The State of Federal Cloud
BGOV Report

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Executive Summary

- **Cloud computing is the centerpiece of federal IT modernization**

  - Federal agencies recognize the power of cloud computing to help them improve agility, contain costs, and enhance security by replacing legacy systems
  - The 'Cloud Smart' strategy aims to help agencies overcome the remaining barriers to cloud implementation

- **Agencies are making unprecedented investments in cloud services**

  - Federal agencies are on track to invest $7.1 billion on cloud services in fiscal 2020; $4.3 billion for civilian agencies and $1.7 billion by the Pentagon
  - The Centers for Medicare and Medicaid Services, Department of Veterans Affairs, and U.S. Air Force top the list in terms of cloud spending
  - Investments in cloud are unlocking billions of dollars in cloud-adjacent spending in digital services and artificial intelligence

- **Billions of dollars in cloud contract competitions will get underway in fiscal 2020**

  - The departments of Homeland Security and Treasury, as well as the Central Intelligence Agency are on track for multibillion dollar cloud migrations
  - OMB and GSA may roll out a multibillion dollar 'Civilian Enterprise Office Solutions' blanket purchase agreement

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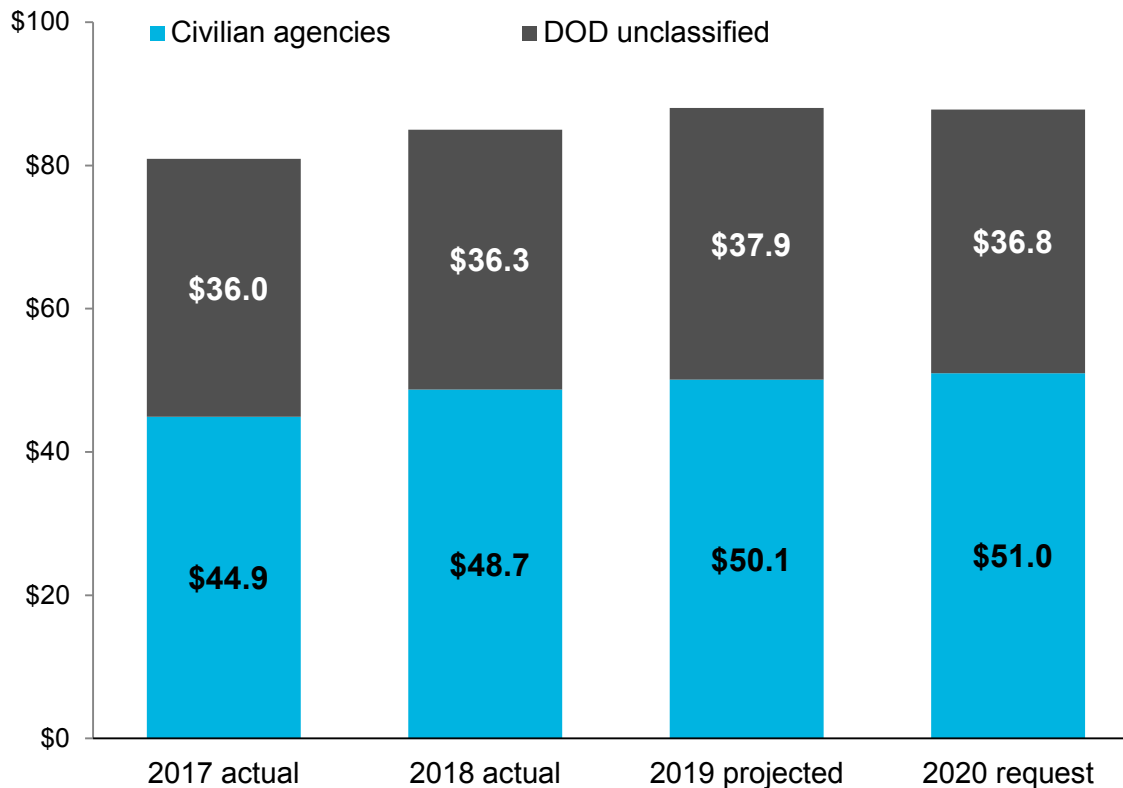# What Is 'Cloud Computing'?

- **Cloud computing according to NIST:**
  - "A model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction."

- **Deployment models**
  - **Private** – Cloud infrastructure deployed on-premises of the organization or group of organizations
  - **Public** – Cloud infrastructure owned and managed by a third-party cloud service provider
  - **Hybrid** – Cloud infrastructure includes on-site and third-party resources linked via common standards and technologies that enable data sharing and application portability

- **Service models**
  - **Infrastructure as a Service** (IaaS) – Provision of processing, storage, networks, and computing resources by a third party, where the customer controls operating systems and applications.
  - **Platform as a Service** (PaaS) – Provision of customer-built or acquired applications, programming languages, tools, and libraries on infrastructure managed by a third party.
  - **Software as a Service** (SaaS) – Use of software tools or services developed by a third party and supported by third-party infrastructure through a web interface.

Source: National Institute of Standards and Technologies, "The Definition of Cloud Computing"

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Fiscal 2020 IT Budget Topline

White House proposes $87.8 billion in unclassified IT budget authority

Governmentwide IT budget request; dollars in billions

Stacked bar chart with legend: Civilian agencies (blue), DOD unclassified (gray).

Category	2017 actual	2018 actual	2019 projected	2020 request
DOD unclassified	$36.0	$36.3	$37.9	$36.8
Civilian agencies	$44.9	$48.7	$50.1	$51.0

Top IT Priorities in FY 2020:

- Technology Modernization Fund
- Centers of Excellence
- Cloud adoption
- Improving the IT and cybersecurity workforce
- Reduce cybersecurity risks
- U.S. Digital Service
- Shared services
- Category management
- Artificial intelligence
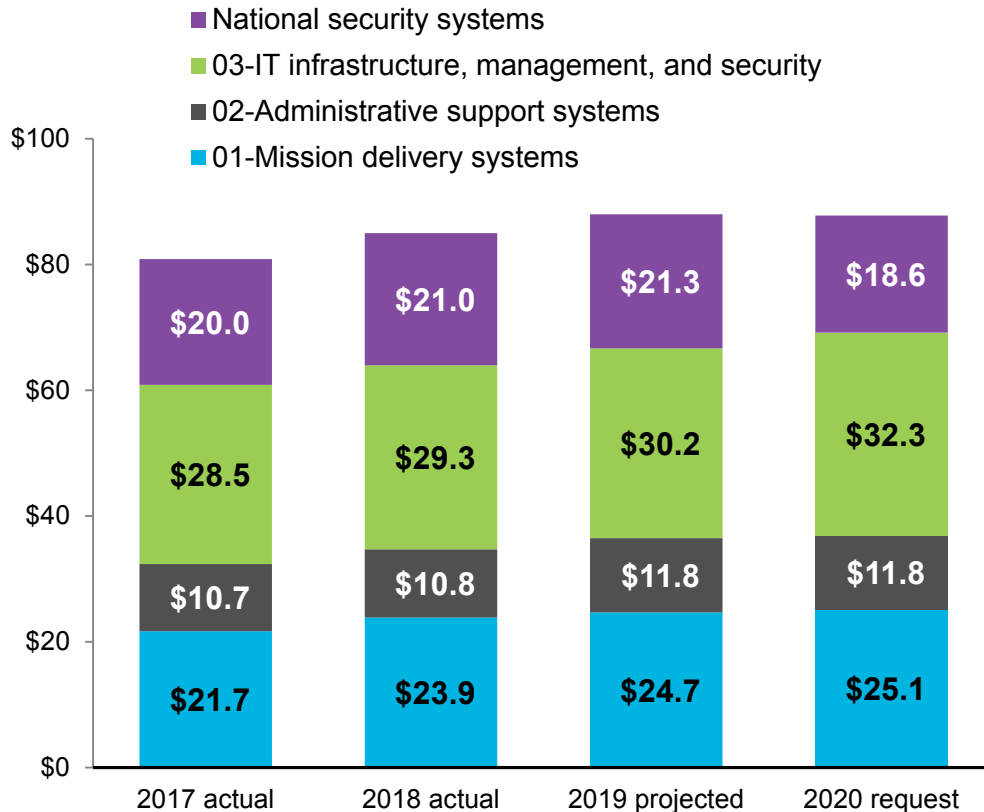- Managing data as a strategic asset

Notes: Figures do not include classified IT spending by defense and intelligence community (IC) agencies.
Sources: Fiscal 2019 and 2020 Budget Request, Analytical Perspectives: Information Technology, DOD IT Budget Overview

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Cloud's Place in the FY 2020 IT Portfolio

Agencies turning to cloud services for mission delivery, back office, and IT projects

Unclassified IT budget request by part of IT portfolio and fiscal year; dollars in billions

- ■ National security systems
- ■ 03-IT infrastructure, management, and security
- ■ 02-Administrative support systems
- ■ 01-Mission delivery systems

	2017 actual	2018 actual	2019 projected	2020 request
National security systems	$20.0	$21.0	$21.3	$18.6
03-IT infrastructure, management, and security	$28.5	$29.3	$30.2	$32.3
02-Administrative support systems	$10.7	$10.8	$11.8	$11.8
01-Mission delivery systems	$21.7	$23.9	$24.7	$25.1

- In FY 2020, agencies have allocated:
  - $1.6 billion on infrastructure/ platforms as a service (IaaS/PaaS)
  - $924 million on software as a service (SaaS)
  - $9.9 billion on other managed services
- Spending on IaaS/PaaS and SaaS collectively accounts for:
  - 3.1% of the IT infrastructure, security, and management budget
  - 3.4% of the mission-centric IT budget
  - 5.3% of the administrative services and support IT budget

Notes: OMB – Office of Management and Budget. TBM – Technology Business Management
Sources: Fiscal 2020 Budget Request, Analytical Perspectives: Information Technology; ITDashboard.gov

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Governmentwide Cloud Strategy

Recently awarded and upcoming contracts will dominate federal cloud computing activities

Defense Department

- The Pentagon's 10-year, $10 billion, Joint Enterprise Defense Infrastructure contract, awarded to Microsoft Corp. in October 2019, will become the catalyst driving the agency's cloud spending. Once basic cloud-hosting capabilities are established, the DOD will look to move some legacy workloads to the cloud and build new application on top of that platform.
  - Alongside JEDI, the Pentagon will likely seek cloud-consulting, migration, application-rationalization and development services

- In addition to JEDI, the agency awarded Defense Enterprise Office Solutions (DEOS) to host personal computer software

Civilian Agencies

- Civilian agencies are seeking to establish savvy methods of purchasing cloud services. Some of the principal drivers are new organizations such as the Centers of Excellence. Others aim to eliminate some of the impediments that are aimed to help agencies become independently operational.

- The central civilian cloud opportunity to be used by nearly all agencies will likely include the $8 billion, Civilian Enterprise Office Solutions

- Alongside CEOS, civilian agencies will have different, so-called, "journeys" including:
  - Treasury's $1.5 billion plan
  - TSA's Cloud Strategy 2.0

Intelligence Agencies

- The CIA plans to invest billions in a 10-year, $10 billion, multivendor cloud contract known as Commercial Cloud Enterprise (C2E)
  - The agency plans to release a draft request for proposal in January 2020 and make one or more contract awards in Sept. 2020

- The DIA is simultaneously competing two contracts: Infrastructure Development & Sustainment and Application Development & Sustainment. Most of the cloud development for DIA will flow through IDS2
  - The DIA released a RFI for the $3 billion IDS2 on March 14 and a RFI for the $2 billion ADS2 on March 15

Source: Bloomberg Government

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'Cloud Smart'

Federal Cloud Computing Strategy

- **What is 'Cloud Smart'?**

  - The federal government's cloud computing strategy released in October 2018
  - Builds on the 2010 'Cloud First' strategy
  - Pushes federal agencies to go beyond data center consolidation and explore commercial cloud services

- **What challenges does 'Cloud Smart' help to solve?**

  - Agencies were not taking full advantage of the benefits of elastic computing
  - Government cybersecurity tools and processes, such as the Trusted Internet Connections (TIC) program, were not designed with the cloud in mind
  - Agencies are not equipped to negotiate favorable service level agreements or adopt a "pay-as-you-go" model
  - The federal IT workforce currently lacks the skills and training to take full advantage of cloud computing

Source: Cloud Smart Strategy

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Trusted Internet Connections 3.0

- **Modernizing TIC a key priority for governmentwide cloud adoption efforts**
  - The White House released updated guidance on Sept. 12 to provide agencies greater flexibility in TIC implementation while ensuring responsiveness to evolving cyber threats
  - OMB directed agencies to initiate pilot projects to test alternatives to the standard TIC model, report findings, feedback to OMB, DHS, and federal CISO
- **TIC modernization a paradigm shift in the way agencies secure data from the web**
  - Federal agencies to use compensating security controls, such as identity, credential, and access management (ICAM) tools to plug holes in the perimeter
  - Agencies to use task orders on the 15-year, $50 billion EIS contract to modernize MTIPs transport layer

Trusted Internet Connections (TIC) Diagram
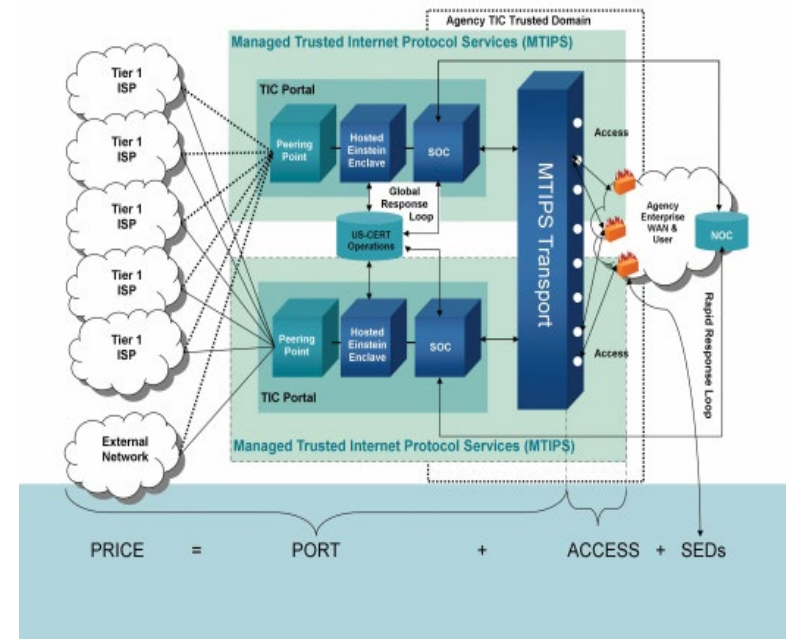
Source: General Services Administration, "Trusted Internet Connections (TICs)"

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FedRAMP 2.0?

FedRAMP

- **What is FedRAMP?**
  - The Federal Risk Authorization Management Program is the government's primary cloud security regime and is responsible for accrediting cloud providers to offer cloud services to government agencies.

- **FedRAMP intended to deliver "authorize once, use often" approach**
  - In theory, FedRAMP offers a reciprocal authorization that multiple agencies can accept, rather than having to vet each provider separately
  - In practice, many agencies require their own lengthy certifications on top of FedRAMP

- **What's next for FedRAMP?**
  - GSA's Technology Transformation Service initiated a crowdsourcing effort to solicit ways to modernize FedRAMP
  - House lawmakers have introduced legislation to formalize FedRAMP and provide it guaranteed annual funding
  - DOD will offer provisional authority to operate at IL2 for all cloud providers authorized at FedRAMP Moderate
  - FedRAMP High authorization as civilian agencies begin to migrate personal information to the cloud, and as DOD accelerates its journey to the cloud
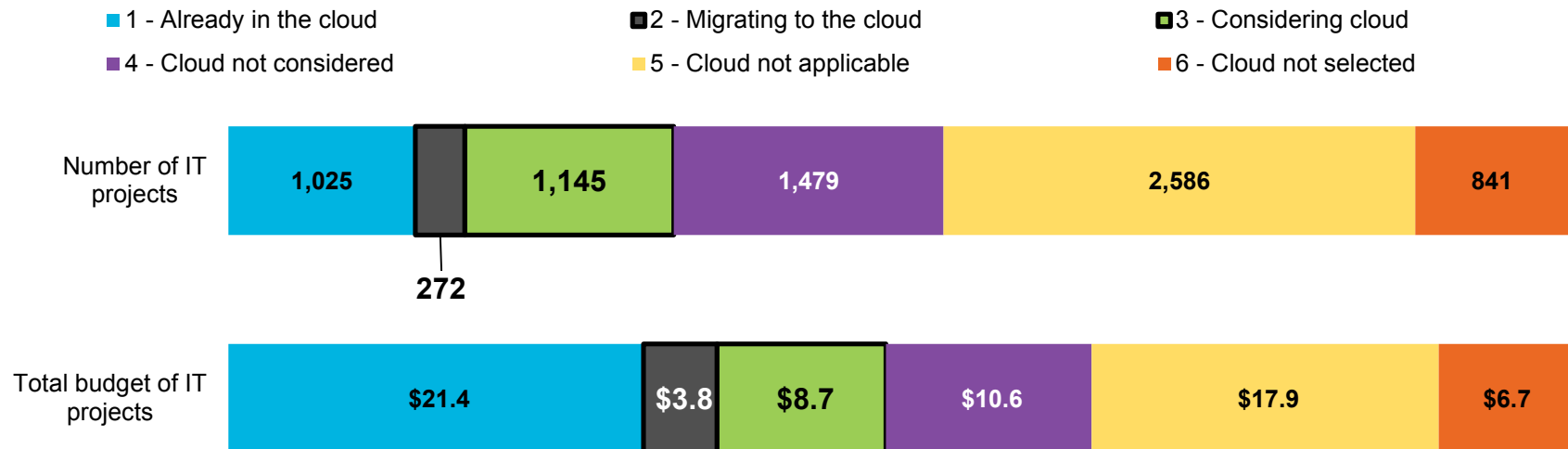
Source: National Institute of Standards and Technologies, "The Definition of Cloud Computing"

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IT Projects Migrating to the Cloud

Hundreds of IT projects worth billions of dollars are shifting to the cloud in FY 2020

- 272 IT budget line items worth $3.8 billion are migrating some or all components to the cloud in FY 2020; 1,145 IT projects valued at $8.7 billion are being considered for cloud migration in future years
- The amount obligated on cloud contracts makes up a proportion of the amounts budgeted

Number and budget of governmentwide IT projects by Cloud Computing Alternatives Evaluation status; dollars in billions

Legend:
- ■ 1 - Already in the cloud
- ■ 2 - Migrating to the cloud
- ■ 3 - Considering cloud
- ■ 4 - Cloud not considered
- ■ 5 - Cloud not applicable
- ■ 6 - Cloud not selected

Number of IT projects:
| 1,025 | 272 | 1,145 | 1,479 | 2,586 | 841 |

Total budget of IT projects:
| $21.4 | $3.8 | $8.7 | $10.6 | $17.9 | $6.7 |

Note: See FY 2020 Capital Planning Guidance for details on the Cloud Computing Alternatives field.
Source: ITDashboard.gov

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IT Infrastructure Projects Migrating to the Cloud

DHS has the most number of IT infrastructure projects migrating to the cloud in FY 2020

Migrating to the Cloud in FY 2020	Agency(s)	FY 2020 budget ($M)
CBP - Data Center and Cloud	U.S. Customs and Border Protection	$ 167.6
All Other IT Resources	Navy, Marine Corps	$ 156.9
ICE - IT Operational Services	U.S. Immigration and Customs Enforcement	$ 108.7
DHS - CIO - National Capital Region Infrastructure Operations (NCRIO)	Department of Homeland Security	$ 89.6
ICE - IT Infrastructure	U.S. Immigration and Customs Enforcement	$ 69.9
USPTO Data Center and Cloud (DCC)	U.S. Patent and Trademark Office	$ 57.6
Treasury Enterprise Identity, Credential and Access Management (TEICAM)	Treasury Department	$ 50.1
Shore Managed IT Services	Navy, Marine Corps	$ 41.9
USPTO Network (NET)	U.S. Patent and Trademark Office	$ 39.9
Other Information Management	Navy, Marine Corps	$ 33.0

Considering Cloud Migration in FY 2020	Agency(s)	FY 2020 budget ($M)
CISA - National Cybersecurity Protection System (NCPS)	Cybersecurity and Infrastructure Security Agency	$ 405.2
Consular Enterprise Infrastructure & Operations	Department of State	$ 358.9
IT Operations Enterprise Infrastructure	Department of Veterans Affairs	$ 322.5
Deployment, Maintenance, and Refresh Services	Department of State	$ 222.6
Installation Information Infrastructure Modernization Program	Army	$ 177.5
Messaging Services, Email and Remote Connectivity	Department of State	$ 141.2
DHS - CIO - OneNet	Department of Homeland Security	$ 85.8
Enterprise Licensing	Department of State	$ 85.0
Tactical Server Infrastructure	Army	$ 77.5
Unified Capabilities	Army	$ 67.7

Sources: ITDashboard.gov

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Mission IT Projects Migrating to the Cloud

CMS has the largest number of mission-related IT projects migrating to the cloud in FY 2020

Migrating to the Cloud in FY 2020	Agency(s)	FY 2020 budget ($M)
CMS Federally Facilitated Marketplace (FFM)	Centers for Medicare and Medicaid Services	$ 254.8
Other Benefits IT Systems	Department of Veterans Affairs	$ 145.3
USPTO Patent End-to-End 3 (PE2E-3)	U.S. Patent and Trademark Office	$ 100.5
CMS ESRD Quality Reporting System (EQRS)	Centers for Medicare and Medicaid Services	$ 74.6
CMS Hospital Quality Reporting (HQR)	Centers for Medicare and Medicaid Services	$ 66.2
CMS Quality Improvement Organizations (QIO) Information Systems	Centers for Medicare and Medicaid Services	$ 64.2
WMA Corporate Management and Support Scientific and Technical (6)	Air Force	$ 57.2
Application and Eligibility Determination System (AEDS)	Office of Federal Student Aid	$ 54.7
Benefits Payment	Department of Veterans Affairs	$ 54.4
SYMIS Support	Navy, Marine Corps	$ 54.3

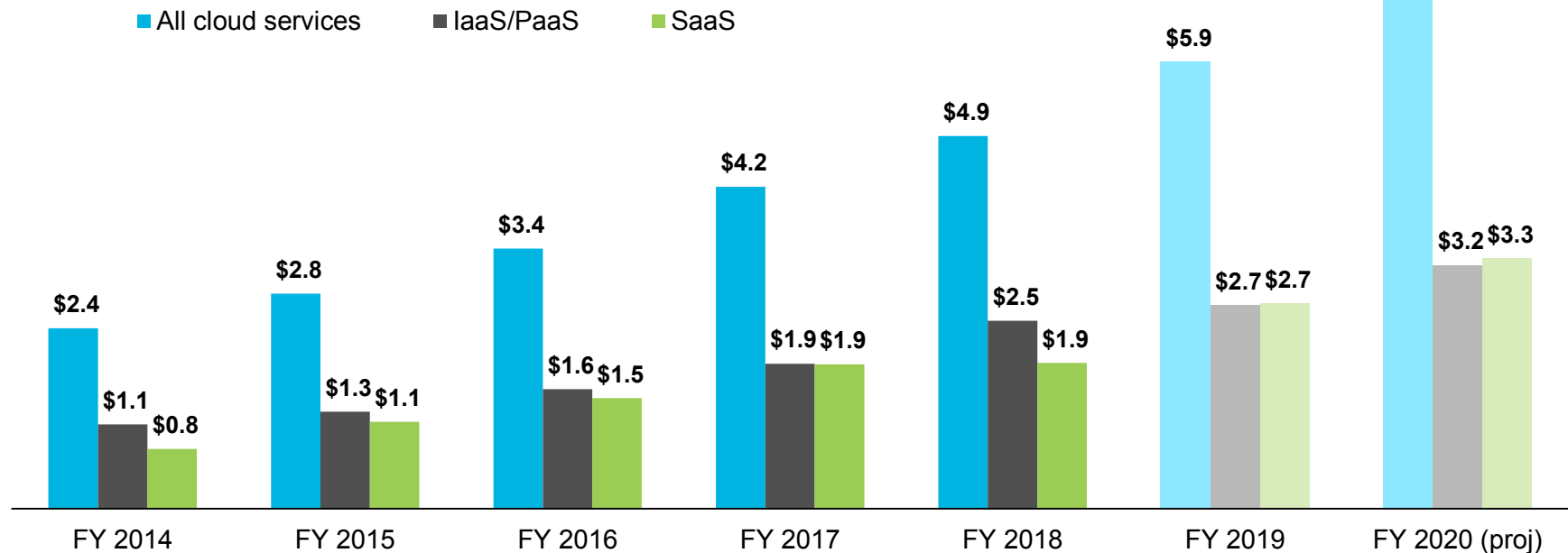| Considering Cloud Migration in FY 2020	Agency(s)	FY 2020 budget ($M)
Bureau IT - EUR	Department of State	$ 151.8
CBP - Automated Commercial Environment (ACE)	U.S. Customs and Border Protection	$ 109.4
Debt Management and Collections System (DMCS)	Office of Federal Student Aid	$ 100.5
FAAXX703: System Wide Information Management (SWIM)	Federal Aviation Administration	$ 94.6
Armed Forces Health Longitudinal Technology Application	Defense-wide	$ 82.7
CBP - Land Border Integration	U.S. Customs and Border Protection	$ 79.1
Supply Chain Management	Department of Veterans Affairs	$ 71.8
CBP - Border Patrol Enforcement Systems (BPES)	U.S. Customs and Border Protection	$ 65.6
USPTO Technology Sustaining Activities (TSA)	U.S. Patent and Trademark Office	$ 57.8
FBI National Crime Information Center (NCIC)	Federal Bureau of Investigation	$ 54.1

Sources: ITDashboard.gov

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Federal Cloud Contract Spending

The federal cloud market will reach $7.1 billion by FY 2020

- Cloud spending is expected to accelerate as agencies prioritize modernizing aging infrastructure, reforms streamline the security authorization process, and software vendors shift to an as-a-service model

Unclassified cloud services obligations in fiscal years 2014 through 2020 (projected); dollars in billions

Legend: ■ All cloud services ■ IaaS/PaaS ■ SaaS

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020 (proj)
All cloud services	$2.4	$2.8	$3.4	$4.2	$4.9	$5.9	$7.1
IaaS/PaaS	$1.1	$1.3	$1.6	$1.9	$2.5	$2.7	$3.2
SaaS	$0.8	$1.1	$1.5	$1.9	$1.9	$2.7	$3.3

Note: Cloud Services, IaaS/PaaS, and SaaS are BGOV analyst-defined markets. Data for FY 2019 and 2020 are incomplete due to the Pentagon's 90-day reporting lag. BGOV used a five-year CAGR to project spending.
Sources: Bloomberg Government data

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Civilian Cloud Spending

Federal cloud spending is taking off as agencies embrace commercial cloud

Civilian cloud services obligations by agency in fiscal years 2015 through 2019 (projected); dollars in millions

Legend: ■ HHS ■ VA ■ DHS ■ DOC ■ State ■ Other agencies
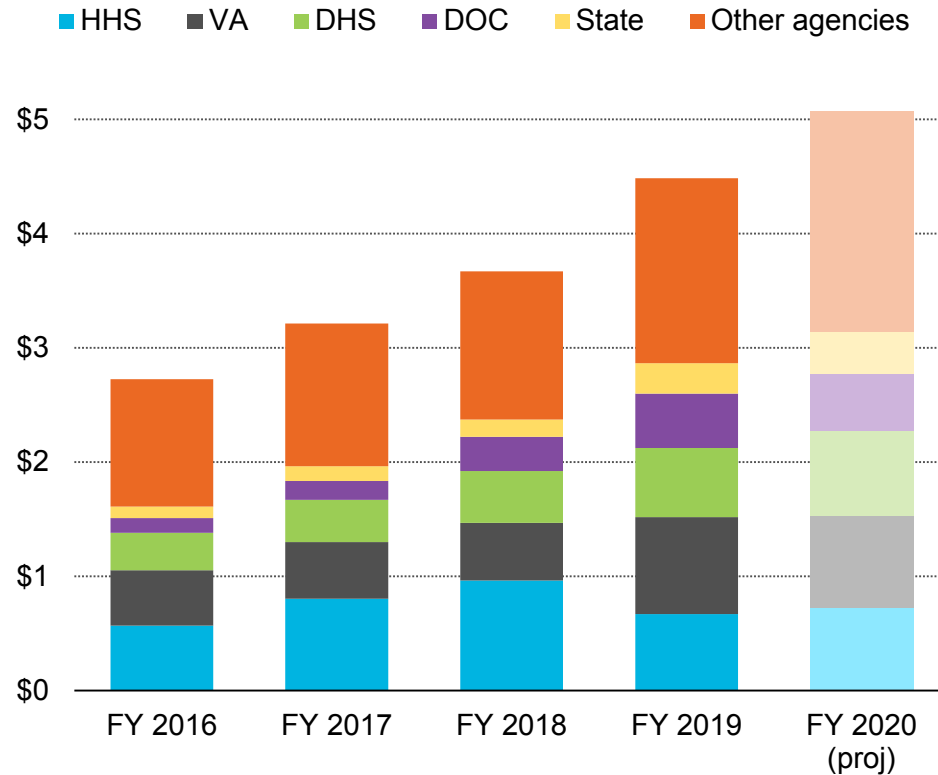
Top 10 Civilian Cloud Vendors	Agency(s)	Contract(s)	FY 2019 obligations
T-Rex Consulting LLC	Census Bureau	Multi-Tiered Acquisition Framework	$396 million
Dell Inc.	VA, DHS	Schedule 70, Microsoft ELA	$382 million
General Dynamics Corp.	CMS, Education	CMS Virtual Data Center, CIO-SP3	$241 million
Carahsoft Technology Corp.	State, USDA	SEWP V, USDA CRM Hosting	$206 million
Leidos Holdings Inc.	CMS, DHS	CMS Virtual Data Center	$202 million
Four Points Technology LLC	VA, DHS	SEWP V, FirstSource II	$163 million
Perspecta Inc.	CMS, DHS	CMS Virtual Data Center	$121 million
ThunderCat Technology LLC	VA, DHS	SEWP V, FirstSource II	$106 million
ByLight Professional IT Services Inc.	VA	T4NG	$95 million
International Business Machines Corp.	DHS, Treasury	CIO-SP3, TIPSS IV	$90 million

Sources: Bloomberg Government data

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Pentagon Cloud Spending

A late adopter of cloud computing, the Pentagon is rapidly making up for lost time

Pentagon cloud services obligations by agency in fiscal years 2015 through 2019 (projected); dollars in millions

■ Air Force ■ Army ■ Navy ■ Other defense agencies
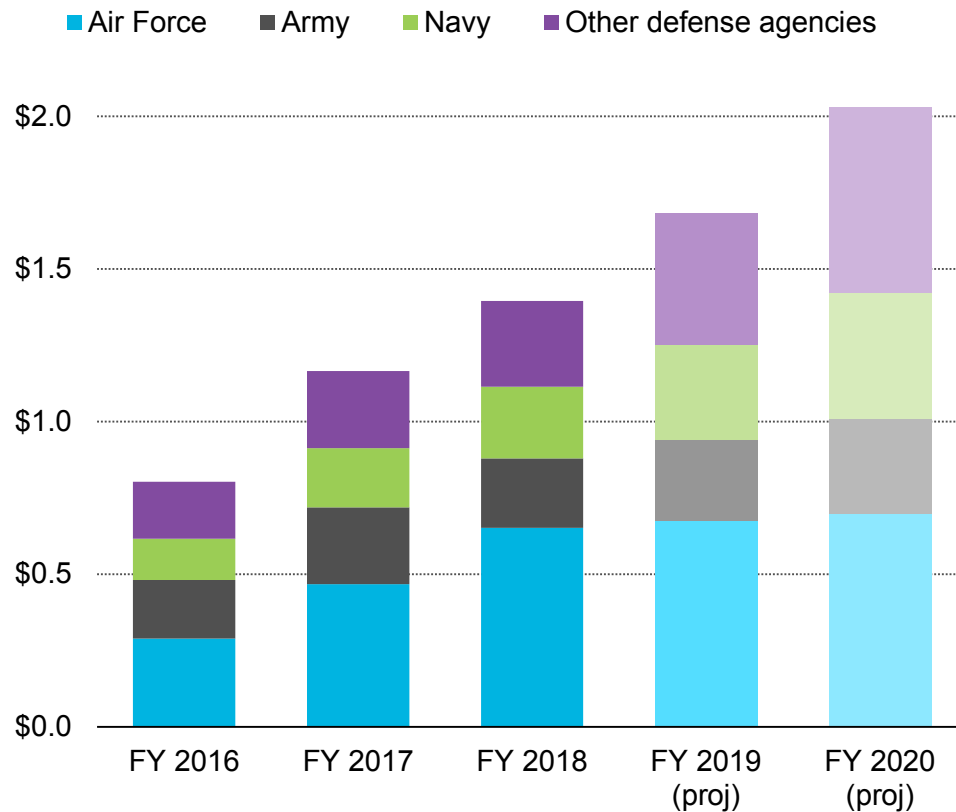
Top 10 Defense Cloud Vendors	Agency(s)	Contract(s)	FY 2019 obligations
Dell Inc.	Army, Air Force	Schedule 70, Email as a Service	$159 million
Carahsoft Technology Corp.	OSD, Navy	SEWP V	$88 million
Unisys Corp.	Air Force	Enterprise IT as a Service Pilot	$77 million
Insight Enterprises Inc.	Navy	Microsoft Software Licenses BPA	$59 million
Palantir Technologies Inc.	SOCOM	All Source Intelligence Fusion	$51 million
DLT Solutions Inc.	Navy	Red Hat BPA	$39 million
Accenture PLC	Air Force, Navy	Enterprise IT as a Service Pilot	$38 million
Booz Allen Hamilton Holding Corp.	DTRA, Air Force	NETCENTS 2: App Services	$38 million
World Wide Technology Holding Co	Army	Army Endpoint Management as a Service	$38 million
General Dynamics Corp	Navy, DISA	MilCloud 2.0	$38 million

Sources: Bloomberg Government data

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Cloud Spending by Agency & Bureau

HHS, VA, and the Air Force the top spenders on cloud services since FY 2015

Cloud services obligations by agency and bureau in fiscal years 2015 through 2019 (year to date); dollars in millions

■ FY 2015 ■ FY 2016 ■ FY 2017 ■ FY 2018 ■ FY 2019 YTD
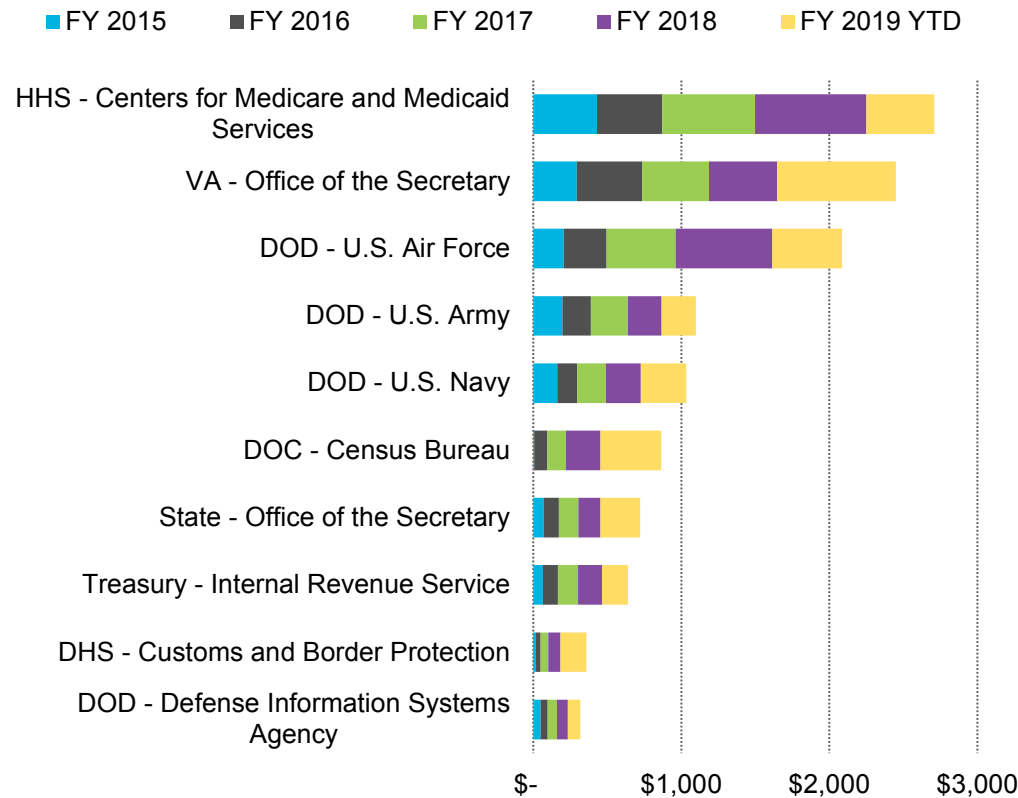
- Civilian agencies spent a combined $4.3 billion on cloud services in FY 2019, according to BGOV data

- Pentagon agencies are projected to spend $1.7 billion in FY 2019

- DHS, Treasury State, FAA, USDA, and others are embarking on enterprise IT modernizations

- The Department of Veterans Affairs and the Centers for Medicare and Medicaid Services were the largest single spenders on cloud services in FY 2019

Notes: "Cloud Services" is a BGOV analyst-defined market that captures all unclassified spending on on-premises and commercial cloud infrastructure, platforms, and software, as well as cloud migration and other support services.
Sources: BGOV Contracts Intelligence Tool

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Cloud Spending by Vendor

Top prime vendors are primarily resellers/distributors of commercial IaaS and SaaS

Cloud services obligations by prime vendor in fiscal years 2015 through 2019 (year to date); dollars in millions

■ FY 2015   ■ FY 2016   ■ FY 2017   ■ FY 2018   ■ FY 2019 YTD
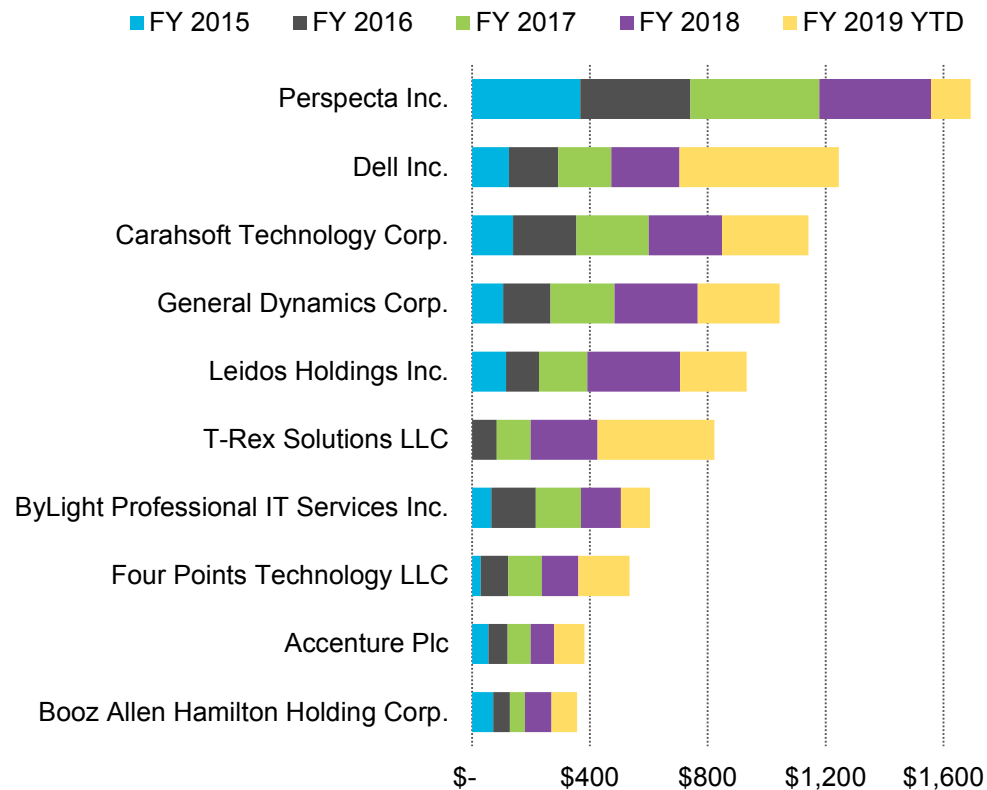
- Perspecta has generated over $1.2 billion on CMS's Virtual Data Center contract as a value-added reseller of Amazon Web Services

- Dell has won billions as a distributor of Microsoft and VMWare software and through GSA's Email as a Service contract

- General Dynamics acquired a sizeable cloud portfolio with its acquisition of CSRA

- The majority of Leidos obligations have been for private cloud services

Sources: BGOV Contracts Intelligence Tool

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Cloud Spending by Contract

Top cloud contracts are a mix of IDIQs and GWACs

Subhead or explainer goes here (ex Dollars in billions), sentence case

■ FY 2015 ■ FY 2016 ■ FY 2017 ■ FY 2018 ■ FY 2019 YTD
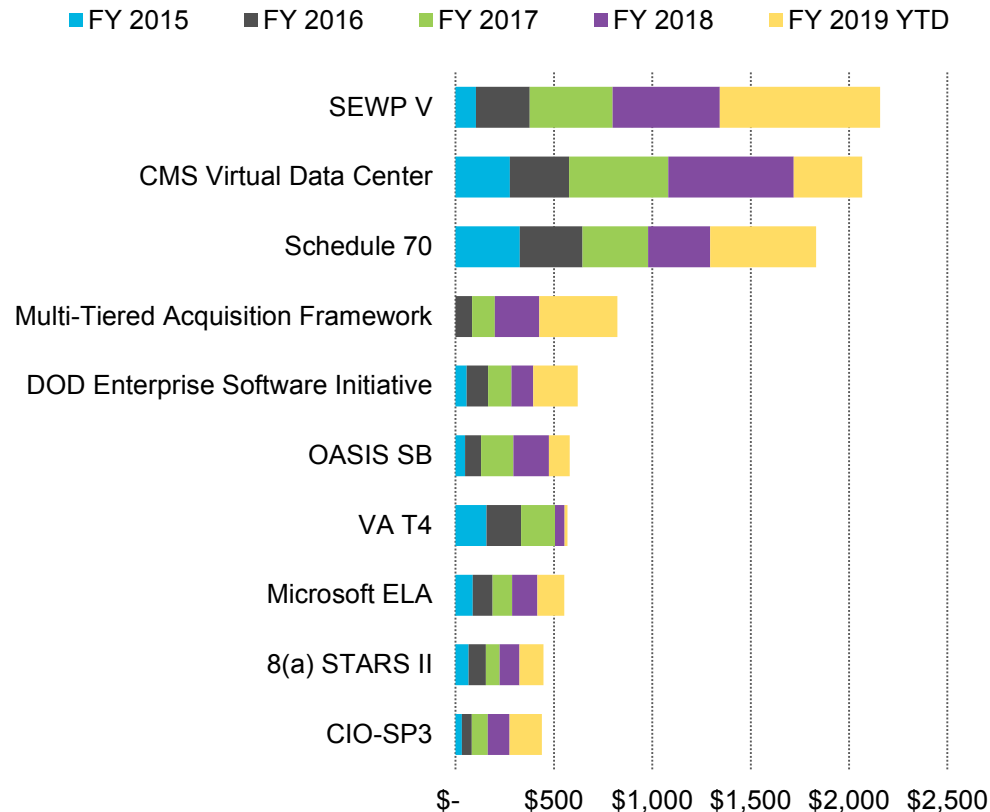
- SEWP V is the fastest growing cloud contract, due largely to SaaS purchases

- CMS's Virtual Data Center contract has generated more than $3.3 billion for Perspecta, General Dynamics, Leidos, and others since fiscal 2012

- GSA has re-tooled Special Item Numbers (SIN 132 40) on Schedule 70 to better accommodate cloud buying

- The Census Bureau's Multi-Tiered Acquisition Framework contract has generated almost $1 billion for T-Rex Consulting

Notes: "Cloud Services" is a BGOV analyst-defined market that captures all unclassified spending on on-premises and commercial cloud infrastructure, platforms, and software, as well as cloud migration and other support services.
Sources: BGOV Contracts Intelligence Tool

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Spending on Infrastructure/Platform as a Service

IaaS/PaaS spending to reach $3.2 billion by FY 2020; CMS and DOD the largest spenders

Unclassified IaaS/PaaS obligations in fiscal years 2016 through 2020 (projected); dollars in billions

■ HHS ■ DOD ■ DOC ■ VA ■ DHS ■ Other agencies
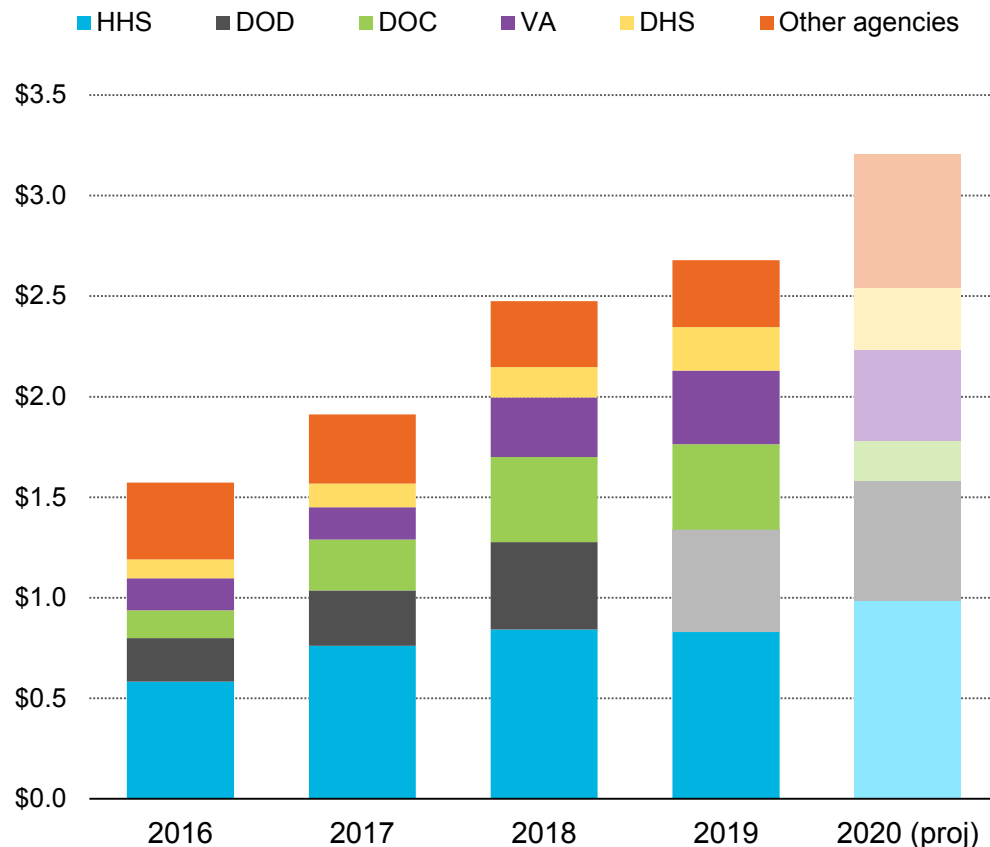
Sources: Bloomberg Government data

- The largest cloud program in FY 2019 was the Census Bureau's IT infrastructure contract with T-Rex Consulting

- CMS's Virtual Data Center generated a combined $345 million for Leidos, General Dynamics, and Perspecta in fiscal 2019

- Top prime contractors include providers of private (on-prem) cloud solutions and resellers of Amazon Web Services and Microsoft Azure solutions

- Unisys, AT&T, and Microsoft each won "IT as a Service" OTAs from the U.S. Air Force

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Spending on Software as a Service

SaaS spending to reach $3.3 billion; SEWP is the top contracting vehicle

Unclassified SaaS obligations in fiscal years 2016 through 2020 (projected); dollars in billions

Legend: ■ DOD ■ DHS ■ VA ■ HHS ■ Treasury ■ Other agencies
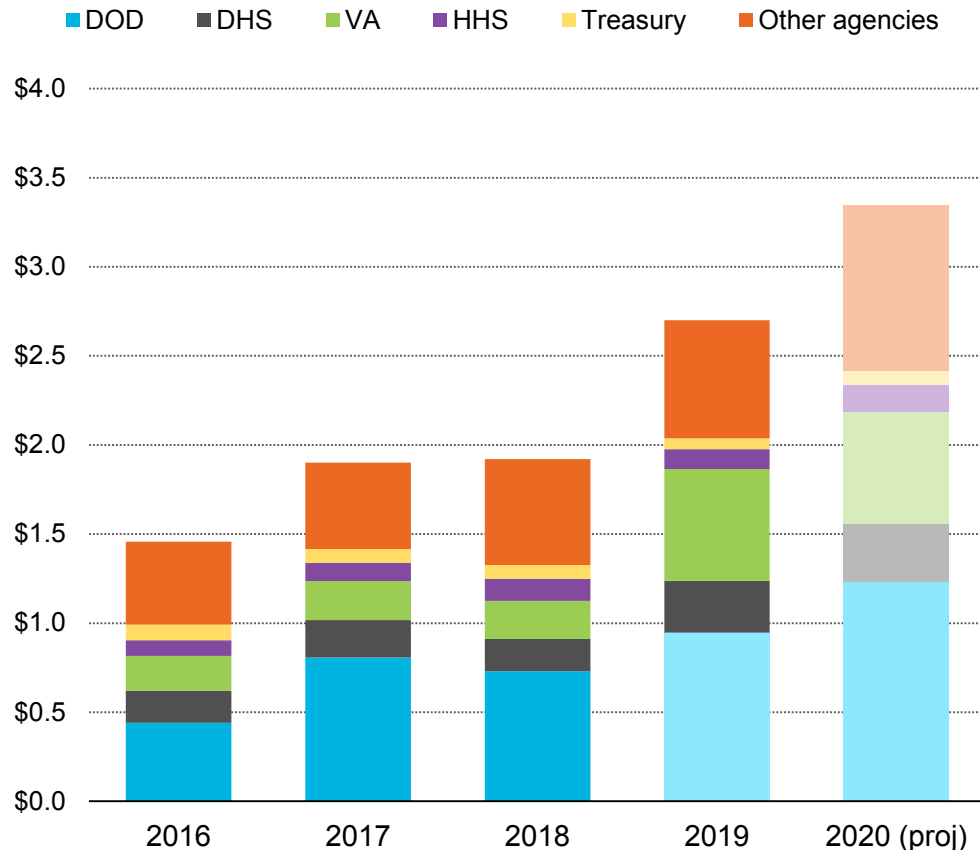
Sources: Bloomberg Government data

- SEWP V was the largest SaaS contract in FY 2019, generating $1.1 billion in SaaS obligations

- The largest recipients of SaaS obligations in FY 2019 were Dell Inc. ($412 million), Carahsoft Technology Corp. ($358 million), and V3Gate LLC ($195 million)

- The largest recipients of SaaS obligations are resellers/distributors of commercial software, including products from Microsoft, Oracle, SAP, and Salesforce

- Palantir Technologies generated over $80 million in SaaS obligations from the DOD, DOJ, and SEC

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Top IaaS/PaaS and SaaS Vendors and Contracts

Top vendors tend to be systems integrators and resellers, rather than OEMs

| Top 10 IaaS/PaaS Vendors, FY 2019	Agency(s)	Contract(s)	FY 2019 obligations
T-Rex Consulting	Census Bureau	Multi-Tiered Acquisition Framework	$399 million
General Dynamics Corp.	CMS, DISA	CMS Virtual Data Center, MilCloud	$200 million
Leidos Holdings Inc.	CMS, TSA	CMS VDC, Data Center Support	$181 million
Unisys Corp.	Air Force, Treasury	Enterprise ITaaS, Alliant	$122 million
Four Points Technology LLC	VA, DHS	SEWP V, FirstSource II	$88 million
Perspecta Inc.	CMS, FDA	CMS VDC	$75 million
Mythics Inc.	DOD, CBP	SEWP V	$61 million
Microsoft Corp.	Air Force	Network as a Service	$40 million
Newwave-GDIT LLC	CMS	CCW VRDC	$37 million
ThunderCat Technology LLC	VA	SEWP V	$36 million

Top 10 SaaS Vendors, FY 2019	Agency(s)	Contract(s)	FY 2019 obligations
Dell Inc.	VA, DOD	Schedule 70, Email as a Service	$412 million
Carahsoft Technology Corp.	DOD, State	SEWP V	$357 million
V3Gate LLC	VA	SEWP V	$195 million
Mythics Inc.	State, DOD	SEWP V	$183 million
Four Points Technology LLC	VA, DOD	SEWP V	$135 million
ThunderCat Technology LLC	VA, CBP	SEWP V	$100 million
Nana Regional Corp Inc.	DOD, DHS	SEWP V, FirstSource II	$98 million
CDW Corp.	State, DOD	SEWP V	$95 million
Insight Enterprises Inc.	Navy, Air Force	Microsoft Software Licenses BPA	$87 million
Palantir Technologies Inc.	DOD	All Source Intelligence Fusion	$80 million

Sources: Bloomberg Government data.
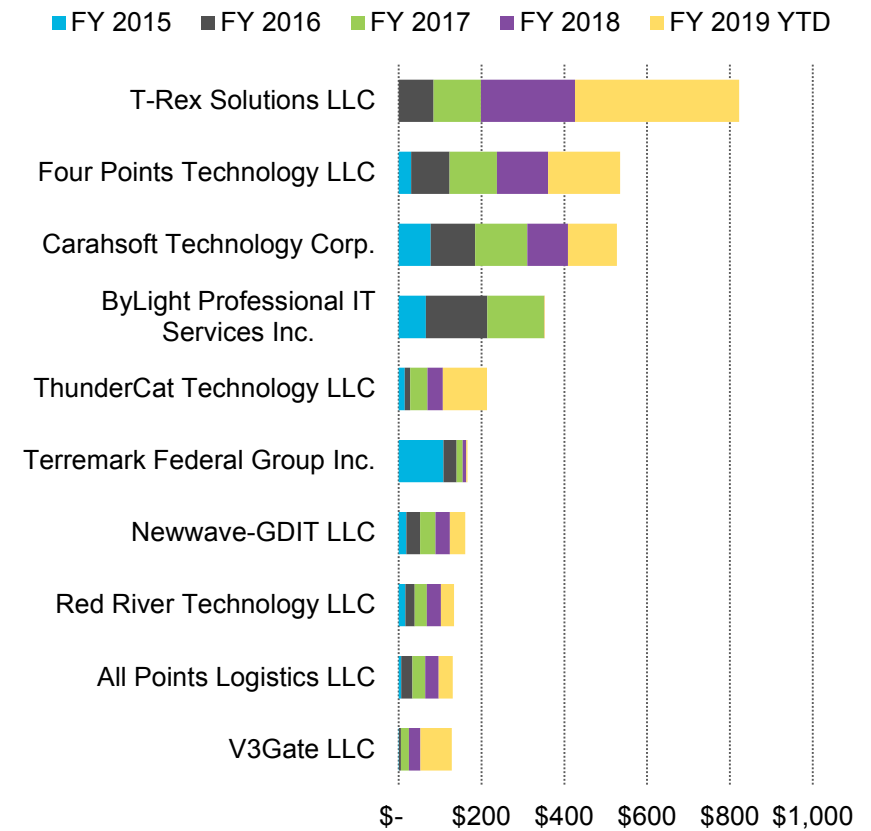
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Small Business Cloud Contracting

Small businesses taking home almost 40% of cloud contract obligations

Cloud services obligations by set-aside type in fiscal years 2016 through 2020 (projected); dollars in billions

- Small business set-aside
- Unrestricted (won by small businesses)
- Unrestricted (won by large businesses)
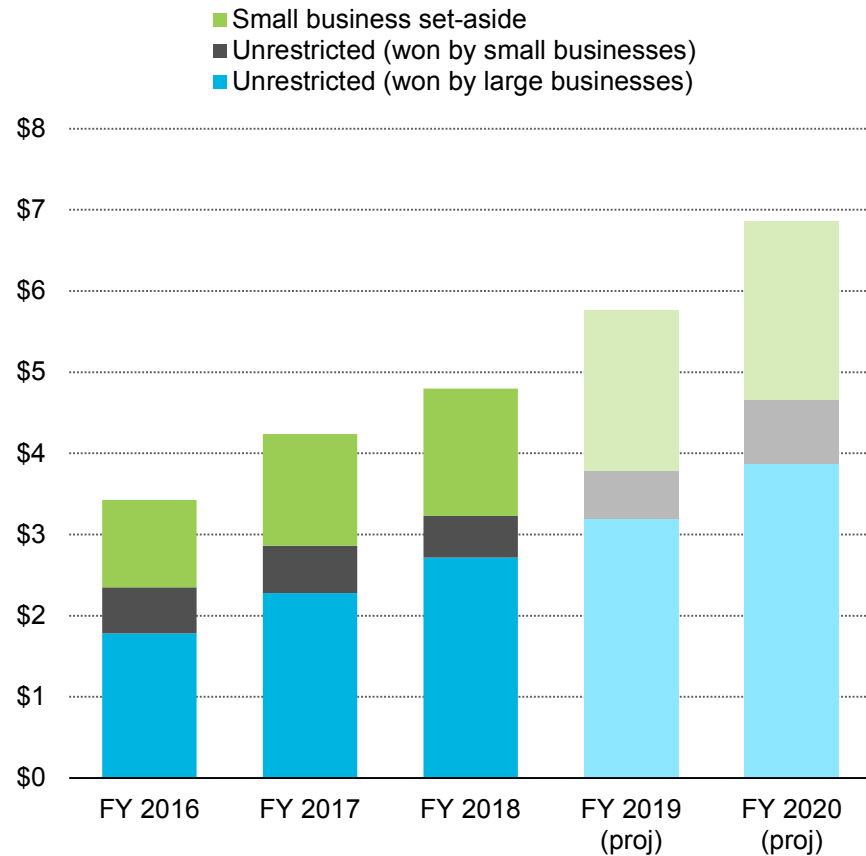
Cloud services obligations by small business in fiscal years 2015 through 2019 (year to date); dollars in millions

- FY 2015
- FY 2016
- FY 2017
- FY 2018
- FY 2019 YTD

Source: Bloomberg Government data

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Investment in Cloud-Adjacent Technologies

Cloud computing is a key enabling technology for digital services and artificial intelligence

Digital services obligations in civilian and defense agencies in fiscal years 2016 through 2020 (projected); dollars in billions

- Civilian agencies
- Defense agencies

Artificial intelligence obligations in defense and civilian agencies in fiscal years 2016 through 2020 (projected); dollars in millions

- Civilian agencies
- Defense agencies
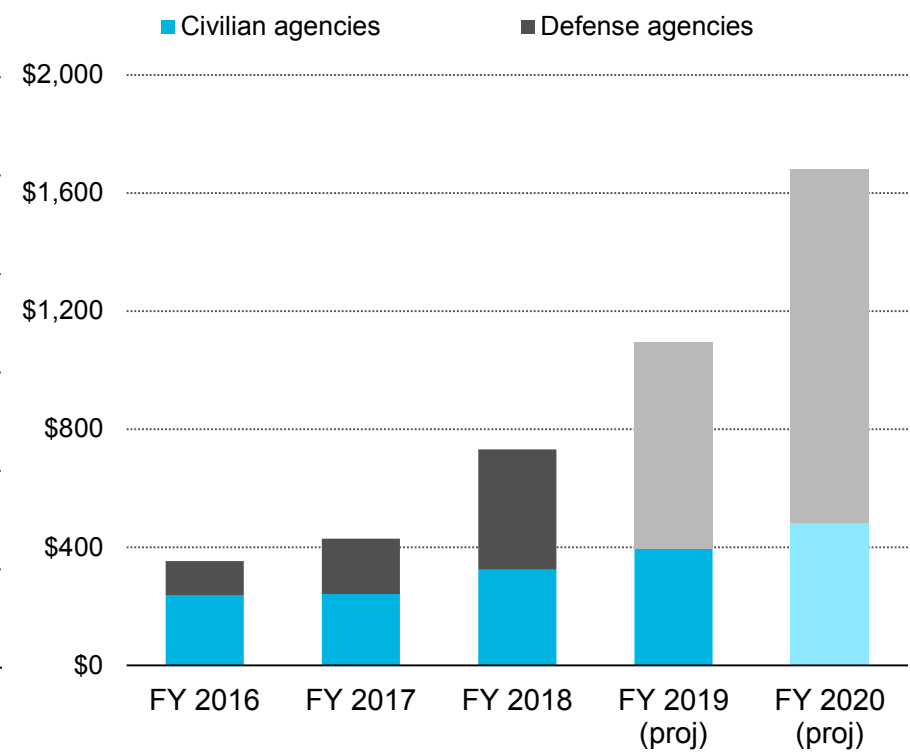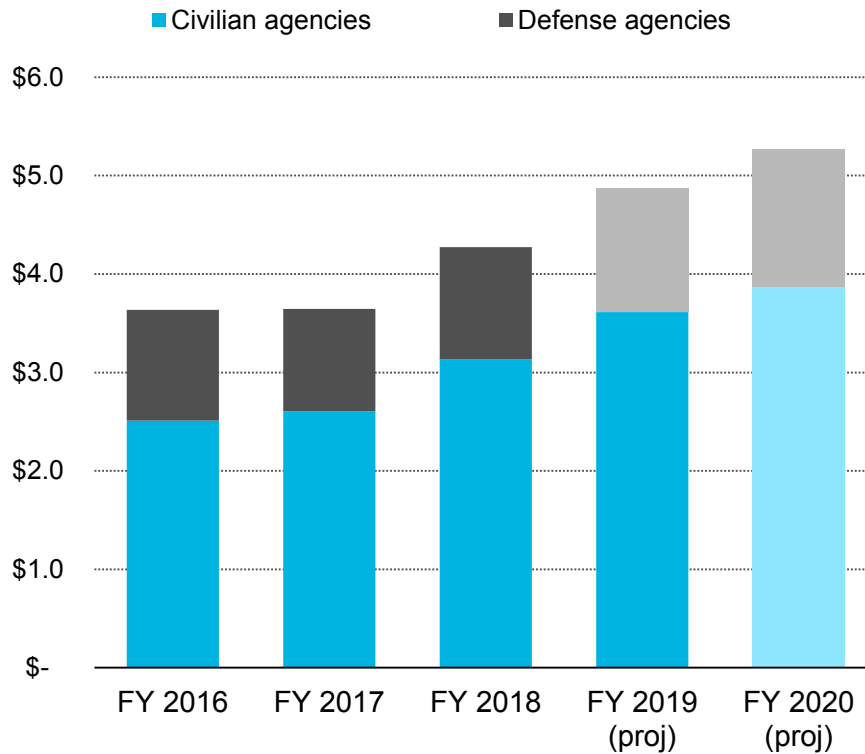
Notes: "Digital Services" is a BGOV analyst-defined market that captures all unclassified spending on providing web- and mobile-based government services, including web development, DevOps, customer relationship management, e-government. "Artificial Intelligence" is a BGOV analyst-defined market that captures all unclassified spending projects related to artificial intelligence, machine learning, deep learning, neural networks, and self-driving vehicles.
Source: Bloomberg Government data

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Expiring Task Orders and Opportunities: Civilian

Billions of dollars of cloud computing opportunities up for grabs in FY 2020

Task Order Title	Agency	Incumbent	Expiration date	Value to date	Burn rate
CMS Virtual Data Center	Centers for Medicare and Medicaid Services	Perspecta Inc.	6/30/2020	$1.2 billion	100%
CMS Virtual Data Center	Centers for Medicare and Medicaid Services	General Dynamics Corp.	11/13/2020	$360 million	95%
Provide Full Suite of Enterprise IT Managed Services	Justice Department	Leidos Holdings Inc.	9/30/2020	$340 million	39%
Provide Systems Engineering Development Support for Benefits Integration Platform	Veterans Affairs	Booz Allen Hamilton Holding Corp.	9/20/2021	$191 million	47%
Web Based Supply Chain Management Services in Support of USDA	Agriculture Department	CACI International Inc.	3/1/2021	$152 million	76%

Solicitation Title	Agency(s)	Incumbent(s)	RFP release date	Value ($)
8(a) STARS III Draft Solicitation	General Services Administration	1,058 incumbents	Q2, 2020 (BGOV est.)	$20 billion (Gov't est.)
Civilian Enterprise Office Solutions (CEOS)	General Services Administration	N/A	Q4, 2020 (BGOV est.)	$5-10 billion (BGOV est.)
Systems Engineering & Technical Innovative Solutions (SETIS)	Federal Aviation Administration	15 incumbents	Q1, 2020 (BGOV est.)	$2.8 billion (BGOV est.)
CIO – Solutions and Partners 4	NITAAC	363 incumbents	Q4, 2020	$20 billion (BGOV est.)
Treasury Cloud (T-Cloud)	Treasury Department	N/A	Q2, 2021	$1 billion (Gov't est.)
Cloud Services Provider	Customs and Border Protection	N/A	Q2, 2020 (BGOV est.)	$750 million (BGOV est.)

Sources: Bloomberg Government data

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Expiring Task Orders and Opportunities: DOD

Billions in DOD cloud opportunities up for grabs in FY 2020

Task Order Title	Agency	Incumbent	Expiration date	Value to date	Burn rate
DOD Enterprise Software Initiative	U.S. Army	Carahsoft Technology Corp.	5/31/2020	$221 million	85%
IT Support Services for the Defense Manpower Data Center	Defense Human Resources Activity	Federal Acquisition Services Alliant Joint Venture LLC	8/9/2020	$62 million	46%
Cloud Hosting – Cloud Service Offering	U.S. Navy	Advantaged Solutions Inc.	6/19/2021	$58 million	51%
Microsoft Office 365 Defense E3	U.S. Navy	Insight Enterprises Inc.	5/31/2020	$53 million	100%
Real-Time Analytical Virtual Environment (RAVEN)	U.S. Air Force	Booz Allen Hamilton Holding Corp.	9/29/2020	$46 million	92%
Virtual Data Center Infrastructure as a Service	U.S. Air Force	CDO Technologies Inc.	9/29/2021	$29 million	77%

Solicitation Title	Agency(s)	Incumbent(s)	RFP release date	Value ($)
Commercial Cloud Enterprise (C2E)	Central Intelligence Agency	Amazon Web Services Inc.	Q1, 2020	$10+ billion (Gov't est.)
Infrastructure Development & Sustainment 2	Defense Intelligence Agency	N/A	Q2, 2020 (BGOV est.)	$3 billion
Application Development & Sustainment 2	Defense Intelligence Agency	N/A	Q2, 2020 (BGOV est.)	$2.1 billion
DHA RFI Military Health System Enterprise IT Services	Defense Health Agency	N/A	Q2, 2020 (BGOV est.)	$1 billion (BGOV est.)
Unified Situational Cyber Awareness (USCA)	U.S. Air Force	Northrop Grumman Corp.	Q1, 2020 (BGOV est.)	$115 million
DISA Joint AI Center Enterprise Hybrid Cloud Systems Integration Support	Defense Information Systems Agency	N/A	Q1, 2020 (BGOV est.)	$50-100 million (BGOV est.)

Sources: Bloomberg Government data

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What's Ahead

- **Agencies are increasingly requesting hybrid/multi-cloud solutions**
  - The market for hybrid/multi-cloud management technologies is becoming more mature, while agencies are reluctant to get locked into a single provider
  - DHS, Treasury, and the CIA are embarking on multibillion dollar cloud migration programs; each requested hybrid/multi-cloud solutions and participation by multiple hyperscale cloud providers

- **Cloud spending is increasingly centralized on Best in Class contracts**
  - GSA, NITAAC, NASA are making it easier to acquire cloud services using Schedule 70, Alliant, CIO-SP3, SEWP
  - Agencies are retiring single-agency IDIQs, such as EAGLE, NETCENTS in favor of cloud BPAs on Schedule 70

- **DOD cloud contracts are still up in the air**
  - The Pentagon's $10 billion JEDI contract is on hold, following Amazon's challenge in the U.S. Court of Federal Claims
  - The $8 billion DEOS contract will be re-bid following uncertainty related to cost assessment

- **Cloud security regimes are evolving**
  - FedRAMP High will become the de facto baseline for cloud programs that touch personal health information (PHI) or DOD controlled unclassified information (CUI)
  - The Cybersecurity Maturity Model Certification (CMMC) will impact all suppliers of IT and cloud services to the Pentagon (and all of their suppliers)

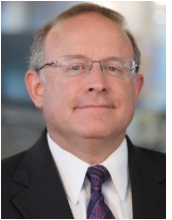**Bloomberg Government**

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