

Date of Hearing: April 8, 2021

ASSEMBLY COMMITTEE ON PRIVACY AND CONSUMER PROTECTION

Ed Chau, Chair

AB 1323 (Chiu) – As Amended March 26, 2021

SUBJECT: Department of Technology: modernization: state information technology contracts

SUMMARY: This bill would require the Department of Technology (CDT) to identify, assess, and prioritize legacy information technology (IT) system modernization efforts across state government, to analyze all existing state IT contracts to identify candidate services that can be centralized or eliminated due to redundancy, and to work with other agencies and the Legislature to evaluate options to modernize state government IT project approval and oversight processes. Specifically, **this bill would:**

- 1) Require CDT to identify, assess, and prioritize legacy information technology system modernization efforts across state government.
- 2) Require CDT to submit an annual report to the Legislature that includes: an explanation of how CDT is prioritizing legacy IT system modernization efforts across state government; an estimate of the annual and total preliminary costs for each effort and for the entire state modernization portfolio; and the impediments and risks that could, or issues that already have, led to changes in how CDT identifies, assesses, and prioritizes modernization efforts.
- 3) Require all state agencies and state entities to submit all of their current IT service contracts to CDT before May 1, 2022.
- 4) Require CDT to analyze the contracts submitted pursuant to 3), above, and use the information obtained from that analysis to assess state IT investment in order to identify types of uses that are candidates for statewide contracts for commonly used or shared services; to create a replicable analytic approach to better understand user demand; and to inform management approaches regarding demand and supply.
- 5) After completing the analysis pursuant to 4), above, require CDT to submit a report to the Legislature that identifies each service that CDT believes would be appropriately centralized; summarizes market research the department would conduct to estimate the one-time and ongoing costs to the state of each service; and calculates potential offsetting savings to the state from reduced overlap and redundancy of services.
- 6) After submitting the report pursuant to 5), above, require CDT to develop an implementation plan, including associated budget requests, that includes, but is not limited to, a list of existing service contracts of state agencies and state entities to be replaced with centralized service contracts managed by CDT and a proposed strategy and timeline for the transition from existing service contracts to centralized service contracts.
- 7) Provides that CDT, the Department of Finance (DOF), the Government Operations Agency (GO), and other relevant state agencies and state entities shall work with legislative staff and the Legislative Analyst's Office to evaluate potential options to modernize state government IT project approval and oversight processes.

EXISTING LAW:

- 1) Establishes, within the Government Operations Agency, the Department of Technology (CDT), and generally tasks the department with the approval and oversight of information technology (IT) projects, and with improving the governance and implementation of IT by standardizing reporting relationships, roles, and responsibilities for setting IT priorities. (Gov. Code Sec. 11545, et seq.)
- 2) Finds that the unique aspects of IT goods and services and their importance to state programs warrant a separate body of governing statutes that should enable the timely acquisition of IT goods and services to meet the state's needs in the most value-effective manner. (Pub. Con. Code Sec. 12100(a).)
- 3) Provides that all contracts for the acquisition of IT goods and services related to IT projects, as defined, shall be made by or under the supervision of CDT as provided, and endows CDT with the final authority for all of the following: the acquisition of IT goods and services related to IT projects; the determination of IT procurement policy; the determination of IT procurement procedures applicable to IT acquisitions and telecommunications procurements; and the determination of procurement policy in telecommunications procurements. (Pub. Con. Code Sec. 12100(b)-(e).)
- 4) Requires DGS to maintain, in the State Administrative Manual (SAM), all policies and procedures governing the acquisition and disposal of IT goods and services, including, but not limited to, the policies and procedures that CDT is authorized to establish for the acquisition of IT projects, as specified. (Pub. Con. Code Secs. 12102(a); 12102.1(a).)
- 5) Requires that contract awards for all large-scale systems integration projects be based on the proposal that provides the most value-effective solution to the state's requirements, as determined by the evaluation criteria contained in the solicitation document, and provides that evaluation criteria for the acquisition of IT goods and services, including systems integration, shall provide for the selection of a contractor on an objective basis not limited to cost alone. (Pub. Con. Code Sec. 12102.2(a).)
- 6) Provides that "value-effective acquisition," for the purposes of state IT acquisition, may be defined to include all of the following: the operational cost the state would incur if the bid or proposal is accepted; the quality of the product or service, or its technical competency; the reliability of delivery and implementation schedules; the maximum facilitation of data exchange and systems integration; warranties, guarantees, and return policy; supplier financial stability; consistency of the proposed solution with the state's planning documents and announced strategic program direction; the quality and effectiveness of the business solution and approach; industry and program experience; the prior record of supplier performance; supplier expertise with engagements of similar scope and complexity; the extent and quality of the proposed participation and acceptance by all user groups; proven development methodologies and tools; and innovative use of current technologies and quality results. (Pub. Con. Code Sec. 12100.7(e).)

FISCAL EFFECT: Unknown

COMMENTS:

- 1) **Purpose of this bill:** This bill seeks to modernize and stabilize the state's IT infrastructure and improve the efficiency of state IT contracting by authorizing CDT to identify legacy IT systems and prioritize them for modernization, and instructing CDT to identify candidate IT projects across agencies that can be centralized and managed by CDT. This bill is author sponsored.

- 2) **Author's statement:** According to the author:

California leads the country when it comes to technology and innovation, but the IT systems in state government struggle to function. Numerous attempts to modernize these systems have been frequently delayed, significantly over budget, and often failed. The state's storied struggle with IT has spanned many decades, Administrations, and legislative bodies.

Historically, the Governor's office has led on IT-related policy and related initiatives with limited legislative involvement. While administrative IT reforms can fundamentally change how the state delivers IT services, all too often changes are reversed by the next administration. Interruptions in continuity result in severe consequences for state IT project planning, development, implementation, and oversight. [...]

The state is deluged with troubled IT projects, but there is no concrete plan to resolve the issues that cross agencies, departments, and projects. Additionally, there is no centralized agency with the explicit statutory authority to analyze, plan for, and implement statewide IT reform.

A combined lack of standardized policies and defined leadership have pushed the state's IT system to be unnecessarily disconnected, unmanageable, and difficult to reform. AB 1323 begins to lay the groundwork for statewide IT reform.

- 3) **Legacy IT systems:** Over the past year, the COVID-19 pandemic has put tremendous strain on government agencies providing services and benefits. With tens of millions of Americans losing their jobs, agencies responsible for the distribution of unemployment benefits were particularly taxed, and dramatically underperformed in facing the challenges COVID-19 presented. In many cases, the failure of governments across the country to provide timely and reliable services in response to the demand of COVID-19 and its fallout resulted from outdated IT infrastructure that was not suited for a coordinated state effort of that magnitude. Processing delays for unemployment claims in at least 19 states were directly attributed to problems with outdated and incompatible state and federal unemployment IT systems. In California, the Employment Development Department's (EDD) reliance on COBOL, a 60-year-old programming language that many state IT staff have never been taught, stymied the agility of the department to carry out routine responsibilities and recover from system crashes when faced with a tenfold increase in people filing for unemployment. The results were disastrous: a backlog of nearly a million unemployment claims; unfathomable wait times of up to six weeks to receive responses for customer service calls; failure to provide translation of documents into other languages; and obstructing applicants from submitting verification documents or from editing applications once submitted.

Problems arising from outdated IT systems are not unique to EDD. Similar issues with outdated IT have resulted in problems ranging from misreporting public health data relating to COVID-19, to critically suppressing the efficiency of the DMV, whose offices only began accepting credit cards last year.¹

According to a publication by the Institute of Electrical and Electronics Engineers (IEEE), since 2010, corporations and governments worldwide have spent an estimated \$35 trillion on IT products and services, of which three-quarters went to operating and maintaining existing IT systems. Though at least \$2.5 trillion was spent attempting to replace so-called “legacy” IT systems, nearly \$720 billion of that money was wasted on failed projects.² The IEEE publication explains:

There’s no formal definition of “legacy system,” but it’s commonly understood to mean a critical system that is out of date in some way. It may be unable to support future business operations; the vendors that supplied the application, operating system, or hardware may no longer be in business or support their products; the system architecture may be fragile or complex and therefore unsuitable for upgrades or fixes; or the finer details of how the system works are no longer understood.

To modernize a computing system or not is a question that bedevils nearly every organization. Given the many problems caused by legacy IT systems, you’d think that modernization would be a no-brainer. But that decision isn’t nearly as straightforward as it appears. Some legacy IT systems end up that way because they work just fine over a long period. Others stagger along because the organization either doesn’t want to or can’t afford to take on the cost and risk associated with modernization.

Obviously, a legacy system that’s critical to day-to-day operations cannot be replaced or enhanced without major disruption. And so even though that system contributes mightily to the organization’s operations, management tends to ignore it and defer modernization. On most days, nothing goes catastrophically wrong, and so the legacy system remains in place.²

Unfortunately, failure to modernize legacy IT systems has critical implications, especially when that technology is pushed to its limits by an unexpected event. Poorly maintained legacy IT systems can lack the sophistication or regular upgrades necessary to patch security vulnerabilities, leaving them susceptible to cybersecurity breaches. Legacy IT systems are also, put simply, more likely to fail, as the infrastructure itself degrades, and the technological pressures they must support outpace their capacity. Finally, legacy IT systems are surprisingly costly to the organizations maintaining them. According to a U.S. Government Accountability Office report, of the \$90 billion the federal government spent on IT in 2019, nearly 80% went to operating and maintaining legacy systems. While from 2010 to 2017, the amount spent on IT modernization decreased by \$7.3 billion, the cost of operating and maintaining existing IT rose by 9%.² Though the upfront cost of avoiding

¹ Debra Kahn, “California is the world’s tech capital, but state computers are failing residents,” *Politico*, Aug. 22, 2020, <https://www.politico.com/states/california/story/2020/08/22/california-is-the-worlds-tech-capital-but-state-computers-are-failing-residents-1309732>, [as of Apr. 6, 2021].

² Robert N. Charette, “Inside the Hidden World of Legacy IT Systems: How and why we spend trillions to keep old software going,” *IEEE Spectrum*, Aug. 28, 2020, <https://spectrum.ieee.org/computing/it/inside-hidden-world-legacy-it-systems>, [as of Apr. 6, 2021].

modernization may be lower, the overall cost can be substantially higher when considering increasing upkeep costs, costs associated with system failures, and losses in efficiency.

California's state agencies, like many organizations, have fallen victim to this cycle of continuously kicking the IT modernization can down the road, instead relying on outdated legacy systems prone to failure and inefficiency. This continual delay of modernization results from myriad factors making comprehensive IT reform extremely difficult to complete. For one, while CDT has the statutory authority to review and approve IT projects initiated by state agencies (*see* Gov. Code Sec. 11546.1(a)(1)(B)), it is not clear whether, under current law, CDT is authorized to identify legacy IT systems in each state entity and prioritize their stabilization or modernization according to risk of failure, and it is unlikely that CDT is authorized to require a state agency to complete stabilization and modernization efforts. This lack of centralized authority to oversee and manage IT modernization and stabilization has resulted in fragmented and redundant IT infrastructure across the state agencies, stifling interagency collaboration and complicating the experience of users attempting to access state services online. According to CDT's "Vision 2023" report:

There are common needs to deliver services to the public. When we examined large technology projects in planning across the state we found 79 case management systems across 22 departments; 45 reporting systems across 15 departments; 27 licensing systems across 23 departments; 23 claims management systems across 7 departments and 20 content management systems across 10 departments.

There are also common infrastructure needs, ranging from document management and electronic signatures to identity authentication, verification, and validation.

Instead of tackling these problems with a collective approach, the state environment makes it easier for departments and programs to pursue individual projects. In some cases, it is difficult for programs to simply and easily reuse what has been successful elsewhere.³

Individual agencies are also less likely to undertake IT reform of their own accord, as the sizable upfront costs and high risk of failure tend to disincentive prioritizing these types of projects. Additionally, as a memo written by the Legislative Analyst's Office (LAO) to the author of this bill points out, "this and prior administrations have a history of introducing new IT-related policy and other initiatives with limited legislative involvement. Administrative IT policy changes can fundamentally change how the state delivers (or does not deliver) IT projects and services, and too often these changes are implemented only to be reversed by the administration a few years later." In order to ensure that critical IT reform is appropriately coordinated and prioritized, and that it is carried out with accountability to completion, the LAO recommends enacting reform measures in statute to offer the Legislature the opportunity to provide policy direction and hold the Administration accountable.

AB 1323 seeks to provide this statutory guidance to permit CDT to oversee and manage the modernization of the state's IT infrastructure.

³ California Department of Technology, "Vision 2023: California Technology Strategic Plan," Jan. 15, 2021.

- 4) **AB 1323 would provide CDT with the authority and accountability to oversee the modernization of the State's legacy IT systems:** The aforementioned LAO memo outlined several recommendations for statutory reforms that would facilitate the modernization and improved efficiency and interoperability of state IT systems. Among those recommendations were to provide CDT with explicit authority to identify and prioritize the stabilization and modernization of legacy IT systems; to direct CDT to identify opportunities to centralize IT service offerings; and to modernize state IT project approval and oversight processes.

AB 1323 would enact these recommendations. First, the bill would explicitly require CDT to identify, assess, and prioritize legacy IT system modernization efforts across state government, and to submit an annual report including: an explanation of their process for prioritization; estimates for annual and total costs for each effort and for the entire state modernization portfolio; and potential impediments and risks that may necessitate adaptation of prioritization procedures. Next, the bill would instruct all state agencies and state entities to submit all of their current IT service contracts to CDT before May 1, 2022 for analysis to determine: services that can be appropriately centralized under CDT's management authority; one-time and ongoing costs to the state for each service; and potential offsetting savings from reduced overlap and redundancy of services. AB 1323 would also require CDT to develop an implementation plan including specific budget requests for this centralization, and to submit a report to the Legislature detailing these findings. As the LAO report explains, centralization of these services would be immensely beneficial to the State:

Increased centralization of IT service offerings at CDT would likely reduce state costs and develop experienced professional services for use across state government. More cost-effective and knowledgeable state IT resources would, for example, improve the likelihood of IT project success through improved navigation of state IT project processes and increased knowledge of state government programs and services. Common applications, infrastructure, platforms, and tools offered by CDT to all state entities also would reduce the amount of variation in enterprise architecture from one state entity to the next, allowing state IT staff to more easily work across state enterprise.

Finally, the bill would instruct CDT, DOF, GO, and other relevant state agencies and state entities to work with legislative staff and the LAO to evaluate potential options to modernize state government IT approval and oversight processes, and would require CDT to submit a report to the Legislature detailing options and providing recommendations for policy changes.

Staff notes that while AB 1323 is rather demanding in terms of its reporting requirements, such comprehensive reporting is arguably necessary, both to provide accountability on the part of the administration to carry out modernization efforts, and to ensure that the Legislature is allowed ample opportunity to provide policy direction as this sizeable undertaking is carried out.

In support of the bill, the Internet Association, a trade organization representing internet companies, argues:

Building on the hard work of all the teams in the state focused on IT modernization, AB 1323 will give each of them - as well as those who are a little further behind - the kind of support and information they need to pursue a successful statewide IT modernization effort. By requiring IT modernization plans include the information outlined throughout

11546.45(a)(2), [...] the Department of Technology, the Legislature, and the state workforce itself will have the opportunity to provide a truly objective assessment of the current state of the IT landscape. With a few other changes, this bill will ensure the IT modernization plans presented are successfully implemented.

Indeed, AB 1323 appears to represent a critical first step in ensuring that the state eliminates costly redundancy and commits to carrying out essential IT reform.

- 5) **Minor changes to clarify possible redundancies, ensure continuity of state services, and protect the confidentiality of personal information may be beneficial:** AB 1323 as currently in print seems to be both beneficial to the State's long-term interests and thoughtful in its approach. As the bill moves through the legislative process, however, the author may consider providing minor clarifications to effectively indicate the Legislature's policy priorities. One major obstacle to the modernization of legacy IT systems is that those systems are typically essential to fulfilling the day-to-day responsibilities of those agencies. Because state agencies routinely provide critical services to California residents, even temporary service outages can have profound effects on the well-being of the State's residents most in need. To ensure that system modernization projects do not delay or otherwise interrupt the provision of essential services, the author should consider specifying that CDT's annual report to the Legislature discussing processes for prioritizing legacy IT system modernization projects also include proposal for ensure continuity of services as those modernization projects are undertaken.

Additionally, though centralization of IT services can have substantial benefits for both the provision of public services and the cost efficiency of state governance, shared IT systems between agencies, and/or with operations consolidated within CDT, has the potential to increase risk of personal information lawfully possessed by one agency being accessed without authorization by personnel from another. For instance, a shared user interface for California residents to access personalized information about public benefits provided by several agencies, if not thoughtfully implemented, would have the potential to reveal personal health information provided in regard to MediCal benefits, to, e.g. the DMV through that user's profile. While it is likely that explicit direction is not necessary to ensure that the confidentiality of personal information and other confidential records is maintained as IT infrastructure is centralized, it may be useful to provide this direction, and for centralization implementation plans to include provisions for maintaining confidentiality of agency information.

Finally, staff notes that while the bill was recently amended to provide several clear directives to CDT and other state agencies, some of the original text of the bill as introduced, which is now maintained in proposed Section 11546.45(b)(2), is rather confusing in its intent and with regard to the practical function of its provisions. It appears that while this subdivision intends to clarify the objective of CDT's comprehensive analysis of state IT contracts from all agencies, the same function is served by paragraph (3) of that subdivision, which also provides a clearer mandate for CDT to achieve via its required report. As the bill moves through the Legislative process, the author may consider revising the language of paragraph (2) of subdivision (b) of Section 11546.45 to more clearly indicate its function, or consider striking those provisions.

- 6) **Double referral:** This bill is double referred to the Assembly Committee on Accountability and Administrative Review.

REGISTERED SUPPORT / OPPOSITION:

Support

Internet Association

Opposition

None on file

Analysis Prepared by: Landon Klein / P. & C.P. / (916) 319-2200