Reducing The Cost Burden Of Operations And Maintenance With

AN APPLICATION PLATFORM AS A SERVICE

How To Focus On IT Innovation Rather Than IT Maintenance In Your Agency Operations

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INTRODUCTION

Like any big business, each year the Federal Government hashes out the budget and allocates spending across agencies and programs.

What may not be obvious to many stakeholders, is that a significant amount of tax dollars each year goes to maintain and operate IT systems already in place for the business of government. For many agencies, Operations and Maintenance (O&M) takes up well over half the IT budget, though these agencies would rather be allocating these funds on Development, Modernization, and Enhancements (DME) to IT systems in order to leverage new technologies and increase the efficiency of their operations.

How Can Agencies Flip IT Spend To Drive Important New Initiatives?

The disparate systems found in each agency, bought over time from various IT vendors, need to be consolidated. But how can agencies do this while avoiding an even more expensive and difficult modernization of each individual system in their enterprise?

This eBook examines using Application Platform-as-a-Service (aPaaS) with an innovative low-code application development platform to take a difficult and expensive systems portfolio and turn it into a cost and time efficient approach.

Master the art of doing more with less.

BUDGET

O&M

DME

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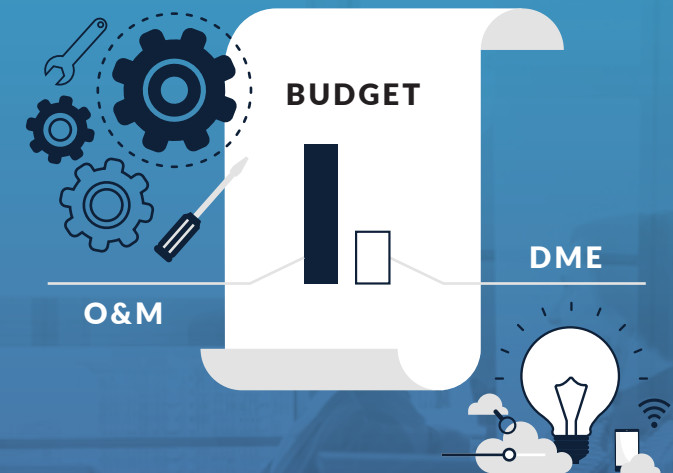
It's no secret that federal funds for anything can be hard to come by; if you want your technology project funded in upcoming budget proposals, you better be ready to push hard and show justification for why. As in prior budget years, the budget for every agency in the Federal Government has come under close scrutiny in the last few months.

Currently, the federal IT budget sits at $81.6 billion and it's been widely circulated that this number will be reduced come FY18 kick off in October 2017.

No matter the funding level though, each year in every chain of command in government agencies scattered across the U.S., elected officials and employees are trying to find ways to make the maximum return on investment on the funds they receive.

> *Market research firm Forrester estimates that tech spending could shrink by as much as 0.6 percent in FY18. That's in contrast to the one to three percent growth that federal IT spending has seen since 2014.*

1. Thibodeau, Patrick "Trump Expected to cut federal IT Spending," ComputerWorld.com, http://www.computerworld.com/article/3174085/it-industry/trump-expected-to-cut-federal-it-spending.html, February 24, 2017

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MULTIPLE VENDOR SYSTEMS DRIVE COSTS HIGHER

Currently, 68.6% of the federal IT budget is being spent on O&M, whereas 22.9% is being spent on DME.[2] To put that into perspective current allocations are:

- $55.9B for O&M
- $18.7B for DME

In an ideal setting, these numbers would be closer to even, if not the scales tipping more on the side of DME, rather than O&M.

One major driver for this higher O&M spending is the multiple IT vendors and solutions agencies use in order to conduct their business. With a plethora of vendors on hand, each solution requires its own dedicated support structure and funding stream.

2. "ITDashboard.gov," https://www.itdashboard.gov/

$18.7B
DME

22.9%

68.6%

$55.9B
O&M

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MULTIPLE VENDOR SYSTEMS DRIVE COSTS HIGHER
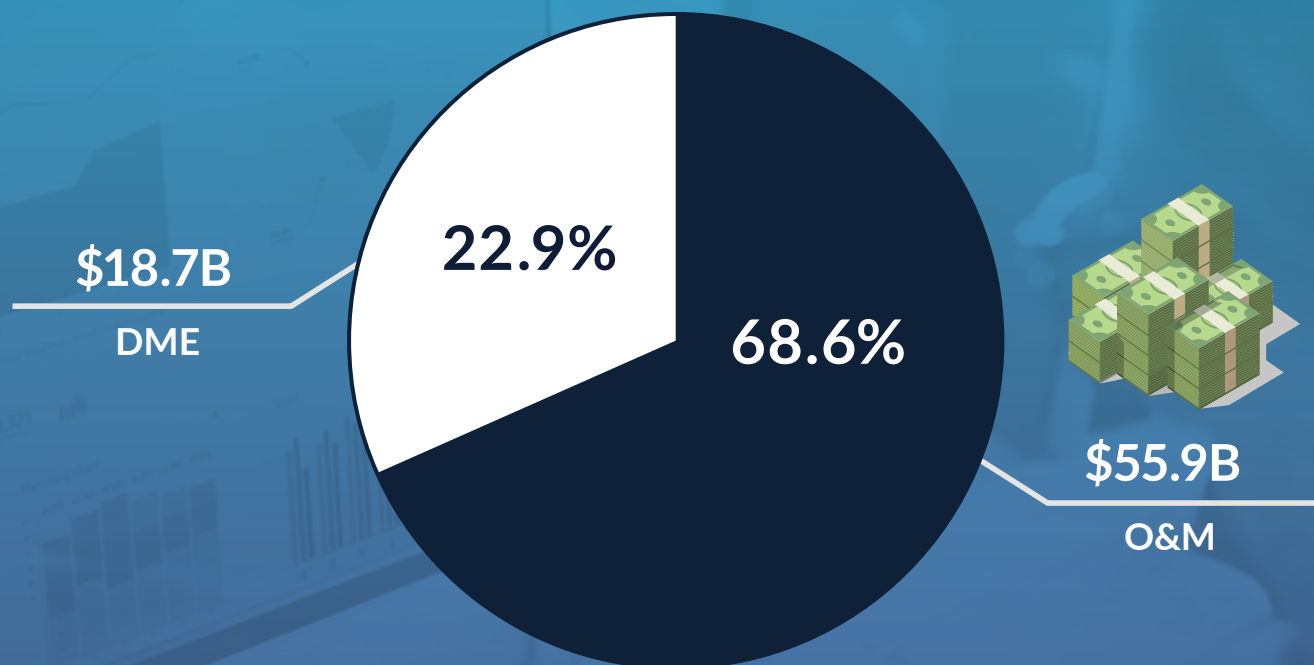
This results in spending increases linked to the need to maintain:

· IT architects on staff for each product set

· Instances of supporting infrastructure (eg – Oracle and MS SQL database infrastructure)

· Sets of user groups and roles in sync across multiple systems

· IT vendor payments for support, renewal and maintenance costs each year

· Product upgrades to multiple different applications to ensure that they remain in versions supported by their respective vendors

Also, consider the overhead required to find inventive, often costly, ways to bridge the gaps between multiple systems that are not designed to work with one another, but must in order for an agency to function. Further, the contracts to support these solutions are often operated by separate systems integrators, which can create governance challenges when issues of dependencies between separate systems arise.

With all these potential costs, plus the unanticipated costs that seem to randomly spring up during any IT project, **it's no wonder the Federal Government is spending so much on O&M.**

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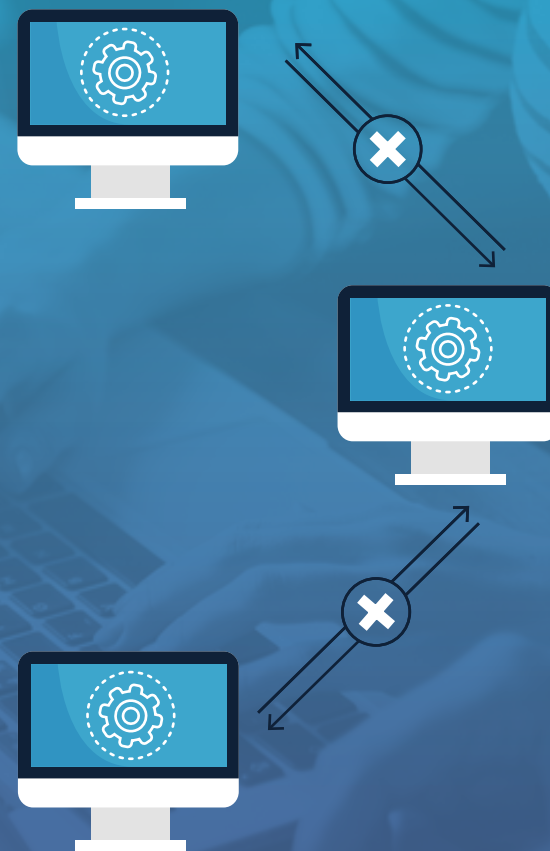
If budget cutting projections turn out to be accurate, federal agencies will have to learn to do more with less and, now more than ever before, make each dollar stretch farther. This frugality rings especially true in an ever changing IT environment that requires every facet of government to stay on top of the latest security threats, and be up to date on items such as the Cloud First initiative as well.

Agencies need to find a digital transformation platform that allows them to integrate and consolidate multiple vendor applications into a single source of truth, for ease of use, and decreased cost flow. This, in turn, can provide the basis for new capabilities delivered more cost-effectively, as well as reduced maintenance costs over time.

According to research firm Forrester, top IT priorities for Federal agencies include reducing costs, pushing agencies toward lower-cost, commercial-off-the-shelf cloud services. This comes as agencies look to save money, but also improve their service to their constituents.[3]

cloud services

3. Andrew Bartels & Rick Parrish, US Government Sector Tech Spending Trends 2017 To 2018, Forrester Research Inc, February 8, 2017

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aPaaS FOR BETTER SERVICE DELIVERY AT LOWER COSTS
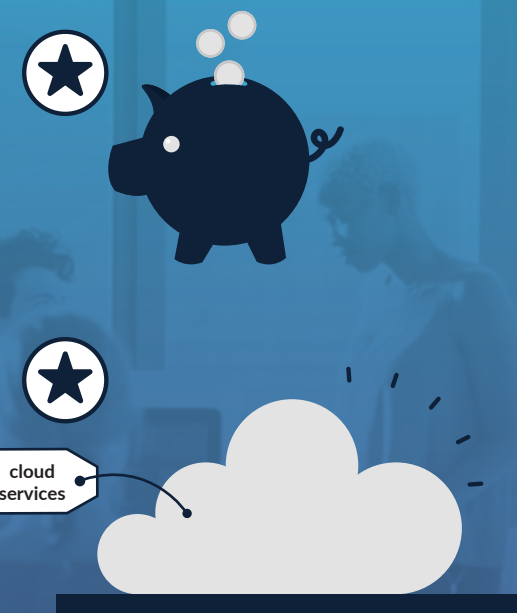
Increasingly, agencies are turning towards aPaaS options to reduce the cost of their legacy infrastructure.

aPaaS options for application development come with a number of benefits that ultimately reduce operations and maintenance spending:

- Multiple applications can be deployed on the same set of infrastructure, unlike custom-of-the-shelf point solutions, these applications can can serve virtually any function that an agency performs

- Integration components are shared by developers, thus reducing the level of effort to tie new applications into an existing legacy environment

- aPaaS options with native mobile applications means that agencies are not responsible for maintaining and testing code against multiple mobile operating system versions

- Managed cloud options with FedRAMP certifications reduce the agencies need to spend on IT security to maintain the environment

The net effect of these benefits is that after initial development occurs, the amount of money traditionally spent on O&M can be reduced dramatically.

O&M Spending

DME Spending

Money budgeted for those activities can be diverted to enhancement activities and new builds, therefore, reverting funds to DME.

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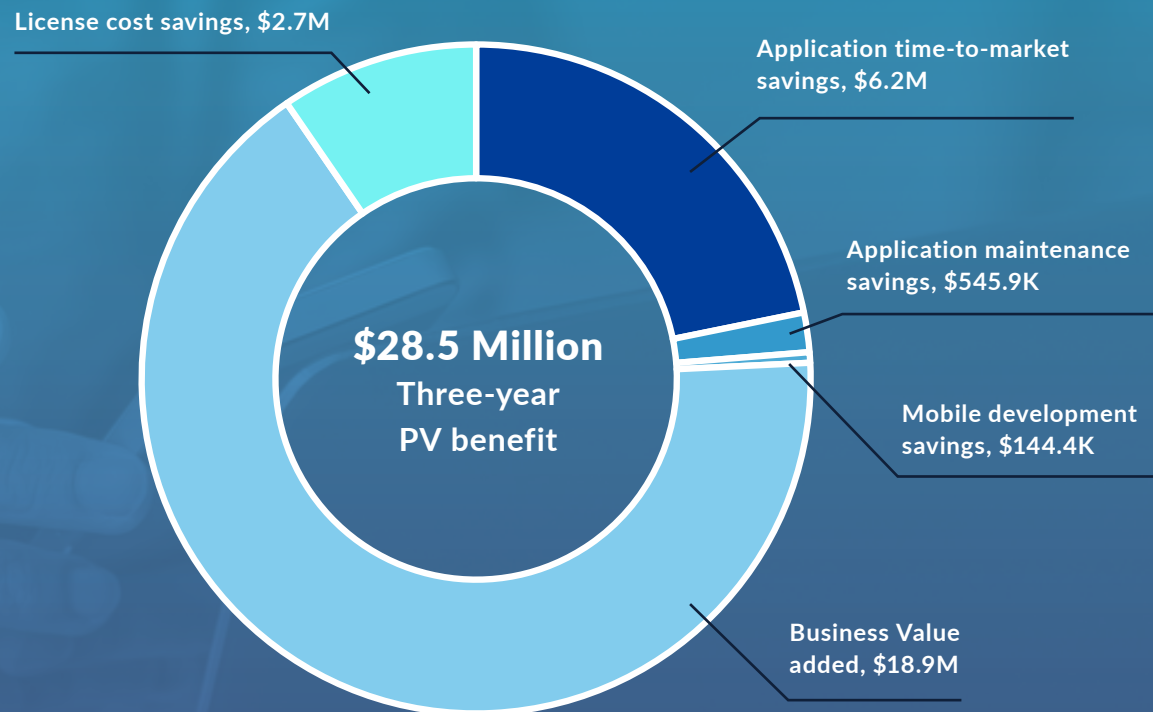# aPaaS FOR BETTER SERVICE DELIVERY AT LOWER COSTS

aPaaS solutions also lend themselves very well toward digital transformation efforts. Currently, agencies are being forced to make tough decisions on which applications require modernization and when.

When an agency makes these decisions, and then makes the transition to aPaaS, it enables them to **tackle a wide variety of use cases quickly and cost-effectively.** Although O&M costs will never be eliminated, with aPaaS, further funds can be allocated toward new technologies, rather than maintaining antiquated ones.

In a report by Forrester Research, the measured economic value of customers interviewed for the report totaled over $28M over a three year period.[4]

License cost savings, $2.7M

Application time-to-market savings, $6.2M

Application maintenance savings, $545.9K

$28.5 Million
Three-year
PV benefit

Mobile development savings, $144.4K

Business Value added, $18.9M

4. Sarah Musto, *Measuring The Total Economic Impact: The Benefits Of Appian's Low-Code Platform, Forrester Research Inc, February 2017*

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Build New Applications or Modernize Existing Applications

Recognized as a leader in low-code application development platforms and through dynamic case management capabilities, Appian is distinct in that its aPaaS solution can fit into an agency's Enterprise Architecture plans as new build or modernized apps. Modern aPaaS solutions leverage an agency's investments in user management solutions, including single sign-on and dual factor authentication. Hybrid cloud options allow aPaaS components to talk directly with an on-premises database or big data infrastructure. An aPaaS solution with an open architecture, like Appian, simplifies integration with third party reporting platforms and analytic tools.
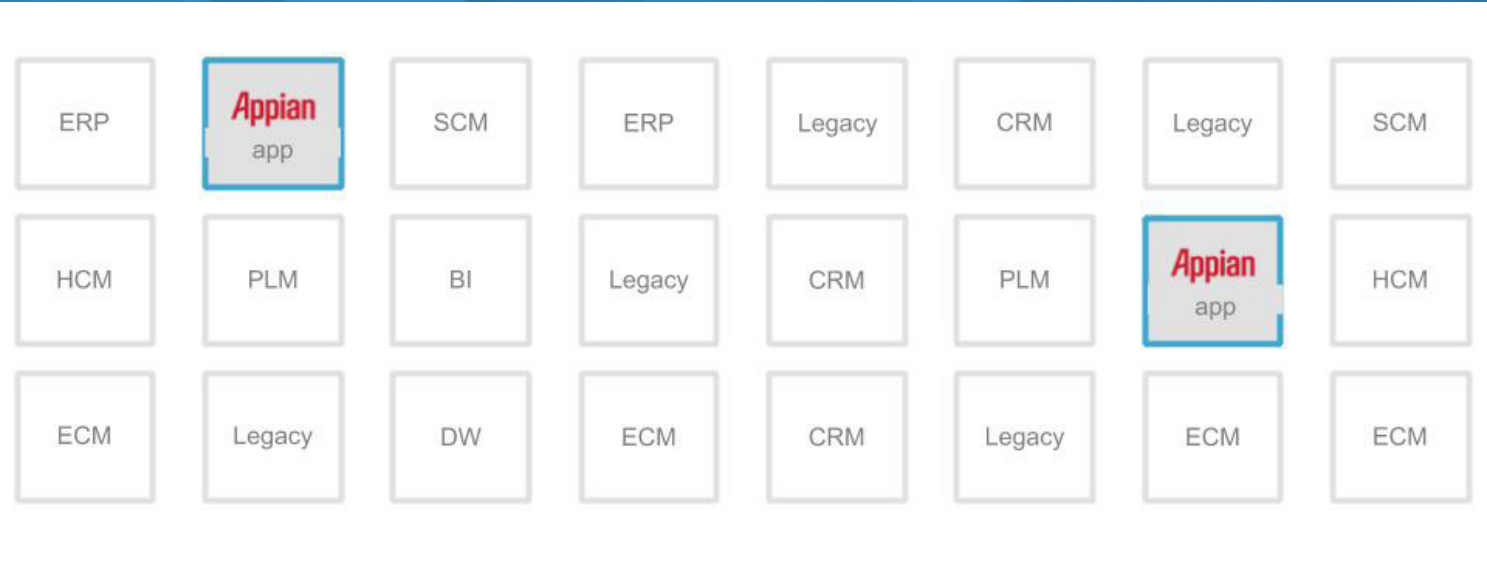
This figure depicts how the Appian aPaaS solution offers the flexibility to be configured to meet a variety of complex agency challenges.

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Extend Applications With New Processes

It is all too common to see parts of agencies struggling with requirement backlogs in their large ERP or line of business systems. Often, departments on the periphery of these systems face multiple year long waits to see their business case become a reality.

By layering aPaaS into the IT landscape, requirements backlogs can be siphoned off into the alternate environment, cutting down on this laborious wait time, and thus, saving both time and money.

Typically during this process, an agency picks a set of users, a particular department, or function to carve out of the legacy system and this process helps focus these sets of users into one user experience, not multiple.

Integrations between the existing systems can be built and tested within the aPaaS environment, thus allowing rapid development in the aPaaS solution, while minimizing disruption to the legacy backlog.

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STRATEGIES FOR COST-EFFECTIVE MODERNIZATION

According to the recent Forrester study done on Appian's low-code platform and its economic affects, organizations can reduce their use of prior application development tools, thus saving license costs as they avoid the purchase of additional software. On average, these companies **saved over $1.2 million by the third year** of their use of Appian.
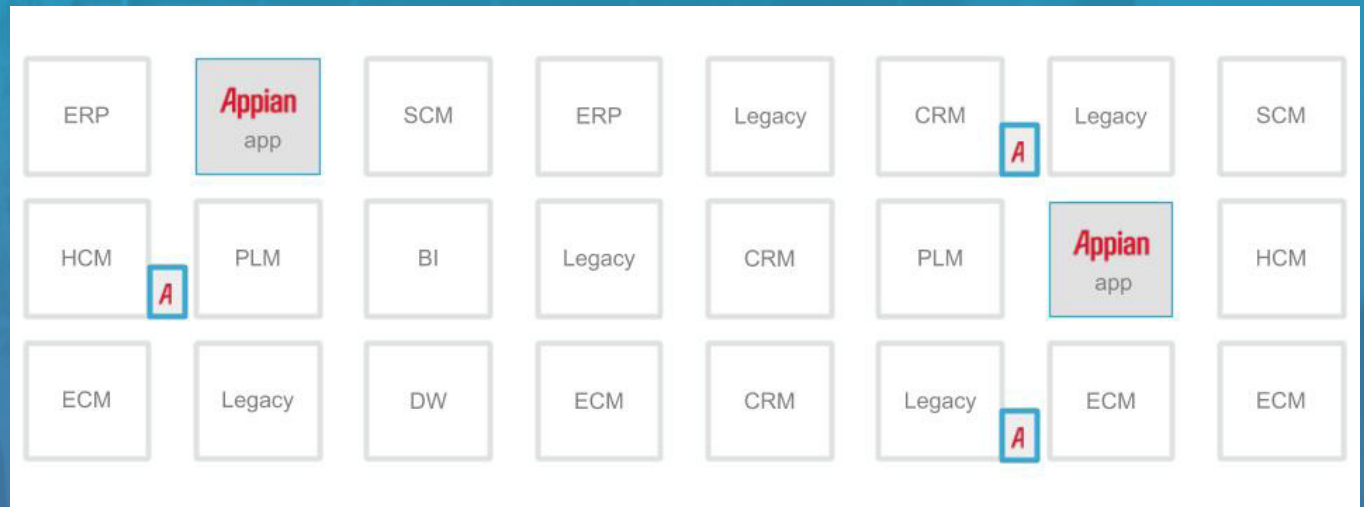

Organizations can use The Appian Platform to extend existing applications in their enterprise, giving them a lower cost development option to enhance functionality.

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Extend and Unifying Existing Applications in Support of Modernization

One additional challenge that agencies face is the prospect of modernizing systems one at a time. This process has significant disadvantages both time, and budget wise. When doing this, each application creates duplicated effort in end user training, testing, user experience design, and data rationalization.

In the example to the right of four different applications being modernized, it makes more sense for an agency to overlay an aPaaS user experience over top of the existing systems rather than pursuing a separate modernization project for each application separately. This significantly reduces the change management efforts associated with the modernization effort, as users are exposed to only one new interface instead of four. Training time is in many cases reduced by as much as 4x, as users aren't having to learn four separate interfaces.

This also gives the agency the option to sunset these more out of date applications in an orderly fashion. Then, when the users are only seeing a new interface and not what is "under the hood," the IT staff can retire applications in a more methodical and organized fashion.
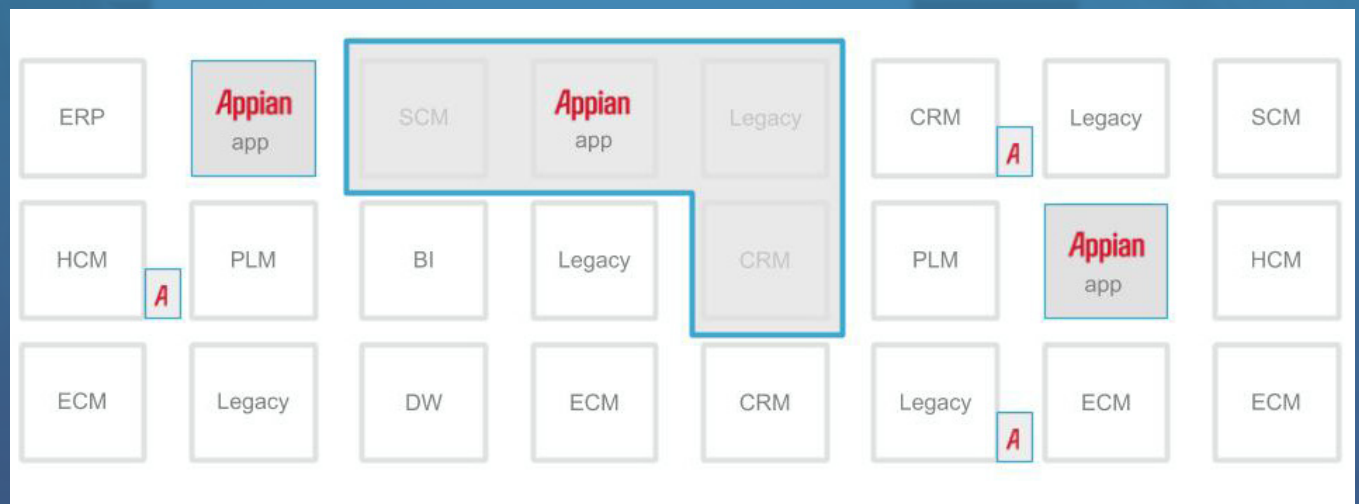
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✓ CONCLUSION

Through aPaaS and Appian, The Digital Transformation Platform™, federal agencies can consolidate legacy applications from multiple vendors into a single platform view, with a single sign-on for employees that provides easier usage. All of this requires fewer budget dollars from a support and architecture standpoint, and eliminates expensive modernization efforts that would have to occur in a singular fashion for each application that requires it.

To further cost savings, The Appian Platform is available in the cloud with the security certifications government agencies need in order to avoid potential conflicts, including:

- · FedRAMP
- · DOD
- · PCI
- · FISMA

This can dramatically reduce overhead costs for maintaining systems while allowing the vendor to manage uptime. Moving to the cloud also ensures a clear upgrade path for future releases, all handled by the vendor.

The realities of tightening budgets will face every agency at some point. **With Appian, agencies no longer have to choose between status quo and innovation,** but can move forward to deliver what's best for their agency, and ultimately, the people they're being paid to serve, their constituents.

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ABOUT APPIAN

Appian provides a leading low-code software development platform that enables organizations to rapidly develop powerful and unique applications. The applications created on Appian's platform help companies drive digital transformation and competitive differentiation. For more information, visit ***www.appian.com.***

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