The NYS Forum
31st Albany Annual Meeting

Leadership + Opportunity + Innovation = Customer 1st

October 17, 2017
1:00 pm - 3:30 pm
Hearst Media Center
645 Albany Shaker Road
Albany, NY
- Welcome and Introductions
  - Joan Sullivan – Executive Director, The NYS Forum

- The State of The Forum
  - Bob Loomis – CIO, NYS Office of the State Comptroller

- Message from State CIO
  - Bob Samson - NYS Chief Information Officer

- Workgroup Reports – Accomplishments / Future Plans
  - Corinne Brennen – Director of Program & Business Development, The NYS Forum

- Update from City CIO and State Chief of Staff
  - Anne Roest - NYC Chief Information Officer
  - Matthew Millea - NYS Chief of Staff

- Keynote Address: "Cloud: Past, Present and Future: the Journey"
  - William Sanders - Director of Cloud Platform and Service, Oracle
Some Observations

- This is New York State …
- Technology continues its relentless march
- Our people are amazing
- Our clients are eager for our help
- What we do touches every aspect of NYS government
- Innovation That Matters … For All New Yorkers
- Our New Reality
  - Fewer People; Smaller Budgets; Many More Projects
- Change is our friend
- Time is not our friend
- Our future together looks incredibly bright
The NYS Forum Workgroups

• Accomplishments 2016-2017
• Planning 2017-2018
Business Analysis/Architecture Workgroup

Co-Chairs:
Christine Gillie, NYS Department of Health
David Nagy, NTT Data
Gabrielle Shoemaker, NYS Insurance Fund
Paul Franz, NYSTEC
Todd Briton, NYS OSC

Monthly Meeting Information:
2nd Wednesday of every Month
Time: 8:30-9:30 am
Location: NYS Forum Office
Business Analysis/Architecture Workgroup Purpose

- Encourage development and maturity of Business Analysis practices within all NYS agencies
- Collaborate and share information amongst Government entities and corporate partners
- Share processes, methods, and policies that lead to best practices
- Determine consistent approaches where appropriate
- Facilitate training opportunities
- Form Communities of Practice around technical areas of expertise
2016-2017 Activities & Accomplishments

11 Monthly Meetings held

3 Meetings focused on Mentoring/Networking

Technique Spotlight – Facilitating Team Collaboration

9 Training Events were held

- All available seats taken
- Waiting lists
2017-2018 Planning

Send out annual interest survey for BA training and events
Schedule training events based on annual survey results
Engage Business Analysts at NYS Agencies to increase meeting attendance
Continue to hold Speed Mentoring Events
Continue development of Business Analysis Practitioners Guide
Hold Business Architecture events / project spotlight(s)
Hold Business Analysis related project spotlights(s)
Discuss leveraging Agile benefits in IT Procurements
Business Innovation & Emerging Technology Workgroup

Co-Chairs:
- Glen Kaatz, NYSERDA – Public Sector Co-Chair
- Lew Makinson, NYSTRS – Public Sector Co-Chair
- Billy Obenauer, NYSTEC – Corporate Co-Chair
- Laura Edlund, AT&T - Corporate Co-Chair

Incoming Co-Chairs
- Kishor Bagul, Clouds & Things, Corporate Co-Chair
- Jill Perkins, QED National, Corporate Co-Chair

Monthly Meeting:
- Date: First Wednesday of Month at 11AM
- Location: NYS Forum Offices
Business Innovation & Emerging Technology Workgroup Purpose

Inspire Innovation in NY State Government. Educate and learn about new and emerging technologies to help NYS Agencies innovate to accomplish their missions and goals. Collaborate in an informal public/private forum.
2016-2017 Workgroup Activities & Accomplishments

Data and Analytics Community of Interest Roundtable
Data and Analytics 4.0
Community of Interest Outputs vs. Outcomes Discussion
Community of Interest Networking Event
Software Defined Networking Presentation
Revisiting Data and Analytics: Launching a Successful Program
Workgroup Plan for Program Year 2017-2018

Topics of focus under consideration for the upcoming program year:

- Block Chain
- Chat Bots
- Internet of Things
- Drones and use of them
- Artificial Intelligence
- Cloud (Visibility, Digital Transformation and Data Management)

Upcoming Event on November 1st at 9AM “How Innovative Technologies are contributing to an Effective Data and Analytics Program”

Collaboration with other workgroups - Business Analysis, IT Procurement and Security, to make presentations most effective
IT Procurement Workgroup

Co-Chairs:
- Marc Kleinhenz - OGS
- Rosalind Cimino - Town of Mamaroneck
- Leo Pfohl - Genesys Consulting Services Inc.
- Ruth Walters - The Walters Group

The work group wishes to recognize the profound contributions of Jana Behe of NYSTEC over the past several years. Our sympathy goes out to her family, friends and colleagues.

Monthly Meetings:
- Date: Second Wednesday of each month
- Time: 3:30 PM
- Location: NYS Forum Offices
Improving procurement processes and educational opportunities for public and private sector stakeholders. Communicating issues, legislative changes and Executive Orders that can impact procurement, sharing best practices, and sharing information on navigating the landscape.
2016-2017 Workgroup Activities & Accomplishments:

Informational session with leaders of the Service Disabled Veteran Owned Business program of OGS. Ken Williams and team.

Legislative Updates on multiple topics with assistance from Todd Vandervort and Ruth Walters

Informational session on Article 162 (Reporting of compensation) – Overview and Impacts led by Jana Behe

Vendor Responsibility Event with speakers from the Office of the State Comptroller. Carrol O’Connor and team.

Informational session on certification of public sector procurement professionals with great contribution from Don Greene based on his personal experience
2017-2018 Planning

Topics & Issues to be addressed in the upcoming program year:

Project Scoping Best Practices – from procurement & RFP perspectives

Prioritizing topics in line with ITS, OGS, OSC and the needs of other agencies

MWBE legislation (Article 15-A of the Executive Law) expiration, April 2018

Continue to focus on topic driven monthly meetings and incorporating informational sessions
NYS Forum Toastmasters Club

Club Officers

President
Frank Palmeri, NYS ITS

VP Education
Cathy Kittle, NYS DEC

VP Membership
Cleo Rodgers, NYSTEC

VP Public Relations
Jill Perkins, QED

Secretary
Chris Chimento, NYS HCR

Sergeant-At-Arms
Anshu Sharma, NYS ITS

Meetings: 3rd Wednesday of every Month, 4:00-5:30
Location: NYS Forum Office
What do I like best about the NYS Forum Toastmasters Club?

“The challenge of participating, kindness and consideration of those involved, the opportunities for involvement and the new perspectives on speaking, meetings management, and leadership it offers.”
Information Technology Corporate Roundtable (ITCR)

Chair & Vice-Chair:

James Nicol – ITCR Chair
Laura Edlund – Vice-Chair

Monthly Meetings:
Date: First Thursday of each Month at 8:30 AM
Location: NYS Forum Office
2016-2017 ITCR Meetings

Deborah Snyder - Chief Information Security Officer, New York State Office of Information Technology Services

Bob Samson - Chief Information Officer, New York State Office of Information Technology Services

Moses Kamya - Chief Information Officer, New York State Office of the Attorney General

James Bell - Director of Senate Technology Services, New York State Senate

Sean Carroll - NYS Chief Procurement Officer, Office of General Services

Brian Digman, Director of IT & Kim McKinney, Chief Technology Officer, NYS Thruway Authority
2016-2017 ITCR Meetings (continued)

Budget Overview

Ruth Walters, The Walters Group
Art Brown, Arthur Brown LLC
Chrissy Rutigliano, The Roffe Group P.C.
Todd Vandervort, The Vandervort Group LLC

**Procurement Reform in NYS:** Mark F. Glaser - Greenberg Traurig, LLP

**T. Simeon Ananou,** D.Ed. - Vice President for Information Technology Services, Chief Information Officer - University at Albany, SUNY

**Karen D. Starke,** CIO at the New York State Education Department
Upcoming Events for Program Year 2017-2018

November 2nd - **Nonie Manion**, Executive Deputy Commissioner, Department of Taxation and Finance, State of New York

December 7th - **Stacy Panis**, Chief Information Officer, Human Services Cluster, New York Office of Information Technology Services

Future Meetings - ITS & Agency Leaders
Information Security Workgroup

Co-Chairs:

Public:
Sanjay Goel, SUNY Albany
Scott Rogler, ITS
Rick Cobello, OTDA

Corporate:
Wendy Gavert, Salesforce
Greg Nellis, CDW-G

Monthly Meeting Information:
2nd Thursday each month, 1-2pm
Location: NYS Forum Office
Information Security Workgroup Purpose

The New York State Forum Information Security Work Group supports and enriches New York’s information security professional community of practice by helping members collaborate to address the leading issues faced in protecting shared and organizational data and information systems.
2016-2017 Activities & Accomplishments

Presentations:
  Panel Discussion: Election Fraud

Hot Topics:
  Ransomware – CDW-G
  Cyber Security – Block Chains – Rick Cobello
  Windows 10 Security – Dell
  Worker Efficiency or Mobile Nightmare? – Rick Cobello
  End of Life Security Risks – QED National
  Virtual Desktop Infrastructure: Protecting the Enterprise – Rick Cobello
Planning for 2017-2018

Hot Topics and Presentations:

**Printer Security** – If you're not taking your printer security seriously, someone else might be - HP

**Ransomware** – Splunk

**Supply Chain Security** - Targeting a session with Procurement workgroup

**Cyber Security Conference** - June 2018 Panel Discussion topic TBD

**Ethics around Drone Security** – Rick Cobello

**The Buzz Around Cyber Security**: What we can learn from a super organism – Rick Cobello
Additional Potential Topics:

Do not let wireless be the weakest link
The economics of Security and Compliance
Are your virtual environments secure?
Are you managing the risk? Information security and compliance
Beginning Compliance: Data Classification
Cyber Insurance
Blockchain Technology- Part II

Please submit your ideas!
Project Management Workgroup

Co-Chairs:
Public
Vacant
Corporate
Jonathan Blake, NTT DATA
Briti N. Bose, NYSTEC

Steering Committee Members (in addition to Co-Chairs)

Kim Vining
NYS Teachers’ Retirement System
Charlene Garrow
Office of the NY State Comptroller
Lisa Greene-Maybe
NYS Dept. of Taxation and Finance
Amit Bhaumik
NYSTEC
Sarah Goff
NYSTEC
Tina Mazzucco
Office of the NY State Comptroller

Steering Committee Monthly Meeting
Third Monday of each month, 8:30-9:30, NYS Forum Office
Project Management Workgroup

The mission of the Forum's Project Management Work Group is to devise, implement and sponsor events and programs, customized for NYS-based government entities that facilitate the development and growth of project management best practices and competencies.
2016-2017 Workgroup Activities & Accomplishments

**Project Management Community of Practice (PM COP) Sessions:**
- Resource Portfolio Management
- Waterfall / Agile Overlap

**Project Spotlight Sessions:**
- Achieving Excellence: Evolution of a Successful self-service application

**Joint Session with PMI Upstate NY Chapter**
- Secure-by-Design – The New Normal, Deborah Snyder, Chief Information Security Officer, New York State Office of Information Technology Services

**Fundamentals of Project Management for the Acting Project Manager**
- 11 Monthly Sessions based on PMBOK Knowledge Areas
Planning for 2017-2018

Projects involving Cloud Procurement

Stakeholder Management across Agencies

Investment Management through good Portfolio Governance

Agile – Myths vs. Realities

External Events
   Community of Practice (COP), Spotlights, Joint Events & Training

Internal Projects
   Recruitment & Retention
   Marketing
### In your InBox tomorrow!

**Registration for November Meetings**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Event Name</th>
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</thead>
<tbody>
<tr>
<td>11/1/2017</td>
<td>11:00 - 12:00</td>
<td>Business Innovation &amp; Emerging Technologies Workgroup</td>
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<tr>
<td>11/8/2017</td>
<td>8:30 - 9:30</td>
<td>Business Analysis Workgroup</td>
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<tr>
<td>11/8/2017</td>
<td>3:30 - 5:00</td>
<td>IT Procurement Workgroup</td>
</tr>
<tr>
<td>11/9/2017</td>
<td>1:00 - 2:00</td>
<td>IT Security Workgroup</td>
</tr>
<tr>
<td>11/14/2017</td>
<td>1:00 - 3:00</td>
<td>SharePoint Community of Practice</td>
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<tr>
<td>11/15/2017</td>
<td>4:00 - 5:30</td>
<td>NYS Forum Toastmasters Club</td>
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What’s new – NYC Tech Leadership

CTO - Broadband, IoT, Smart Cities and Digital

CDO - Chief Digital Officer role has been combined with the CTO

CAO - Interviews ongoing for a Chief Analytics Officer

CIO - (Commissioner of DoITT)

CISO - Elevated to a direct report to City Hall
What’s new – DoITT

Created a group dedicated to implementing cloud services

Elevated Service Management Division

Created Enterprise Architecture and Solutioning Group

Kicked of an Enterprise Strategy / Change Management initiative

- Embrace Client-Centricity
- Take a Lean Approach to Everything We Do
- Eliminate Boundaries in How We Work
- Find Ways to Innovate
Cloud Readiness

Increasing the City’s internet bandwidth by 10x

Established a self-service portal for VM provisioning in DoITT Data Center

Moving to IDaaS for directory services

Establishing contracts and direct connects to cloud providers

Re-organizing within DoITT to better support a hybrid (on premise and cloud) model.
Cloud Adoption

Still some hesitation from some customers around security
Difficulty negotiating terms and conditions with cloud vendors
CAPEX vs OPEX
CAPEX vs OPEX

Capital is the more common funding source for technology projects

Cloud (and Agile) projects had been deemed ineligible for capital funding unless they meet particular criteria.

Comptroller’s Memorandum issued on September 1, 2017 provides detail on criteria for cloud
DoITT Priorities

Organizational Change Management
- Resource reallocation
- Train and realign staff

311 Project Completion

NYCWiN Decommissioning

Wrapping up ECTP (911)

NextGen 911, Text-2-911
DoITT Priorities

Continue LinkNYC roll out
Enhance Cyber Security (in support of CISO)
Cloud enablement
21st century Data Center planning
Upgrade data share
Challenges Facing the Modern CIO

Spending more time administering and less thinking strategically

- Big staff cuts with aging IT systems.
- No budget directly allocated to IT Department for Patches, Upgrades, Fixes, Refreshes.
- Must seek Line of Business approval to spend outside personnel costs.
- Inability to sunset despite technical obsolescence.
- Difficulty finding & retaining new talent that knows older technology.
Pressures on a Modern Government CIO

What inhibits a government CIO’s ability to transform?

**The Pressures**
- Political Pressure
- Legislative & Regulatory Mandates
- Economic Pressure
- Social and Technological Opportunities

- Lack of unified data
- Disjointed technology
- Silo technology architecture
- Unsophisticated analytic capabilities
- No automated alert mechanisms
- No integration workflow
- Lack of mobility in applications
- **Culture not ready for change**
- Inability to plan long-term

**The Opportunities**
- Enhanced services delivery
- Standardized systems
- Modern technology delivery
- **Achieve better outcomes**

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An Eye Towards Cost and Security

• How does a CIO:
  – provide the biggest IT bank for the buck
  – meet budget reductions
  – maintain essential services
  – comply with cyber security requirements
  – avoid duplication and comply with architecture standards
  – make sure you can support what you get
  – avoid excessive risk
  – avoid vendor lock-in
  – provide integration across the enterprise
Cloud Powers New Possibilities

**Strategic**
- Improve “Time to Value” – Increase Agility
- Embrace Cloud Operating Model & Delivery Platform
- Drive better outcomes
- Rapidly deployment of new applications
- Less operating, more innovating

**Financial**
- Reduce OpEx Spend and Lower Total Cost of Ownership
- Embrace Utility based Cloud Services subscription model
- Leverage licensing investments
- Avoid future on-prem hardware refresh
- Reduce on-prem footprint

**Business Ops**
- Create a True DR Solution – Reduce Overall Risk of Outages
- DR in the Cloud
- Implement DR in the Cloud
- Reduce Underutilized DR footprint

**IT Ops**
- Redirect energies from lower to higher business value activities
- Outsource & simplify IT Ops
- Better provision & clone environments
- Enrich existing applications

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Deployment Models

Options For All Your Workloads

- Traditional On-Premises
- Cloud at Customer
- Public Cloud
- Consolidated Private Cloud
- Government Community Cloud
Agencies will likely adopt hybrid cloud architecture

- Gartner: “78% of companies still plan to predominantly use internal data centers”
- Forrester: “NA and European companies will run 18% of their custom-built apps on public cloud platforms by 2017”
- IDC: “74% of heavy enterprise cloud users in NA believe they have a hybrid cloud strategy”
Modern CIOs will eventually operate an IT business that relies on hybrid cloud principles and quite possibly embraces more cloud services than on-premise architectures.

Modern CIO will become part IT Leader and part Contract Manager.

CIOs can achieve cloud success with various service models, but must understand that Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS) all have different value propositions. – as does Private vs. Public

So how can the vendor community help government CIO’s embrace and act on the innovations that will lead to successful outcomes?

First, we have to help them execute on the key points that will create success, regardless of the service delivery model they choose.
Cloud Service Models

- **IaaS Cloud** (Compute, Storage)
- **PaaS Cloud** (DBaaS, MWaaS)
- **SaaS Cloud** (HCM, CX, ERP)

Higher Added Value vs. Lower Added Value

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IaaS Use Cases
Delivering on the Promise of Cloud

- **Lift & Shift**
  - Ex: Implement a Hybrid Cloud for Cloud Bursting

- **Move Dev/Test Environment**
  - Ex: Create new app in OPC, deploy to On-Prem

- **Create DR in the Cloud**
  - Ex: Rapidly test/deploy Adv. Analytics w/ Big Data
PaaS Use Cases
Delivering on the Promise of Cloud

1. Lift & Shift to PaaS
   Ex: Implement a Hybrid Cloud for Cloud Bursting

2. Extend Existing Apps
   Ex: Implement a Hybrid Cloud App with Integration services

3. Move Dev/Test
   Ex: Create new app in OPC, deploy to On-Prem

4. Implement New Capability
   Ex: Quickly create/deploy new mobile app or augment SaaS

5. Innovate
   Ex: Rapidly test/deploy Adv. Analytics w/ Big Data
Cloud Enables Agility

Is the methodology the solution to reducing project failure?

• According to the 2011 CHAOS report from the Standish Group, “the agile process is the universal remedy for software development project failure.

• Software applications developed through the agile process have **three times the success rate of the traditional waterfall method** and a much lower percentage of time and cost overruns.” (page 25)

The Standish Group defines project success as on time, on budget, and with all planned features.

Source: *The CHAOS Manifesto, The Standish Group, 2012*
Enabling Transition Management

Shorten the predictable stages of transition

**Emotional Stages of Transition**

- Routine
- Denial and Decline
- Confusion and Creativity
- Creativity and Refinement
- Renewal and New Routine

**Change Event**
- Old patterns, beliefs and stories become invalid

**Realism and Practicality**
- Help Frame the Question
- Provide Information and Resources
- Give Time to Think
- Recognize this stage is confusing and awkward

**Letting Go**
- Do not reinforce denial
- Acknowledge Loss
- Conduct Ending and Beginning Rituals

**Insight**
- I've Got It!!
- Be Clear about the future
- Provide details
- Remove barriers, obstacles, limits

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Be RAD with Cloud

*PaaS enables quick wins to maintain change momentum*

- PaaS offers the opportunity for low-risk development and innovation.
- A developer can:
  - Spin up an environment
  - Employ a Rapid Application Development (RAD) method
  - Share a prototype with the user community for feedback
  - Take it down or move it to production depending on results – with no investment in hardware
## Reducing risks of large modernization projects

**RAD enables continuous improvement to generate and celebrate small wins**

<table>
<thead>
<tr>
<th></th>
<th>Traditional Risk</th>
<th>RAD Mitigation</th>
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<tbody>
<tr>
<td><strong>Complex Development</strong></td>
<td>Complex functionality could get on the critical path and delay go-Live</td>
<td>A prototype could test some of the most difficult potential parts of the system early on in the life-cycle. Prototypes can be usable and can evolve into the completed product.</td>
</tr>
<tr>
<td><strong>Requirements Definition</strong></td>
<td>Users struggle to define requirements with the appropriate levels of specificity</td>
<td>RAD emphasizes prototyping, allowing users to thrive on reacting to what they see rather than creating specifications</td>
</tr>
<tr>
<td><strong>Functionality</strong></td>
<td>Users don’t end up with all the functionality they desire.</td>
<td>Business functionality from a RAD project can often be much higher than that achieved via a waterfall model.</td>
</tr>
<tr>
<td><strong>Project Completion</strong></td>
<td>Many projects do not complete on time or on schedule.</td>
<td>More projects completed on time and within budget.</td>
</tr>
</tbody>
</table>

Source: “Rapid Application Development: Project Management Issues to Consider,” Patricia A. McQuaid, California Polytechnic State University
Creating Financial Value

Estimated Savings -- “Mileage may vary” based on environment discovery

Datacenter Operational Services and Expenses

- **Platform Costs**
  - DBA Admin | Weblogic Admin
  - Orchestration/Tooling
  - Monitoring

- **Server Costs**
  - Hardware Server, Rack/Cabinet, PDUs, Switches, Local Disk

- **Storage Costs**
  - Hardware Storage Arrays, Disks, HBAs SAN, FC Switches
  - Storage Admin

- **Network Costs**
  - Hardware Network, Core/Aggregation Switches, Cabling, Bandwidth
  - Network Admin

- **IT Labor Costs**
  - DC Admin | Virtualization Admin | Security Admin
  - SOC: 24x7x365 | Tier 1-4 Helpdesk
  - Product Specialists
  - Operational Compliance/Governance | Capacity/Change Mgmt

### Datacenter TCO = Platform + Server + Storage + Network + IT Labor

= Highly fixed CAPEX and OPEX

Cloud Services

- **Platform Costs**
  - DBaaS | JCS | Containers
  - ICS/SOA
  - Mobile | IoT

- **Server Costs**
  - Public Cloud
  - Dedicated Cloud

- **Storage Costs**
  - Block | Object Storage
  - Archive Storage
  - Network Attach Storage

- **Network Costs**
  - VPN
  - Partner Exchange
  - Direct Connect

- **IT Labor Costs**

### Cloud TCO = Usage of Cloud Service only

= OPEX Cost model

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Why SaaS ???

Changing User Expectations
The digital standard is becoming the standard for HCM & ERP applications

Painful & Costly Upgrades
Orgs are deciding they never want to go through another major upgrade ever again

Complex IT Environments
IT orgs are deciding they want to get out of the infrastructure business

Budget Pressures
Orgs need to reduce costs & move to more predictable cost curves

Easier to Use, Next Gen Technology
Less Complex
Accelerate Innovation
Lower TCO
### Common Application Challenges

<table>
<thead>
<tr>
<th>Current Environmental Challenges</th>
<th>Cloud Promises</th>
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<tbody>
<tr>
<td>Hardware end-of-life</td>
<td>Scalable, elastic cloud infrastructure</td>
</tr>
<tr>
<td>Behind on patching</td>
<td>Automated patching</td>
</tr>
<tr>
<td>Need for new functionality</td>
<td>Automated upgrades</td>
</tr>
<tr>
<td>Performance &amp; reliability issues</td>
<td>High Performance with increased availability</td>
</tr>
</tbody>
</table>
Aberdeen Group has found that cloud costs less regardless of organization size.
Putting it All Together
Driving Customer Outcomes with Cloud Strategies – Child Welfare Example

Step 1: Build
Create a new child welfare application using PanS development tools.

Step 2: Integrate
Integrate existing applications (whether on-premises or cloud-based) and disparate data feeds with new application, so caseworker has access to all data needed about child.

Step 3: Add Mobility
Allow caseworker to remotely access data and upload notes, photos and video.

Step 4: Analyze & Innovate
Apply analytics to help caseworker make more informed decisions regarding child’s case.

Problem:
Caseworker lacks real-time information when making in-person visits to child in need.

Silos of Data
- Court proceeding history
- Child academic & Medicaid records
- Adoption & foster care records
- Child social media feeds
- Family TANF, WIC & SNAP records

Result:
Caseworker gains a holistic view of the child and can work to improve outcomes for the family.