

# The Policy, Planning and Pragmatic Reasons for the Massachusetts Move into Open

SCALE

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# Agenda

- Background
- State-of-the-State
- The Challenges
- Massachusetts Approach
- The Path to “Open”
- Lessons Learned
- Where is Massachusetts now?
- Final Thoughts and Comments!

# Background

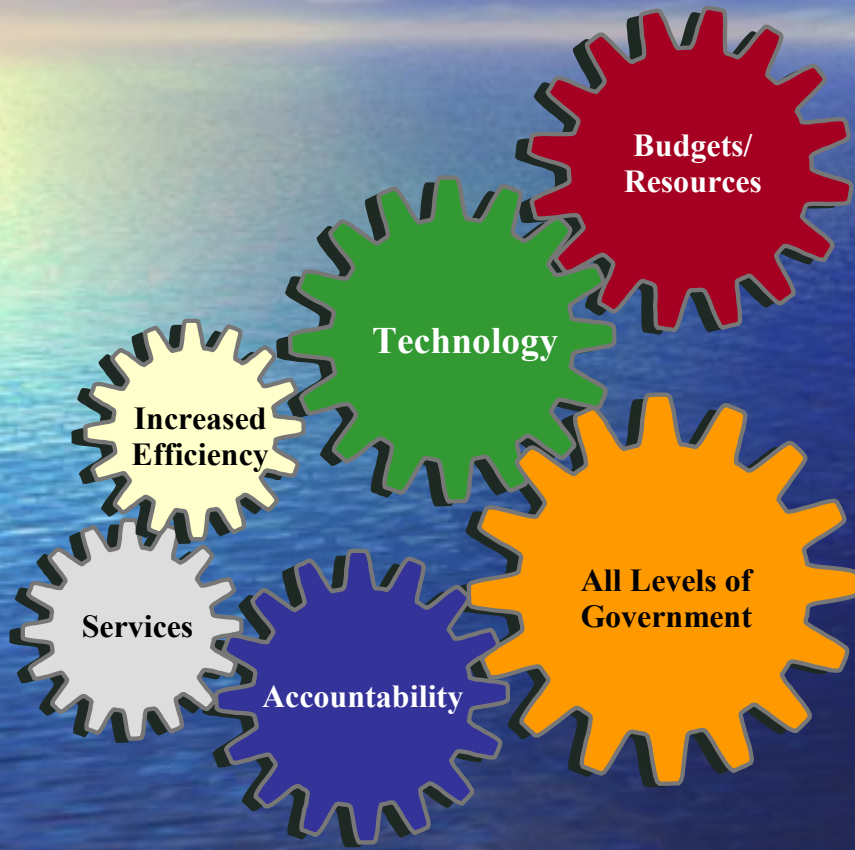
- Massachusetts stats:
  - 6.5 million residents
  - 3 branches of government
    - Executive (173 Agencies)
    - Legislature (House and Senate)
    - Judicial
  - 6 Constitutional Offices (Auditor, A.G., Treasury, Sec. of State, MA DA's, Governor's Council)
  - 20 Authorities/ Quasi Public-Private



# Background cont.

- \$24.4 billion budget (think Fortune 60 size company with 200 business units)
- 90,000 employees and contractors
- Annual IT spend of approximately \$700mm
- IT is currently funded through:
  - Direct appropriations
  - Capital
  - Grants
  - Federal Re-imbursments

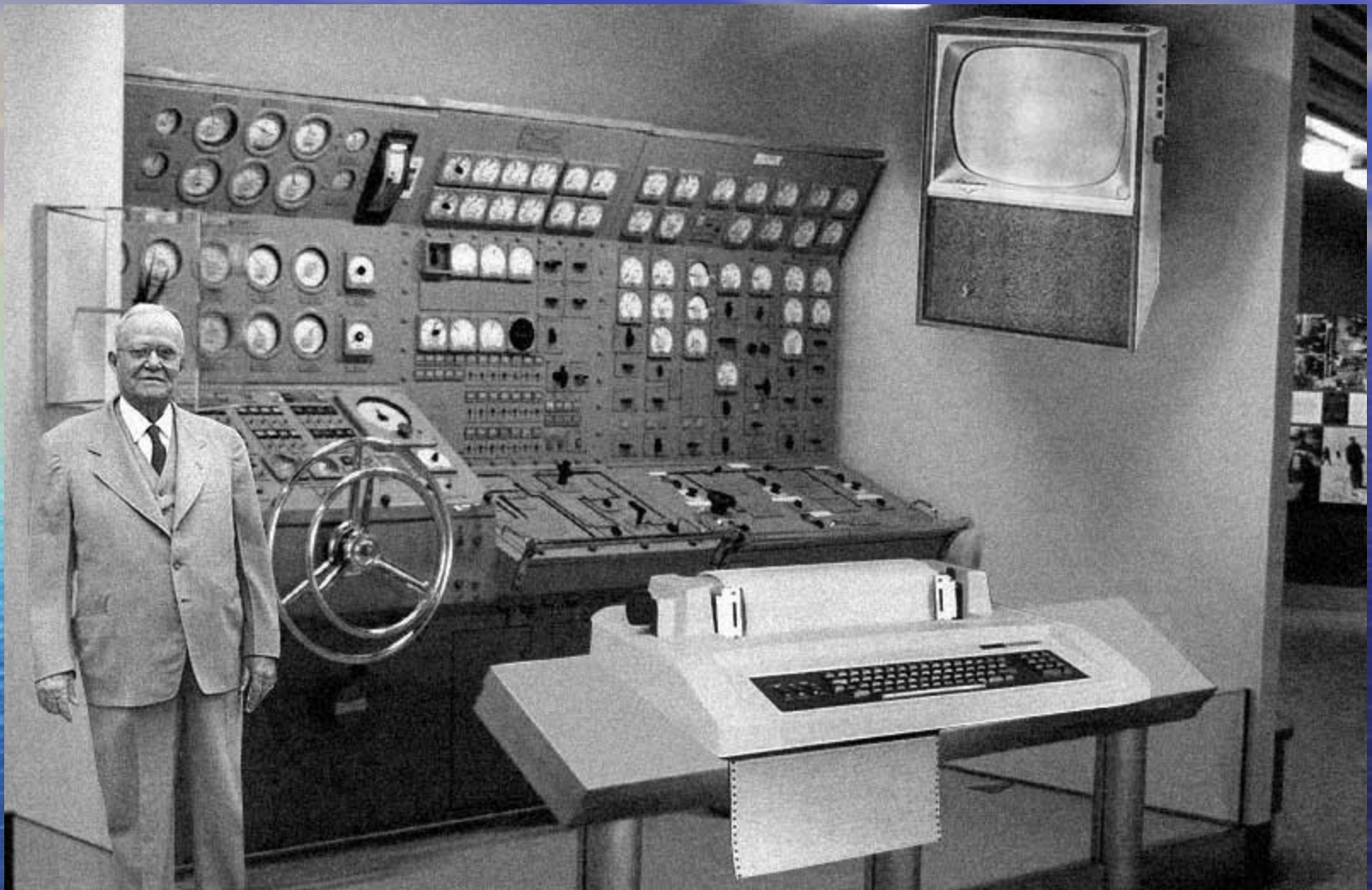
# The Challenges



- Flat or declining investment in IT
- Human capital demographic:
  - 30% will retire in five years due to age
  - Another 20% will be eligible due to time in government
- Agency centric solutions.
- Every man for themselves.
- No strategic plan or tactical plan.

# The Challenges cont.

- Massive legacy systems.
- Limited meaningful maintenance.
- Few sustainable work processes.
- No performance measurements.
- Limited learning investment in employees.
- 95% of IT employees are union employees.
- “If someone made one and someone sold one, we bought it.”



*Scientists from the RAND Corporation have created this model to illustrate how a "home computer" could look like in the year 2004. However the needed technology will not be economically feasible for the average home. Also the scientists readily admit that the computer will require not yet invented technology to actually work, but 50 years from now scientific progress is expected to solve these problems. With teletype interface and the Fortran language, the computer will be easy to use and only*

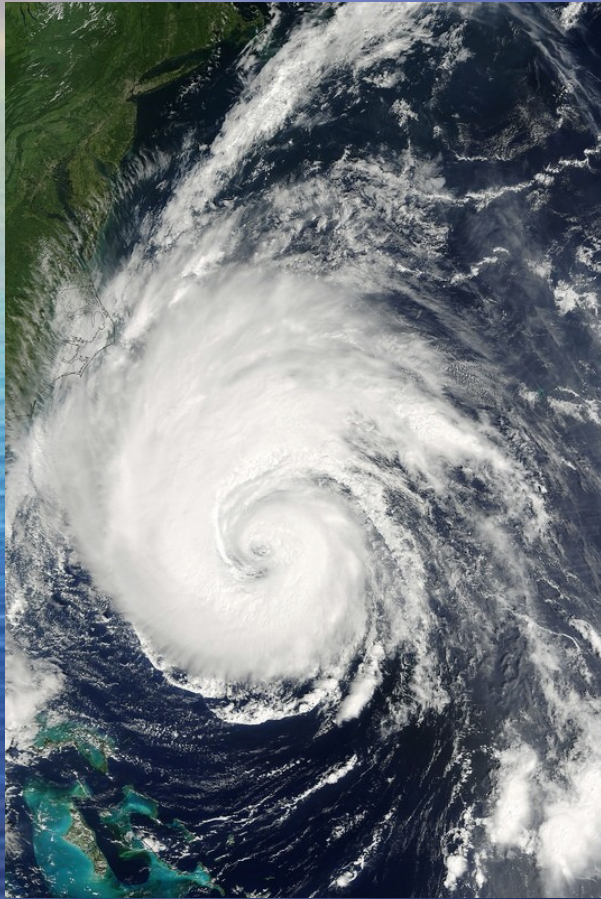




# The Challenges cont.

- We, in Government, have the responsibility to:
  - Preserve history for all time
  - To preserve this information in a format that is accessible by all
  - And in a format that is not technically restricted
- Revenues will remain challenged because of health care costs
- Application development requires at the sustainability of COBOL

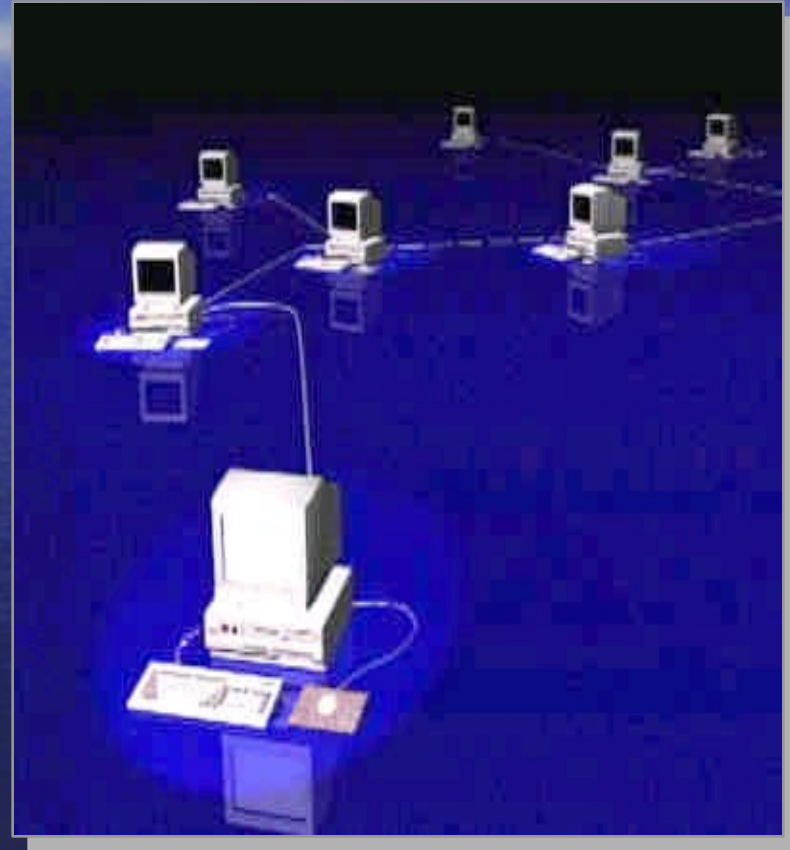
# Massachusetts Approach



- Perfect Storm analogy:
  - Difficult fiscal environment
  - IT Commission
  - New Administration
- The “Big if” ....if we could meld these three disparate events, we had an opportunity that only comes around every 15 or 20 years to truly transform IT.

# The Path to "Open"

- Starting Initiative:
  - Freeware within the Commonwealth; you built it everyone else could have it.
  - License software at the Commonwealth enterprise level.
  - Continued to try to share code of proprietary applications with other states through negotiating individual contracts; untenable because lawyers make it very difficult to get to "yes."



# The Path to “Open”

- The Edict 9/25/2003:
  - Forum – Monthly agency CIO meeting
  - Eric Kriss Secretary of ANF issues “New Open Policy” memo to me to share with CIOs.
    - Effective immediately, we will adopt, under the CIO’s guidance, a comprehensive Open Standards, Open Source policy for future IT investments and operating expenditures.
    - To be reflected in both FY04 capital and FY05 operating and capital budgets.

# The Path to “Open”

- The Edict continued:
  - Open Standards = Appliance Computing
  - Open Source = Free (\$ maybe; freedom yes!)
  - Two development tracks:
    - New applications must follow Open Standards and Open Source.
    - Existing applications will be evaluated for encapsulation or migration to Open Standards, Open Source.

# The Path to “Open”

- In tandem, we are constructing our Open Standards/Open Source Enterprise Technical Reference Model (ETRM) (based on NASCIO and Feds models).
- Within 1.5 months we release formal policy for public comment.
- Major pushback from members of the Massachusetts Software Council, the Legislature and some advocacy groups.
- Support from many other organizations from around the world.

# The Path to “Open”

- 30 software company CEOs from the MA Software Council come in for a public vetting.
- Ultimately, we separated Open Standards from Open Source.
- Included Open Source as part of the best acquisition value policy.
- 2<sup>nd</sup> release of the ETRM effective May 17, 2004
  - 2 public comments 1 & 1
  - More expansive in all areas
  - Focuses on platform flexibility

# The Path to “Open”

- December 2003 called to testify at a Senate Oversight Committee Hearing
- 2.5 hours of grueling and accusatory comments
- Well prepared by industry proprietary advocates
- I was not; told no big deal; would be out in 10 minutes
- Ma was very much by itself in this endeavor



# Lessons Learned

- Naiveté can be a great thing.
- Know that some folks will attempt anything to stop these initiatives

# Lessons Learned cont...

- You are business people.....beware of those that march to the mantra of “Changing the Software Industry”.....the change in the industry will come as a result of acting prudently and successfully within a business context
- Your presentation and professionalism will make you credible
- PR Open Source Congress – no credibility?

# Lessons Learned cont.

- Demonstrated sustainability will get people to listen:
  - Microsoft changes their Office 2003 license:
    - Patented XML documents can be opened and read by any reader
    - License is now in perpetuity

# Massachusetts Mis-conceptions

- This was not driven by the Attorney General's Anti-trust efforts against Microsoft
- This was not an anti-Microsoft Agenda
- We do not subscribe to the ABM movement: Anybody But Microsoft
- We were driven by the business of best value and good government

# Massachusetts: Where are they today?

- Open decision and practice no longer being questioned.....by anybody
- Edit: Everything that comes into the ITD Datacenter that is not "open" requires a variance signed by the DC Manager
- All procurements specify "Open Standards" and request incorporation of Open Source alternatives
- Request "specifics" (i.e. contractual commitment) on when "Open" will be there

# Massachusetts: Where are they today? cont:

- Linux: Across all platforms
- Open Source applications (pure and blended) prevalent in many parts of the operation especially in network operations
- Creating a “pure” Open Source development group strategically focused on very rapid vignette solutions
- Institutionalizing all adoption and support through meaningful and sustainable business processes and under umbrella of ITIL

# Massachusetts: Where are they today, cont.

- GOCC: Government Open Code Collaborative
  - Nationwide repository for Gov software apps
  - Scale & Complexity: Low
- O/S: Debian Linux
- Web: Apache
- Application and DB: Zope
- Content Manager: Plone
- Monitoring: Big Brother

# Massachusetts: Where are they today, cont.

- .e-Licensing:
  - Standardize delivery of licenses (hair dressers to engineers)
  - Scale & Complexity: Medium
- O/S: SuSE Linux on z890 mainframe
- Web: Apache
- Application: JBOSS
- DB: MySQL 5.0
- Monitoring: Big Brother
- Environment Tools: z/VM to provision, dev, test and stage as needed



# Massachusetts: Where are they today, cont.

- MASS.gov:
  - In-source; upgrade/replace software; business continuance
  - Scale & Complexity: Medium
- O/S: Red Hat Linux AS 2.1 on Blade technology
- Web: Apache
- Application: Java 2 Runtime ModJK 1.4; Apache Jakarta TomCat connector JK1.2; Oracle 9i client; Vignette Application Portal using TomCat clustering
- DB: Oracle 9i on Mainframe
- Dev and Staging: Apache 2.0; Oracle 9i client; JBOSS TomCat, MQ Series & CommBridge
- Monitoring: Big Brother & HP Open view

# Massachusetts: Where are they today, cont.

- **Virtual Gateway:**
  - Single point of entry for authentication, application of services and tracking of services across entire HHS Agencies; 1 Portal
  - Scale & Complexity: High
- **Identity Management:**
  - O/S: Red Hat AS 2.1
  - Application: SunOne
- **Application Portal:**
  - O/S: HP UX
  - Application: WebLogic, various Java frameworks
  - DB: Oracle 9i
  - Messaging: JMS-MQ
  - Monitoring: Big Brother, Log4J for logging, HP Openview

# Massachusetts: Where are they today? cont.

- Desktop:
  - ITD: FireFox on every desktop (eat your own cooking)
  - Open Office 2.0 being deployed on every desktop
- Developing issues list:
  - Excel, etc.
  - Apps built to proprietary products, etc.
  - Most disruptive piece of technology with most questionable immediate ROI

# Massachusetts: Where are they today? cont.

- Our “View” of the future:
  - Evolving enterprise behaviors we see:
    - Service Oriented Architecture
    - Email and Calendaring critical (killer?) apps
    - Substantive browser
    - Majority of users are content consumers, not content creators
    - Evolving trend of shorter messages as emails vs. Suite generated content
    - Smarter folks than us say there is research that supports these trends and suggests that our number of 75% fall into the behavioral patterns above is reasonable

# Massachusetts: Where are they today? cont.

- Our "View" cont.:
  - Desktop of tomorrow:
    - Substantive browser
    - Email and calendaring
    - Readers
- Is the Suite, as we know it, not necessary, not applicable in the new order?
- Is the Suite dead?
- Simplicity allows for simplified, significantly less disruptive migration of desktop as part of the infrastructural renewal

# Massachusetts: Where are they today? cont.

- Last major initiative was "Open Formats"
- Driving factors: Preserving history for all time with its original tonality and accessible by all (i.e. it should be as accessible as walking into the State Library or Archive to look at a historical document and free)

# Massachusetts: Where are they today? cont.

- Open formats initiative complicated by:
  - History is being generated at an unprecedented rate (and lost by the way!!!), too often in proprietary formats
  - 50,000+ desktops in enterprise
  - Useful, practical formats were not ubiquitous
  - We, in government, must accept a variety of formats from our constituents, very often dictated by the marketplace

# Massachusetts: Where are they today, cont.

- Formats had been the object of our angst for 18 months
- Produced Comment ETRM Version 3.5 early 2005 (included MS XML Format)
- Eric Kriss addressed Ma. Software Council 1/15/05; alluded to changes to MS License
- Firestorm of criticism for including MS XML
- Published V 3.5 without Format piece
- Continued due diligence



# Massachusetts: Where are they today? cont.

- Open Formats Summit June 09, 2005
- “Quietly” have assembled the best practical (?) thinkers we know (represented by suppliers, standards, independents, staff)
- Goal: What formats should we use that will be meaningful to the enterprise and successfully adopted, with continued sustainability, that truly embarks Massachusetts on the road to effectively preserve history for all time, with accessibility for all?

# Massachusetts: Where are they today? cont.

- Open Formats outcome:
  - XML is the ticket
  - Formats must be “Open”
  - Open is a continuum
  - Everyone in the room presumed upon MS to “open” their formats and compete on technological prowess or advantage

# Massachusetts: Where are they today? cont.

- August 29, 2005:
  - Public Comment period on adopting the OASIS Open Document Format
  - 157 comments; 97 endorsements; 46 critical (several concerning visually impaired access); 13 constructive;
  - All corporate endorsing except Microsoft
- September 21, 2005:
  - Final policy adopted and published
- Now:
  - Commitment is still on

# Repercussions & Stuff

- Senate Oversight Hearing: Questioned process, cost, authority
- Testimony:
  - Linda Hamel and I: Advocated our position but not sure we were heard
  - Alan Cote:
    - There is no crisis in e-records
    - Save stuff in a variety of formats (My comments: There is no digital archive; digital information goes to Iron Mountain)
    - That we do not have the authority; we did

# Repercussions & Stuff cont.

- Disability advocates:
  - Fair criticism in our minds; we thought we had engaged the correct people and we did not get them all; my mistake
  - Myra Beltoff: fair and balanced statement
- Auditors' Office (John Beveridge):
  - Charged by Oversight Committee to review
  - Will focus on process, impact, inclusion and costs
  - John is fair and ITD has an excellent working relationship with the Auditors' Office and would expect a credible analysis

# Repercussions & Stuff cont.

- Economic Stimulus Bill Provision:
  - Originally:
    - Strips ITD of all power to create standards and policy
    - Gives all records issues to SEC
    - Hands all policy and standards control to private sector entity
  - Now hands over to Supervisor of Records (authority extends to municipalities)
- Analysis:
  - Unconstitutional? In its original form
  - Current proposal creates total gridlock!!!!!!!!!!!!
  - Defies logic and all nullifies all best practices

# Repercussions & Stuff cont.

- Boston Globe Investigation:
  - Questions started after hearings and a procurement decision at HHS to purchase Novell licenses.
  - Linkage?
  - Questioned vendor influence, travel, use of state funds, attendance records, authorization
  - Front page for accusations; in Metro Section for exoneration; 100% clean bill of health; no dangling participles

# Repercussions & Stuff cont.

- Boston Globe Investigation cont:
  - Numerous requests for Ombudsman to investigate by outside people (to no avail)
  - Everyone saw it for what it was: a blatant attempt to discredit the format initiative
- Understand that some folks will stop at nothing to destroy “Open Format” as they tried with Open Source





# Numerous Blogs & Headlines

- Two favorite headlines:
  - Boston Globe:
    - Microsoft Bows to Massachusetts (MS has gone to ECMA for approval of XML Schema)
  - London Inquirer:
    - Open Doc Man: “Cleared of Smear”





# Continued Personal Initiative

- Make accessibility as an issue disappear
- Presumed on Industry to “Commit and act on Open Standards” and leave the religious Open Source debate at the door
- Coalesce as I, we, know you can and create serious agreed upon actions and execute
- Important to the community to lower the price point; if solutions are Open Sourced, the community can do its own work
- And everyone in this room will need it

# Last Comments

- Is Government technology mired in a state of palliation? Where we treat the symptoms but not the disease?
- Have our technologies morphed into horrible states because of habituation by employees, citizens and IT workers into believing mediocrity is the best we can achieve?
- Is Open Source “the” or one of the paths to technological prophylaxis?

# Last Comments cont.

- “Open Source” is one avenue of a multi-faceted pincer strategy to create meaningful sustainability of IT with a very different cost structure in government.
- “The cost of Government is not sustainable in its present form.”

# One Last Question cont.

- Should we really be talking about preserving history in accessible formats and on media that will stand the test of time?
- Should we really be talking about application development that results in systems that at least have the sustainability of COBOL?
- Should we really be talking about the Open Source tenets of collaboration and innovation and building ubiquity in government applications that span state boundaries?



# Final Thoughts.....

- “If you want to know your past, look at your present conditions. If you want to know your future, look at your present actions.”

- *Chinese Proverb*

- Our present actions must continually apply pathophysiological practices and adapt what we learn to insure success of our future state.

# Final Final Thought

- There are risks and costs to a program of action. But they are far less than the long-range risks and costs of comfortable inaction. **John F. Kennedy**  
*US Democratic politician (1917 - 1963)*
- Twenty years from now you will be more disappointed by the things that you didn't do than by the ones you did do. So throw off the bowlines. Sail away from the safe harbor. Catch the trade winds in your sails. Explore. Dream. Discover.
  - Mark Twain

# Remember the Request

- Formats should be entirely open and inspect able
- Uninhibited by proprietary schema and or licenses
- Reviewed by a jury of its peers (i.e. recognized standards bodies)
- This is very simple and reasonable request

# Some Opposition Comments and My Final Thoughts

- “Ma. CIO's Office has presented itself to the world as a “regulator of MS” activities
- Retort:
  - At one level this is offensive because it presumes ITD isn't qualified to issue IT Policy
  - Effective IT (public and private) policy had always come out of IT organizations; where policy making and operations is bifurcated, IT is impudent
  - As “regulators” was never in our thoughts

# Some Opposition Comments and My Final Thoughts cont.

- They are regulated, inconsistently all over the world and Ma. Adds another layer through IT Architecture and Standards for (Government) Procurement
- Retort:
  - To name a couple of industries, how about International Banking or Securities
  - Price you pay to play internationally
  - And what is the real “role” of the CIO and IT?

# Some Opposition Comments and My Final Thoughts cont.

- They would say every IT policy should be taken to the Legislature
- Retort:
  - This process would clearly gut effective and rationale IT
  - And is this a favoured direction because Open Format Opponents feel their influence is really with Legislatures?

# Some Opposition Comments and My Final Thoughts cont.

- That Ma. Was intent on establishing “another point of light” to cause problems internationally for MS
- Retort:
  - Furthestmost from our minds
  - We undertook a very thoughtful and inclusive journey to arrive where we did
  - We were not “ABM”
  - Given all the other constant challenges of continually trying to effect consistent and substantive IT, nobody had the time to focus on MS

# Last Editorial Comment...

## .really!!!!!!

- We would say the following to put this issue in context:
  - Ma was the first state with a public school
  - Ma was the first state with a public library
    - Both are about access to information
  - Ma is the first state to establish standards for open formats insuring information access for future generations
- Is this initiative any less compelling?



# Resignation and What Now?

- Resigned because I have become a lightning rod for everything in IT
- Goal was always to have IT be apolitical
- Now IT is a political football
- Unrelated issues like the Bond Bill, Second Data Center are in jeopardy because of me
- With me gone, I am hopeful the noise level will drop significantly and it will be business as normal
- Next for me?





# Thank You

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