areas such as operating systems, office suites (word processing, spreadsheet, database, presentation, e-mail/contact management/calendaring, project management, publishing and web publishing), system integration, and new options for departmental software packages (Clerk, Assessor, Public Safety-Police and Fire, Planning, Engineering, DPW, Building Official).

### Standards

Equipment and software standardization will help maintain consistent operation and ease of administration. Equipment and software technology will continue to change, but general standards used as guidelines will help to relate the direction of the MIS Department to other staff and departments. These standards need to be reviewed regularly and will be updated as specified in *Appendix A*.

## 1. General Standards

Standardization of computer technology for all uses will simplify administration, training, and maintenance. Replacing computer equipment in large logical groups should reduce the total cost of ownership for the equipment over its lifetime.

In some specific cases, computer technology is reaching a level of functionality that decreases the need to upgrade as soon as possible. The main factors for upgrading include manufacturer support and the ability to share information in a common format. Currently, manufacturers are driving hardware and software technology systems' life spans as they introduce new generations of their products. As a general rule, manufacturers provide a new generation of systems approximately every two to three years and provide support for the two most recent releases for their product. When possible the City will attempt, for each system, to skip a generation, which will maximize the investment in each system while maintaining current and supported technology. The skipping of intermediate systems will create an estimated replacement schedule for computer systems with a maximum of six years.

A maximum six-year replacement schedule is used only as a guideline and will vary based on the actual need, perceived benefit, and best fit in the overall scope of the City's computer systems. There are two known exceptions, of the maximum six-year lifespan estimate. First, users who, by nature of their jobs, continually require updates to adequately meet the functional needs of their jobs. This group is known as "Power Users." "Power Users" ideally will need to be upgraded, if possible, as soon as the latest generation of system is available, which would be estimated at a three-year replacement schedule. Classification of "Power Users" will be recommended by the MIS Director and approved by the City Manager for each upgrade based on several characteristics as specified in Policy 3 of the *MIS Standard Operating Procedure* in *Appendix A*. Second, systems deemed "Critical Systems" are normally covered by a maintenance agreement. "Critical Systems" may be City-wide or departmental and shall be listed in the "Critical Systems" and "Dependant Systems" *List* in *Appendix C*. Vendor maintenance agreements normally includes upgrades and expect licensees to keep the software at the most current level. In order to remain current on agreements on "Critical Systems" other "Dependant Systems" may also be required to upgrade within the timeframes specified by the vendor.

## 2. Hardware Standards

PCs are becoming utility appliances that are regularly being replaced in a manner similar to an automobile. In most cases, one PC can be set up and then the image copied throughout the City or specific department. For this reason the purchasing of PCs will be done for as large a group as reasonable to minimize the initial set-up cost and simplify the day-to-day maintenance for the group as a whole.

Computer hardware can usually be replaced with similar devices made by other manufacturers. The City of Alpena will attempt to purchase systems based on lowest price and the greatest

feature set, not a specific brand, except in cases where either the critical nature of the equipment or the standardized administration makes brand preference beneficial to the City. Brands such as IBM and HP are industry benchmarks and best fit the current needs of the City in specific areas. IBM servers will be the standard hardware for all critical systems because of the technical quality and exceptional local support that IBM provides. In order to simplify stocking of supplies and overall administration, printers will be purchased in as large a group as reasonable for their use. In most cases, the City will purchase HP printers because they offer the best selection with standardized administration features for general-purpose printers. Other specific-use printers such as receipt, evidence tag, and AS/400 will be chosen on a case-by-case basis. This brand preference will be reevaluated when necessary as the vendor and technology environment changes.

Brand preferences for all computer technology will be evaluated as new technology emerges and the City's existing equipment requires replacement. An up-to-date replacement schedule (*Appendix A – Replacement Schedule/Targeted Replacement Dates*) will be maintained with targeted replacement dates for key computer equipment. This replacement schedule will assist in planning and budgeting for future needs.

### 3. Software Standards

Software packages are maintained as either Citywide or department-specific. Consideration for either type of software packages includes training cost, purchase cost, maintenance cost, administration requirements, general function and features, interoperability, and overall best fit.

Citywide software is recommended by the MIS Director with the goal to be the most cost-effective software to accomplish the desired purpose as it is used throughout the City. Examples of current software standards are Microsoft Windows Operating System, Microsoft Office Suite, Adobe Acrobat, etc. Citywide software packages are administered and maintained by the MIS Department. Software systems that are deemed critical are listed in the "*Critical Systems*" and "*Dependant Systems*" List of *Appendix C*. Operations manuals for all systems listed in the Critical Systems List will be kept in the Disaster Recovery Plan (*Appendix C – System Operational Documentation*).

Each department will determine its needs for department-specific software with the assistance of MIS staff. The goal is to choose the most cost-effective software to accomplish the desired purpose within the respective department. Department-specific software will be assigned a primary contact or "Grantee" within that department who will coordinate the maintenance of documentation and act as the primary functional support contact for their designated areas. The "Grantee" will have access to advanced features and administrative tools with the specified system. The MIS Department will maintain a list of Grantee's and their responsibilities (*Appendix B – Administrative Grantees*). Departments and "Grantee" will maintain their own operations manuals with up-to-date administration instructions as well as any job-specific information that the department deems as critical in an operations manual that will be included in the Operation and Disaster Recovery Manual (*Appendix C – Critical and Dependant Systems List*).

Training:1. MIS Training

In order to remain current as technology changes, MIS Department staff will need to attend relevant training as often as possible. Involvement in MIS training events such as MAGCU user Group, *cyber-state.org* seminars, and Microsoft curriculum training sessions will assist in core MIS operations. Additional training for more department-specific purposes will be determined on a case-by-case basis.

2. City Staff Training

The MIS Department will be available to assist all City Departments in developing staff training in computer-related topics. All computer-related training needs to be discussed with the MIS Director, before training is sought, in order to provide the most suitable training for City staff as technology changes.

Summary:

The ongoing progress of computer technology makes it difficult to document every aspect of a City-wide Technology Plan. The information in *City of Alpena Technology Plan* shows the overlying principles used, while the specific operational details are maintained through the appendices. The three appendices, *MIS Operations Reporting and Review Process (Appendix A)*, *Departmental Operations Reporting and Review Process (Appendix B)*, and *Operational and Disaster Recovery Manuals (Appendix C)*, will contain a synopsis of each section, the location of original or working copy of the document, and the status of each appendix section. The appendices reference original documents that may be stored in various locations throughout the City. Copies of original documents will be stored in a secure location and will be updated regularly. The Technology Plan and the documents it references will provide a clear plan showing how the City of Alpena intends to maintain continuity of operation while continually progressing to effectively use technology to achieve its vision.

Appendix A: MIS Operations Reporting and Review Process:

The MIS Department and its operation is key in most aspects of the Technology Plan. The MIS Department will coordinate the Technology Plan and oversee that all sections are reviewed on a regular basis. In order to maintain an effective plan, all MIS Departmental operations and review processes are included in this appendix.

1. Computer Usage Policy Statements (CUPS)                      Status-COMLETE

CUPS cover standard use guidelines for all City computers.

- a) Establishment of Computer Usage Policies
- b) Usage Monitoring

- c) User Accounts and Passwords
- d) Authorized Software & Installation
- e) Inappropriate Usage
- f) Intellectual Property
- g) Computer Maintenance
- h) Problems Reports
- i) Email Usage
- j) Internet Usage
- k) Dial-In Access
- l) Dial-out Access & Desktop Faxing
- m) File Storage
  - 1) Acknowledgement of Computer Usage Statements
  - 2) Glossary for computer Usage Policy Statements

2. MIS Standard Operating Procedures Status-IN PROCESS

SOP explains specific operational standards within the MIS Department.

- a) PDA
- b) External Internet Links
- c) Power User Classification

3. Technology Plan Review Process and Schedule Status-NEW

As new developments occur, documentation will need to be maintained to show any new and/or changes to systems at the City. The Technology Plan, as well as other manuals, must be updated. This document will outline a review process and schedule for each.

- a) The City-Wide Critical Systems List
- b) Operational Manuals
- c) Disaster Recovery Manual
- d) Technology Plan.

4. Replacement Schedule/Targeted Replacement Dates Status-ONGOING

MIS Director will maintain a list of hardware and software target replacement dates. The master copy is located on the network in the h:\public\MIS\inv4.mdb database.

5. Annual Goals Status-ONGOING

Annual goals for the MIS Director and MIS Department will be located in the h:\public\MIS\goal\ folder.

6. Capital Improvement Projects and Budget Status-ONGOING

Proposed Capital improvement projects are listed under the MIS Department in the annual *City of Alpena Capital Improvement Plan*; the working copy is available on the h:\public\CIP\CIP.MDB. The approved projects are listed in the *Equipment Fund Summary of the City of Alpena Annual Budget*.

7. Project Status Status-*IN PROCESS*

The MIS Director will maintain a prioritized project status summary list along with individual timelines. The project list and timelines will be updated on an ongoing basis and are located in the h:\public\MIS\ folder.

8. Software and License Inventory Status-*IN PROCESS*

Software and license information will be inventoried, and copies will be maintained in both City Hall and the Public Safety Facility vaults as specified in the *Operational and Disaster Recovery Manual*.

Appendix B: Departmental Operations Reporting and Review Process:

Departmental systems and their documentation will be maintained by their respective departments. This information will be coordinated by the MIS Department with each department submitting copies of their respective sections to be maintained in a central storage location as specified in the *Operational and Disaster Recovery Manual*.

1. System Purpose and Goals Status-NEW

States the purpose and goals of the information system. Expected lifespan and long-term vision of what this system is intended to do need to be included.

2. Departmental Systems Review Process and Schedule Status-NEW

Determined jointly by MIS and respective department schedule for each department to review departmental system and their grantees, critical systems, and operations manuals.

3. System/Project Status Status-NEW

Prioritized list of system issues, upgrades, and target dates for resolution.

4. Administrative Grantees Status-ONGOING

Maintained by MIS Department as determined jointly by the MIS Department and respective department. The master copy is located on the network in the h:\public\MIS\inv4.mdb database.

5. Departmental Report                      Status-*IN PROCESS*

Ongoing summary of operations activities

Appendix C: Operational and Disaster Recovery Manual:                      Status-New

This appendix is a list of critical system operations manuals as well as an initial outline of what type of information should be included in a Disaster Recovery Manual. As the scope of the Disaster Recovery Manual is better defined, these sections will change to better reflect the needs of the City of Alpena.

1. Disaster Plan Objectives and Procedures

A risk assessment will be performed to define the scope of the Disaster Plan Objectives.

2. General Responsibilities

Based on the results of the risk assessment, responsibilities and documentation will be assigned in key areas

3. Operational and System-Wide Responsibilities

Documentation that is required to maintain operation and restore necessary systems

4. Plan Initiation Responsibilities

Defines the formal process as to who and what initiates the Disaster Plan.

- a) Chain of Command
- b) Notification responsibilities

5. “Critical Systems“ and “Dependant Systems” List

Any system, departmental or Citywide, that would hinder operations if it were out of commission should be ranked as to its importance and based effects of the duration of system outage. The listing will also include key system components of hardware, application software and/or data, and dependent system.

6. System Operational Documentation

All systems identified as critical will have operational documentation. All documentation will be maintained so that it can be used as an operational manual as well as an offsite copy as part of disaster procedures.

7. Operations Manuals

Each Operations Manual shall contain:

- a) Backup and restoration procedures
- b) System administrator passwords
- c) License information
- d) Special administration instructions
- e) Work procedures

8. Operations Manuals for Citywide Critical Systems

Network Documentation

- a) Internet
- b) Intranet
- c) Extranet

AS/400

- a) Novell Server
- b) NT Server
- c) Web Site

9. Operations Manuals for Departmental Critical Systems

- a) New World Systems
- b) SAMS
- c) MP2 and DWP Access Database
- d) dBASE IV commonly know as “Bleeping Database”
- e) DDP
- f) BlackBear
- g) Microstation
- h) Field Manager
- i) Firehouse
- j) ETC...

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