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7-1-1999

## Hot Topic: Y2K Preparedness Planning

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*Municipal Technical Advisory Service*

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### Recommended Citation

Darden, Don, "Hot Topic: Y2K Preparedness Planning" (1999). *MTAS Publications: Hot Topics*.  
[https://trace.tennessee.edu/utk\\_mtastop/218](https://trace.tennessee.edu/utk_mtastop/218)

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# Hot Topics for Tennessee cities and towns

July 1, 1999

#46

## Y2K Preparedness Planning

by  
Don J. Darden  
Municipal Management Consultant

The Tennessee General Assembly recently passed a new law that provides a five-year immunity to local governments for any Y2K computer failures, provided that the municipalities have adopted a Y2K preparedness plan.

The law amends *Tennessee Codes Annotated* 29-20-205 and provides immunity to local governments for computer failures, including any that result in injuries if, and only if, the local government has a reasonable Y2K plan. Such plans must be implemented in compliance with generally accepted computer-and information-system design standards. (Design standards apply to a very small number of local governments that develop their own computer systems.)

**To avoid or limit liability, cities must develop and implement a Y2K preparedness plan. With only six months left until Jan. 1, 2000, cities must act now to meet this crucial deadline.**

The following information includes a sample Y2K preparedness plan, complete with examples of the types of information you should include in your plan. A model plan for you to fill out is also included. If your city has already made some preparations, it's a good idea to check your plan against the following steps to ensure that you haven't left anything out.

Plans should be developed using the following steps:

**1. Get Organized.**

- Appoint a Y2K coordinator.
- Enact an ordinance or resolution committing the city's resources to preparing for Y2K and five years beyond.
- Direct each department head to provide information and assistance to the Y2K coordinator.
- Select one employee in each department to work with the Y2K coordinator to develop and implement the plan.

**2. Identify and Inventory Computers and Equipment With Embedded Chips That may be Affected by Y2K.**

Develop a list of equipment, location, date purchased, and vendor's name, address, and telephone number.

Embedded-chips systems are microprocessor-based systems containing one or more chips or microprocessors used to control, monitor, communicate, or operate equipment. Identifying embedded chips can be difficult since many of them are "hidden" inside mechanical devices and are not easily recognized. The easiest way to gather and record information about embedded chips is through a site survey. Survey employees

who are generally the most familiar with equipment and facilities that use embedded systems.

Also, here is a series of questions that can help identify embedded chips:

- Does the device operate with electricity? If yes, look further. If no, the device poses no risk.
- Does it have a battery or power supply? If yes, look further. If no, the device is low-risk.
- Does the device use a calendar or timer to schedule events? If yes, you may have a Year 2000 problem. If no, it is low-risk.

Common examples of uses of embedded systems in water and wastewater treatment: starting and stopping aeration blowers and pump motors, filling storage tanks, cycling of heating and ventilation systems, and monitoring equipment.

Other examples include:

- |                        |                                   |                                |
|------------------------|-----------------------------------|--------------------------------|
| ✓ power stations       | ✓ power grid systems              | ✓ fuel services                |
| ✓ traffic lights       | ✓ signaling systems               | ✓ radar systems                |
| ✓ fire control systems | ✓ heating and air systems         | ✓ lifts, elevators, escalators |
| ✓ door locks           | ✓ safes and vaults                | ✓ telephone exchanges          |
| ✓ cable switches       | ✓ fax machines                    | ✓ copiers                      |
| ✓ mobile telephones    | ✓ still and video cameras         | ✓ credit card systems          |
| ✓ heart defibrillators | ✓ pacemaker monitors              | ✓ X-ray equipment              |
| ✓ street lights        | ✓ electrocardiograph equipment    |                                |
|                        | ✓ automobile diagnostic equipment |                                |

### 3. Assessment of Equipment.

Upon completion of the inventory above, make an assessment of how important the equipment is to your city. There are only three things that a city can do with the equipment: replace it, repair it, or ignore it. It is possible to replace or repair computers, fax machines, or printers. It is difficult and time-consuming to repair embedded chips. If the equipment is critical, it should be replaced; if not, it should be ignored. If the city is replacing or repairing the equipment, determine the cost. If the city is ignoring the equipment, it may be necessary to develop alternative ways to serve the function that was being accomplished with the equipment.

### 4. Test the Equipment.

Test the computers that the city currently owns or operates. Equipment that is replaced or repaired should also be tested. At this stage, the city can confirm Y2K compliance of all hardware using software that is available from computer manufacturing and sales companies. The city will also be able to confirm Y2K compliance of all system software such as Windows 95, Windows 98, UNIX, NetWare, etc.

### 5. Replace or Repair the Equipment.

### 6. Prepare a Contingency Plan.

Despite a city's best effort, equipment can fail. It's in the city's best interest to develop a contingency plan. For example, a local government replaces all of the valves and regulators at the water plant and purchases emergency generators. However, on Jan. 14, 2000, there is no diesel fuel for the generators. How is the city to continue to provide water service?

## SAMPLE Y2K PREPAREDNESS PLAN

CITY/TOWN OF \_\_\_\_\_

**I. Purpose.** The purpose of this preparedness plan is to identify, repair, or replace computer equipment and processors that may fail as the result of the Dec. 31, 1999, date rollover and to eliminate or reduce disruptions in city services.

**II. Organization.** The City/Town of \_\_\_\_\_ has appointed a Y2K coordinator and enacted Ordinance No. \_\_\_\_\_ committing the city's resources to preparing for Y2K (Jan. 1, 2000 through Jan. 1, 2005); directing department heads to provide information and assistance to the Y2K coordinator; and selecting one employee from each department to provide information and assistance to the Y2K coordinator in developing the Y2K preparedness plan.

**III. Inventory of Equipment.** List all of the equipment that the city owns, leases, or operates that may malfunction as the result of Y2K. The Y2K coordinator should keep all of the information in a special Y2K file.

**EXAMPLE:**

Equipment	Location	Purchase Date	Vendor Information
Dell Computer Model No. 978	City Manager's office	1-22-94	Dell Corporation One Dell Way Round Rock, TX 78682 (326) 479-2011
Fax Machine Model No. 200	Recorder's office	2-04-98	Monroe Office Systems Slippery Rock, PA 21799 (576) 254-3111
Traffic Controller Model No. 107A	Intersection of Lee and Washington	4-14-98	Emergency Services, Inc. 111 Main Street LaFollette, TN 37760 (423) 532-1899
Alarm Clock Model No. XL5345	City Manager's office	6-06-93	Circuit City Store 539 Knoxville, TN 37200 (423) 381-2977
Sewer Lift Station Model No. 3B	Behind National Bank on Broadway	3-01-94	Wastewater Equip. Supply 2001 Ovoca Road Shelbyville, TN 37780 (931) 684-1001

**IV. Assessment. All agreements or assurances from equipment vendors must be in writing.**

The Y2K coordinator should keep all correspondence relating to the assessment in the special Y2K file.

**EXAMPLE:**

1. Dell Computer (Model 978). This equipment is 5 years old. The recorder contacted the Dell Corporation on (date), and the company agreed to provide the city with a software program to correct the date problem. **The cost of this repair is free.** It is the recorder's responsibility to run the software and make the correction. The city manager will verify that the repair has been completed satisfactorily.
2. Fax Machine (Model 200). This equipment is approximately 1 year old. It is date-driven. The city clerk contacted Monroe Office Systems on (date), and the company stated that the equipment is Y2K compliant. **The cost of this repair is \$0.** The company agreed to mail the city a letter certifying that the equipment is compliant and to replace the equipment if it is determined not to be Y2K compliant. The city recorder will verify receipt of the letter of certification and file the certificate.
3. Traffic Controller (Model 107A). This equipment is approximately 11 years old. The police chief contacted the company on (date). The company stated that the equipment is not Y2K compliant and no guarantees were provided in 1988 that the equipment was Y2K compliant. The company further indicated that the equipment cannot be repaired. **Replacement cost is \$12,000.** This equipment is essential to traffic flow in through this major intersection in the city. The city manager will order a new traffic controller, and the police chief will ensure that the equipment is properly installed and functioning no later than (date).
4. Alarm Clock (Model XL5345). This equipment is 6 years old. The city manager contacted Circuit City on April 2, 1999. The company advised that the clock will not work after Jan. 1, 2000, and cannot be repaired. **Replacement cost is \$69.** This equipment will not be replaced.
5. Sewer Lift Station (Motor Model No. 3B). This equipment is 5 years old. The vendor has assured the public works director in writing that the equipment will not be affected by Y2K as long as the city can provide electric power to the lift station. The electric company has assured the city that it is Y2K compliant and should be able to supply electric power to the lift station upon date rollover on Dec. 31, 1999. The public works director does not expect problems with the lift station.

**Summary of Costs**

1. Dell Computer	\$0.00
2. Fax Machine	\$0.00
3. Traffic Controller	\$12,000.00
4. Alarm Clock	N/A
5. Lift Station	\$0.00
<b>Total</b>	<b>\$12,000.00</b>

**V. Test Equipment.**

1. Dell Computer (Model 978). This equipment was tested on June 10, 1999, and was found to be Y2K compliant.
2. Fax Machine (Model 200). This equipment was tested on June 11, 1999, and the equipment **failed** to operate after the rollover date of Dec. 31, 1999. The city recorder is responsible for seeing that the new Fax machine is installed.
3. Traffic Controller (Model 107A). Install the new traffic controller and require the vendor to test the equipment and demonstrate to the police chief that the equipment is operating properly and that it is Y2K compliant.
4. Alarm Clock (Model XL5345). It is not necessary to test the alarm clock since the vendor has indicated that it is not Y2K compliant.
5. Lift Station (Motor Model No. 3B). The vendor has assured the city that the lift station equipment does not contain date-sensitive equipment. The city will prepare a contingency plan in the unlikely event that the lift station loses electric power.

**VI. Record of Equipment Replaced or Repaired.**

**EXAMPLE:**

Equipment	Compliant	Replaced	Repaired	Nonessential	Test Date
Dell Computer	X				6-10-99
Fax Machine		X			6-11-99
Traffic Controller		X			8-01-99
Alarm Clock				X	
Lift Station	X				

**VII. Contingency Plan.**

**EXAMPLE:**

This contingency plan is designed to ensure that emergency health and safety services are continued in the event of equipment failures resulting from Y2K. The City/Town of \_\_\_\_\_ has made a good-faith effort to identify, repair, and/or replace computer and computer-related equipment that is date-sensitive.

It has been determined that the traffic controller and the sewer lift station are the only equipment listed above that are critical to the health and safety of the people of \_\_\_\_\_.

(City/Town)

In the event of failure of this equipment, the City will take the following actions:

**Traffic Controller.** Immediately notify the vendor (by means other than by telephone, if necessary) of the failure and request that the equipment be replaced and/or repaired immediately. The police chief has recruited volunteers who will be on standby the night of Dec. 31, 1999, to manually direct traffic until such time that the equipment is replaced and/or repaired. The City may also have available four-way stop signs to use temporarily for traffic control.

**Sewer Lift Station.** In the event the sewer lift station loses electric power, despite the city's best efforts and assurance from the electric company, the public works director will notify three public works employees (by means other than by telephone, if necessary) of the power loss. The employees will transport one electric generator, which the city purchased in April 1999, to the lift station to supply power. It will be connected to a receptacle that has already been determined adequate.

### Estimated Costs

Traffic Controller (guaranteed)	\$0.00
Traffic Direction (volunteers)	\$0.00
Manpower (for lift station)	\$2,000.00
Generator (already on hand)	\$500.00
<b>Total</b>	<b>\$2,500.00</b>

**V. Summary.** The City/Town of \_\_\_\_\_ has made a good-faith effort to identify all computer equipment owned, leased, or operated by the city, including embedded chips that may be date sensitive. The City has assessed the equipment and has replaced, repaired, or determined that the equipment is not essential to city services. New or repaired equipment has been tested and has been found Y2K compliant. The City is not aware of any computer or computer related equipment used to provide city services that is not Y2K compliant.

\_\_\_\_\_  
John Doe  
Mayor

Attest: \_\_\_\_\_  
Jane Doe City Recorder

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*To learn more about Y2K compliance, the state of Tennessee has prepared a guidebook to help cities, counties, and other governmental entities address the Y2K problem. To receive a copy, contact Ray Selvage, state of Tennessee Year 2000 project manager at 615) 741-7354. To download the guide from the Internet, refer to the state's home page at [www.state.tn.us/finance/oir/y2k/guide2000.html](http://www.state.tn.us/finance/oir/y2k/guide2000.html).*

*A listing of other informative Year 2000 Web sites can be found by accessing MTAS' Web page at [www.mtas.utk.edu](http://www.mtas.utk.edu) and clicking on related Internet sites.*

**MODEL Y2K PREPAREDNESS PLAN**

**I. Purpose.** The purpose of this preparedness plan is to identify, repair, or replace computer equipment and processors that may fail as the result of the Dec. 31, 1999, rollover date and to eliminate or reduce disruptions in city services.

**II. Organization.** The City/Town of \_\_\_\_\_ has appointed a Y2K coordinator and enacted Ordinance No. \_\_\_\_\_ committing the city's resources to preparing for Y2K (Jan. 1, 2000, through Jan. 1, 2005); directing department heads to provide information and assistance to the Y2K coordinator; and selecting one employee from each department to provide information and assistance to the Y2K coordinator in developing and implementing the Y2K preparedness plan.

**III. Inventory of Equipment.**

<u>Equipment</u>	<u>Location</u>	<u>Date Purchased</u>	<u>Vendor Information</u>
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*(Please add space as needed.)*

**IV. Assessment.**

*(Please add space as needed.)*

**V. Test Equipment**

*(Please add space as needed.)*

**VI. Record of Equipment Replaced or Repaired**

*(Please add space as needed.)*

**VII. Contingency Plan**

*(Please add space as needed.)*

**VIII. Summary.** The City/Town of \_\_\_\_\_ has made a good-faith effort to identify all computer equipment owned, leased, or operated by the city, including equipment with embedded chips that may be date-sensitive. The City/Town has assessed the equipment and has replaced, repaired, or determined that the equipment is not essential to city services. New or repaired equipment has been tested and has been found Y2K compliant. The City is not aware of any computer or computer-related equipment used to provide City services that is not Y2K compliant.

\_\_\_\_\_  
Mayor

Date: \_\_\_\_\_


Attest: \_\_\_\_\_  
City Recorder



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