



Office of Information Technology Services

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| New York State Information Technology Policy | No: NYS-P98-003 |
| IT Policy: Date/Time Conversion Contract Language | Updated: 11/23/2021 |
| | Issued By: NYS Office of Information Technology Services (ITS) Owner: Division of Legal Affairs |

1.0 Purpose and Benefits

Date/time conversions on specific dates raise critical software technology issues during rollover. This Policy contains information and contract language to help mitigate such incidents and possibly prevent them from occurring.

Benefits of incorporating date/time conversion warranty language into relevant information technology related contracts include:

- Enhanced resource utilization by remaining at the forefront of date/time conversion problems.
- Potential cost savings by incorporating the date/time conversion warranty now for other date/time conversion bugs, e.g., the “Unix Millennium 2038 Bug.”

Benefits of being prepared for future date/time conversion issues include:

- Greater awareness of risk management, risk exposures, and planning for business continuity.
- Maintaining competitive advantage by installing or updating systems as they provide more advanced functionality for State Entities.
- Standardized software and hardware systems.

2.0 Authority

Section 103(10) of the State Technology Law provides ITS the authority to establish statewide technology policies, including technology and security standards. *Section 2 of*

*Executive Order No. 117*¹, established January 2002, provides the State Chief Information Officer with the authority to oversee, direct and coordinate the establishment of information technology policies, protocols and standards for State government, including hardware, software, security and business re-engineering. Details regarding this authority can be found in NYS ITS Policy, [NYS- P08-002 Authority to Establish State Enterprise Information Technology \(IT\) Policy, Standards and Guidelines](#).

3.0 Scope

This policy applies to all “State Entities” (“SE”), defined as “State Government” entities as defined in Executive Order 117 or “State Agencies” as defined in Section 101 of the State Technology Law, including their employees, and all other third parties (e.g., local governments, consultants, vendors, and contractors), that use or access any ITS Information Technology Resource for which ITS has administrative responsibility, including systems managed or hosted by third parties on behalf of the ITS. While an SE may adopt a different policy, such policy must include the requirements of this standard.

4.0 Information Statement

Background

Due to the widespread reporting of the Y2K issue, i.e., the potential logic errors associated with years represented with two digits instead of four digits leading to incorrect date-related computer process, the Office for Technology (now ITS) issued this Policy recommending date/time warranty language for information technology related contracts.

However, while the Y2K issue may no longer be relevant, similar date/time software issues may re-emerge on other critical dates through generic coding errors, ill-advised patches made during Y2K remediation, or from other date “bugs.” For example, the so-called “Unix Millennium 2038 Bug” is an inherent limitation of 32-bit integer computing systems. Since January 1, 1970, 32-bit computers have been keeping track of time to the unit of seconds. With each second being an integer-ticker on that system, the date/time will reach the largest integer that a 32-bit system can process on January 19, 2038 at 03:14:07 (UTC). One solution is upgrading or replacing 32-bit systems to 64-bit systems which will not run out of integers for time/date processing until the year 292,277,026,596.

In anticipation of possible future date/time conversion issues, SEs should continue including date/time warranty provisions in procurements for software, systems, enhancements, and equipment. By strategically planning for date/time problems now, it will help mitigate potential date/time conversion issues.

¹ All references to Executive Order 117 refer to that which was originally issued by Governor George E. Pataki on January 28, 2002 and continued by Executive Order 5 issued by Governor Eliot Spitzer on January 1, 2007, Executive Order 9 issued by Governor David A. Patterson on June 18, 2008, Executive Order 2 issued by Governor Andrew M. Cuomo on January 1, 2011 and Executive Order 6 issued by Governor Kathy Hochul on October 8, 2021.

Contract Language

Except where a date/time warranty has already been negotiated into a pre-established contract, SEs should continue to include date/time warranties in their contracts or solicitations. The form of the date/time warranty shall be substantially similar to the following language:

Date/Time Warranty

Contractor warrants that Product(s) furnished pursuant to this Contract shall, when used in accordance with the Product documentation, be able to accurately process date/time data (including, but not limited to, calculating, comparing, and sequencing) transitions, including leap year calculations. Where a Contractor proposes or an acquisition requires that specific Products must perform as a package or system, this warranty shall apply to the Products as a system.

This Date/Time Warranty shall survive beyond termination or expiration of this Contract as long as the Product is used by the governmental entity, or its successor, for whom the Product was originally purchased. Nothing in this warranty statement shall be construed to limit any rights or remedies otherwise available under this Contract for breach of warranty.

5.0 Compliance

This policy shall take effect upon publication. Compliance is expected with all enterprise policies and standards. ITS may amend its policies and standards at any time; compliance with amended policies and standards is expected.

6.0 Definitions of Key Terms

Except for terms defined in this policy, all terms shall have the meanings found in <http://www.its.ny.gov/glossary>.

| Term | Definition |
|------------|--|
| Product(s) | Shall include, without limitation: when solicited from a vendor in a State government contract, RFP, IFB, or mini-bid, any piece or component of equipment, hardware, firmware, middleware, custom or commercial software, or internal components or subroutines therein which perform any date/time data recognition function, calculation, comparing or sequencing. Where services are being furnished, e.g., consulting, systems integration, code or data conversion or data entry, the term "Product" shall include resulting deliverables. |

7.0 Contact Information

Submit all inquiries and requests for future enhancements to the policy owner at:

Division of Legal Affairs
Reference: NYS-P98-003
NYS Office of Information Technology Services
State Capitol, ESP, P.O. Box 2062
Albany, NY 12220
Telephone: (518) 473-5115
Email: its.sm.dla@its.ny.gov

Statewide technology policies, standards, and guidelines may be found at the following website: <http://www.its.ny.gov/tables/technologypolicyindex>

8.0 Revision History

This policy shall be reviewed at least once every two years to ensure relevancy.

| Date | Description of Change | Reviewer |
|-------------|------------------------------|-------------------------------|
| 04/17/1998 | Issued policy | CIO/OFT |
| 08/30/2011 | Revised policy | CIO/OFT |
| 02/07/2017 | Updated policy | ITS Division of Legal Affairs |
| 05/09/2019 | Updated policy | ITS Division of Legal Affairs |
| 11/23/2021 | Updated policy | ITS Division of Legal Affairs |

9.0 Related Documents
