Demystifying the Cloud

Taking a deeper dive

Thursday, October 3, 2019
2:00 – 3:15 p.m. Eastern Time
CPE: 1.5 credits available
With us today

Moderator: Kinney Poynter
Executive Director, NASACT

Doug Cotnoir, CPA, CIA
Maine State Controller

Geoff Plante, Partner
State & Local Government Finance Leader

Ray Zaso, Principal
State & Local Government Enterprise Solutions Leader
Agenda

2:00 – 2:05 p.m. – Welcoming Remarks
Moderator: Kinney Poynter, Executive Director, NASACT

2:05 – 2:55 p.m. – Demystifying the Cloud
Geoff Plante, Partner, KPMG
Ray Zaso, Principal, Advisory, Enterprise Solutions, KPMG
Doug Cotnoir, State Controller, State of Maine

What’s driving organizations to the cloud?
What is the cloud?
Views concerning data & security in the cloud
What is it like taking the journey?
Where do you start?

2:55 – 3:10 p.m. – Q&A Session

3:10 – 3:15 p.m. – Wrap-Up
Moderator: Kinney Poynter, Executive Director, NASACT
What’s driving organizations to the cloud?
What we see is lot’s of disruption ahead

Disruption is changing everything!

State Government is tasked to do more, and to do it faster. It’s a race to catch up. But throughout it all, we can’t just think about our current challenges. We have to get ahead. We have to keep an eye on what’s next.

External pressures

— Declining revenues
— Regulatory requirements
— Citizen engagement
— Technology advances

Internal pressures

— Skills shortage
— Organizational complexity
— Outdated IT systems
— Budget reductions
Is the enterprise of the past century still fit for purpose in this century?

What does it take to be a 21st Century Enterprise amidst these changes?

How will today’s leaders transform their business, operating and financial models for future growth & relevance?
Finance as we know it will be radically different in the future

Finance will…

Utilize cloud based systems with no customizations

Require more analysts and fewer clerks

Own more structured data allowing for better analysis and decision making

Focus more on the external customer and less on internal needs

Own and support the systems and require less IT support

Develop capabilities for real or near term decision making

Identify risks earlier using data
Nearly half of government agencies are actively using cloud services and the forecast is that use will continue to rapidly grow. With “cloud first” policies, state and local governments are able to increase agility, reduce costs, support innovation and more rapidly deploy digital services to citizens.
What is the “Cloud”?
Cloud computing is a very clearly defined computing model with essential characteristics such as ...

- Ubiquitous, convenient, on-demand, measured, pay-as-you-go network access to a shared pool of configurable computing resources
- A game-changing technology model and paradigm

- Major technology and business disrupter
- Driving new risks, security & privacy concerns, and opportunities that impacts all elements of the business ecosystem

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Responsibilities change depending on the service model

- **Traditional IT (On Premise)**
  - User Access/ID
  - Data
  - Application
  - Guest OS
  - Virtualization
  - Network
  - Infrastructure
  - Physical
  - Managed by Client

- **Infrastructure as a Service (IaaS)**
  - User Access/ID
  - Data
  - Application
  - Guest OS
  - Virtualization
  - Network
  - Infrastructure
  - Physical
  - Managed by Client

- **Platform as a Service (PaaS)**
  - User Access/ID
  - Data
  - Application
  - Guest OS
  - Virtualization
  - Network
  - Infrastructure
  - Physical
  - Managed by Client

- **Software as a Service (SaaS)**
  - User Access/ID
  - Data
  - Application
  - Guest OS
  - Virtualization
  - Network
  - Infrastructure
  - Physical
  - Managed by Vendor
The cloud ecosystem is maturing and scaling rapidly to respond to the accelerating digital economy

— The market for cloud services has matured, and it is being deployed well beyond serving as a utility for storage and servers

— Many organizations are increasingly leveraging cloud to transform their business

— Cloud service providers continue to develop new security, risk and compliance software tools

— IaaS, PaaS, and SaaS solutions enable the business to become more self-sufficient, reducing demand for traditional technology and freeing up resources to work on more complex and high value initiatives
Views concerning security in the cloud.
What does the future look like?

Are you planning to move your financial or administrative systems to the cloud?

- Yes: 53%
- No: 47%

When do you anticipate moving to the cloud?

- Within a Year: 32%
- Within Two Years: 29%
- More than Two Years: 14%
- Unsure of Timing: 25%

Source: NASACT KPMG 2019 Survey
Do you believe your data is more secure on premise (within your data center) or with a third party service provider?

Source: NASACT KPMG 2019 Survey
Am I more confident about increasing our use of cloud technologies for financial systems today than I have been at any point in the last 3 years.

Source: NASACT KPMG 2019 Survey
What is the satisfaction with the security of your financial system today?

<table>
<thead>
<tr>
<th>Satisfaction Level</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Satisfied / Very Satisfied</td>
<td>60%</td>
</tr>
<tr>
<td>Neutral</td>
<td>27%</td>
</tr>
<tr>
<td>Not Satisfied / Little Satisfied</td>
<td>13%</td>
</tr>
</tbody>
</table>

Source: NASACT KPMG 2019 Survey
What issues would prevent you from moving to a new system?

- Data privacy: 20%
- Security: 20%
- Other: 19%
- Data ownership: 17%
- Portability of data: 12%
- Current capability of staff: 12%

- Budget considerations
- Business needs
- Changes to business processes to eliminate customizations

Source: NASACT KPMG 2019 Survey
Common misconception concerning data privacy

My cloud service provider can store our data anywhere in the world allowing access to our data outside the United States.

Contrary to popular belief, although cloud service providers have data centers around the world, your contract can specify where exactly your data will be stored. Most all government agencies prohibit storing data and having access outside US boarders.
Common misconception concerning cloud security

Access to my system outside our organization can be obtained by anyone, anywhere and anytime.

Contrary to popular belief, cloud services are more secure than on-premise systems. Eighty-eight per cent of organizations feel more confident about their use of cloud technologies than at any point in the last three years. 

1 Source: Harvey Nash | KPMG 2019 CIO Survey
Common misconception concerning data ownership

Once we populate our data into the system we lose control of data ownership.

Contrary to popular belief, It's your data! Unless contractually written otherwise, you retain all ownership and intellectual property rights in and to your data.

You also have the ability to port your data elsewhere in a format that will allow you to load into another solution.
CIOs report their Cloud confidence is building

Respondents who are more confident about increasing use of cloud technologies today than had been at any point in the last 3 years.

Source: Harvey Nash | KPMG 2019 CIO Survey
What is it like to take a journey?
Maine’s top challenges

**Business process reengineering**

- Modified our processes to keep implementation as “baseline” as possible
- Changes in workloads due to automation and workflow

**IT staff skills to support on premise installation**

- Compensation for key resources (i.e., DBA) not adequate for retention

**Ongoing budget to stay current**

- Upgrades and hardware refreshes have a cost
- Risk of falling into “old” paradigm of budget challenges prevent upgrades
Maine’s Finance journey to the cloud

- **2007**: on premise installation of ERP
- **2011**: transition to full hosted managed services model
- **2016**: renewed contract 10 years solidifying our “outsourcing” relationship
- **2017**: Grants Lifecycle Management using Case Management
- **and Beyond**: Integrations with cloud-based Enterprise Content Mgmt., Business Process Mgmt., and Business Intelligence applications
### Maine’s ERP objectives and outcomes

**Deploy desired and necessary new functionality for key business areas**
- Procurement – including vendor self-service
- Financial management – including general ledger, receivables management, obligation and commitment control
- Fixed assets – tracking, management and reporting
- Business process reengineering to standardize/optimize processing through automated workflow

**Improve technical processing time, security and stability**
- Keep application current to maintain Tier 1 support status from vendor and related partners
- Timely response and problem resolution when technical issues are identified
- Ensure training for State technical staff to provide ongoing application support
- Automated real-time notifications, security controls, configurable system edits

**Improve efficiency in data entry and retrieval**
- Procurement management, contract staging
- Vendor self-service functionality
- Customer accounts receivable management
- Data warehouse
Maine’s Data Warehouse journey to the cloud

2016: Decision to replace on-premise data warehouse tools

- Contract with platform as a service provider for cloud instance
- “Lift and Shift” migration of databases to the cloud

2017

2018: Reengineering project to replace database schemas

2019: Implementation of cloud-based BI and Analytics tools and Integrations with other cloud-based data sources
Maine’s Data Warehouse objectives and outcomes

<table>
<thead>
<tr>
<th>Modernize and simplify access to data assets</th>
<th>Improve security and controls on data governance</th>
<th>Improve enterprise scalability and supportability</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Accounting, budget, HR and payroll data assets</td>
<td>- Reduce redundant data</td>
<td>- Reduced total cost of ownership (TCO)</td>
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<tr>
<td>- Improved &amp; singular access point to data</td>
<td>- Standardize data sources to improve usability</td>
<td>- Negotiated licenses based on data sources, not “named users”</td>
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<td>- Improved operational efficiency for agencies</td>
<td>- Improved data integrity (accuracy, reliability)</td>
<td>- Confirmed Business Continuity / Disaster Recovery capability</td>
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<td>- Reliable, accurate and timely information available to program managers and department executives</td>
<td>- Accurate, complete and secure data</td>
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<td>- Increase end users – grow consumption of data</td>
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Modernize and simplify access to data assets:
- Modernize and simplify access to data assets
- Account for data assets
- Improved & singular access point to data
- Improved operational efficiency for agencies
- Reliable, accurate and timely information available to program managers and department executives
- Increase end users – grow consumption of data

Improve security and controls on data governance:
- Reduce redundant data
- Standardize data sources to improve usability
- Improved data integrity (accuracy, reliability)
- Accurate, complete and secure data

Improve enterprise scalability and supportability:
- Reduced total cost of ownership (TCO)
- Negotiated licenses based on data sources, not “named users”
- Confirmed Business Continuity / Disaster Recovery capability
Key considerations in cloud relationships

Service level agreements are critical
- Allows the business to focus on services provided; not the staff
- Service outcomes are easier to define and measure than skillsets

Longer term contracts
- Requires focus on the relationship (vendor management)
- Performance versus penalties

Governance models are crucial
- Stakeholder involvement
- Maine utilizes a comprehensive Operational Framework
## Lessons learned along the way

<table>
<thead>
<tr>
<th>Organizational change management should be a major focus</th>
<th>• Don’t underestimate the quality of communications throughout the project</th>
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</thead>
<tbody>
<tr>
<td><strong>Training</strong></td>
<td>• Multi-modal: classroom, web, computer-based</td>
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<tr>
<td></td>
<td>• Train the trainer approach</td>
</tr>
<tr>
<td></td>
<td>• Documented reference materials, quick guides, video modules</td>
</tr>
<tr>
<td><strong>Lost opportunities due to on premise installation; managed services now provides</strong></td>
<td>• Single point of accountability</td>
</tr>
<tr>
<td></td>
<td>• Comprehensive service level commitments</td>
</tr>
<tr>
<td></td>
<td>• Risk mitigation and disaster recovery</td>
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<td></td>
<td>• Secure, predictable long-term cost of ownership including upgrades and hardware refreshes</td>
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What others would have done differently during their transition to the cloud

- Implemented better / more technologies: 55%
- Clarified roles of other impacted functions: 52%
- Further enhanced self-service capabilities at the...: 43%
- Increased / Expanded change management efforts: 40%
- Focused more on governance: 38%
- Implemented in stages / phases rather than all at...: 18%
- Included more services during initial...: 11%
- Explored the option to outsource some services: 11%
- Explored the option to consolidate some services: 7%
- Included fewer services during initial...: 5%
- Other: 4%

Source: KPMG International Survey
What work preceded your cloud implementation?

- Did you change processes? 94%
- Did you change your operating model? 79%
- Did you identify measures of success? 63%
- Did you create a business case? 50%
- Did you change structure or roles? 44%

Source: KPMG International Survey
Where do you sit?
# The agenda for disruption

Leading finance organizations have developed an agenda to deal with disruption

<table>
<thead>
<tr>
<th>Insights and analysis</th>
<th>Organizational simplification</th>
<th>Skills and talent</th>
<th>Risk management</th>
<th>Extreme automation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New insights through:</strong></td>
<td><strong>Changing work:</strong> Fewer people Less hierarchy</td>
<td><strong>Changing requirements:</strong> Both strategy and finance skills Process and control leaders Relationship and collaboration</td>
<td>Response to disruption impacts how risks and controls are managed in an organization and the need to continuously evolve.</td>
<td><strong>Integrating new technologies:</strong> Cloud ERPs Robotics Artificial intelligence Blockchain Mobile</td>
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</table>

- **Automated descriptive and diagnostic analytics**
- **New predictive and prescriptive analytics**
- **Integrated business planning**
How ready is your organization?

Organization’s Effectiveness for implementing business processes changes

- Not Effective At All: 34%
- Somewhat Not Effective: 35%
- Neutral: 11%
- Somewhat Effective: 17%
- Very Effective: 3%

Staff Readiness to change their business practices to adapt to new systems

- Yes: 52%
- No: 41%
- Not Sure: 7%

Right Skill Sets for the change?

- Yes: 26%
- No: 52%
- Not Sure: 22%

Source: NASACT KPMG 2019 Survey
To what extent do you agree the use of artificial intelligence, chat bots and/or process automation would help finance/audit in the following categories?

Operational Efficiency

- Disagree: 2%  
- Neutral: 33%  
- Agree: 37%  
- Strongly Agree: 28%

Citizen Experience

- Disagree: 14%  
- Neutral: 7%  
- Agree: 40%  
- Strongly Agree: 40%

Employee Satisfaction

- Disagree: 14%  
- Neutral: 8%  
- Agree: 48%  
- Strongly Agree: 30%
## What does it take for program success?

<table>
<thead>
<tr>
<th>Transformation success factors</th>
<th>Healthy signs</th>
<th>Unhealthy signs</th>
</tr>
</thead>
</table>
| Unflinching executive commitment and championing | — The right executive sponsors are engaged  
— Regular steering committee meetings  
— Engaged operating committee to drive decisions                                                                                     | — Executives’ support is not visible  
— Not able to find the right resources with the right skills                                                                 |
| Enabled-technology strategy | — Crawl, walk, then run approach  
— Standardize wherever possible  
— Minimal SW extensions & leverage configuration                                                                                       | — Automate AS-IS process vs. improve then automate” strategy  
— Not driving E2E thinking across process decisions                                                                                   |
| Articulating and monitoring case for change | — Value drives the sequencing  
— Quick wins while working on longer transformation  
— Business case that tracks benefits                                                                                                      | — Lack of end-to-end comprehensive KPIs  
— “Why are we doing this?” mindset  
— No business case                                                                                                                            |
| Proven change transformation methodology | — Change activities are part of the program  
— Operating model change core to driving business benefits  
— Understanding and considering employee impacts                                                                                         | — Change not considered in upfront planning  
— Minimized ROI due to poor adoption  
— Out of touch with employee population needs and motivations                                                                 |
| Effective governance and program control | — Rigorous change control policy  
— Purposeful, digestible implementation plan  
— Effective risk mitigation to anticipate roadblocks/issues  
— Status reporting driven by data / facts                                                                                                   | — Uncontrolled – poor plans, controls, tracking mechanisms  
— Risk are not captured or mitigated  
— Status reporting not reflective of project reality                                                                                     |
What should you be thinking about?

What is our talent management strategy, critical roles, and risks?

What business questions and decisions should we anticipate to address these disruptors?

What business disruptors are impacting us most?

Business as usual is not an option. The biggest limitation is no longer the technology and what it can do, but the imagination of those who must deploy it.

How much appetite do we have for extreme automation?

What are the impacts on our current workforce and do we have the right skills and competencies moving forward?

What is our data and analytics strategy?

How will our current delivery model and locations be impacted?

Where do we start?
Questions


Ask, Understand, Query, Apply, Answers