**EN/EE Open Call**

**Navigating and Optimizing Centralized Information Technology**

**August 1, 2016; 3:00pm ET**

**Panelists**

Roy Walker is currently the Assistant Division Director for Administrative Services at the Oklahoma DEQ. Previous to that he was DEQ’s IT Admin and very active in the Exchange Network. Roy has over 35 years in management and IT.

Roy Duelfer is an IT Manager for Montana DEQ. He started as a developer working on DEQ’s Exchange Node, and for the last 12 years has been helping MTDEQ to provide IT solutions for gathering, analyzing, and reporting environmental data to various governmental entities and the public.

Steve Nance started working in Information technology in the late 1980’s on the night shift as a computer systems technician setting up, executing and supporting mainframe batch process jobs, going to school during the day to finish his education in information data processing. He later worked as a programmer analyst, LAN network administrator, Agency Network manager, and agency interim CIO. Steve is currently the application development staff manager supporting the Illinois EPA for the Department of Innovation and Technology.

Andrew Putnam is the Environmental Information Manager for the Colorado Department of Public Health and Environment. Prior to this position he was the Information Manager and Data Coordinator for Hazardous Materials and Waste Management Division. Andrew has a Bachelor’s of Science in Geology from Kent State University in Ohio and was an environmental geologist before coming to the department. He is currently serving as the State Co-Chair of the E-Enterprise and Exchange Network Management Board and is a member of the E-Enterprise Leadership Council. His duties include oversight of all Environmental Information Technology initiatives at the Department.

**Panelists Agencies’ Centralized IT Constructs**

Oklahoma Department of Environmental Quality

Oklahoma’s centralization effort was initiated in 2008 by a series of statutes passed by the Republican-held House and Senate. The imbedded IT staff from 132 agencies were moved (initially on paper) to a new agency, the Office of Management and Enterprise Services (OMES).

The impact of this, and many other changes, is that DEQ lost control of our technical resources. We can no longer depend on having expertise in those areas that require broad technical and program expertise, (e.g., Exchange Network, CROMERR, specific and cross-program flows and applications.)

While we still physically house OMES IT personnel (for now), many of the best and brightest have left OMES. We have no real input into their replacements, their schedules, pay, training or job assignments. Our previous employees are now really just contractors with their own agenda, in some cases reporting to more than one OMES supervisor.

We are currently waiting on Phase II of the IT “consolidation” where we stop paying salaries (switching to hourly “services”) and most of the personnel AND all application servers and storage are physically moved to OMES (three miles away).

Overall we are very unhappy with the new structure and are dubious about the claims of huge savings. For certain, there has been a decrease in customer service and we anticipate it worsening due to Phase II and additional OMES employee departures.

Montana Department of Environmental Quality

Montana has a hybrid of centralized and decentralized IT. At the top level we have the State Information Technology Services Division ([SITSD](http://sitsd.mt.gov/)). This group is part of the Department of Administration, and provides enterprise architecture and services to the other Departments within the state. They provide state-wide server infrastructure and maintenance, e-mail and voicemail services, website CMS options, database administration, and many other services. IT purchasing follows a delegated authority model based on cost breakpoints. Server management can range from fully managed (Department staff have no direct access to the servers) stand alone environments, to fully managed in a shared environment (all customers use a shared architecture), to managed by the Department IT Staff, as requested by the Department. All services provided by SITSD have an accompanying cost paid by any Department utilizing that service.

Within the Department of Environmental Quality, we follow a similar model. We have a Centralized Services Division that houses most of our IT professionals. CSD manages all DEQ related servers, handles all hardware and software IT purchases, manages Department-wide applications and databases, and provides application and database development services. In addition to this, we have Computer System Analysts (generally referred to as Program SAs) embedded in several of the programs. These are business unit specific resources that are mostly managed by central IT (a few are managed by the business units), funded by the business units, and work solely on maintaining and developing systems that are specific to that business unit. This hybrid approach has proven to be very effective. Those programs that can afford to fund one or more Program SAs have dedicated staff to meet their needs, and those Program SAs have easy access to the CSD staff for mentoring, training, or assistance, as well as having a skilled IT manager able to identify where that SA may need training or assistance. In return CSD staff has access to the Program SAs wealth of knowledge about their business unit and their systems.

State of Illinois

The State of Illinois consolidated Information technology infrastructure and infrastructure staff resources for 12 agencies in 2005 with the Black Pearl project. Additional groups and commissions have been added to that consolidation.

That consolidation included all LAN, WAN, Mainframe, midrange and desktop hardware, software and support for all departments reporting directly to the governor of the State of Illinois.

On July first of 2016, the Illinois Department of Innovation & Technology was created pursuant to Illinois’ Governor Rauner signing executive order 01-16 establishing the department. Creation of this department consolidated 1700 application development and support staff from different agencies and departments into one state wide application development and support group. Currently the staff still reside at, and support the same agency as before the transformation. Plans are being implemented to “cluster” staff into units that support agencies with similar business processes. A web link to the current transformation project is below.

<https://www2.illinois.gov/sites/doit/Strategy/Transformation/Pages/default.aspx>

Colorado Office of Innovation and Technology

In the State of Colorado, the Governor’s Office of Innovation and Technology was created in 1999 (and renamed Governor’s Office of Information Technology in July 2006) to serve as an advisory organization. At that time, executive branch agencies independently managed their own IT services and support. The passage of Senate Bill 08-155, which is also known as “the consolidation bill” shifted how IT services would be delivered to Colorado’s executive branch state agencies. In July 2008, all IT functions, systems, and some assets were consolidated into a single entity - the Governor’s Office of Information Technology (OIT).

Currently, OIT is organized into bands of expertise. Each agency is assigned an IT Director charged with interfacing with the agency, coordinating across the bands and implementing OIT’s activities. Generally, the funding for technology activities, and some assets like workstations, are still allocated to the separate agencies. Some of that funding is then transferred to OIT. The majority of purchases are also managed by the agencies but require OIT’s approval to proceed.

In order to more effectively interface with OIT and prioritize the limited resources available, the Colorado Department of Public Health and Environment has formed a technology governance committee, known as the Business Technology Team. This team is made up of Business Technology Liaisons from each of the 11 divisions and major offices and chaired by the IT Director, an Environmental representative, and Health representative. It is charged with setting the technology direction for the department as well as vetting, prioritizing, and managing projects and infrastructure.

California Environmental Protection Agency (CalEPA)

*CalEPA is not represented on the Open Call Panel; but, Agency staff will be available to provide input and answer questions.*

In 2006, California legislation (SB 834) authorized establishment of a centralized Department of Technology that is responsible for the approval and oversight of all state information technology projects. As the head of the department and as the state’s Chief Information Officer, the Director of the California Department of Technology provides leadership for the state’s IT programs and works collaboratively with other IT leaders throughout the state. The Office of the State Chief Information Officer is the first cabinet-level agency with statutory authority over information technology strategic vision and planning, enterprise architecture, IT policy, and project approval and oversight.

In 2009, California’s IT Reorganization Plan took effect. The consolidation effort operated within the Federated Governance Model proposed by the Governor’s Reorganization Proposal. The reorganization approach maintained the authority of agencies to manage program-specific technology processes and systems. Technology functions that are common across the entire state, such as email and wide area networks, are managed at the enterprise level by the state CIO. The Federated Governance Model confirmed that programmatic needs are the primary drivers for IT decisions and acknowledged the importance of IT as an enabler of agency success. Through the collaborative consolidation exercise, the state governance will produce economies of scale, reduce cost, increase efficiency, share information and much more.

Agency-level consolidation also offers significant business benefits beyond simply combining IT assets. The consolidation effort of IT systems established target dates for all state entities to host mission critical and public-facing applications to a Tier III data center, to close any existing data centers or server rooms that house non-network equipment, and to be in migration to the California Government Network and to the state shared e-mail solution.

*How does this framework apply to CalEPA and its Boards, Departments, and Offices (BDOs)?*

CalEPA has an appointed Agency Information Officer (AIO) and six Chief Information Officers (CIOs). CalEPA’s IT governance model is led by CalEPA’s AIO and includes the agency Information Security Officer (ISO) and the BDO CIOs. CalEPA’s governance promotes strategic alignment with State and Agency objectives focus on seeking opportunities to lower operating costs, improve service levels, increase productivity, enhance security and respond faster to changes in business priorities. Program specific IT systems and budgets are managed at the agency or BDO level. Core business IT systems such as email, wide area network, master software contracts, and data centers are maintained through the Department of Technology.

Over the last several years, CalEPA has successfully employed shared services between the agency and its BDO where technologies and approaches have aligned. In Sacramento, CalEPA and its BDOs share a building which affords the opportunity to leverage shared local networking including routers, firewalls, switches and staff. Video conferencing within the building is also shared amongst the organizations. With the emergence of virtual technology, CalEPA along with four of its BDO leverage shared virtual machine environment, virtual storage, backup and recovery, and staff.

*How do these technology strategies affect on-going maintenance of EN infrastructure and collaboration?*

CalEPA hosts an exchange node that supports data transfers for several CalEPA BDOs. This shared data exchange node results in staff, computing and software maintenance cost savings. CalEPA’s shared network allows for BDO environmental systems to easily and securely connect and transfer data from source systems through CalEPA’s exchange node to US EPA. The shared node eliminates the need for each BDO to host its own node service and reduces costs associated with staff and compute resources.

Another benefit to this shared approach is the natural collaboration that occurs between BDO programs. The necessity to coordinate with a central point of contact to implement new data exchanges promotes sharing of information and highlights areas where there is opportunity to leverage data sharing. For example, one of the big challenges in California is understanding a related regulated facility’s profile where permitting spans different medias. In an effort to start seeing a facility from a holistic view, CalEPA rolled out an environmental geospatial discovery tool for internal users that brought together several NEIEN data exchanges including ICIS-NPDES, RCRA and TRI. Outputs for that development effort also resulted in a richer data set for reporting to US EPA’s Facility Registry System.

The size of California’s environmental programs still poses challenges with collaboration in regards to E-Enterprise opportunities. CalEPA and its BDOs are a large organization and collaboration between its BDOs can be a challenge even within the current CalEPA IT governance. CalEPA still has a lot of opportunities for continued collaboration within its own agency, stretching beyond the agency to another State or California agency is often very challenging and not always a priority for programs.