



**Written Testimony of Omid Ghaffari-Tabrizi
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**Before the Ohio State House of Representatives
Technology and Innovation Committee
Meeting on House Bill 230, Regards Ohio's information technology
systems/shared services
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Thank you to Chair Fraizer, Vice-Chair Hall, Ranking Member Lightbody, and the Honorable Members of the House Technology and Innovation Committee for allowing Internet Association to provide written testimony as a Proponent in support of [House Bill 230](#) (HB230) as it will be amended.

IA and our members have made it our mission to foster innovation, promote economic growth, and empower people through the free and open internet. An important pillar of that mission is to support the efforts of state employees to modernize the information technology (IT) infrastructure that they rely on to deliver essential government services to the Ohioans who depend on them.

Commercial cloud adoption is a necessary component of any such modernization effort, as it provides enhanced security, reduces procurement costs, and improves the effectiveness and morale of the workforce. The sooner an organization is able to adopt and integrate cloud solutions within their IT infrastructure, the faster they will be able to see a return on their time and capital investments.

With your support and the passage of this bill as it is to be amended, IA is confident that the state of Ohio will come to the same conclusion.

Cloud adoption will give the state of Ohio a safer and more resilient IT infrastructure. IA members know this because, in their collective experience with governments of all sizes, they have been responsible for maintaining and securing data of all types and levels of sensitivity, from publicly available data sets to the most sensitive national security intelligence artifacts. All of our members invest a tremendous amount of energy, effort, and expense in security and compliance. Adopting commercial cloud-based computing would allow Ohio to take advantage of this investment for themselves.

That point about taking advantage of the investments made by cloud service providers is an important one. IA members have invested billions of dollars in technology, staff, facilities, and even alternative energy sources, all in order to *create* the cutting edge, not just maintain it. Federal agencies, including the Department of Defense (DoD) and the Intelligence Community (IC) have all made a massive push to use commercial cloud solutions because they have seen and appreciated these investments.

As the DoD and IC realized years ago, even with their combined budgets, they will never be able to build and support a data center network that would achieve the scale necessary to match a commercial cloud



solution. This would restrict their ability to implement the advanced artificial intelligence, machine learning, and other capabilities that are available, today, through those commercial cloud solutions. Similarly, as the Federal Information Technology Acquisition Reform Act (FITARA) 11.0 Scorecard shows, nearly every single civilian agency has done the same in terms of looking for ways in which to consolidate and close their existing data centers.¹

There are a number of reasons why the legislature and executive branch of the U.S. government are collectively pushing for cloud adoption across the government as a whole. When it comes to security, reliability, redundancy, and disaster recovery, in particular, there are no better options than a commercial cloud computing environment and many studies that have already been done on the federal and state level have come to this conclusion.

Not all clouds are equal, with some models providing more benefits than others. Cloud computing is defined in National Institute of Standards and Technology (NIST) Special Publication (SP) 800-145 as having five essential characteristics that can be deployed through four different deployment models.

The five characteristics in essence outline that the cloud allows every state agency to pay only for the computers and resources they actually use, obtaining or offloading resources instantly and as needed, while giving every user, whether an employee, contractor, or resident, the ability to access the cloud-based service at all times, on any device, and without interruption. Simply put, cloud computing is intended to allow state employees to focus less on buying, maintaining, and upgrading IT infrastructure and more on delivering on their statutory mission because the cloud service provider is taking care of the rest.

The four deployment models include public, private, hybrid, and community. The difference between these comes down to who owns and maintains the computers, and as a result, what is the true capability of the cloud they provide.

- Commercial cloud solutions are public clouds, giving them the ability to take advantage of the sheer volume of demand that exists from individuals, companies, and governments.
- State-run cloud solutions are private clouds, meaning the government is responsible to buy and maintain computing resources equal to commercial cloud solutions if they want to maintain parity with the private sector.
- Hybrid cloud solutions are useful for ill-equipped or poorly-resourced organizations that have to take a slower approach to modernization, allowing them to host certain critical components of their IT infrastructure in the public cloud while running some of their legacy systems on a private cloud while they wait for additional support.
- Community cloud solutions are combinations of cloud environments that support a small pool of users, where the better implementations of this model include those that utilize a cordoned off section of the public, commercial cloud, such as those offered only to U.S. government entities.

While a private cloud run by the state-run data center may seem like a cloud, the people using it will be limited by the hardware, software, and other resources available to them. This means that any programs

¹ See House Committee on Oversight and Reform Government Operations Subcommittee, “COR Biannual Scorecard - December 2020”, <https://oversight.house.gov/sites/democrats.oversight.house.gov/files/FITARA%20Scorecard%2011.pdf> (Dec 22, 2020)



or projects that are able to use as many computing resources that are available to them, especially those related to monitoring network activity for unauthorized access, will all be restricted to whatever capability the state data center can provide it. Similarly, with the rapid pace of technological development resulting in new features and functions that are rolled out regularly by commercial cloud solution providers, state agencies working to use the latest emerging technologies will be limited to only those that are compatible with the state's own hardware and software.

The federal government has incentivized the use of commercial cloud solutions to avoid these very barriers. Successful IT modernization efforts have all seen the same results: cloud-based IT infrastructures promote cost savings, cost avoidance, increased value, improved privacy, and most importantly, cybersecurity benefits.

With your support and the passage of this bill, the state of Ohio will quickly realize that the public commercial cloud is the foundation of a successful, safe, and sustainable digital government that will help the state remove legacy IT as well as legacy security concerns.

Thank you for your time and I look forward to the opportunity to discuss additional details about how this bill will benefit all Ohioans.