Legal Issues in Y2K Support

Cem Kaner

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Disclaimer

As a lawyer and as a development consultant, I specialize in software quality and software customer satisfaction. I don’t claim to be an expert on Y2K law. This talk is an effort to lay out the Y2K issues, not a final summary of research.

This paper is written to build a bridge from the legal discussions to the software support community. As a member of both communities, I see some opportunities for crosstalk.

For legal advice on Y2K, consult your attorney.
Time for a Feeding Frenzy?

- J.P. Morgan estimates $200 billion for remediation
- Gartner Group estimates $600 billion
- Astonishingly low level of remediation expenditure in 1997
- Maybe 50% of companies will not be ready (Gartner Group)
- Who should pay for all the costs and consequences?
- Do we all get a guided tour of Lawsuitland?
A Trillion Dollars for Lawyers?

- Commonly quoted estimate of litigation arising from Y2K tags the cost at $1 trillion. Compare:
  - Asbestos = $1 billion per year
  - Superfund = $1 billion per year
  - Tort litigation = $29-36 billion per year
  - Kitchen sink ++ = $300 billion per year

- Where are you going to FIND a trillion bucks worth of lawyers?
Why All the Lawsuits?

◆ A lawsuit arises out of a failure to live up to a responsibility (duty). Duties arise:
  • in contracts
  • in the laws of public safety (criminal and tort)
  • in the laws of fraud and deceptive practices
  • in the laws of fiduciary (caretaker) responsibility

◆ No breach of a duty => No grounds for a lawsuit.
Scope of the Legal Problem

- Typical legal analysis involves a few general questions:
  - Who are the potential parties (people in the lawsuit)?
  - What are their duties?
  - Which duties might be breached due to a Y2K failure?
  - What actions can aggrieved parties take as a result of a Y2K breach?
Scope of the Technical Problem

**Errors based on date**

- Age-related errors
- Can’t do future things errors (e.g. expiration dates on credit cards, long term mortgages, mag renewals)
- Premature expirations (service intervals, best-before dates)
- Length of intervals (century long phone calls)
Scope of the Technical Problem

Errors based on revisions

- 33% and 7% rules of thumb for bug fixes
- Principle of nonlocality
- Principle of nonproportionality
- Problem of black box programming
Scope of the Technical Problem

Example error based on revisions

- Fixed-length record database:
  - Name 60 chars location 1
  - Birthday 6 chars location 61
  - SSN 8 chars location 67
  - Other 100 chars location 75
  - **Total record length 174 bytes.**
  - Now, repair Birthday to 8 chars MM/DD/YYYY.
  - Look up SSN? What if location of SSN is hardcoded?
Scope

- The scope of this problem is enormous:
  - *Any relationship or duty that can be interfered with by a Y2K problem can become the subject of a lawsuit.*
A Business and its Relationships

Governments and Other Regulators

Suppliers of Goods, Data & Services

Business

Receivers of Goods, Data & Services

Internal Stakeholders
A Business and its Relationships

Software suppliers & IP owners
Software services
Outsource vendors
Y2K remediation services
Data suppliers
Landlord, facilities mgmt
Health services
Insurers
Diagnostics and other tool suppliers
Hardware (computer) vendors
Hardware (non-computer) vendors
Legal and financial services
Utilities
Shippers, mail delivery

Governments and Other Regulators

Business

Internal Stakeholders
A Business and its Relationships

Governments and Other Regulators

Data receivers -
Customers (goods) -
Customers (software) -
Customers (services) -
Bills to customers -
Payments to suppliers -
Scheduled services (e.g. checkups) -
Merchandise shipped -
Third party users -
Strategic partners -

Business

Internal Stakeholders

Timed services to customers -
(e.g. warranty, expire dates) -
A Business and its Relationships

- Local, state, and federal tax authorities
- State and federal securities regulators
- Corporate (e.g. nonprofit) mgmt overseers
- Auditors
- Labour (and plant safety) regulators
- Advertising regulators
- Product safety regulators
- Courts / admin agencies (scheduled events)
A Business and its Relationships

Suppliers of Goods, Data & Services

- Employees
- Shareholders
- Lenders
- Employment-related insurers
- Unions
- Officers & Directors

Receivers of Goods, Data & Services
A FEW Examples of Plausible Legal Actions

- Breach of warranty, implied warranty.
- Unauthorized repair of code you are using or of use of 3rd party maintenance.
- Malpractice or other economic negligence
- Fraudulent or negligent misrepresentation (e.g. negligent certification)
- Unfair or deceptive trade practices
- Negligence or strict liability for injury or property damage
- Shareholder suits (sue Board for misrepresentation or for breach of fiduciary duty)
Predictions

- Publishers of old products will rarely be held liable. These lawsuits will vanish.
- Publishers of new software will rarely lose, unless they can be shown to have made false claims of Y2K compatibility.
- Lots of side-effect (of remediation) bugs will show up in 2000.
- Everybody will blame everybody else, creating huge multi-vendor support issues.
- Remediation companies will be sued often, but relatively few suits will succeed against the larger companies because their contracts were carefully, defensively written.
- The main suits will be between customers and manufacturers or service providers, due to failures of software that controlled their operations.
Are We Deer in the Headlights?

What can a technical support group do to help a company reduce its risk of Y2K litigation?
We Have Special Skills

- Empirical investigators
- Application (end use) oriented
- Able to cope with insufficient information
- Used to dealing with tight schedules
- Used to bad data and strange code
- Pragmatic approach (workarounds)
- In many publishing companies, IT has a weak testing staff focused on glass box, or no testing staff--your services might be broadly needed.
What Can You Do?

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