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**before the**  
**Subcommittee on Technology, Information Policy, Intergovernmental Relations and**  
**the Census**  
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Good afternoon. Thank you for the opportunity to testify about the progress being made by the Office of Management and Budget (OMB) and federal agencies to develop and implement a Federal Enterprise Architecture (FEA) and the challenges of aligning an individual agency's Enterprise Architecture with the FEA. This testimony reflects my roles as the Chief Information Officer (CIO) at the U.S. Environmental Protection Agency (EPA) and as Co-chair of the Federal CIO Council's Architecture and Infrastructure Committee. I appreciate having this opportunity to appear before this subcommittee today to discuss this important issue.

With the rapid advances in information technology, the expectation that the government's vast supply of information and myriad services be delivered on demand is ever-increasing. We live in a point-and-click culture and the expectation that government should and can adapt is understood by the Federal CIO Council. In the past, when government wished to improve its services, the typical response was to reorganize the boxes on an organization chart and move the people. Today, it is possible to improve government services through carefully aligning the information systems of common

business functions from different organizations. We saw this happen with the recent rollout of various E-government initiatives.

The FEA creates the ability to look across federal departments and agencies at their missions and strategic goals, programs, and their supporting data and information technology (IT). This is the planning tool that allows the federal government to take advantage of the IT revolution while ensuring the responsible spending of the federal IT budget. It is the one blueprint which will lead to a more efficient delivery of services and is the key to citizen-centric government.

I have seen significant FEA progress during the past year. OMB has completed work on all major aspects of the FEA reference model, giving federal agencies a common way to look at their business functions and align their information investments appropriately. Without this common reference model, each individual federal department was creating “silo” Enterprise Architectures (EA). EPA, like other federal agencies, is now mapping its own in-house EA blueprint and IT investments to the federal model.

Other specific instances of progress are the CIO Council’s development of a reusable components strategy—enabling an IT service built by one agency to be used by others. Progress on the privacy and security architecture has been made with the guidance and tools being developed by federal agencies to ensure that their information is protected and shared appropriately.

Finally, the 24 E-government initiatives and the five Lines of Business are proving to be the real-life laboratories which highlight for OMB and the federal CIOs the critical Federal Architectural design decisions needed to achieve both information integration and information sharing throughout all levels of government.

As for challenges, the General Accounting Office (GAO) recently reported that most federal agencies are still in the development stages of building their in-house EA capability. To increase that capacity quickly, OMB and the CIO Council have created a Chief Architects Forum, where all chief architects can leverage their efforts in addressing the specific strategic, management and operational EA challenges. From this grass roots group, we have heard chief architects say that their greatest challenge is educating their own senior officials that EA is not just an IT concept but a strategic management planning tool that positions Agency leaderships to manage the complexities of programs and the delivery of their services.

I think the major challenge is that EA is a new discipline and like all new concepts it will take time for it to take hold. This new discipline is designed to take advantage of IT technology to deliver results and customer satisfaction in a world of complex business relationships. Federal executives must understand that the federal government is exactly that—a very complex set of business relationships. It is important that each Federal agency integrate EA into the fabric of their respective strategic management culture so they can begin to eliminate redundancies, target citizen services, and integrate information for improved decision making.

Finally, I would like to address the topic of “interoperability” as it relates to the FEA and IT networks being built with other levels of governments and the private sector. This is a key challenge facing many federal agencies today.

First, in order for the federal government and our partners to truly achieve interoperable networks, appropriate standards must be developed and agreed to, including data standards. The FEA model provides the foundation for standardizing data in its data reference layer—defining “what” data the federal government needs to do its business. One important criterion for achieving successful interoperability of networks is agreement by all parties on data standards.

Now that significant progress has been made in getting our own federal house in order via the FEA, we must begin reaching out to our IT counterparts at the state, tribal, regional, county and local levels to design the intergovernmental data sharing architecture—setting forth the minimum technical standards and services needed to build networks that can communicate when necessary. It is important to learn from the efforts of the Departments of Homeland Security, Health and Human Services, and Justice, and EPA, to name just a few, which are actively partnering with state, local, and tribal organizations and industry on the development of standards to significantly improve interoperability. Additionally, these Departments are working toward the implementation of a blueprint to promote citizen-centric government and more rapid delivery of services.

Within EPA we are using the EA to design and implement services for environmental decision makers across the country. Approximately 95 percent of the information in EPA legacy systems comes from state and tribal partners. Under the major federal air, water, and waste statutes, a majority of operational responsibilities are delegated directly to these partners. This business reality drives our approach to enterprise architecture: a strong collaborative effort with states and tribes to design and implement common data standards; the implementation of a Central Data Exchange (CDX)—our single point for receiving and sharing reports and data regardless of the source (e.g. states, tribes, and regulatory facility) or type (e.g. Toxic Release Inventory, water discharges, and drinking water lab results); a heavy reliance on the integration of air, water, and waste information to support a holistic look at regulated facilities; and a sharing of information to gain a better understanding of the effects of activities on human health and ecosystems.

In closing, with leadership from the President and support from the Congress, EPA is building an Environmental Information Exchange Network due in large part to a state and tribal program begun by President Bush and funded by Congress. Our strong partnership with state co-regulators will continue to drive innovation and will require EPA to work across agency lines within the federal government particularly with health and resource agencies, to better demonstrate results in protecting human health and safeguarding the natural environment.