



Office of Municipal and  
School Technology

MassIT



## Updates in Government Technology

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June 12, 2017

Mike Hamel

Director, Office of Municipal & School Technology

*MassIT's mission is to drive the digital business of state government to meet the continually evolving needs of constituents, schools, businesses, and local government.*

# Strategy Considerations – Current State

- Where are we today?
- Are our buildings connected?
- Is there a recognition of the important role technology now plays in day to day operations?
- Do we know how IT dollars are spent across the organization?
- Have we, or are we prepared to make IT investment a priority?
- Have we developed a strong IT foundation, or are we getting distracted by the “cool stuff” without getting our house in order?



← *Are you here?*  
*Or are you here?* →



- Regional Consolidation
  - Do you have in-house IT resources today?
  - How are your relationships with surrounding communities?
  - Is it sustainable?
- Municipal Consolidation
  - Are Town, School and Public Safety staff collaborative?
  - Do you have or are you an engaged executive sponsor?
  - What are the outcomes you're looking for?
  - Are you ready to deal with the overlapping and divergent needs of these different groups?



- You can take a big bang approach, but you don't have to, incremental change is good too!
- How did you answer the previous questions?
  - What steps need to be taken encourage collaboration across departments?
  - How can we open the lines of communication with neighboring communities?
  - How are we going to wrap our arms around what we spend on IT as an organization?
  - Who will be our champion?
  - Have we defined our organizational priorities?



## Good

Data is consistently backed-up and backups are periodically tested



## Better

Data is backed-up to a different location in or near town, following generally accepted industry standards, and backups are periodically validated



## Best

Data is backed-up to a location at least 30 miles away that meets strong industry standards, backups are periodically validated and there are well defined service-level agreements.

MassIT recommends that reputable cloud solutions be considered for this purpose.



The practice of using a network of remote servers hosted on the Internet to store, manage, and process data, rather than a local server or a personal computer.

*-Oxford Dictionaries*



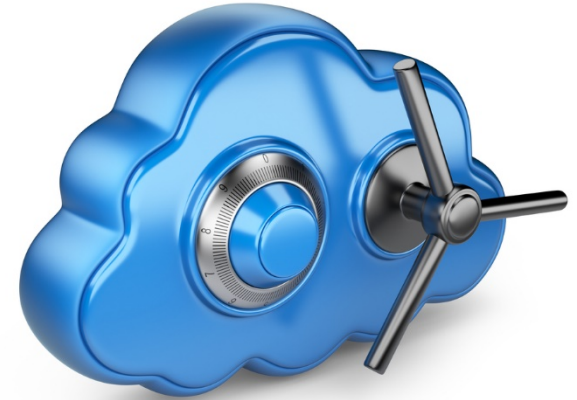
# The Cloud Computing Stack or Cloud Flavors

- Infrastructure as a Service (IaaS)
  - A way of delivering Cloud Computing infrastructure – servers, storage, network and operating systems – as an on-demand service. Rather than purchasing servers, software, datacenter space or network equipment, clients instead buy those resources as a fully outsourced service on demand. <sup>1</sup>
- Platform as a Service (PaaS)
  - A computing platform that allows the creation of web applications quickly and easily and without the complexity of buying and maintaining the software and infrastructure underneath it. <sup>1</sup>
- Software as a Service (SaaS)
  - A computing platform that allows applications to be delivered directly to the end-user, typically through a web browser.



1. Rackspace <https://support.rackspace.com/white-paper/understanding-the-cloud-computing-stack-saas-paas-iaas/>

- Do you know if you're in the cloud?
  - Email, Collaboration Tools, Social Media?
- Not all cloud services are created equal
  - Is it a reputable, standards-based service, or is this cloud in someone's basement down the street?
- Datacenter security
  - Does the provider follow industry standard security practices?
- Datacenter Redundancy & Location
  - Does the provider backup your data to a secure geographically dispersed site, and where are these sites?
- Data Ownership and Retrieval
  - Are you the clear owner of your data, and how do you get it back if you end the relationship with the provider?

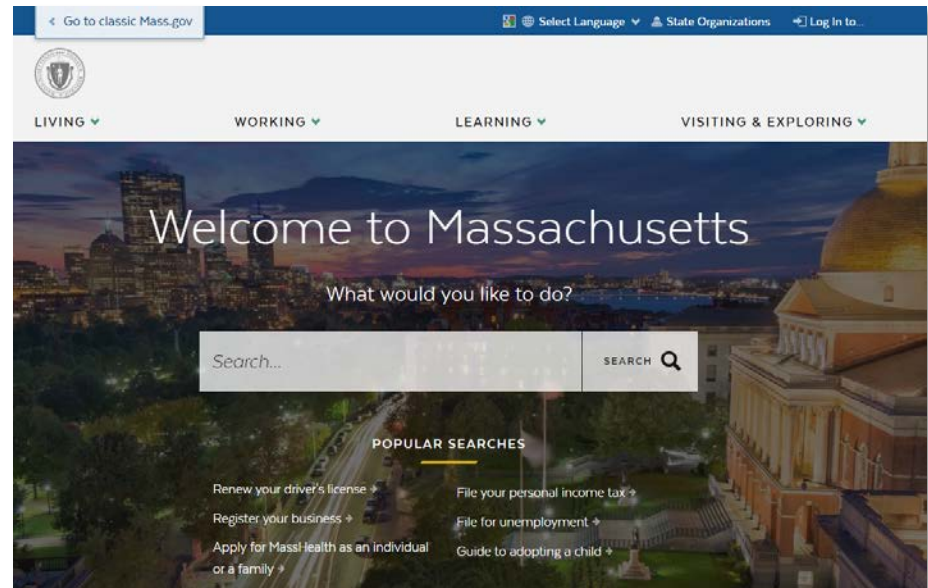




# The Evolving Role of “IT”

- Increasingly, IT professionals are getting more engaged in the user experience, for both internal staff and the public.
- Trends like moving to the cloud free up time to focus more attention on how we effectively use the technology and improve business process.
- During your next IT project, ask yourselves -- are we effectively engaging our core users and is “the way we’ve always done it” the best or only way?

[Pilot.mass.gov](https://pilot.mass.gov) is creating a new digital face to Massachusetts to better meet our users where they are and on the devices they use.



- Increasingly important as more and more essential functions move from paper and pen to computers.
- Basic cyber security begins by implementing minimum security standards across your entire network:
  - Consistent, enforced password policy with regular password changes
  - Licensed, updated anti-virus and anti-malware software
  - Written and enforced acceptable use policies for network usage
  - Written plan in place if a cyber security incident occurs
- Most important: employee cyber security awareness
  - Employees are front line protection against threats
  - Should know how to prevent and respond
  - Should exercise good “cyber hygiene”



- Cyber criminals use ever-changing techniques to lure or trick you into giving up your confidential data.
- Organizations are beginning to take advantage of tools that can mimic these social engineering threats and provide training opportunities for staff.

TIP:

Err on the side of caution if the text of an email is unusual or out of character and think before you click. Hover over links to make sure they are sending you where you expected.



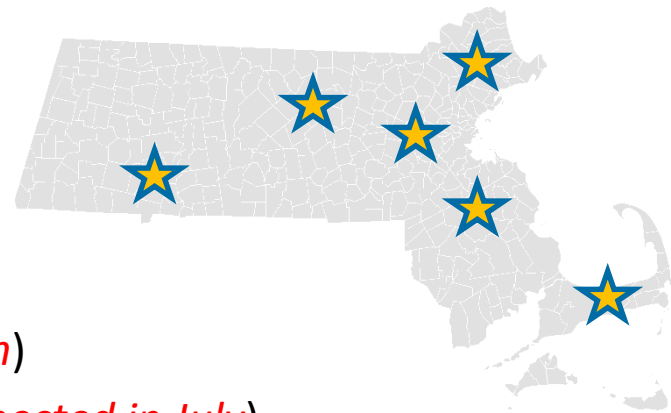
- Data standards can open opportunities to collaborate, integrate or analyze data with external organizations – but standards can also open opportunities for collaboration and analysis across departments within your organization.
- Parcels and Addressing
- Building & Land Development Specification (BLDS)
- Local Inspector Value-Entry Specification (LIVES)
- General Transit Feed Specification
- Open311 - GeoReport v2
- License Validation API



# HOW DO WE GET THERE?



- We believe regional IT groups provide great value, we support their formation, and are happy to participate where we can add value.
- These groups typically meet regularly to discuss relevant municipal technology issues and collaboration opportunities.
- Current groups include:
  - Western Mass Regional IT Directors
  - South Shore Regional IT Directors
  - Barnstable County IT Directors
  - No. Central Mass (*first meeting last month*)
  - Metro West IT Directors (*first meeting expected in July*)
  - North Shore IT Directors (*first meeting being planned*)
- Interested in participating or starting your own group?
  - Send an email to [omst@mass.gov](mailto:omst@mass.gov) and we can help.





## **MULTI-STATE** Information Sharing & Analysis Center™

- Network monitoring
- Early threat warning and advisories
- Mitigation and Incident Response
- Education Opportunities

<https://msisac.cisecurity.org>



The Office of Municipal and School Technology is focused on providing value for our cities, towns and school districts.

- Discuss Grant and Technical Assistance Opportunities
- Investigate Procurement Opportunities
- Provide Data and Recommend Standards
- Facilitate Collaboration





Governor Baker's first executive order created the Community Compact Cabinet to increase partnership between state and local government.

- Best Practices Program
- Efficiency and Regionalization Grant Program
- IT Grant Program



<http://www.mass.gov/ccc>

Nearly 300 communities have signed compacts and we're working with more than 115 communities on IT Best Practices.

- Strategic Planning
- Transparency & Data Standards
- Business Continuity
  - Including Cyber Security
- Citizen Engagement



<http://www.mass.gov/ccc>



- Competitive grant program to support implementing regionalization and other efficiency initiatives that allow for long-term sustainability.
- Open to:
  - Municipalities
  - Regional school districts
  - School districts considering regionalization
  - Regional planning agencies and councils of governments
- You can submit both a local and regional application.



<http://www.mass.gov/ccc>

- The CCC IT Grant is a competitive grant program intended to support one-time, capital investments in innovative and transformative technology.
- While it is a very competitive program, we were able to award 52 grants in the first year of the program and we just announced another 47 in year two.
- Applications for the next round of the program are expected to open next spring.



<http://www.mass.gov/ccc>

### Examples of IT Grants Just Announced Include:

- Regional Document Management for Williamsburg and surrounding communities
- Grants to Pelham, Agawam and North Andover to support document digitization efforts
- Consolidation of multiple financial systems in Merrimac
- New Accounting and Cash Management software in New Salem and 12 surrounding communities.



<http://www.mass.gov/ccc>



- A competitive matching grant program to improve school infrastructure and support next generation teaching, learning and assessment.
- 113 schools across 41 districts have received support for wiring and WiFi throughout their buildings, and we expect that to double soon.
- MassIT submits the E-Rate Category 2 application on behalf of awarded districts, handles all procurement, and provides project management.

**See the results at:**

<https://www.youtube.com/user/MassInnov8/>



We work very closely with MassGIS and are happy to help you access their resources.

- A huge library of data layers
- Google Ortho Imagery
- An evolving addressing standard
- Standardized Parcel Mapping
- MuniMapper GIS visualization tool for small towns



Thank you!

# Please feel free to reach out anytime!

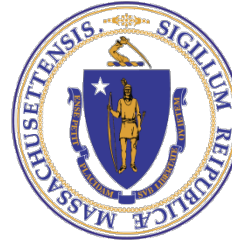
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<http://www.mass.gov/massit/omst>





# DLS

DIVISION OF LOCAL SERVICES  
MA DEPARTMENT OF REVENUE

## Local Government IT Trends

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**Mary MacKinnon**

**Project Manager, Technical Assistance Bureau**

[www.mass.gov/dor/local-officials/technical-assistance-bureau/](http://www.mass.gov/dor/local-officials/technical-assistance-bureau/)

- **What is the Technical Assistance Bureau (TAB)?**
- **IT Modernization**
  - Website
  - E-government
  - Citizen Engagement
- **Vendor Relationships**

# What is Technical Assistance Bureau (TAB)?



- Best Practices through the ***Community Compact Program***
- Consult and advise cities and towns on: ***FREE OF CHARGE***
  - Financial Management Reviews
  - Government Structure-Shared Services
  - Self-service tools and calculators ([www.mass.gov/dls](http://www.mass.gov/dls))
- Whether your community is facing a particular issue, would like to implement a best practice, or could benefit from a general assessment of its financial condition, TAB can assist.

**Zack Blake, Bureau Chief    617.626.2358    [blakez@dor.state.ma.us](mailto:blakez@dor.state.ma.us)**

# IT Modernization

- Hardware, Software, Infrastructure
- 24 x 7 x 365 access
- Transparency
- E-government services
- Citizen Engagement and policy development

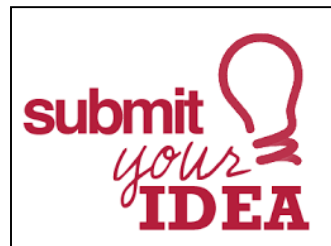
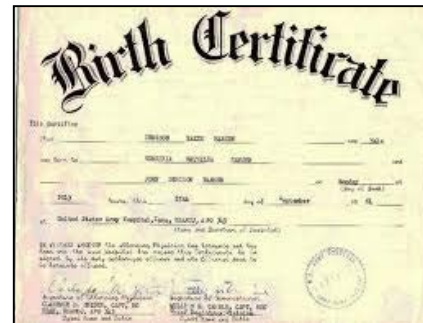
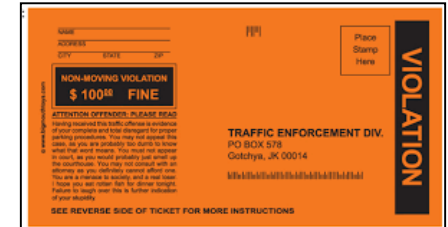


- **Online Presence**
  - Up-to-date
  - Easy-to-use
  - Strong content management
  - Task or Process Oriented
    - How do I...?
    - Where do I...?
    - When do I...?



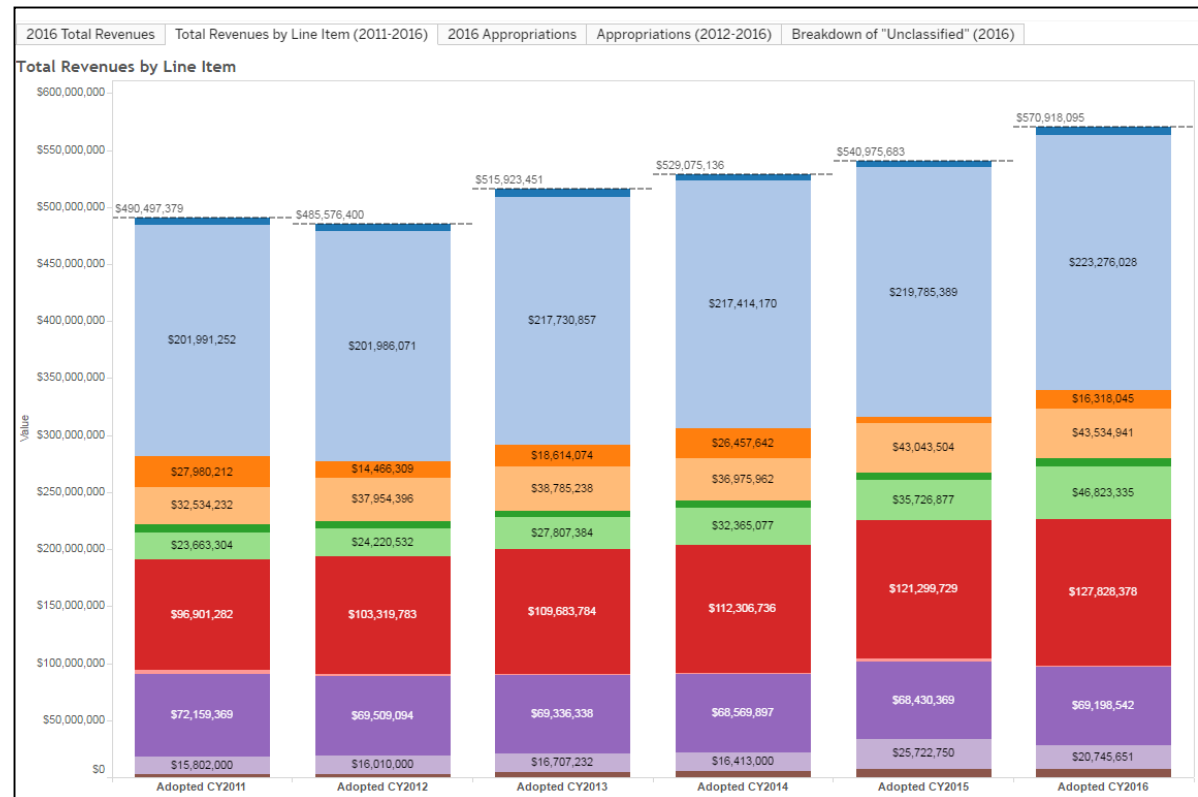
# E-government and Citizen Engagement

- Pay bills and tickets
- Obtain permits, licenses
- Report potholes, etc.
- Social Media
- Collaborate on projects



# Open Data: Budget Visualization

- Build trust
- Transparency
- Communicate quickly and easily
- Interactive experience
- Reduce questions

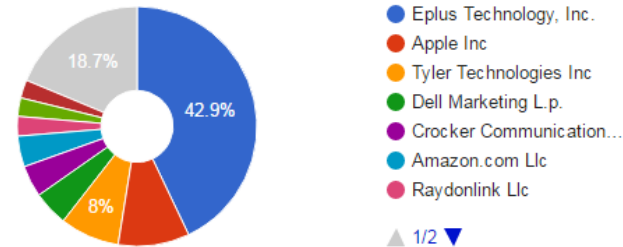




# Open Data: Budget and Checkbook

- Detailed transactions on how tax dollars are spent

Spending by Vendor (Total: \$763,612.42)



Department	Vendor	Description	Date	Amount	Check Number
Information Technology	Eplus Technology, Inc.	Cap Outlay-Computer Equipment	Jun 01, 2017	3,354.74	104003
Information Technology	Crocker Communications, Inc.	Communication-Internet	Jun 01, 2017	2,400.00	103986
Information Technology	At & T	Communication-Telephone	Jun 01, 2017	88.30	103952

	A	B	C	D	E	F	G	H
1	<b>City of Springfield, MA Non-Payroll Disbursements FY 2017 YTD as of 6/8/2017</b>							
2	VENDOR NAME	ORG	ORG DESC	ACCOUNT DESC	AMOUNT	WARRANT	INVOICE	FULL DESC
77	BMO MASTERCARD CORP	01129	OFFICE OF MANAG	SEMINARS/EDUCATIO	850.00	08032016	JULY-AUG16	PCARD PMT HOLD FOR SPS
78	BMO MASTERCARD CORP	01129	OFFICE OF MANAG	SEMINARS/EDUCATIO	157.13	03082017	JAN/FEB 2017	HOLD FOR SPS
79	LEADERSHIP PIONEER	01129	OFFICE OF MANAG	SEMINARS/EDUCATIO	1,600.00	11032016	355	LPV TUITION-TASHEENA DAMS
80	LEADERSHIP PIONEER	01129	OFFICE OF MANAG	SEMINARS/EDUCATIO	1,500.00	05122017	290A	TUITION FOR LAURA WALSH ( FINA
81	COMMONWEALTH OF MAS	01129	OFFICE OF MANAG	SEMINARS/EDUCATIO	3,075.00	08312016	9968	HOLD FOR FINANCE
82	MASSACHUSETTS MUNICI	01129	OFFICE OF MANAG	SEMINARS/EDUCATIO	45.00	08042016	3761	HOLD FOR FINANCE
83	MASSACHUSETTS MUNICI	01129	OFFICE OF MANAG	SEMINARS/EDUCATIO	170.00	01112017	JAN 20-21, 2017	HOLD CHECK FOR FINANCE
84	COMMONWEALTH OF MAS	01129	OFFICE OF MANAG	SEMINARS/EDUCATIO	250.00	08242016	8235	HOLD FOR FINANCE
85	COMMONWEALTH OF MAS	01129	OFFICE OF MANAG	SEMINARS/EDUCATIO	50.00	03302017	TIM BROWN	HOLD CHECK FOR FINANCE
86	FRED PRYOR SEMINARS	01129	OFFICE OF MANAG	SEMINARS/EDUCATIO	79.00	11092016	20956707	EXCEL TRAINING CLASS
87	FRED PRYOR SEMINARS	01129	OFFICE OF MANAG	SEMINARS/EDUCATIO	49.00	11092016	20956709	EXCEL TRAINING CLASS



# Strong Vendor Relationships

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- **Support Agreements**
  - Ease the burden on internal IT resources
- **Improve supportability and assist with staff turnover**
- **Vendors should know your business - extension of your office**
- **Advanced notice of new features and functionality**
- **Influence product improvements**

**Thank you!**

***Any questions, feel free to contact me at:***

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## Implementing New Technology

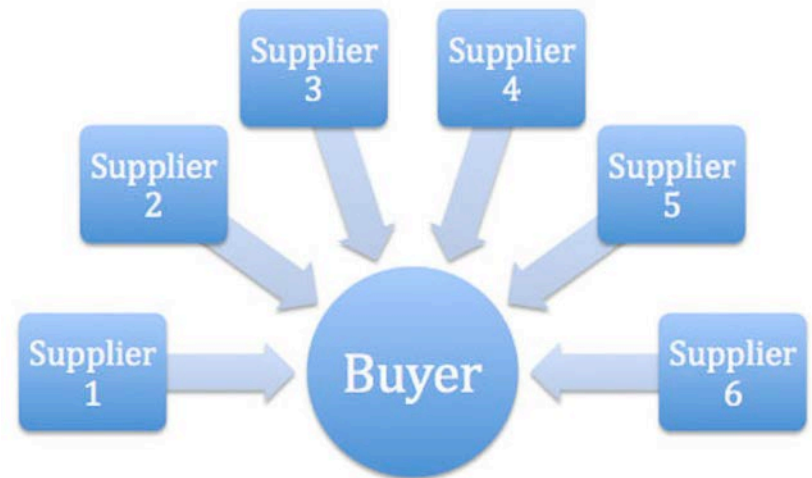
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June 12, 2017

Cathy Marques  
Municipal & School Technology Manager

*MassIT's mission is to drive the digital business of state government to meet the continually evolving needs of constituents, schools, businesses, and local government.*

- Request for Information (RFI)
- Strategic Sourcing Team (SST)
- Request for Proposal (RFP)
- Apparent Successful Bidder
- Contract
- New Solution
- Business Process
- Communication



- What is out there?
- What are your options?
- Draft a better Request for Proposals
- Non-binding
- No Cost
- <https://www.commbuys.com>
- <http://www.mass.gov/ig/procurement-assistance/>



- Subject Matter Experts
- Tech Savvy
- Cheerleaders
- Nay-sayer
- Availability
- Commitment



# Request for Proposal (RFP)

- Information gathered from RFI
- Balance between clarification and over specifying
- Follow procurement rules
- Manageable timeline

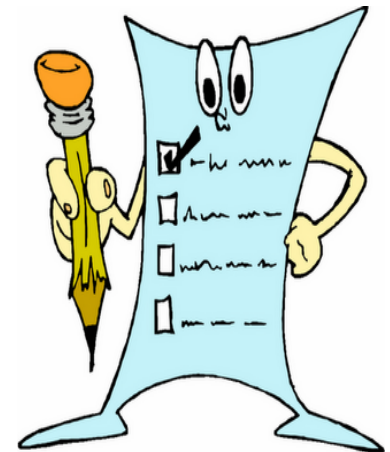


- Individual or consensus scoring
- Document process
- Best and Final Offer
- Apparent Successful Bidder
- Contract negotiations





- Needs Assessment
  - Determine the requirements of the new system
- Inventory of Assets and resources
  - Computer equipment
  - Internet access
  - Technical competency of staff
  - IT resources
- Budget



- Assess the current process
- Determine changes to software or changes to process
- Improvements to the current system
- Training, training, training
  - This should be done before, during and after im
  - Use super users to help out



- Keep the flow of information going
- Make sure the flow of information is going both ways...listen for the rumors
- The more you communicate, the less chance of rumors
- Keep a positive outlook – keep smiling



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