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Azure Government Amendment

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Agenda

- Overview of the US Government Cloud
- Commercial / US Government Comparison
- Selecting a Cloud and the Trust Center
- Azure Blueprints
- Connecting to the US Government Cloud
- Marketplace Considerations
- Azure Active Directory Considerations
- About the Feature Roadmap
- Useful Links

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Overview of the US Government Cloud

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What is the US Government Cloud?

"A government-community cloud you can trust, with world-class security and compliance, enabling U.S. government and their partners to transform their mission-critical workloads to the cloud."

Hybrid flexibility		Engineered for flexibility and consistency across public, private, and hosted clouds
Comprehensive compliance		The most certifications of any cloud provider to simplify critical government compliance requirements
Superior protection		Hardened US datacenters, including East coast, with 500-mile geo-redundancy, operated by screened US persons
Government only		Unique cloud instance, exclusively for government customers and their solution providers

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Unique Properties of the US Government Cloud

- Physically isolated instance of Microsoft Azure
- Employs world-class security and compliance services critical to U.S. government for all systems and applications built on its architecture
  - FedRAMP and DoD compliance certifications
  - CJIS state-level attestations
  - Ability to issue HIPAA Business Associate Agreements
  - Support for IRS 1075
- Operated by screened U.S. citizens

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Azure DoD/Government Regions

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Commercial / US
Government Comparison

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Commercial vs. US Government Clouds

Comparison Point	Microsoft Azure Commercial (MAC)	Microsoft Azure Government (MAG)
Operational staff	Microsoft screening	Screened US citizens
Physical security	Biometrics, isolation, fencing, etc.	Same as MAC
Scope of offering	All Azure features	Features limited by certification
Portal (Classic)	https://manage.windowsazure.com	https://manage.windowsazure.us
Portal (ARM)	https://portal.azure.com	https://portal.azure.us
Pricing concerns	Base pricing, minus EA/commitment discount (if any)	Base pricing, plus MAG premium, minus EA/commitment discount (if any)
Availability	Anyone, on demand	Requires approval from Microsoft
Identity (Azure AD)	Integrates Office 365 & 3rd party SaaS	Isolated, no integration

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Selecting a Cloud and the
Trust Center

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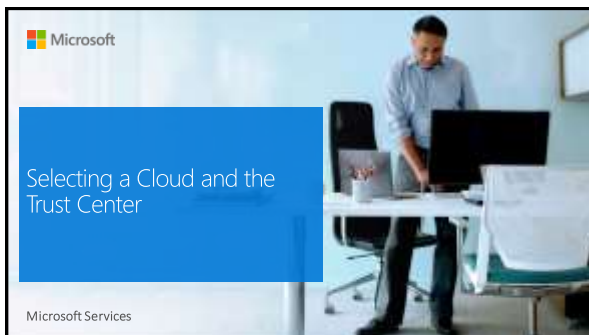
Selecting a Cloud: Why the Government Cloud?

"I'm a Government Entity so obviously, MAG is the way to go!"

- This is inappropriate thinking
- Microsoft Azure Government...
  - Is more expensive due to extra certification requirements and overhead
  - Is slower to gain features due to certification timelines
- Microsoft Azure Commercial...
  - Meets FedRAMP Moderate and many other certifications
  - Has same physical security
- Very common for Government customers to have both MAG and MAC subscriptions
- To compare services available, see https://azure.microsoft.com/en-us/regions/services/

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Azure covers 54 compliance offerings
Azure has the deepest and most comprehensive compliance coverage in the industry

| Global | ISO 27001 | ISO 27018 | ISO 27017 | ISO 22301 | ISO 9001 | SOC 1 Type 2 | SOC 2 Type 2 | SOC 3 | CSA STAR Self-Assessment | CSA STAR Certification | CSA STAR Attestation |

| US Gov | Moderate JAB P-ATO | High JAB P-ATO | DoD DISA SRG Level 2 | DoD DISA SRG Level 4 | DoD DISA SRG Level 5 | SP 800-171 | FIPS 140-2 | Section 508 VPAT | ITAR | CJIS | IRS 1075 |

| Industry | PCI DSS Level 1 | CDSA | MPAA | FACT UK | Shared Assessments | FISC Japan | HIPAA/ HITECH Act | HITRUST | GxP 21 CFR Part 11 | MARS-E | IG Toolkit UK | FERPA | GLBA | FFIEC |

| Regional | Argentina PDPA | EU Model Clauses | UK G-Cloud | China DJCP | China GB 18030 | China TRUCS | Singapore MTCS | Australia IRAP/CCSL | New Zealand GCIO | Japan My Number Act | ENISA IAF | Japan CS Mark Gold | Spain ENS | Spain DPA | India MeitY | Canada Privacy Laws | Privacy Shield | Germany IT Grundschutz workbook |

Commercial vs. US Government Clouds – Compliance Offerings

Comparison Point	Microsoft Azure Commercial (MAC)	Microsoft Azure Government (MAG)
FedRAMP	Moderate	High
US Department of Defense	Level 2 (specific services)	Level 4 (specific services) Level 5 (specific services in DoD regions)
CJIS	N/A	Attestation by State
FIPS 140-2	✔	✔
ITAR	N/A	✔
NIST 800-171	✔	✔
IRS 1075	N/A	✔
HIPAA / HITECH	✔	✔
MARS-E	✔	✔
Section 508	✔	✔
HITRUST	✔	N/A
FERPA	✔	N/A
FDA CFR Title 21 Part 11	✔	N/A
PCI DSS 3.2 SP L1	✔	N/A

The Microsoft Trust Center

The Microsoft Trust Center offers detailed security, privacy, and compliance information for all Microsoft cloud services.

Obtain targeted information based on your role in the organization

- Review by job role
- Review by product/service
- Review by cloud

https://www.microsoft.com/en-us/trustcenter

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The Microsoft Trust Center

The Microsoft Trust Center

Scope & filter Microsoft's compliance offerings based on Region, Country, Industry, and Product/Service

Easily determine which Cloud service is best suited for a particular workload

https://www.microsoft.com/en-us/trustcenter/compliance/complianceofferings

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The Microsoft Trust Center

The Microsoft Trust Center

Dive deeper into a compliance offering to see its audit, in-scope services, and how Microsoft ensures ongoing compliance

(CJIS Example)

Azure Blueprints

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Azure Blueprints

- Purpose
  - Facilitate the secure and compliant use of Azure for government
  - Leverage Azure's FedRAMP JAB Provisional Authority to Operate (P-ATO) or DoD Provisional Authorization (PA)
  - Reduce the scope of customer-responsibility security controls in Azure-based systems
- Customer Responsibilities Matrix (CRM)
  - Lists all NIST SP 800-53 security control requirements for FedRAMP and DISA baselines
- System Security Plan (SSP)
  - Documents both customer security control implementations as well as controls inherited from Azure

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Azure Blueprints – Customer Responsibilities Matrix (CRM)

- Lists all NIST SP 800-53 security control requirements for FedRAMP and DISA baselines

(example of FedRamp Moderate for IaaS)

Azure Blueprints - System Security Plan (SSP)

- Documents both customer security control implementations as well as controls inherited from Azure

(example of FedRamp Moderate)

Azure Blueprints

- High-level discussion: https://docs.microsoft.com/en-us/azure/azure-government/documentation-government-plan-compliance
- Download the blueprints - https://servicetrust.microsoft.com/ViewPage/BlueprintOverview

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Connecting to the
US Government Cloud

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Portal Addresses

Portal	MAC URL	MAG URL
Classic Management	https://manage.windowsazure.com	https://manage.windowsazure.us
ARM Management	https://portal.azure.com	https://portal.azure.us
Enterprise Agreement (EA)	https://ea.azure.com	
Account Management	https://account.windowsazure.com	https://account.windowsazure.us
Operations Management Suite (OMS)	https://mms.microsoft.com	https://oms.microsoft.us

See https://docs.microsoft.com/en-us/azure/azure-government/documentation-government-services

Connecting with Command Line Interfaces

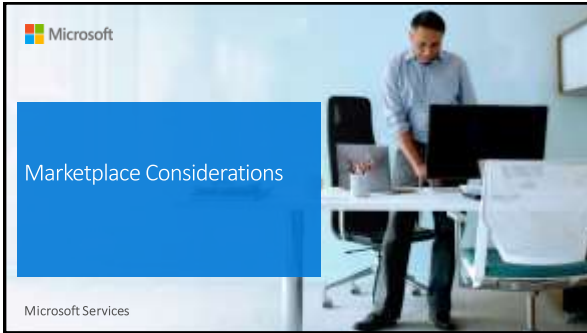| Service	Command
Azure ARM	Add-AzureRmAccount -EnvironmentName AzureUSGovernment
Azure ASM	Add-AzureAccount -Environment AzureUSGovernment
AzureAD ARM	Connect-AzureAD -AzureEnvironmentName AzureUSGovernment
AzureAD ASM	Connect-MsolService -AzureEnvironment UsGovernment
Azure CLI	azure login -environment "AzureUSGovernment"

Connecting with Visual Studio 2015

- Hardcode the Azure Government endpoints with a registry key
  - Visual Studio can only be used for Azure Government deployments from then on
- Reset the registry key to return connectivity to Commercial endpoints
  - Visual Studio can only be used for Azure Commercial deployments from then on
- https://docs.microsoft.com/en-us/azure/azure-government/documentation-government-get-started-connect-with-vs#visual-studio-2015

Connecting with Visual Studio 2017

- Hardcode the Azure Government endpoints with a configuration file located in a specific folder
  - Visual Studio can only be used for Azure Government deployments from then on
- Rename or delete the folder to return connectivity to Commercial endpoints
  - Visual Studio can only be used for Azure Commercial deployments from then on
- https://docs.microsoft.com/en-us/azure/azure-government/documentation-government-get-started-connect-with-vs#visual-studio-2017

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Marketplace Considerations

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Marketplace Considerations

- Similar experience to public Azure portal
- Only BYOL images available (cannot bill through the Marketplace)
- Only a subset of images are available
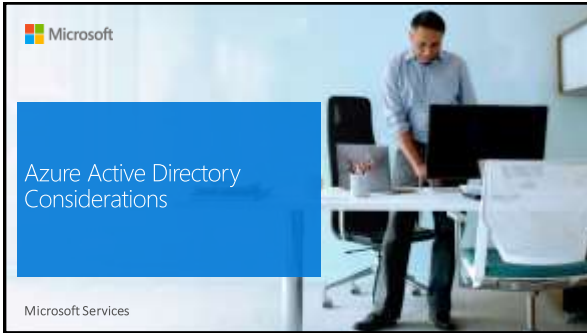- If in an Enterprise Agreement, Marketplace must be enabled in the EA Portal
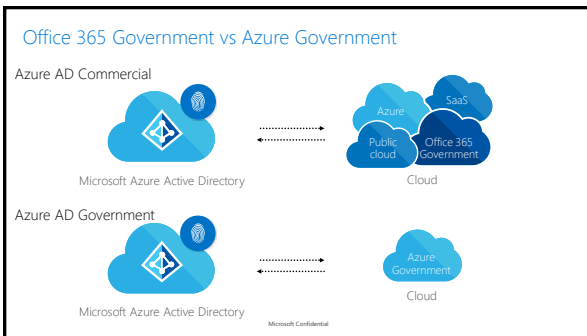
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Bringing Commercial to MAG

How quickly do you need it?

- Immediate need
  - Deploy into an Azure Commercial subscription with same environment setup as intended Government environment (i.e. Network)
  - Copy the VHDs to Azure Government subscription and re-deploy
  - Warning: Offerings not certified for Azure Government may not work or be supported
  - The vendor can also privately grant access to the solution through alternate means
- Wait and Certify
  - Ask the vendor to follow the publishing guidelines for Azure Government Marketplace
  - This ensures the offering meets the standards for the Marketplace. (Support, Compatibility, etc)

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Azure Active Directory Considerations

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Office 365 Government vs Azure Government

Azure AD Commercial

Microsoft Azure Active Directory

Azure
SaaS
Public cloud
Office 365 Government
Cloud

Azure AD Government

Microsoft Azure Active Directory

Azure Government
Cloud

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Azure AD Commercial vs Azure AD Government

- Completely independent instances of the Azure AD (AAD) service
- An on-premises identity can only be synced to 1 AAD tenant (i.e. John@contoso.com)
  - It is unsupported to sync the same identity to more than 1 AAD tenant
  - Workaround: Create a new on-premises identity for the other AAD tenant
- AAD Commercial works with O365 Commercial/Government, 3rd party SaaS, and identity enhancement services
  - Enterprise Mobility and Security (EMS), AAD Premium, Identity Protection, Privileged Identity Management
- AAD Government only integrates with AAD Application Proxy (publishing on-premises web/thick solutions)
  - AAD Premium (est. June 2017)

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About the Feature Roadmap

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Roadmap Concepts

- The Azure Government team has a product roadmap
- Generally updated monthly
- Includes what's live and what's coming
- Includes anticipated timeframes
- Includes compliance offering expectations (e. g. CJIS state-by-state information)
- Often issued in PowerPoint and Word forms
- Covered under the NDA between the customer and Microsoft

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How to Get It

- Available via your Microsoft account team

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Useful Links

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References

- Azure Government Blog – https://blogs.msdn.microsoft.com/azuregov/
  - Announces new feature releases and blogs specific to working with MAG
- Azure Government Documentation - https://docs.microsoft.com/en-us/azure/azure-government/
  - Includes feature availability and details on difference between MAC and MAG versions of the offering
- Features Available Region - https://azure.microsoft.com/en-us/regions/services/
  - "Get-AzureRMLocation" in Powershell to see a real-time listing of VM sizes, storage, etc. available in each region

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