



Industry Commentary

Josh Ollek
+1 704 969 1583
jollek@williamblair.com

Gordie Vap
+1 704 969 1581
gvap@williamblair.com

Federal Government's Push to Modernize IT Will Spur M&A Activity in Cloud Services

Strategic acquirers are seeking to broaden their capabilities in areas that align with the major spending priorities of the Department of Defense and other areas of the growing federal IT budget.

The U.S. federal government is undergoing a massive IT modernization effort to close the gap with the private sector. As it stands, the government is approximately five to seven years behind commercial enterprises in transitioning to the cloud and adopting best-in-class technologies. While federal IT spending remained mostly flat from 2011 to 2016, there has been a significant ramp-up in the past four years, and spending is expected to increase steadily throughout 2020 and into 2021.

In addition to this longer-term IT modernization trend, the COVID-19 pandemic has accelerated the

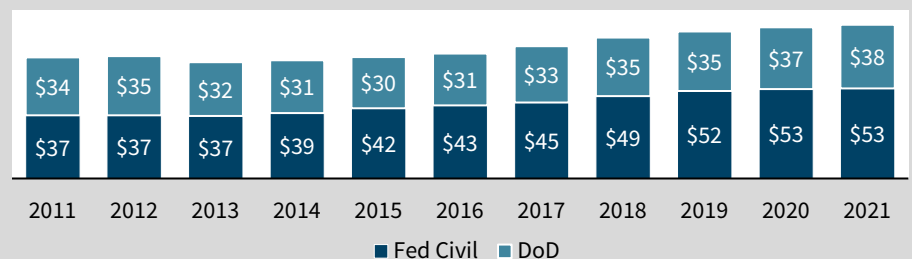
convergence of two powerful market forces that are adding to the attractiveness of investing in cloud providers that serve the federal government. First, as remote working becomes engrained as a core aspect of work environments, the government needs effective and efficient technology now more than ever. Second, facing economic uncertainty, cloud services providers want to secure long-term contracts with the federal government, which provide a steady and reliable revenue stream.

The fact that IT spending is one of the rare parts of the federal budget that receives bipartisan support only adds

Federal IT Spending Set to Increase Through 2021

After nearly a decade of federal IT spending remaining relatively flat, investment is steadily increasing. President Trump has made IT infrastructure spending a strategic priority of his administration.

Federal IT Spending (\$ in billions)



Source: ITDashboard.gov

to the attractiveness of the sector. In addition, many legislators consider IT spending an indirect form of stimulus, meaning that the pandemic should only increase the government's willingness to invest in this sector.

These forces have created prime opportunities for companies to build technology platforms geared toward government services. The federal IT services sector has seen an active dealmaking environment over the past five years. More than 60 transactions have been executed at a combined enterprise value of more than \$34 billion and an average EV/EBITDA multiple of 11.6x. Given the defensive nature of government spending, we see substantial opportunities for continued M&A activity as the major strategic acquirers look to grow through the acquisition of new service capabilities and contract vehicles.

In this report, we will outline the core areas of investment within the federal government's IT modernization efforts, the impact of these trends on M&A activity, and the key drivers of valuation within the sector.

Federal IT Modernization Initiatives

The federal government must implement and maintain leading-edge IT systems and procedures to keep up with a fast-paced technology and security landscape, characterized by a

quickly evolving set of risk factors. But the federal government has often struggled to develop and effectively manage IT investments. Projects historically have run over budget, fallen behind schedule, or failed to meet their intended outcomes. The single biggest reason for these shortcomings was the government's use of legacy and non-standards-based systems, which were not designed to progress at the same rate as the industry.

The good news, however, is that this space is ripe for investment regardless of which party occupies the White House or holds the majority in Congress. President Donald Trump has specifically called for greater investment in the following three areas.

Cloud Adoption – To keep up with increasing bandwidth demands, transitioning to the cloud will provide the flexibility, scalability, and data security that the federal government requires. Federal agencies already using the cloud have experienced many benefits, including cost savings, increased productivity, and enhanced organization, creativity, and collaboration.

Cybersecurity – The federal government's existing IT systems cannot efficiently manage cybersecurity risk. To address this

problem, the government is implementing bold measures to improve processes and modernize cybersecurity capabilities. The government is also working to ensure all government employees receive proper training to safely use these new technologies.

Artificial Intelligence (AI) – The federal government has prioritized investment in research-and-development programs by focusing on two key areas: 1) internally for federal agencies to achieve their missions and serve citizens and 2) externally to support both private sector's and academia's efforts to harness AI. Federal agencies including the Securities and Exchange Commission and the Consumer Financial Protection Bureau are already using AI's data and machine learning algorithms to drive new efficiencies.

Department of Defense Presents Massive Investment Opportunities

While all aspects of the federal IT system are in need of modernization, the need is particularly acute for the Department of Defense (DoD). From 2011 to 2016, DoD IT spending decreased 11%, resulting in significantly outdated systems. The Trump administration, however, has prioritized defense spending since taking office and in recent years has generated, funded, and awarded an

Major U.S. Department of Defense Cloud Programs

Cloud Program	Date Awarded	Size of Contract (\$ in millions)	Vendors	Target Users	Description
Data Center and Cloud Optimization	Future	Not Released		Department of Homeland Security (DHS)	Single award to a systems integrator to manage all cloud operations within DHS.
Commercial Cloud Enterprise (C2E)	Future				Successor program to C2S. Intelligence community migrating from single-cloud to multicloud.
Air Force Cloud One	Jan-20	\$728.2	SAIC	Air Force	Air Force migration of apps to the cloud. In early 2019, the Air Force disclosed that it had shifted 21 applications to the cloud. This was a takeaway from Leidos, which has the original contract as part of its Lockheed IS&GS acquisition.
Joint Enterprise Defense Infrastructure (JEDI)	Oct-19	\$10,000.0	Microsoft	General DoD	IaaS hosted in Microsoft data centers.
Defense Enterprise Office Solutions (DEOS)	Aug-19	\$7,600.0	GDIT (Subcontractors Dell, Miniburn Technology Group)	3.15 million users across the DoD	Microsoft Office 365 hosted in GDIT data centers. The contract procurement has essentially been restarted due to a protest from Perspecta.
MilCloud 2.0	Jun-17	\$496.0	GDIT	31 "Fourth Estate" DoD agencies (includes DISA, Joint Chiefs of Staff, DARPA, the Defense Intelligence Agency, the NSA, Defense Logistics Agency, and the National Geospatial-Intelligence Agency)	IaaS hosted in two DoD data centers. Offers storage, database, security, migration, and other services up to Impact Level 5 (IL5); roll out Secret Internet Protocol Router Network (SIPRNet) impact level 6 for classified data this summer.
Commercial Cloud Services (C2S)	2013	\$600.0	AWS	Intelligence Community, U.S. Transportation Command (part of DoD), Army's National Ground Intelligence Center (part of DoD)	IaaS hosted in AWS data GovCloud data centers.

Note: Several of these contracts are being protested and the outcome could change

Sources: Department of Defense and William Blair Equity Research

increasing number of defense cloud contracts.

The largest and most publicized defense cloud program is the Joint Enterprise Defense Infrastructure (JEDI), a 10-year, \$10 billion contract for building a single enterprise-level cloud system for the entire DoD and other mission partners. The JEDI contract was initially awarded to Amazon, but following a protest by Oracle, the contract was ultimately awarded to Microsoft. The current Microsoft award is also under protest.

The federal government recently changed the criteria for awarding contracts by shifting from lowest price technically acceptable (LPTA) to “best value.” Critics contend that the updated selection criteria are more nebulous and open to debate. Look for contract protests to continue as the federal government will have to rationalize its decision-making for awarding new contracts. For example, the Defense Enterprise Office Solutions contract, which was originally awarded in August 2019, has essentially restarted the procurement process due to a protest from Perspecta. The table above summarizes what we consider to be the seven most attractive DoD cloud contracts that the government has awarded since 2013.

M&A Buyer Interest and Valuation Drivers

Numerous factors make government cloud services an area ripe for continued investment and consolidation. In addition to the projected increases in federal IT spending over the next decade, the sector is viewed as well insulated in a recessionary environment. Because of the need for modernization and the bipartisan support it receives, funding for these projects is largely immune to economic and political cycles.

The sector is dominated by a handful of large strategic acquirers, but beyond those large corporations, most providers that focus on the federal government are smaller than \$50 million in revenue. Consequently, the large strategics have been aggressively acquiring smaller players to add new capabilities and exposure to highly attractive segments, and this trend shows no sign of slowing. Private equity firms are increasingly aware of these dynamics. Many sponsors are actively looking to build and scale government cloud platforms that will become attractive targets for the strategic acquirers in the space.

From an M&A perspective, several major factors will affect buyer interest and valuation, including capabilities, contract and customer access, position in the cloud ecosystem, business model, and

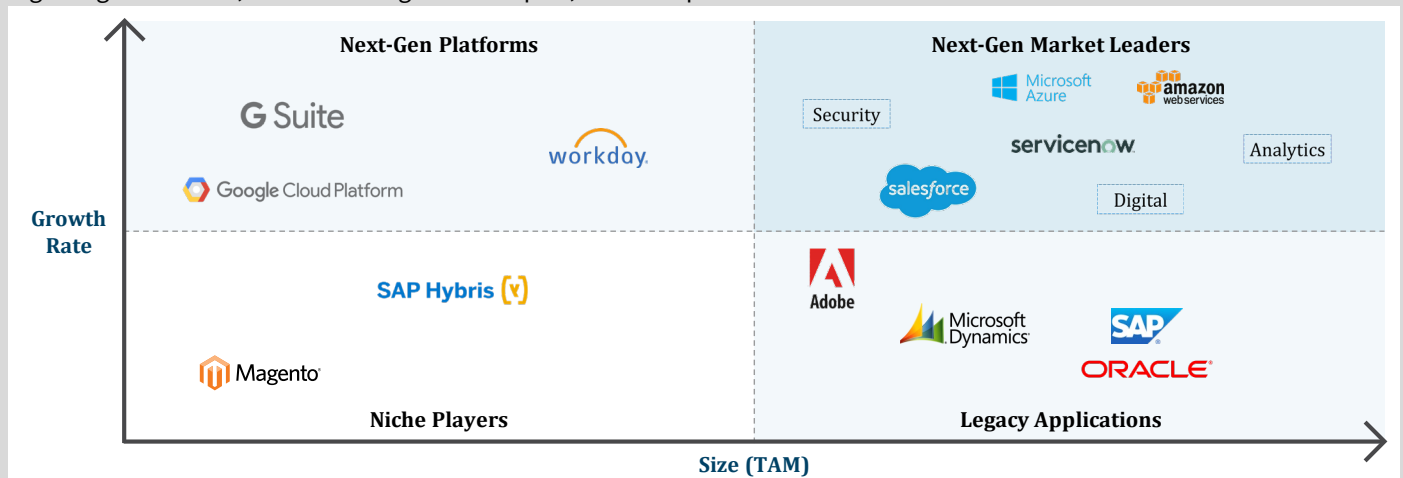
percentage of revenue from the 8(a) Business Development Program.

Capabilities – A company’s IT capabilities will be the single biggest driver of buyer interest and valuation as strategics target businesses that expand their capabilities and complement existing ones. The most attractive capabilities will align with the government’s strategic IT priorities, which include:

- Cyber and Mobile Security:** Cybersecurity growth is on track to exceed the growth of the overall federal budget as the government prepares for advanced cyber-attacks, including on mobile devices. Investments in this area will be critical as more people work remotely as a result of the pandemic. Recently, William Blair advised Coalfire, a leading cybersecurity services business that serves the federal government, on its sale to Apex Partners from The Carlyle Group and The Chertoff Group.
- Convergence of Cyber, SIGINT, and electronic warfare for counter-drone and missile disruption missions:** The battlefield has moved online, leading to an increased focus on bolstering telecommunications networks and ensuring companies can provide protection from

Segmenting Cloud Ecosystems

Cloud services providers that serve next-generation platforms, which have the largest total addressable markets and highest growth rates, receive the highest multiples, all else equal.



Source: William Blair Research

electronic warfare systems. Companies that can enhance the federal government's ability to protect its flow of critical information or go on the offensive in electronic warfare are attracting high levels of investment interest.

3. Next-Generation Surveillance

Methods: Approximately 90% of data collected for the intelligence community will be gathered from unmanned aircraft systems (UASs) and satellites according to William Blair Equity Research. Companies that can outfit these systems and satellites with sensors to collect data, along with those that can convert it into actionable intelligence, are poised to draw significant interest. William Blair has been active in this space, advising AEVEX Aerospace, a leading provider of airborne intelligence, surveillance, and reconnaissance, on its sale to Madison Dearborn Partners and CoVant Management in March 2020, as well as advising MAG Aerospace on its sale to New Mountain Capital in 2018.

4. Cloud Migration and Services:

This massive vertical involves replacing legacy, largely on-premises systems and efficiently migrating to the cloud. Companies

that can manage cloud-based applications are also highly attractive. In 2018, William Blair advised REAN Cloud on its sale to Hitachi Vantara.

5. Machine Learning and Artificial Intelligence:

This rapidly growing vertical is seeing expanded use-cases across the federal government. Defense and civilian agencies are identifying new ways to use applications such as natural language processing and imagery analysis to operate more efficiently.

6. Data Analytics:

The federal government has a huge and growing need to process, interpret, and operationalize massive amounts of data, driven by advancements in many of the areas mentioned above. Cloud infrastructure and artificial intelligence capabilities have enabled the government to store these large amounts of data and process them in ways that were previously not possible. As a result, the government is looking to industry to assist with this task. For example, private companies Palantir and Dataminr recently were awarded DoD contracts focused on data analytics, and Splunk won a large contract in

partnership with Carahsoft in February 2020.

Contract and Customer Access –

Companies that have access to federal agencies (or segments of those agencies) with the fastest-growing budgets and longer-tail contracts are highly attractive. Acquirers use M&A activity to fill holes in their portfolios by gaining and/or strengthening access to specific contracts and agencies, and they will conduct thorough diligence on targets' federal contracts, all of which are publicly available. In this age of heightened scrutiny of the government's decisions and lingering uncertainty about major contracts such as the JEDI contract, acquirers are particularly interested in targets that not only have signed long-term contracts, but already are delivering on them.

Position in the Cloud Ecosystem –

Prospective acquirers are evaluating where targets fit within the cloud ecosystem, which has four distinct subsets, as noted in the diagram on the prior page: 1) next-generation platforms, such as Google Cloud Platform and Workday; 2) legacy applications, such as Oracle and SAP; 3) next-generation market leaders, such as Amazon Web Services and Salesforce; and 4) niche players, such as Magento and SAP Hybris.

Business Models of Cloud Services Providers

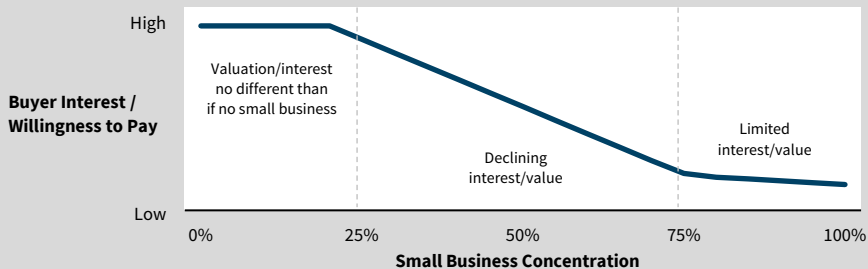
Cloud services providers are predominantly divided into two baskets: professional services and managed services. Managed services companies historically have commanded higher multiples because they generate recurring revenue rather than providing a one-off service, and they can help to effectively scale the new IT systems put in place.

	← Professional Services	Managed Services →
Cloud journey focus	<ul style="list-style-type: none"> Plan & Design Build & Migrate Optimize 	<ul style="list-style-type: none"> Run & Operate Optimize Scale
Revenue model	<ul style="list-style-type: none"> One-off or reoccurring project-based work Fixed-fee or time and materials based Potential for large-scale, multiyear mass migration work 	<ul style="list-style-type: none"> Contractually recurring Flat fee and/or % of hyperscale cloud usage Often includes "cloud pass-through" or "managed public cloud" revenue – typically recognized "net"
Typical client base	<ul style="list-style-type: none"> Varied – from largest enterprises globally to SMBs 	<ul style="list-style-type: none"> Most relevant for midsize enterprises and smaller Large enterprises increasingly showing interest
IP enablement	<ul style="list-style-type: none"> Software-based IP to enable rapid, secure, and compliant mass migrations Substantial people- and process-based IP 	<ul style="list-style-type: none"> 24x7 NOC / SOC support Real-time, automated threat detection and remediation
Best-in-class characteristics	<ul style="list-style-type: none"> Significant reoccurring project-based work within a client (land-and-expand) potentially leading to multiple years of work Highly skilled / credentialed delivery team Fixed-fee engagements generating higher margin 	<ul style="list-style-type: none"> Highly automated, low-touch technology platform Exceptionally low or net negative churn (expansion from client base exceeds any churn) Elevated gross margin profile

Source: William Blair Research

Small-Business Concentration Presents Risks

Potential acquirers will evaluate a target's percentage of revenue that comes from federal carve-outs for small businesses, such as the 8(a) program. Companies with the 8(a) designation can mitigate this discount by proving that they have strong existing relationships with the federal agency that is the customer and by showing a track record of winning contracts in full and open competition.



Source: William Blair Research

Business Model – Cloud services providers are predominantly divided into two baskets: professional services and managed services. Managed services companies are seen as more attractive because they generate recurring revenue rather than providing a one-off service, and they can help to effectively scale the new IT systems put in place. Thus, the portion of a company's revenue that comes from managed services plays a large role in driving valuation.

Percentage of Revenue from the 8(a) Small Business Program – Each year the federal government carves out a portion of its budget for small businesses that have the 8(a) designation, which means they are majority owned and operated by a socially or economically disadvantaged individual. In most

cases, a majority sale of a business will cause the company to lose its 8(a) status. As a result, prospective acquirers will significantly discount the value of companies that receive a large portion of their revenue through the 8(a) program.

To learn more about these and other trends that are shaping the dealmaking environment for government cloud services providers and other IT companies that serve the federal government, please do not hesitate to contact us.

"William Blair" is a trade name for William Blair & Company, L.L.C., William Blair Investment Management, LLC and William Blair International, Ltd. William Blair & Company, L.L.C. and William Blair Investment Management, LLC are each a Delaware company and regulated by the Securities and Exchange Commission. William Blair & Company, L.L.C. is also regulated by The Financial Industry Regulatory Authority and other principal exchanges. William Blair International, Ltd is authorized and regulated by the Financial Conduct Authority ("FCA") in the United Kingdom. William Blair only offers products and services where it is permitted to do so. Some of these products and services are only offered to persons or institutions situated in the United States and are not offered to persons or institutions outside the United States. This material has been approved for distribution in the United Kingdom by William Blair International, Ltd. Regulated by the Financial Conduct Authority (FCA), and is directed only at, and is only made available to, persons falling within COB 3.5 and 3.6 of the FCA Handbook (being "Eligible Counterparties" and Professional Clients). This Document is not to be distributed or passed on at any "Retail Clients." No persons other than persons to whom this document is directed should rely on it or its contents or use it as the basis to make an investment decision.

Select Recent Transactions

Not Disclosed

CALFIRE

has been acquired by

Apax PARTNERS

April 2020

Not Disclosed

AEVEX AEROSPACE

has been acquired by

MDP COVANT

March 2020

Not Disclosed

Covidence
miniature surveillance solutions

has been acquired by

EMK Capital
Enterprise Management Knowledge

May 2019

\$227,700,000

CUBIC

Follow-on Offering

November 2018

Not Disclosed

REAN CLOUD

has been acquired by

HITACHI
Inspire the Next

October 2018

Not Disclosed

MAG AEROSPACE

has been acquired by

NMC
NEW MOUNTAIN CAPITAL LLC

June 2018