

Microsoft Consulting Services Work Order

State and Local Government / Public Educational Institutions

(For Microsoft Internal Purposes Only)
SLG/E MCS WO


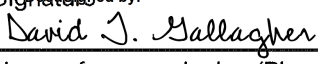
T002201-274322-326319

This Work Order is made pursuant to the Microsoft Master Services Agreement #U8183398 (the "**Agreement**") effective as of December 30, 2013, by and between the undersigned customer ("**Customer**") and Microsoft Corporation ("**Microsoft**"). The terms of the Agreement are incorporated herein by this reference. Any terms not otherwise defined herein will assume the meanings set forth in the Agreement. This Work Order is comprised of this cover page and the Work Order terms below, which are incorporated herein by this reference.

Customer Invoice Information		
Name of Customer Alaska Department of Administration		Contact Name (This person receives invoices under this work order.)
Name of Customer Affiliate that executed the Agreement if different than the undersigned State of Alaska – Department of Labor		
Street Address		Contact E-mail Address
City	State/Province	Phone
Country	Postal Code	Fax
Invoicing		
Microsoft will not invoice Customer for services performed and expenses incurred under this Work Order. Please see Section 2, Fees.		
Source to confirm Per Diem limits – hotel, rental car, meals, etc. (if applicable):		
Contact Name:	Contact E-mail address:	Contact phone No.:
Web site address:		
Commencement Date		
Services under this Work Order can commence upon signature of the Work Order by both parties through <u>June 30, 2021</u> (the "Expiration Date"). This Work Order may be amended, and the Period of Performance may be extended prior to the then current Expiration Date. If the Work Order Period of Performance is not extended prior to the then current Expiration Date, in order for Microsoft to continue work, Customer and Microsoft must agree in writing to a new work order identifying the terms upon which Customer and Microsoft agree		
Payments to Microsoft should be made to the following, include reference to our invoice number: By Check: Microsoft Enterprise Services, P.O. Box 844510, Dallas, TX 75284-4510 By Check (overnight courier): Microsoft Corporation c/o Bank of America Lockbox 844510, 1950 N. Stemmons Fwy, Ste 5010, Dallas, TX 75207 (214) 508-7262 By Wire: Microsoft Enterprise Services #844510, Acct 3750825354/ ABA#1100001-2, c/o Bank of America <input type="checkbox"/> Attachments required with Invoice (Status Reports/Time /Expense Breakouts, Other):		

<i>Project Point of Contact (Customer Satisfaction Contact)</i>			
Name of Customer		Project leader (This person is Customer's point of contact for all service-related matters under this Work Order.)	
Street Address		Contact E-mail Address	
City	State/Province	Phone	
Country	USA	Postal Code	Fax

By signing below the parties acknowledge and agree to be bound to the terms of the Agreement and this Work Order.

<i>Customer</i>	<i>Microsoft Affiliate</i>
Name of Customer (Please Print) Alaska Department of Administration	Name Microsoft Corporation
Signature 	Signature Signed by: 
Name of person signing (Please Print) Bill Smith	Name of person signing (Please Print) David T. Gallagher
Title of person signing (Please Print) CID	Title of person signing (Please Print) Director of Contracts
Signature date 2/27/20	Signature date 2/28/2020

1. **Services.** Microsoft will perform for Customer those services as identified in the attached Statement of Work entitled "Cloud Modernization" (the "Cloud Modernization SOW"), dated 2/20/20 and the attached Statement of Work entitled "Project Management – Staff Augmentation" (the "PM SOW"), dated 2/20/20. The Cloud Modernization SOW shall only apply to the services listed under the Cloud Modernization Gratuitous Services Table in Section 2 of the Work Order, Fees. The PM SOW shall only apply to the services listed under the PM Gratuitous Services Table in Section 2 of the Work Order, Fees. Any dates provided are estimates only.

Microsoft resources and Microsoft subcontractors' resources may perform services remotely or on-site from Microsoft facilities, Customer facilities, or Microsoft partner's facilities.

If the project schedule requires Microsoft resources and/or Microsoft subcontractors' resources to perform dedicated services at Customer site on a weekly basis, Microsoft will apply the following travel guidelines:

- Resources will typically be on-site for 3 nights/4 days; arriving on Mondays and leaving on Thursdays.
- Resources may stretch their daily work plan in order to accommodate project's weekly activities within those 4 days.
- As needed, resources may perform project activities working remotely on Fridays.
- All project hours will be billed as actual.

2. **Fees.**

The provision of these services does not create a legal or moral obligation for Customer to pay Microsoft for such services. Microsoft waives any and all entitlement to compensation for services performed under this Work Order. It is Microsoft's intent that this Work Order, the Statement of Work and any attachments hereto, be in compliance with applicable laws and regulations with respect to gratuitous services. It is specifically understood that all services and service deliverables provided under this Work Order are for the sole benefit and use of Customer and are not provided to, or for the benefit of, any individual government employee.

Microsoft reserves the right to utilize whichever labor categories in whatever quantities Microsoft determines, in Microsoft's sole discretion, are appropriate to perform the services. Any total fee stated is an estimate only. In order for Microsoft to continue providing hours of services beyond those funded in the table below, Customer and Microsoft must agree in writing to a new work order or amendment to this Work Order adding funding for the additional services and any other terms upon which Customer and Microsoft agree. The rates for any additionally funded hours of services will be the rates defined in the then current Microsoft U.S. Public Sector Published Price List for Microsoft Consulting Services. The fees do not include fees for Products.

Microsoft has devoted two separate sources of internal funding for the services under this Work Order. One pool of funding is devoted to services from the commencement date through June 30, 2020, and a second source of funding commences on July 1, 2020 and terminates upon the Expiration Date of this Work Order. The amount of the funding does not directly correspond to the market value of the services as identified below, therefore, the Senior Project Manager or the Account Delivery Executive will provide periodic updates to you on how much internal funding has been utilized to enable coordination of resource assignment and utilization. Any unused funding devoted to the services on, and prior to, June 30, 2020, shall be forfeited if not utilized.


Cloud Modernization Gratuitous Services Table				
MCS Resource/Labor Category	Units	Description	Hourly Rates	Proposed Cost
Delivery Data Scientist	0	Hours	\$320.00	\$0.00
Digital Architect	0	Hours	\$320.00	\$0.00
Solution Architect	807	Hours	\$320.00	\$258,240.00
Software Engineer	0	Hours	\$320.00	\$0.00
Principal Consultant	0	Hours	\$307.00	\$0.00
Senior Consultant	232	Hours	\$297.00	\$68,904.00
Consultant	2020	Hours	\$264.00	\$533,280.00
Associate Consultant	0	Hours	\$231.00	\$0.00

Account Delivery Executive	146	Hours	\$282.00	\$41,172.00
Senior Project Manager	488	Hours	\$294.00	\$143,472.00
Project Manager	0	Hours	\$282.00	\$0.00
US DELIVERY CENTER, "USDC" (REMOTE SERVICES - LAS COLINAS, TX)				
USDC Consultant	1523	Hours	\$185.00	\$281,755.00
USDC Project Manager	180	Hours	\$185.00	\$33,300.00
Partner Resource - Subcontractor				
Technician V	0	Hours	\$265.00	\$0.00
Technician IV	0	Hours	\$250.00	\$0.00
Technician III	0	Hours	\$220.00	\$0.00
Technician II	0	Hours	\$195.00	\$0.00
Technician I	0	Hours	\$165.00	\$0.00
Technician	0	Hours	\$140.00	\$0.00
Associate Technician	0	Hours	\$110.00	\$0.00
	5396	Total		\$1,360,123.00
Estimated Expenses				\$140,382.37
Estimated Total				\$1,500,505.37

<i>PM Gratuitous Services Table</i>				
MCS Resource/Labor Category	Units	Description	Hourly Rates	Proposed Cost
Delivery Data Scientist	0	Hours	\$320.00	\$0.00
Digital Architect	0	Hours	\$320.00	\$0.00
Solution Architect	0	Hours	\$320.00	\$0.00
Software Engineer	0	Hours	\$320.00	\$0.00
Principal Consultant	0	Hours	\$307.00	\$0.00
Senior Consultant	0	Hours	\$297.00	\$0.00
Consultant	0	Hours	\$264.00	\$0.00
Associate Consultant	0	Hours	\$231.00	\$0.00
Account Delivery Executive	0	Hours	\$282.00	\$0.00
Senior Project Manager	480	Hours	\$294.00	\$141,120.00
Project Manager	0	Hours	\$282.00	\$0.00
US DELIVERY CENTER, "USDC" (REMOTE SERVICES - LAS COLINAS, TX)				
USDC Consultant	0	Hours	\$185.00	\$0.00
USDC Project Manager	0	Hours	\$185.00	\$0.00
Partner Resource - Subcontractor				
Technician V	0	Hours	\$265.00	\$0.00
Technician IV	0	Hours	\$250.00	\$0.00
Technician III	0	Hours	\$220.00	\$0.00
Technician II	0	Hours	\$195.00	\$0.00
Technician I	0	Hours	\$165.00	\$0.00
Technician	0	Hours	\$140.00	\$0.00
Associate Technician	0	Hours	\$110.00	\$0.00
	480	Total		\$141,120.00
Estimated Expenses				\$12,000.00

Estimated Total				\$153,120.00
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Services fees under this Work Order shall not exceed the Estimated Totals indicated in the tables above. Customer acknowledges and agrees that Microsoft has no obligation to provide services in excess of those listed above, unless Customer and Microsoft mutually agree on an Amendment to this Work Order prior to the expiration date of this Work Order.

3. **Cost or Pricing Data.** We will not, under any circumstances, accept work that would require the submission of cost or pricing data. 

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Statement of Work

Project Management – Staff Augmentation

Prepared for

Alaska Department of Administration

Prepared by

Bryan Sievers

Date: February 20, 2020

Version: v1.2

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This Statement of Work (the "PM SOW") and any exhibits, appendices, schedules, and attachments to it are made pursuant to Work Order T002201-274322-326319 (the "Work Order") and describes the services to be performed by Microsoft ("Microsoft", "us," "we" or "our") for Alaska Department of Administration ("Customer," "you," or "your") relating to Datacenter Migration to Azure (the "project" or "engagement").

This SOW and the associated Work Order expire 30 days after their publication date, unless signed by both parties or formally extended in writing by Microsoft.

Introduction

Under this engagement, Microsoft will provide a cloud modernization project manager to assist with your project management. You are responsible for providing overall direction and control of the project team and its activities, managing the project schedule and estimates, and for overall project success.

Customer is kicking off their data center modernization to Azure. This Project Manager scope is to have an experienced project manager join the Deputy CIO (Exec sponsor for this project) to build out the initial plan and communicate with state agency teams (Technical & Business) on the strategy.

1. Engagement objectives and scope

1.1. Objectives

The objective of this engagement is to provide a Senior Project Manager to assist the customer with their data center modernization to Azure. This Project Manager scope is to have an experienced project manager join the Deputy CIO (Exec sponsor for this project) to build out the initial plan and communicate with state agency teams (Technical & Business) on the strategy.

1.2. Areas in scope

1.2.1. General scope

Microsoft will assist the customer as directed by the Customer with the following areas.

Area	Description
Project Manager	<ul style="list-style-type: none">• Full time Senior Project Manager for 12 weeks – 480 hours.• Primarily remote - 1 week on-site every 3 weeks.• Senior Project Manager with cloud migration experience.• Focus will be internal coordination of Customer resources and project management.• Any Program management is out of scope• The Project Manager will have executive visibility – reporting directly to Deputy CIO.• Working with state agencies - contacts include technical & business resources• Determine which environments to move first

Area	Description
	<ul style="list-style-type: none"> Setting schedule and managing towards that schedule – dependencies, risk assessment

1.3. Areas out of scope

Any area not explicitly included in the Areas in scope section is out of scope for Microsoft during this engagement. Areas out of scope for this engagement include, but are not limited to, those areas listed in the following table.

Area	Description
Product licenses and subscriptions	Product licenses (Microsoft or non-Microsoft) and cloud service subscriptions are not included.
Hardware	Microsoft will not provide or setup hardware for this engagement.
Product bugs and upgrades	Product upgrades, bugs, and design change requests for Microsoft products are not in scope for this engagement.
Source code review	The Customer will not provide Microsoft with access to non-Microsoft source code or source code information. For any non-Microsoft code, Microsoft Services will be limited to the analysis of binary data, such as a process dump or network monitor trace.
Process reengineering	Designing functional business components of the solution is not included.
Organizational change management	Designing—or redesigning—the Customer's functional organization is not included.
Training	Formal training of customer staff is not included.
Third-party software	Microsoft will not be responsible for integration with third-party software. Use of competing, non-Microsoft tools and products is not included
Deployment, installation, configuration and testing	<p>The following items are not included:</p> <ul style="list-style-type: none"> Creating deployment packages Application deployment Installation and configuration of server hardware or network resources Installation, configuration and testing of non-Microsoft software other than software identified within scope Testing and configuration of applications and services outside of those required to support the deployment of the solution Troubleshooting or remediation of existing network and storage systems

Area	Description
Testing	Testing and configuration of applications and services outside of those required to support the deployment of the solution
Network & Storage	Troubleshooting or remediation of existing network and storage systems

2. Engagement approach, timeline, and deliverable acceptance

2.1. Approach

Microsoft will supplement your project technical staff for this engagement and provide assistance as directed by you, utilizing your designated project methodologies. You will provide direction to the overall project team, of which Microsoft will be a part.

Should changes be needed to the agreed upon staffing mix, you will work with the Microsoft delivery manager to execute a change following the change management process described below.

2.2. Timeline

The project plan has been defined by you. Any updates to engagement milestones and timeframes will be managed by you.

We will provide the resources for the period of performance (term) up to the extent of the funding for the hours of services specified in the work order. Should you need additional resources and/or a longer term, you will work with the Microsoft Delivery Manager to execute a change following the Change management process described below.

2.3. Service deliverables

Microsoft has **no** specific service deliverables requiring formal acceptance. All service deliverables shall be deemed accepted upon delivery.

2.4. Engagement governance

You will manage the engagement and define the project management approach that will be followed by the Microsoft team. Microsoft assumes the basic governance structure and processes described in the following sections will be followed.

2.4.1. Engagement communication

The following will be used to communicate during the engagement:

- **Status reports:** the Microsoft team will prepare and issue weekly status reports to you and the Microsoft delivery manager.
- **Status meetings:** the Microsoft team will participate in regular status meetings you schedule to review the overall engagement status and to review open problems and risks.

2.4.2. Risk and issue management

The Microsoft team will assist you in identifying project issues and risks. You will be responsible for managing project issues and risks.

The following general procedure will be used to manage active project issues and risks during the engagement:

Identify: identify and document project issues (current problems) and risks (potential problems that could affect the project).

Analyze and prioritize: assess the potential impact and determine the highest priority risks and problems that will be actively managed.

Plan and schedule: determine the strategy for managing priority risks and issues and identify a resource who can take responsibility for mitigation and remediation.

Track and report: monitor and report the status of risks and problems.

Escalate: escalate to project sponsors the high impact problems and risks that the team is unable to resolve.

Control: review the effectiveness of risk and issue management actions.

Active issues and risks will be regularly monitored during the engagement.

2.4.3. Change management process

During the engagement, either party can request, in writing, additions, deletions, or modifications to the services described in this SOW ("change"). Approved changes will be managed through amendments and could lead to additional costs and schedule impacts. We shall have no obligation to commence work in connection with any change until the details of the change are agreed upon in an amendment signed by the authorized signatories from both parties.

Within three consecutive business days of receipt of the proposed amendment, you must either indicate acceptance of the proposed change by signing the amendment or advise us not to perform the change. If you advise us not to perform the change, we will proceed with the original agreed upon services only. In the absence of your acceptance or rejection within the previously noted time frame, we will not perform the proposed change.

2.4.4. Escalation path

The Microsoft delivery manager will assist the customer sponsor, and other designees to manage project issues, risks, and change requests as described previously. The customer will provide reasonable access to the sponsor(s) in order to expedite resolution. The standard escalation path for review, approval, or dispute resolution is as follows:

- Engagement team member (Microsoft or the Customer).
- Microsoft delivery manager.
- Customer project sponsor.

2.5. Engagement completion

Microsoft will provide services defined in this SOW to the extent of the funds available in the PM Gratuitous Services Table of the Work Order and the period of performance specified in the Work Order. If additional services are required, the [Change management process](#) will be followed and the contract modified. The engagement will be considered complete when at least one of the following conditions has been met:

- All funding has been utilized for hours of services delivered and expenses incurred.
- The period of performance of the engagement has expired.
- All Microsoft activities and in-scope items have been completed.
- The Work Order has been terminated pursuant to the terms of the Agreement.

3. Engagement organization

3.1. Engagement roles and responsibilities

The key engagement roles and the responsibilities are as follows.

Customer

Role	Responsibilities
Project sponsor	<ul style="list-style-type: none"> • Make key project decisions. • Serve as a point of escalation to support clearing project roadblocks.
Technical team lead	<ul style="list-style-type: none"> • Serve as primary technical point of contact. • Take ownership of technical architecture, design and code deliverables.
Lead business analyst	<ul style="list-style-type: none"> • Serve as primary functional point of contact for the team that is responsible for functional business analysis.

Microsoft

Role	Responsibilities
Sr Project Manager	<ul style="list-style-type: none"> • Primarily remote - 1 week on-site every 3 weeks. • The Project Manager will have executive visibility – reporting directly to Deputy CIO. • Any program management is out of scope • The focus will be internal coordination of Customer resources across state agencies. • Determining which environments to move first • Setting schedule and managing towards that schedule – dependencies, risk assessment

4. Customer responsibilities and engagement assumptions

4.1. Customer responsibilities

In addition to Customer activities defined in the Approach section, the Customer is also required to:

- Provide information:
 - This includes accurate, timely (within three business days or as mutually agreed-upon), and complete information.
- Provide access to people and resources.
 - This includes access to knowledgeable customer personnel, including business user representatives.
- Provide access to systems.
 - This includes access to all necessary customer work locations, networks, systems, and applications (remote and onsite).
- Provide a work environment.
 - This consists of suitable workspaces, meeting rooms, including desks, chairs, and Internet access.
- Manage non-Microsoft resources.
 - The customer will assume responsibility for the management of all customer personnel and vendors.
- Manage external dependencies.
 - The customer will facilitate any interactions with related projects or programs in order to manage external project dependencies.

4.2. Engagement assumptions

The engagement scope, services, fees, timeline, and our detailed solution are based on the information provided by the Customer to date. During the engagement, the information and assumptions in this SOW will be validated, and if a material difference is present, this could result in Microsoft initiating a change request to cover additional work or extend the engagement duration. In addition, the following assumptions have been made:

- Workday:
 - The standard workday for the Microsoft team is between 8 AM and 5 PM, Monday through Friday.
- Standard holidays:
 - Observance of consultants' country-of-residence holidays is assumed and has been factored into the engagement timeline.
- Remote working:
 - The Microsoft team may perform services remotely.
 - If the Microsoft team is required to be present at the customer location on a weekly basis, resources will typically be on site for three nights and four days, arriving on a Monday and leaving on a Thursday.
- Language:

- All engagement communications and documentation will be in English. Local language support and translations will be provided by the Customer.
- Staffing:
 - If necessary, Microsoft will make staffing changes. These can include, but are not limited to, the number of resources, individuals, and engagement roles.
- Informal knowledge transfer:
 - Customer staff members who work alongside Microsoft staff will be provided with information knowledge transfer throughout the engagement. No formal training materials will be developed or delivered as part of this informal knowledge transfer.
- Other assumptions:
 - Microsoft will not provide services beyond the funded amount. The funded amount is calculated based upon then current hourly rates for labor categories defined in the Price Proposal.
 - All work is to be contiguously scheduled. Any breaks in the engagement calendar must be scheduled four weeks in advance or will be billed without interruption.
 - Lab and / or development facility is available.
 - Any delay on delivering customer required items could impact the delivery schedule.



Statement of Work

Cloud Modernization

Prepared for

Alaska Department of Administration

Prepared by

Keith Carey, Nick Mossing

Date: February 20, 2020

Version: 1.1

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This Statement of Work (the "Cloud Modernization SOW") and any exhibits, appendices, schedules, and attachments to it are made pursuant to Work Order T002201-274322-326319 (the "Work Order") and describes the Services to be performed by Microsoft ("Microsoft", "us", "we", or "our") for Alaska Department of Administration ("Customer," "you," or "your") relating to Datacenter Migration to Azure (the "program" or the "engagement").

This SOW and the associated Work Order expire 30 days after their publication date, unless signed by both parties or formally extended in writing by Microsoft.

This SOW, along with the individual projects described in the Exhibits section, provides a complete view of the program.

Introduction

This SOW details the Services that Microsoft will provide to the Customer in the form of projects, as listed in the Exhibits section, and program objectives. In addition, the **Error! Reference source not found.** section of this SOW will govern the projects and provide a framework that can be used to effectively and efficiently manage each project.

1. Program objectives and scope

1.1. Objectives

Microsoft will assist the Customer with the following:

Azure Cloud Foundation: assess Customer's Azure implementation as a platform for cloud-based applications and Services to support a high-scale migration and establish or reconfigure Azure as a platform for cloud-based applications and Services to support a high-scale migration. Develop an Azure native management services plan.

Azure Advanced Networking—Environment: assess, plan, and build or remediate Azure Advanced Networking components that support migration activities.

Program Management Services: establish an Azure migration program in order to discover, assess, plan, and migrate servers, applications, and databases.

Azure Migration Services: migration services that will be used to perform the following migration strategies:

- **Lift and shift:** a simple migration strategy designed to move servers or subnets to infrastructure as a service (IaaS) with no operating system, database, or application changes through tool-based server replication. Following migration, this strategy might require the Customer to perform configuration changes to account for network or dependency changes. This strategy requires a minimal migration effort for a faster migration velocity compared to other migration strategies.
- **Optimize:** a moderate migration strategy that can be used to move applications and databases from both legacy and modern Microsoft Windows Server or Linux server environments to Azure without application functionality or code changes. This strategy requires a moderate migration effort for an average migration velocity compared to other migration strategies.

Azure IaaS Management: following migration, configure Azure native services to assist with the monitoring, backup, and update management of IaaS environments.

1.2. Areas in scope

1.2.1. Program management services

Service	Service description
Program initiation workshops	Workshop with Customer program team, Customer executive program executives, Microsoft program team, and architects to drive alignment of scope, approach, roles and responsibilities, deliverables, and timeline. Identify executive steering committee members, a communications plan, and a monthly meeting schedule. The Customer must complete a program initiation checklist of activities before the discovery activities can begin.
Communications management	Serve as the single point of contact (SPOC) for reporting, the Customer, and escalation. Assess Customer program management capabilities and recommend actions.
Stakeholder management	Report on the program status and value recognized by key Customer stakeholders.
Financial management	Roll up financials for Microsoft projects by comparing them to baselines.
Master scheduling	Consolidate the Microsoft project schedules in order to manage dependencies.
Deliverable management	Review deliverables Validate that deliverables have been submitted and reviewed, on schedule.

1.2.2. Azure Advanced Networking

Service	Description
Azure Advanced Networking environment assessment	A review of the existing Azure environment network design and high-level migration requirements to determine complex network-level readiness to perform in-scope migration activities
Azure Advanced Networking environment planning	For each Azure region, document the recommended plan for the following Azure resources based on the assessment results and Customer requirements (This is not business system specific.): <ul style="list-style-type: none"> ○ Virtual network gateways ○ Virtual network, including subnet configuration ○ Virtual network peering

Service	Description
	<ul style="list-style-type: none"> ○ Virtual network service endpoints ○ Network security groups (NSGs) ○ User-defined routes (UDRs) ○ Network virtual appliances (NVAs) ○ Agent-based networking controls <p>For each source datacenter location, document the recommended data migration path. This is not business system specific.</p> <p>For environments that use a carrier-neutral facility, document the recommended plan.</p> <p>For environments that use an NVA architecture, document the recommended architecture based on the vendor reference architecture or the Microsoft reference architecture for that vendor (if available).</p>
Azure Advanced Networking environment remediation and build	Assist with the remediation and build activities defined in the Azure Advanced Networking environment plan.

1.2.3. Azure Cloud Foundation

See section 7 Exhibit: Azure Cloud Foundation.

1.2.4. Azure Migration Services

Service	Service description
Discovery	Conduct tool-based inventory collection. Create a migration catalog using Microsoft Dynamics 365.
Rapid migration assessment	Conduct a workshop, during which Microsoft will review the rapid migration approach and work with the Customer to identify candidates based on Azure Migrate output and Customer risk assessment. This is time-boxed to 1 day a month.
Business system assessment	<p>Define the business systems in the migration catalog; this includes associated Customer teams, applications, servers, databases, dependencies, and initial target environment sizing based on the existing server deployment.</p> <p>Review the technical artifacts that are associated with the business system to determine cloud readiness. For each defined business system, review the architecture and implementation, and identify risks, constraints, and the opportunities associated with moving it to the cloud.</p> <p>Assign the business system and associated servers to an agreed-upon migration strategy.</p>

Service	Service description
	Note: this service does not apply to subnets identified for the rapid migration assessment.
Lift-and-shift migration	<p>Rapid migration: plan and migrate modern Windows Servers or Linux servers to Azure IaaS or Azure VMware Solutions environments through the use of server-based, disk replication tooling; does not include operating system, database, or application changes. Each migration occurs with minimal business system planning and dependency awareness.</p> <p>Server migration: plan and migrate modern Windows Servers or Linux servers to IaaS environments through the use of server-based, disk replication tooling; does not include operating system, database, or application changes. Each migration occurs on a per-business system level with detailed planning and dependency awareness.</p>
Optimize migration	<p>Workload migration: plan and migrate modern or legacy Windows Servers or Linux servers through reinstallation of the business system components on new servers hosted in the target IaaS environment. Each migration occurs on a per-business system level with detailed planning and dependency awareness.</p> <p>The target operating system can either be the same version or an upgraded version of the same platform depending on application supportability and compatibility analysis performed during planning.</p> <p>Use Azure Resource Manager or Terraform templates for infrastructure-as-code (IaC) provisioning.</p> <p>Migrate up to 10 terabytes (TB) of flat-file data for each server.</p> <p>Database migration: plan and migrate databases to a target IaaS or platform as a service (PaaS) environment. Each migration occurs on a per-business system level with detailed planning and dependency awareness.</p> <p>Migrate up to 1 TB of data.</p> <p>Use Azure Resource Manager or Terraform templates for IaC provisioning.</p> <p>Resolve database object migration violations.</p> <p>Generate reports during migration that contain information related to deployment, changes, missing dependencies, and unresolved problems that should be dealt with at later stages.</p> <p>The following Microsoft database platforms are included for migration to Azure IaaS or Azure PaaS based upon Azure service availability and application compatibility: Microsoft SQL Server.</p>
Server replication for disaster recovery	Plan and configure Azure Site Recovery virtual machine replication from a primary Azure region to a secondary Azure region in support of the Customer's disaster recovery plan.
Azure native management configuration	<p>Configure Azure native management capabilities for virtual machines. Includes the following Services:</p> <p>Monitoring:</p>

Service	Service description
	<p>Log analytics subscription creation and configuration of Azure Insights and Analytics Workspace, including setting up administrative access</p> <p>Configuration of the Microsoft Monitoring Agent</p> <p>Implementation of defined monitoring: Azure Monitor, Azure Virtual Machine metrics, and Azure Virtual Machine diagnostics</p> <p>Implementation of the health model</p> <p>Setup of key performance indicator monitoring of up to 10 monitoring parameters</p> <p>Setup of an alert</p> <p>Backup and recovery:</p> <p>The Azure Backup Recovery Services vault, storage replication, and server protection</p> <p>Backup alerts and notifications</p> <p>Diagnostics and Power BI configuration</p> <p>Update management:</p> <p>Agent installation on Azure Virtual Machines</p> <p>Configuration of update deployment groups and update of deployments in Azure</p> <p>Configuration of alerts for deployment issues, errors, and noncompliant servers</p>
Post-migration support	<p>All migration scope includes post-migration support by the migration factory for 10 business days starting at user acceptance testing (UAT) handoff; it is signaled by submission of the migration UAT acceptance form to the Customer.</p> <p>Post-migration support covers the following scenarios:</p> <p>During UAT:</p> <ul style="list-style-type: none"> ○ Helping the Customer resolve migration-related issues <p>Following UAT acceptance of production environments:</p> <ul style="list-style-type: none"> ○ Providing guidance to the Customer during post-UAT cutover, if required ○ Providing guidance to the Customer that addresses migration-related problems reported to Microsoft after UAT acceptance <p>Following UAT acceptance of nonproduction environments:</p> <ul style="list-style-type: none"> ○ Supporting the Customer in order to resolve migration-related problems reported to Microsoft after UAT acceptance <p>Following post-migration support, the Customer will be solely responsible for resolving any problems not reported during post-migration support.</p>

1.2.5. Software products and technologies

The products and technologies that are listed in the following table may be required for program implementation.

Product and technology item	Description	Provided by
Azure Migrate ¹	A Microsoft tool used for assessment and migration	Microsoft
Movere	An agent-based Solution used to take inventory of Windows Server and Linux environments, with enhanced Azure Virtual Machine sizing	Customer
Microsoft Assessment and Planning (MAP) Toolkit 9.9	A no-cost, agentless utility from Microsoft that is used to perform an inventory of Windows Server and Linux environments	Microsoft
Windows Server 2012 R2 or 2016	The operating system required for discovery and assessment tools	Customer
Microsoft Dynamics 365 for Sales (CRM Online)	A hosted cloud service configured as a dedicated migration catalog	Microsoft ²
Cloud Modernization Toolkit ³	A Microsoft Services tool used to automate the installation of key discovery and assessment tools and to manage inventory collection, processing, and uploading into the migration catalog	Microsoft
Microsoft Data Transfer and Management tool	A required Microsoft-hosted secure file transfer service that is used when transferring large files to Microsoft	Microsoft
Service Map	A service in Azure that automatically discovers business system components on Windows and Linux systems and maps the communication between Services; includes the Operations Management Suite Agent and the Microsoft Dependency Agent	Customer

¹Not available in all Azure regions.

² As part of the engagement, a Microsoft Dynamics CRM Online extended trial instance will be created and will include up to 25 user accounts and 5 GB of storage, at no charge for the duration of the engagement.

³ Telemetry data policy: the data collection and processing toolkit does not collect Customer information of any type. It generates a random, globally unique identifier that is persistent and appears in events sent to the Microsoft global catalog, but it cannot be mapped to a Customer. Additionally, the toolkit can be employed by the user to disable telemetry or show specific event data collected.

Product and technology item	Description	Provided by
BlueStripe FactFinder	A no-cost tool (when used by Microsoft Services) that can be used to assist with business system dependency mapping when the Service Map is not available	Microsoft
Azure subscription	Required for migration to Azure as the target	Customer
Clouddokit	Clouddokit is an online service that generates documentation of Azure subscriptions. If required, this tool can be run from an on-premises server that has network access to the Azure subscription management endpoints.	Microsoft
Azure Site Recovery	Lift-and-shift migration and disaster recovery tooling for Azure; source server operating system version must be supported by Azure Site Recovery as documented at https://azure.microsoft.com/en-us/documentation/articles/site-recovery-vmware-to-azure-classic/#before-you-start-deployment	Customer
Data migration assistant	A no-cost tool used to collect SQL Server planning data	Microsoft
Web deploy	A no-cost tool used for Microsoft Internet Information Services web applications during the Planning and Migration phases	Microsoft

1.2.6. Data migration

The program-specific responsibilities for performing data migration tasks are as follows. Migration strategy-specific responsibilities are detailed in individual Exhibits sections.

Migration strategy	Data source	Data volume	Migration mechanism
Lift-and-shift	Virtual machine operating system and data virtual disks	Source server disks; up to disk size limitations of the migration tool	Server migration tool
Optimize	Database migration	Up to 1 TB for each database	Scripts or replication capability
	Flat-file migration	Up to 10 TB for each server	Scripts
Server replication for disaster recovery	Virtual machine operating system and data virtual disks	Source server disks; up to disk size limitations of the migration tool	Server migration tool

The responsibilities for performing data migration tasks are as follows.

Migration strategy	Workstream	Task	Microsoft	Customer
All	All	Cleanse data.		X
		Drive mapping and login scripts.		X
		Define data migration requirements.		X
		Complete data mapping of the source environment.		X
		Conduct data migration checksum verification testing.	X	
		Test and validate migrated data.		X
Lift-and-shift	Server migration	Migrate source server operating system image.	X	
	Server migration	Perform manual data migrations (if necessary).		X
	Rapid migration	Evacuate the subnet of highly complex workloads (if necessary) prior to the migration cutover.		X
Optimize	Workload migration	Design and develop migration scripts.	X	
	Workload migration	Migrate flat-file data.	X	
	Workload migration	Migrate file server permissions [New Technology File System (NTFS) and sharing permissions].	X	
	Workload migration	Migrate file server quotas.	X	
	Database migration	Design and develop migration scripts.	X	
	Database migration	Migrate database data.	X	

Migration strategy	Workstream	Task	Microsoft	Customer
Azure native management configuration	Server replication for disaster recovery	Migrate the source server operating system image.	X	
	Server replication for disaster recovery	Perform manual data migrations (if necessary).		X

1.2.7. Environments

Environment	Responsibility	Description
Production	Customer	<p>Source production environments that are to be in scope for migration</p> <p>Target Azure, Azure Stack, or on-premises production environments</p> <p>File share, Microsoft SharePoint document library, or other program team-accessible repository capable of hosting application installation media and documentation required for the migration effort</p> <p>A server instance that is to be used as a production discovery server with the following configuration:</p> <ul style="list-style-type: none"> ○ 100 gigabyte (GB) operating system volume ○ 100 GB operating data volume ○ 4 CPUs and 16 GB of RAM
Nonproduction	Customer	<p>Source nonproduction environments that are to be in scope for migration</p> <p>Target Azure; Azure Stack; or on-premises, nonproduction environments</p> <p>A server instance that is to be used as a nonproduction discovery server with the following configuration:</p> <ul style="list-style-type: none"> ○ 100 GB operating system volume ○ 100 GB operating data volume ○ 4 CPUs and 16 GB of RAM
Microsoft Dynamics 365 for Sales (CRM Online) cloud service	Microsoft	Provisioning by Microsoft of a migration catalog that is hosted in a program-dedicated tenant as part of the Microsoft Dynamics 365 for Sales (CRM Online) public cloud service for use during the engagement
Azure DevOps cloud Service	Microsoft	Provisioning by Microsoft of a program-dedicated Azure DevOps tenant that can be used to manage program backlog items and for use as a source control repository

Environment	Responsibility	Description
Power BI workspace	Microsoft	Provisioning by Microsoft of standard program reporting through Power BI integration with the Microsoft Dynamics 365 for Sales cloud service. Note: custom reporting is not included in this environment.
Development	Microsoft (remote lab)	Microsoft remote facilities that will be used to develop scripts that perform database upgrades and migrations using sample business system data
Development	Microsoft (remote lab)	An Install-testing lab that will be used for installation media, documentation validation, and application package compatibility validation
Nonproduction	Customer	In addition to the program description, the following description exists for this environment: An Azure lab environment for the Azure Resource Manager template development and testing

1.2.8. Testing and defect remediation

Testing

The following testing is included in the scope of the program. If the Customer has responsibility for testing, the Microsoft effort to support that activity is identified. If additional time is needed for Microsoft testing support, it can be requested through the **Error! Reference source not found.** described in this SOW.

Migration strategy	Test type	Description or environments	Responsibility		
			Has responsibility for testing?	Provides data or test cases	Provides guidance and support
All	Functional and UAT	<p>The Customer will perform testing that is based on the requirements defined in the Customer-provided test specification.</p> <p>For production environments, this testing will occur prior to the final cutover and prior to granting non-UAT users with access to the application.</p> <p>For nonproduction environments, this will occur prior to granting non-UAT users with access to the application.</p>	Customer	Customer	Microsoft
Lift-and-shift	Migration tool testing	Migration tool testing will occur in the source program environments at the beginning of the Migration phase.	Microsoft	Microsoft	Microsoft
	Connectivity testing	This test will be conducted to determine whether network connectivity has been reestablished after the migration has been completed.	Microsoft	Microsoft	Customer
	Rapid migration subnet cutover testing	This test will be conducted to determine whether the network subnet is functional in the target environment.	Customer	Customer	Microsoft

Migration strategy	Test type	Description or environments	Responsibility		
			Has responsibility for testing?	Provides data or test cases	Provides guidance and support
Optimize	Install testing	During planning, installation testing of applications will be conducted by Microsoft in the development environment to determine operating system compatibility, or media and documentation validation.	Microsoft	Customer	Customer
	Business system installation and data migration verification testing	During migration, Microsoft will perform verification of business system installation and data migration.	Microsoft	Customer	Customer
	Resource Manager template unit testing	During development, Microsoft will perform unit testing of the Resource Manager template in the development environment.	Microsoft	Microsoft	Customer
Azure native management configuration	Monitoring data analytics testing	Following monitoring configuration, Microsoft will test the data analytics and alerts workflow.	Microsoft	Microsoft	Customer
	Backup stabilization testing	Following backup and recovery configuration, Microsoft will test the reporting and data restoration process.	Microsoft	Microsoft	Customer
	Patch management testing	Following patch management configuration, Microsoft will test automation, update deployment schedules, and the alerts workflow.	Microsoft	Microsoft	Customer

Migration strategy	Test type	Description or environments	Responsibility		
			Has responsibility for testing?	Provides data or test cases	Provides guidance and support
	Server replication for disaster recovery—migration tool testing	Tests of the migration tool will occur in all environments at the beginning of the Migration phase.	Microsoft	Microsoft	Microsoft
	Server replication for disaster recovery—connectivity testing	This test will be used to determine whether network connectivity has been reestablished after the migration has been completed in all environments.	Microsoft	Microsoft	Customer

Defect remediation

If defects are identified during testing or post-migration support, the priority of the item will be jointly agreed upon by the Customer and Microsoft. The Microsoft team will attempt to fix all in-scope P1 and P2 defects, escalating to application support teams for second level troubleshooting as required. If this troubleshooting does not result in root cause identification within five business days and resolution within 10 business days, the business system will be treated as a highly complex business system and will be moved out of scope or reassigned to an appropriate migration strategy. This step will initiate the change control process which will be used to determine whether a new estimate for migrating the given business system and a migration rollback has been performed. Defect prioritization is defined in the following table.

Priority	Description	Remediation in scope?
P1	Blocking defect Development, testing, or production launch cannot proceed until this type of defect is corrected. A defect of this type blocks further progress in this area. The Solution cannot ship, and the project team cannot achieve the next milestone until such a defect is corrected.	Yes
P2	Significant defect This type of defect must be fixed prior to moving to production. Such a defect, however, will not affect test plan implementation.	Yes

Priority	Description	Remediation in scope?
P3	Important defect It is important to correct this type of defect. However, it is possible to move forward into production through the use of a workaround.	No.
P4	Enhancements and low-priority defects P4 defects consist of feature enhancement and cosmetic defects. These include design requests that vary from original concepts.	No.

1.3. Areas out of scope

Any area not explicitly included in the Areas in scope section is out of scope for Microsoft during this program. Specific areas out of scope for this program include, but are not limited to, the areas listed in the following table. Additional out of scope items for this program can be found in the relevant project exhibits in the Exhibits section.

Area	Description
Product licenses and subscriptions	Product licenses (Microsoft or non-Microsoft) and cloud service subscriptions are not in scope. Any Microsoft-provided tools (Microsoft or non-Microsoft) are for limited use as part of the program and will need to be decommissioned, or have their licensing procured by the Customer following program completion.
Hardware	Microsoft will not provide hardware for this program.
Product bugs and upgrades	Product upgrades, bugs, and design change requests for Microsoft products are not in scope.
Management of Windows Servers	Management, operational processes, backup and restoration, disaster recovery, and decommissioning of Windows Servers are the Customer's responsibility.
Organizational change management	Designing—or redesigning—the Customer's functional organization is not in scope.
Training and training materials	Creation or delivery of training materials is not in scope.
Application modernization	Application modernization is not in scope.
Azure Advanced Networking configurations	Planning and migration of Azure Advanced Networking requirements beyond environment readiness is not in scope. The Customer is responsible for business system-level configuration of the following:

Area	Description
for per-business system planning and migration	<div>Virtual network gateways</div> <div>Virtual networks, including subnet configuration</div> <div>Virtual network peering (local and global)</div> <div>Virtual network service endpoints</div> <div>NSGs</div> <div>UDRs</div> <div>NVA</div> <div>Agent-based networking controls</div> <div>Load balancers</div> <div>Firewalls</div> <div>Application security groups</div> <div>Global traffic manager</div> <div>Application gateway</div>
BlueStripe FactFinder or Service Map limitations	The use of this software for purposes beyond business system identification through frequent network communication is not in scope.
Nonstandard data collection	Collection of server, data, and application inventory using tools other than the software defined in this SOW is out of scope. Customer-provided data will be reviewed by Microsoft to verify that it represents business systems or documents the migration plan, but it is not committed to be uploaded to the migration catalog.
Migration catalog customizations	<p>Deployment and configuration of the Microsoft Dynamics CRM Solution is outside of its use as a migration catalog.</p> <p>Bug fixes, upgrades, customization, and support for the migration catalog after completion of the engagement is out of scope. Maintenance and customization of the migration catalog becomes the responsibility of the Customer.</p>
Highly complex business systems	<p>Unless specifically listed as in scope, business systems classified as platforms for hosting multiple business systems and requiring highly specialized skillsets for planning or migration are not in scope. Examples include Microsoft BizTalk Server and third-party solutions such as IBM Domino, SAP Crystal Reports, and Oracle E-Business Suite.</p> <p>Business systems that do not have adequate maintenance windows for UAT and cutover activities as defined in the migration plan will not be in scope for the Migration phase.</p> <p>Mission-critical, commercial off-the-shelf (COTS) business systems that are not supported by the vendor in the target environment are not in scope.</p> <p>Mission-critical COTS or custom business systems that require complex planning, migration, testing support, or dedicated Microsoft resources are not in scope.</p> <p>Unix or mainframe operating systems are not in scope. Examples include third-party products IBM AIX, Hewlett Packard HP-UX, and Oracle Solaris.</p>
Performance testing	Performance testing, if required, is a Customer responsibility. During post-migration support Microsoft will make recommendations on performance

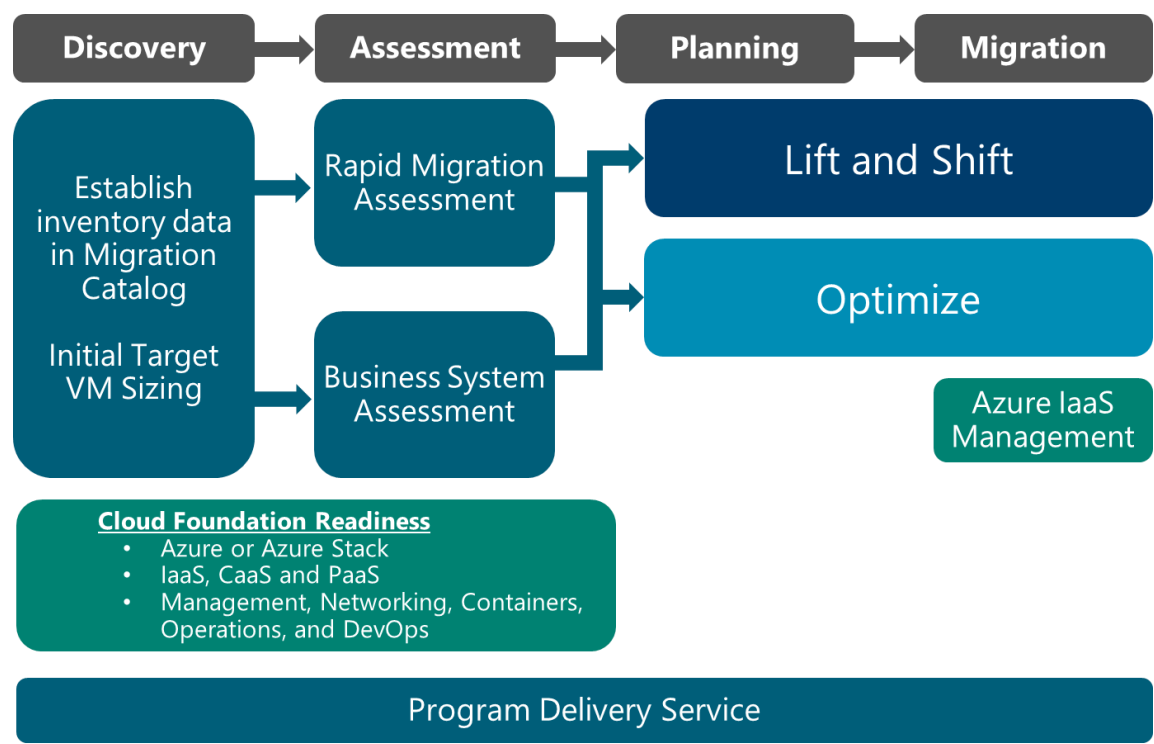
Area	Description
	improvement if performance-related problems are identified by the Customer.
Security testing	Security testing, including security hardening of the infrastructure, threat modeling of the application, and penetration testing is a Customer responsibility.
Lift-and-shift limitations	<p>The following are out of scope for the lift-and-shift migration strategy:</p> <ul style="list-style-type: none"> Reconfiguration of the workload or operating system beyond new network address assignment Servers that require shared-disk clustering Servers that are not supported by included migration tools
Optimize limitations	<p>If any of the following are needed, the server will be out of scope for the Workload Migration workstream:</p> <ul style="list-style-type: none"> 16-bit business system components The planning or migration of third-party Citrix System solutions. Non-Citrix application packages can be migrated to a Customer-provided target Citrix or Windows virtual desktop solution. Complex reporting and analysis services that contain more than 50 reporting or business intelligence objects; or require code-level remediation Migration of the Active Directory Domain Services role Migration of workloads without installation media in which an in-place operating system upgrade is not a viable approach Any Windows-to-Linux or Linux-to-Windows activities Code modification Linux distributions not defined in the glossary as legacy or modern Linux servers Migration to a non-Azure cloud platform Assessment and remediation of shell or Perl scripts unless separately funded with factory specialist hours Kernel changes Active Directory member server domain changes <p>If any of the following is needed, the database will be out of scope for the Database Migration workstream:</p> <ul style="list-style-type: none"> SQL Servers older than SQL Server 2005 Migration of database platforms that were never supported by the vendor on the target platform (such as SQL Server 2005 on Windows Server 2012) Any databases or objects that fail during the assessment [such as password-protected Data Transformation Services (DTS) or SQL Server Integration Services (SSIS) packages, databases in single user mode, databases in offline mode, or offline instances] A database with more than 20 violations

Area	Description
	<p>A database with more than 300 lines of code that are contained within stored procedures that require remediation</p> <p>DTS or SSIS packages that require package rewrite</p> <p>More than 1 high-availability database feature (such as clustering, mirroring, log shipping, or replication)</p> <p>Microsoft Access databases</p> <p>Security hardening</p> <p>If any of the following is needed, use of a Resource Manager template will be out of scope:</p> <p>Application or database platform automation beyond initiating a Customer-approved Azure QuickStart template gallery or an Azure Marketplace template</p> <p>Implementation of the network layer beyond IP address assignment</p> <p>Creation or placement of custom images</p> <p>Incorporation of Resource Manager templates into existing DevOps processes or tools beyond the project's Azure DevOps environment</p> <p>Integration of configuration management tools</p> <p>If any of the following is needed, the container service will be out of scope:</p> <p>Stateful business system components</p> <p>Re-architecture or process reengineering of business systems</p> <p>Hardware dependencies</p> <p>Troubleshooting of the existing container environment</p> <p>Source code review or modification</p> <p>Infrastructure management or operational activities</p> <p>Bootstrapping process or any other configurations related to AKS cluster node</p> <p>Third-party application (COTS) modification</p> <p>CI/CD pipeline development</p>
Server replication for disaster recovery workstream limitations	<p>Servers that require reconfiguration of the workload or operating systems beyond new network address assignment are out of scope.</p> <p>Servers that require shared-disk clustering are out of scope.</p> <p>Servers that are not supported by included replication tools are out of scope.</p>
Post-UAT cutover	<p>If required, a post-UAT cutover process is a Customer responsibility.</p> <p>Following UAT, the modernization factory is limited to post-migration support.</p>

2. Program approach, timeline, and service deliverables

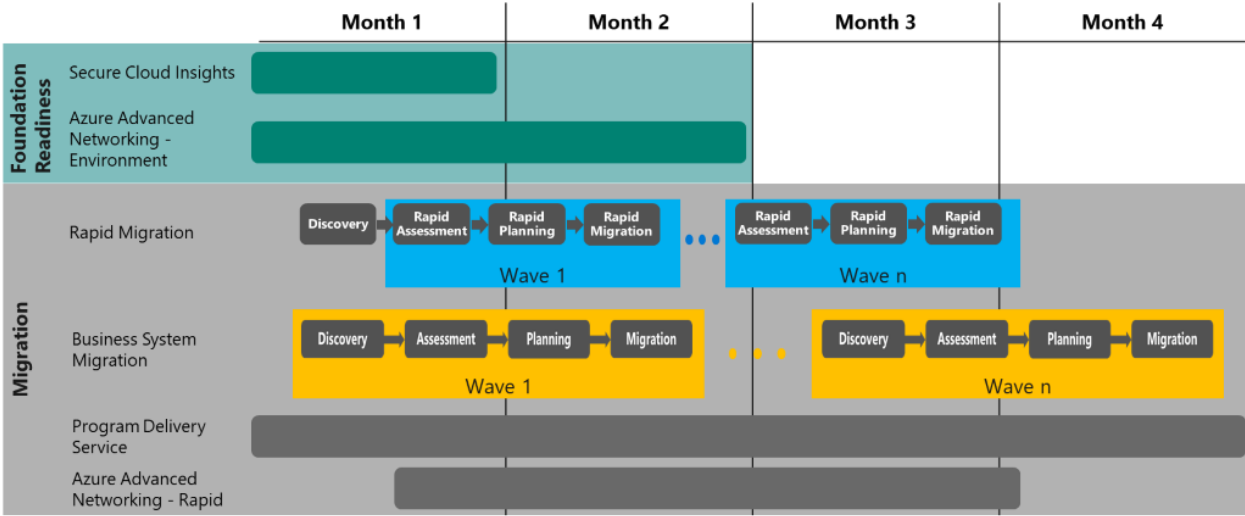
2.1.Approach

During the Cloud Modernization program, Microsoft will lead the Customer through an at-scale migration of existing business systems, which include applications, servers, and databases, to Azure. Prior to migration, foundational readiness projects will be initiated in order to prepare or assess target environments. In parallel, the Discovery and Assessment phases occur, which document the source environment and in-scope business systems with related components. The business systems and related components are assigned to one or more migration strategies to perform the Planning and Migration phases. Following the Migration phase, Azure IaaS-hosted servers can be configured for Azure native management capabilities such as monitoring, backup and recovery, patch management, or disaster recovery. For rapid migration of noncritical environments, an environmental assessment, rather than a business system assessment, will be performed.



For this program, Microsoft will use a combination of delivery methodologies, each suited for the scope of Services provided in the respective projects. The program manager will establish the overall governance framework for the program, recommended practices, and uniformity across projects. Please refer to the Areas in scope and Exhibits sections for individual project details and the specific methodology to be used.

Microsoft Services will use an iterative approach for the Cloud Modernization program. Each subnet or business system will flow through the Discovery, Assessment, Planning, and Migration phases based on the migration strategy and specific workstreams assigned to the business system components. During the initial Discovery phase, program initiation will also be performed.



The following table illustrates the program regions, locations, and estimated server counts for this program.

Program region	Location	Total business system count in environment	Total server count in environment
United States (Primary)	United States	Minimum 19	Minimum 93

2.1.1. Discovery

During the Discovery phase, the team will perform the following activities.

Program Management Services

Category	Description
Microsoft activities	<p>Program initiation:</p> <ul style="list-style-type: none">Establish the core team.Lead program initiation workshops for the following Customer groups:<ul style="list-style-type: none">Executive leadership teamProgram leadership teamCustomer teamWork with the Customer to understand and document a key stakeholder relationship map and stakeholder matrix.Establish a program management plan, including a schedule and financial, quality, deliverable, and communication plans.Review the process used to transfer large files to Microsoft. <p>Data collection: collect data, including server, database, and application inventory data.</p> <p>Global catalog processing: compare Windows Server application inventory and Windows Server roles to the global catalog to add category information</p>

Category	Description
	<p>(Microsoft, third-party, or custom), noise filtering, and application package recommendations, if available.</p> <p>Creation of migration catalog: upload the collected data into the migration catalog.</p>
Customer activities	<p>Program initiation:</p> <ul style="list-style-type: none"> Attend the program initiation workshops. Define the onboarding process for the Microsoft Services team including remote access. Facilitate any necessary communication or information in preparation for requests that might result from information-gathering exercises. Prepare Customer-provided environments. Provide a point of contact for each location or time zone that is in scope for delivery. <p>Resolve inventory problems: use discovery tools to resolve problems when servers cannot be reached for inventory.</p>
Exit criteria	<p>Customer-provided environments have been built.</p> <p>A Customer single point of contact who will help coordinate with business system owners has been identified for each location or time zone.</p> <p>All servers accessible to the MAP inventory servers have been discovered and imported into the migration catalog.</p>
Key assumptions	<p>The Customer will coordinate the use of discovery tools with internal security teams; this includes providing required permissions.</p> <p>Application packages that are not identifiable by MAP will be excluded from the automated inventory and will be provided by the Customer during application support team interviews.</p> <p>Scripts and tools will connect to hypervisor environments in order to collect host, guest, and other configuration information. For this phase, read-only access is needed.</p>

Azure Advanced Networking—Environment Assessment

Category	Description
<p>Microsoft activities</p> <p>The activities to be performed by Microsoft</p>	<p>Assess in-scope source datacenters, destination Azure regions, ExpressRoutes (tied to zones), NVA architectures, and carrier hotel architectures and locations, inclusive of hardware recommendations</p>
<p>Customer activities</p> <p>The activities to be performed by the Customer</p>	<ul style="list-style-type: none"> Respond to requests for initial data collection. Provide access to an existing configuration management database solution if one exists. <p>Sign off on the documents and deliverables at the end of the phase.</p>

Category	Description
Exit criteria	Network assessment assignments have been completed and approved by the Customer.
Key assumptions	Customer technical staff has a full understanding of the Solution (including data, deployment, functionality, and integration).

Azure Advanced Networking—Environment Planning

Category	Description
Microsoft activities The activities to be performed by Microsoft	Complete Planning phase analysis activities. Build plan for in-scope Networking Environment components. Build the test specification in collaboration with the Customer. Microsoft Consulting Services (MCS) will provide standardized test cases.
Customer activities The activities to be performed by the Customer	The Customer will provide access to Network Support Teams for planning and respond to interview requests through email and phone within 3 business days. Make decisions within 3 business days when remediation options have been presented. Provide input to the test specification documentation for Customer-specific scenarios.
Exit criteria	Network test specification have been validated by both the Customer and MCS.
Key assumptions	The Customer will participate in the planning process for the in-scope network environment

2.1.2. Assessment

During the Assessment phase, the team will perform the following activities.

Program Management Services

Category	Description
Microsoft activities	Rapid migration: Conduct the rapid migration assessment workshop. Perform initial target environment virtual machine sizing. Complete the migration strategy assignments. Business system migration: Complete application support team interviews through email or by phone to identify application collections and dependencies.

Category	Description
	<p>Define business systems as identified by the Customer. BlueStripe FactFinder or Service Map can be used to assist with this process.</p> <p>Collect business system server assignments from the existing change management database, when available.</p> <p>Perform initial target environment virtual machine sizing.</p> <p>Complete the migration strategy assignments.</p>
Customer activities	<p>Rapid migration:</p> <p>Attend the rapid migration assessment workshop.</p> <p>Identify target subnets for rapid migration.</p> <p>Approve migration strategy assignments.</p> <p>Business system migration:</p> <p>Provide a list of business systems and associated servers and databases, if known. If not known, this will affect the Assessment phase velocity and overall timeline.</p> <p>Identify business system owners, server owners, and application support teams, and provide initial business system information.</p> <p>Provide technical artifacts such as an architectural diagram and any documentation.</p> <p>Provide access to business system stakeholders such as architects, developers, and administrators for assessment interviews.</p> <p>Respond to requests for initial data collection.</p> <p>Provide access to an existing configuration management database solution if one exists.</p> <p>Deploy agents, if required by assessment tools.</p> <p>Approve migration strategy assignments.</p>
Exit criteria	<p>Rapid migration assessment:</p> <p>Initial target environment sizing for each virtual machine has been completed.</p> <p>Migration strategy assignments have been completed and approved by the Customer.</p> <p>Business system migration assessment:</p> <p>Business systems have been defined in the migration catalog.</p> <p>Initial target environment sizing for each business system has been completed.</p> <p>All in-scope business systems have been assessed and interviews have been completed.</p> <p>Migration strategy assignments have been completed and approved by the Customer.</p>
Key assumptions	<p>The Customer will coordinate the use of assessment tools with internal security teams; this includes providing required permissions.</p> <p>The Customer will provide access to its technical staff for demonstration and other purposes.</p> <p>Customer technical staff has a full understanding of the Solution (including data, deployment, functionality, and integration).</p>

Azure Advanced Networking—Environment Remediation

Category	Workstream	Description
Microsoft activities The activities to be performed by Microsoft	All workstreams—network assessment, planning, and remediation	Coordinate the network remediation schedule with the Customer. Perform T-minus activities as detailed in the remediation plan. Build or remediate the in-scope network environment activities from the plan.
Customer activities The activities to be performed by the Customer	All workstreams—network assessment, planning, and remediation	Complete submissions and approvals necessary for change management. Verify that network connectivity exists between the systems and servers to be migrated. Make decisions when options are presented. Conduct user and stakeholder communication as deemed necessary as part of the change management process. Help make sure that the Microsoft team has access to source and target environments. Define the maintenance window for the cutover. Complete the submissions and approvals necessary for change management. Perform production cutover and rollback, if necessary.
	Server migration and server migration for disaster recovery	Sufficient network bandwidth is available between source and target environments. Generally, this is at least 1 Gigabits per second (Gbps) and may be higher for large environments or high-velocity migrations. Insufficient network bandwidth may result in reduced migration velocity.
Exit criteria	All workstreams—network assessment, planning, and remediation	UAT review and acceptance of network changes.
Key assumptions	All workstreams—network assessment, planning, and remediation	Source and target environments—virtual or physical—are healthy. A maintenance window (or windows) exists for cutover activities. Any network administration, management, or configuration changes after the production cutover must be performed by the Customer.

2.1.3. Planning

During the Planning phase, the team will perform the following activities.

Program Management Services

Category	Description
Microsoft activities	Conduct deeper application support team and administrator interviews, as needed. Plan premigration, migration, and post-migration activities. Collect test specifications from application support teams. Document the migration plan for each business system.
Customer activities	Provide access to all systems to be planned. Provide access to application support teams for planning and respond to interview requests through email and phone within 3 business days. Make decisions within 3 business days when migration options are presented. Provide test specification documentation. Review and approve business system migration plans.
Exit criteria	The test specification has been received from the Customer. The migration plan has been approved by the Customer for the continuation of the business system into the next phase of the project. The planning complete report has been accepted by the Customer.
Key assumptions	The Customer will coordinate the use of planning tools with internal security teams including required permissions. Application packages that are not identifiable by MAP will be excluded from the automated inventory and will be discovered through application support team interviews.

Azure Migration Services—Lift-and-Shift Migration

Category	Workstream	Description
Microsoft activities	Server migration	Plan premigration, migration, and post-migration activities. Contribute to the migration plan for each business system.
	Rapid migration	Develop a high-level process that includes premigration, migration, and post-migration activities. Identify servers that are not supported by Azure Site Recovery in each in-scope subnet. Recommend workloads on a subnet that are to be evacuated prior to subnet cutover. Recommend workloads on a subnet for database migration. Contribute to the migration plan for each subnet.
Customer activities	Server migration	Identify post-migration configuration tasks that will need to be accomplished to reconnect a server to dependent Services and databases following IP address change or database migration.

Category	Workstream	Description
	Rapid migration	<p>Identify post-migration configuration tasks that will need to be accomplished to reconnect a server to dependent Services and databases.</p> <p>Identify workloads on a subnet that are to be evacuated prior to subnet cutover.</p> <p>Identify workloads on a subnet for database migration.</p>

Azure Migration Services—Optimize Migration

Category	Workstream	Description
Microsoft activities	All workstreams	<p>Perform an in-scope analysis.</p> <p>Define migration plan processes, final target environment sizing, and migration tooling needs based on the Customer and business system component requirements.</p>
	Workload migration	<p>Collect additional application package details, installation media, and documentation for installation and configuration.</p>
	Resource Manager template for IaC	<p>Review the migration plan or Customer requirements.</p> <p>Develop the template to the defined infrastructure requirements.</p> <p>Validate API versions compared to the target Azure region.</p> <p>Perform Resource Manager template unit testing.</p> <p>Assist the Customer with 1 deployment of the template.</p>
Customer activities	Workload migration	<p>Provide application package installation media and available installation and configuration documentation.</p> <p>Not every vendor application package for which the program team performs supportability planning will result in an application package recommendation due to varying degrees of published content across software vendors. In some cases, the Customer will be required to communicate with the vendor directly or to accept application package compatibility planning results in place of application package supportability planning results; this could result in an unsupported software deployment.</p>
Key assumptions	Workload migration	<p>Application package installation media can be provided to the Microsoft migration factory for the performance of planning activities.</p> <p>In-scope application package units are allocated as part of the workload migration per server units based on the ratio of 1 application package for each workload migration server unit. Additional application package units, if necessary, will be scoped as independent application package units.</p>

Category	Workstream	Description
		Source code is available for custom application package planning for operating system compatibility, if it is in scope with the defined units.
	Resource Manager template for IaC	The target environment is a generally available Azure region. The target operating system is available in the Azure Marketplace. Identity infrastructure is available in Azure. Connectivity to the development environment is available through Microsoft Visual Studio Team System and remote PowerShell.

Azure Migration Services—Azure Native Management Configuration

Category	Workstream	Description
Microsoft activities	All workstreams	Plan premigration, migration, and post-migration activities. Contribute to the migration plan for each business system.
Key assumptions	Azure IaaS Management enablement	The Azure Cloud Foundation—Azure Platform Management project is being delivered as part of this program (see Azure Cloud Foundation section in the Exhibits) and the design configuration document has been approved by the Customer for use in this workstream.

2.1.4. Migration

During the Migration phase, the team will perform the activities defined in the migration plans.

Program Management Services

Category	Description
Microsoft activities	Coordinate the Migration phase schedule with the Customer.
Customer activities	Complete necessary change management submissions and approvals. Make sure network connectivity exists between existing systems and servers that are to be migrated. Provide local administrator permissions (preferably through Active Directory Domain Services) to perform migration activities. Make decisions when options are presented. Perform user and stakeholder communication as deemed necessary as part of the change management process. Verify that the Microsoft team has access to source and target environments.

Category	Description
	<p>Manage, monitor, and back up the target environment following receipt of the UAT acceptance form.</p> <p>Perform second-level troubleshooting and, upon request, provide additional business system information not previously discovered by discovery tooling and application support team interviews in support of migration activities.</p> <p>Perform UAT and report UAT results to Microsoft. UAT must occur during the post-migration support timeline.</p> <p>Perform client, storage, supporting server, DNS, load-balancer, and network side configurations and changes.</p> <p>Define the maintenance window for the cutover.</p> <p>Perform production cutover and rollback, if necessary.</p> <p>Perform source server decommissioning.</p>
Exit criteria	UAT review has been completed and applications have been accepted.
Key assumptions	<p>The Customer will coordinate the use of migration tools with internal security teams including required permissions.</p> <p>Source and target environments—virtual or physical—are healthy.</p> <p>Migration factory resources assigned to perform migration activities have required permissions.</p> <p>Customer subject matter experts (SMEs) will be available for UAT.</p> <p>Maintenance windows exist for cutover activities.</p> <p>Any administration, management, or configuration changes after the production cutover must be performed by the Customer.</p>

Azure Migration Services—Lift-and-Shift Migration

Category	Workstream	Description
Microsoft activities	Server migration	<p>Set up and configure the tools required to perform the migration in accordance with the migration plan.</p> <p>Perform migration tooling validation.</p> <p>Perform Microsoft activities as defined in the business system migration plan.</p> <p>Perform post-migration support.</p>
	Rapid Migration	<p>Set up and configure Azure Site Recovery to perform the migration in accordance with the migration plan.</p> <p>Perform migration tooling validation.</p> <p>Perform Microsoft activities as defined in the migration plan.</p> <p>Perform post-migration support.</p>
Customer activities	Server migration	Assist with the setup and configuration of the tools needed to perform migration.

Category	Workstream	Description
		Perform post-migration configuration tasks that will need to be accomplished in order to reconnect the server to dependent Services and databases.
	Rapid migration	Assist with the setup and configuration of tools required to perform migration. Provide Microsoft with rapid migration ready servers. Perform post-migration configuration tasks that will need to be accomplished in order to reconnect the server to dependent Services and databases. For Azure IaaS, evacuate identified workloads on the subnet prior to subnet cutover.
Key assumptions	Server migration	Sufficient network bandwidth is available between the source and target environments. Generally, this is at least 1 Gbps but might be higher for large environments or high-velocity migrations. Insufficient network bandwidth might result in reduced migration velocity.
	Rapid migration	Sufficient network bandwidth is available between source and target environments. Generally, this is at least 10 Gbps.

Azure Migration Services—Optimize Migration

Category	Workstream	Description
Microsoft activities	All workstreams	Set up and configure the tools required to perform migration in accordance with the migration plan. Perform migration tool validation. Perform Microsoft activities as defined in the business system migration plan. Perform testing. Perform post-migration support.
Customer activities	Workload migration	For on-premises targets, deploy the target hardware, operating system, and production-ready servers for migration activities. Deployment of the operating system in the target environment will be done by the Customer if a production-ready image is not available to provision through a self-service portal. Provide installation media, license keys, and documentation as detailed in the migration plan. For in-place operating system upgrades, the Customer will perform backup, clone, or virtualize source servers to be used as part of the rollback plan.
	Database migration	Provide test data for databases that will be migrated during the Migration phase.

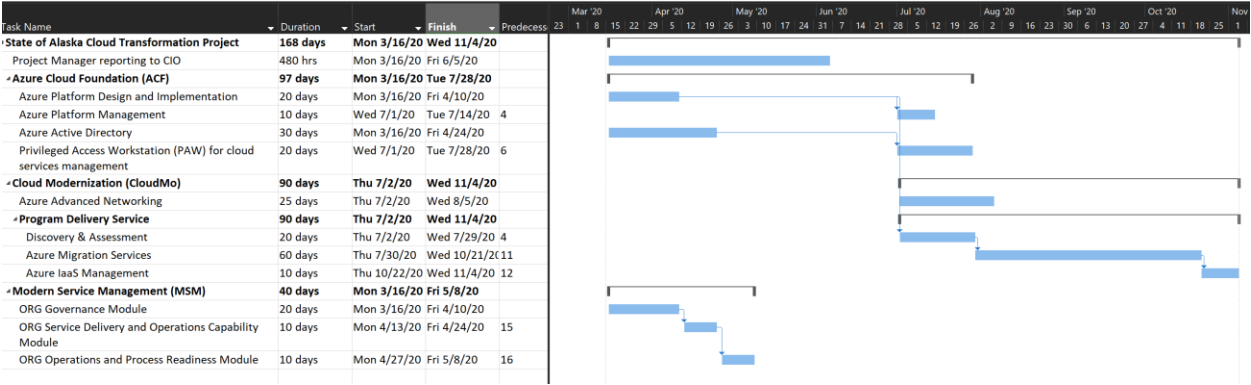
Category	Workstream	Description
Key assumptions	Workload migration	Application packages have installation media and configuration documentation.

Azure Migration Services—Azure Native Management Configuration

Category	Workstream	Description
Microsoft activities	Server replication for disaster recovery	<ul style="list-style-type: none"> Set up and configure the tools required to perform migration in accordance with the migration plan. Perform migration tooling validation. Perform Microsoft activities as defined in the business system migration plan. Perform post-migration support.
	Azure IaaS Management enablement	Install and configure agents as defined in the business system migration plan.
Customer activities	Server replication for disaster recovery	Assist with the setup and configuration of the tools required to perform server replication.
Key assumptions	Server replication for disaster recovery	Sufficient network bandwidth is available between the source and target environments. Generally, this is at least 1 Gbps and might be higher for large environments or high-velocity migrations. Insufficient network bandwidth might result in reduced migration velocity.
	Azure IaaS Management enablement	<p>The migration factory has contributor access to the target Azure subscriptions.</p> <p>Monitoring Services are limited to 1 workspace.</p>

2.2. Timeline

For rapid migration environments and business systems, the program team will iteratively progress through the phases based on Customer resource availability, Customer schedule, and environmental readiness. At velocity, multiple rapid migration environments and business systems will be migrated in parallel. This program will be performed according to the following timeline. If additional months are needed, change management will be required to update this timeline.



2.3. Program dependencies

Many of the projects included in this program have dependencies on one another. A high-level overview of these dependencies is outlined in the following table. The projects listed in the Dependency column, if any, must be completed in part or in their entirety before the project listed in the first column begins. The program scope, schedule, or cost might be affected if these dependencies are not satisfied.

Project	Dependency
Lift-and-shift migration strategy	Azure Cloud Foundation Azure Advanced Networking—environment
Optimize migration strategy	Azure Cloud Foundation Azure Advanced Networking—environment
Azure IaaS management	Azure Cloud Foundation Lift-and-shift migration strategy Optimize migration strategy

2.4. Service deliverables

This section provides the list of service deliverables that will be provided during this program by the Program Delivery Service (PDS). The PDS is responsible for the submission and tracking of deliverables across the Microsoft projects within the program. Project managers will oversee their parts of the engagement until the completion of each deliverable for their projects.

Project phase	Name	Description
Discovery	Program management plan	A Microsoft Word document with a detailed description of how the program will be managed, including communication, change, deliverable, financial, quality, risk, schedule, and scope management

Project phase	Name	Description
Discovery	Azure Advanced Networking assessment report	A Microsoft Word document that details the results of the Azure Advanced Networking Assessment with any recommended planning activities that need to be completed before the Migration phase can begin
Discovery	Azure Advanced Networking plan	A Microsoft Word document that details the Azure Advanced Networking environment remediation and build activities that are recommended to be implemented prior to the Migration phase
Assessment	Rapid migration assessment report	A list of subnets and associated servers that have been assigned to the rapid migration approach for Planning and Migration phase activities
Assessment	Business system assessment report	<p>A list of business system and associated units with the assigned migration strategy project and associated workstreams for Planning and Migration phase activities. This document will be amended after the Assessment phase of each new business system has been completed.</p> <p>Note: this deliverable does not apply to subnets identified for the rapid migration approach.</p>
Planning	Migration plan	A document for each rapid migration subnet or business system that includes migration strategy, tooling, and target environment specifications; defined migration processes; and Microsoft and Customer migration responsibilities
Planning	Planning complete report	A list of subnets or business systems and associated units for which the program team has completed all planning activities. This document will be amended after the Planning phase of each new subnet or when a business system has been completed.

Project phase	Name	Description
Migration	Migration	Rapid migration subnets or business systems and their associated units will be migrated to the target environment and post-migration support will be concluded. This will be documented using the UAT acceptance deliverable acceptance form contained within the Error! Reference source not found. section of this document.
Migration	Migration complete report	This is a list of rapid migration subnets or business systems and their associated units that have been migrated to the target environment and includes the conclusion of post-migration support. This document will be amended after the completion of the Migration phase for each new subnet or business system.

2.5. Service deliverables acceptance process

Microsoft has **no** specific service deliverables requiring formal acceptance for the program or any projects under the program. All service deliverables shall be deemed accepted upon delivery.

2.6. Program governance

The program governance framework is structured around the concept of one or more supporting projects working under the governance of the PDS. The governance structure and processes the team will adhere to for the program are described in the following sections.

2.6.1. Program communication

The following will be used to communicate during the program:

Communication plan: this document will describe the frequency, audience, and content of communication with the team and stakeholders. It will be developed by Microsoft and the Customer as part of program initiation.

Program summary reports: the Microsoft program manager, working in conjunction with the Customer program lead, will compile a program status report for distribution to the steering committee and both Customer and Microsoft management per the frequency defined in the communication plan.

Status reports: the Microsoft team will prepare and issue regular status reports to the Microsoft program manager according to the frequency defined in the communication plan.

Status meetings: the Microsoft team will schedule regular status meetings to review the overall project status, the acceptance of deliverables, and review open issues and risks according to the frequency defined in the communication plan.

2.6.2. Program risk and issue management

The following general procedure will be used to manage active project issues and risks during the program:

- Identify:** identify and document project issues (current problems) and risks (potential problems that could affect the project).
- Analyze and prioritize:** assess the potential impact and determine the highest priority risks and issues that will be actively managed.
- Plan and schedule:** determine the strategy for managing priority risks and issues and identify a resource who can take responsibility for mitigation and remediation.
- Track and report:** monitor and report the status of risks and issues.
- Escalate:** escalate to project program executives the high impact issues and risks that the team is unable to resolve.
- Control:** review the effectiveness of risk and issue management actions.

Active issues and risks will be regularly monitored during the program. The PDS is responsible for collecting and reviewing all project risks to confirm they are being appropriately managed and to assess the potential effects across projects. These risks will be communicated to program stakeholders during weekly program reviews and monthly executive steering committee meetings.

2.6.3. Change management process

During the program, either party can request, in writing, additions, deletions, or modifications to the services described in this SOW ("change"). Approved changes will be managed through amendments and could lead to additional costs and schedule impacts. We shall have no obligation to commence work in connection with any change until the details of the change are agreed upon in an amendment signed by the authorized signatories from both parties.

Within three consecutive business days of receipt of the proposed amendment, you must either indicate acceptance of the proposed change by signing the amendment or advise us not to perform the change. If you advise us not to perform the change, we will proceed with the original agreed-upon services only. In the absence of your acceptance or rejection within the previously noted time frame, we will not perform the proposed change.

2.6.4. Executive steering committee

The executive steering committee provides overall senior management oversight and strategic direction for the program. The executive steering committee for the program will meet according to the frequency defined in the communication plan and will include the roles listed in the following table. The responsibilities for the committee include:

- Making decisions about program strategic direction.
- Serving as a final arbiter of program or project issues.
- Approving significant change requests.

Customer roles	Microsoft roles
Senior business executive	Technical delivery executive

Customer roles	Microsoft roles
Program executive	Account delivery executive
Program manager	Program manager
Infrastructure lead	Infrastructure architect
Application lead	Program architect
Business change manager	

2.6.5. Escalation path

The Microsoft program manager will work closely with the Customer program manager, Customer program executive, and other designees to manage issues, risks, and change requests as described previously. The Customer will provide reasonable access to the program executive, or program executives, to expedite resolution. The standard escalation path the team will follow for review, approval, or dispute resolution is as follows:

Level 1: project managers (Microsoft and the Customer)

The project managers are expected to resolve project problems. If the project managers are unable to resolve a problem, it should be escalated to the next level.

Level 2: program managers (Microsoft and the Customer)

The program managers will help resolve problems that cannot be resolved by the project managers or that affect the program. If the program managers are unable to resolve a problem, it should be escalated to the next level.

Level 3: Microsoft account delivery executive and Customer program executive

The Microsoft account delivery executive and Customer program executive will work together to resolve problems that could not be resolved by the program managers. Any problems that cannot be resolved at this level will be escalated to the executive steering committee for resolution.

Level 4: executive steering committee

This team is the final decision maker for escalations. It is not necessary to wait for the regularly scheduled executive steering committee meeting to raise escalations.

2.7. Program completion

Microsoft will provide services defined in this SOW to the extent of the funds available in the Cloud Modernization Gratuitous Services table of the Work Order and the period of performance specified in the Work Order. If additional services are required, the **Error! Reference source not found.** will be followed and the contract modified. The program will be considered complete when at least one of the following conditions has been met:

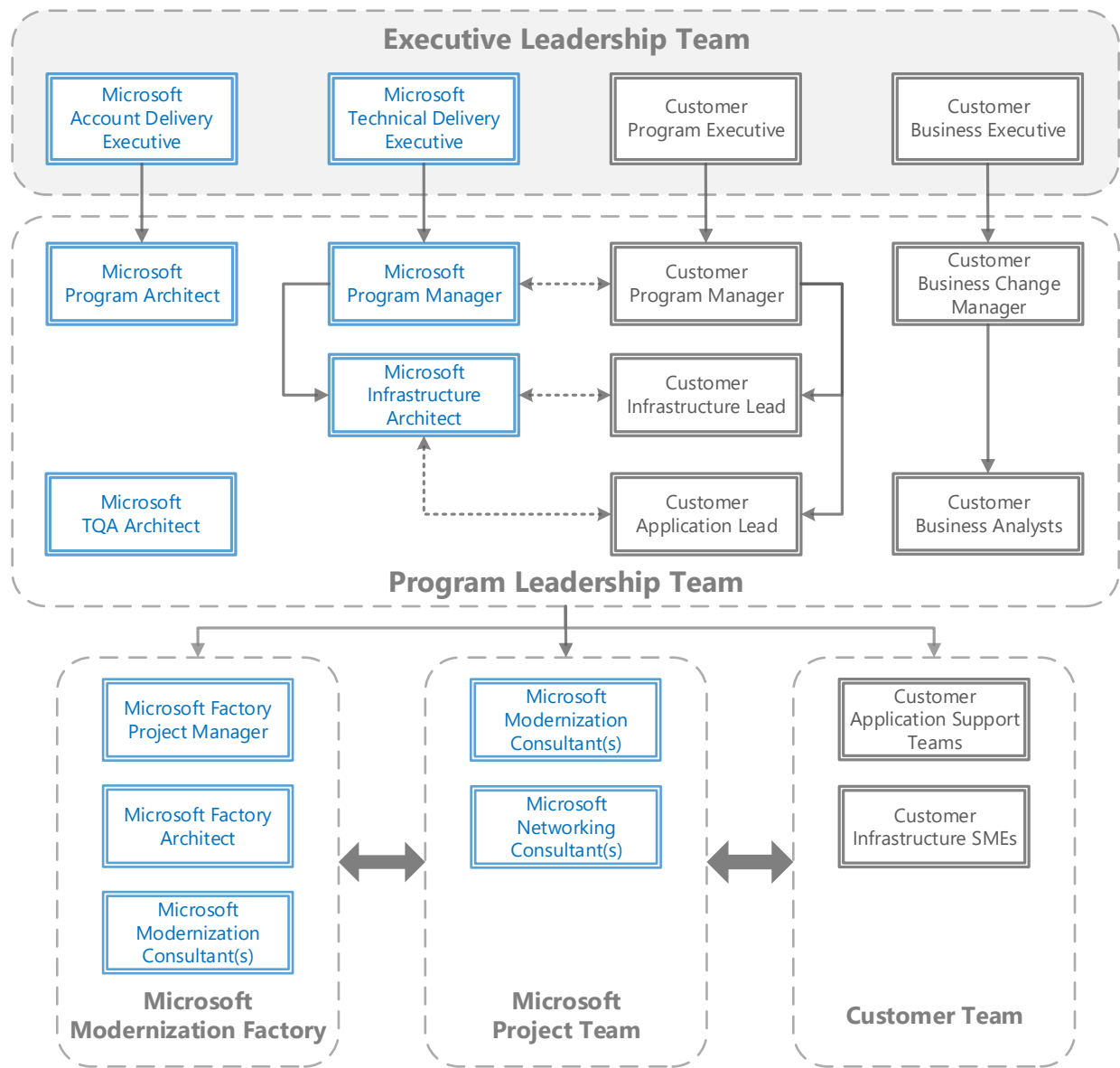
- All funds available have been utilized for services delivered and expenses incurred.
- The period of performance for the program has expired.
- All Microsoft activities and in-scope items have been completed.
- The Work Order has been terminated pursuant to the terms of the Agreement.

In addition to any of the previously mentioned conditions, if an individual project is terminated, it will be considered complete.

3. Program organization

3.1. Program structure

This section describes the overall program organization structure, reporting relationships, and key program roles. The program will be organized as depicted in the following diagram.



Each program team member coordinates with Customer equivalents where available.

3.2. Program roles and responsibilities

This section provides a brief description of key program roles and responsibilities with respect to the governance of all projects. For specific roles and responsibilities for individual projects, refer to the relevant project details in the Exhibits sections.

Customer

Role	Responsibilities
Business executive	<p>Part time.</p> <p>Represent business decision makers on the executive steering committee.</p> <p>Take accountability for business stakeholder engagement.</p> <p>Drive business change management and engagement in order to achieve program velocity objectives.</p>
Program executive	<p>Part time.</p> <p>Represent technical decision makers on the executive steering committee.</p> <p>Take accountability for technical stakeholder engagement.</p> <p>Serve as the final escalation point for issue and risk management decisions presented by the program.</p> <p>Approve change requests.</p> <p>Take responsibility for the vision of the program.</p> <p>Approve the program governance structure.</p>
Program manager	<p>Half time.</p> <p>Serve as the primary point of contact for the Microsoft team.</p> <p>Make key program decisions, help escalate unresolved problems to the executive steering committee, and clear program roadblocks.</p> <p>Manage and coordinate the overall program and all projects.</p> <p>Take responsibility for resource allocation, risk management, program priorities, and communication with executive management.</p> <p>Approve or delegate approval of final deliverables.</p> <p>Take responsibility for program momentum and velocity.</p> <p>Coordinate the activities of the team in order to complete deliverables according to the master program schedule.</p> <p>Take responsibility for issue and risk management, weekly status communication, and the weekly status meeting.</p>
Infrastructure lead	<p>Half time.</p> <p>Serve as the primary contact person for the Microsoft infrastructure architect.</p> <p>Provide broad knowledge of the Customer infrastructure.</p> <p>Help resolve post-migration problems.</p> <p>Receive and take responsibility for escalations of technical problems.</p>
Infrastructure site lead (defined for each datacenter location)	<p>Part time.</p> <p>Serve as the primary contact person for the Microsoft infrastructure architect for site-specific activities.</p> <p>Provide in-depth knowledge of the Customer environment.</p> <p>Help resolve post-migration problems.</p>
Application lead	<p>Half time.</p> <p>Provide broad knowledge of the Customer applications.</p> <p>Participate in assessment interviews.</p>

Role	Responsibilities
	Provide all information regarding business system architecture, connectivity, usage, interaction with other systems, and other architecture-related information.
Business change manager (defined for each application)	<p>Part time.</p> <p>Represent business system owners.</p> <p>Identify and manage line of business leads and drive engagement.</p> <p>Help manage the plan for factory inflow and outflow readiness and delivery.</p> <p>Drive the business system prioritization and pipeline to target velocity.</p> <p>Support scheduling decisions and identify roadblocks.</p> <p>Validate that the Solution meets the business requirements.</p> <p>Attend program management and architecture meetings.</p> <p>Assist with the tracking of issues and risks.</p> <p>Communicate deployment progress upward and outward on a required and regular basis.</p> <p>Note that Customer business analysts can be assigned to this role with business change manager oversight.</p>
Application support teams (defined for each business system)	<p>Part time.</p> <p>Provide application installation media and configuration documentation.</p> <p>Identify business system components including servers, application packages, databases, web applications, and infrastructure roles.</p> <p>Take responsibility for second-level migration troubleshooting.</p> <p>Perform UAT and submit detailed feedback to the Microsoft team.</p> <p>Take responsibility for test specification inputs.</p>
Server, database, security, networking, and systems management administrators (infrastructure SMEs)	<p>Part time.</p> <p>Provide a remote access connection for the remote team.</p> <p>Perform storage configurations.</p> <p>Provide access to servers and databases.</p> <p>Prepare Customer-managed environments and provision servers as required by the program team.</p> <p>Help make sure IT security policies are known by the team.</p> <p>Manage security approvals.</p> <p>Manage necessary approvals from internal IT, risk management, security, and change management teams.</p> <p>Perform client configurations.</p> <p>Manage environmental and business system networking in the target environment.</p> <p>Establish any required network connectivity as part of the business system migration.</p>

Microsoft

Role	Responsibilities
Account delivery executive	<p>Part time.</p> <p>Manage the overall Microsoft program.</p> <p>Serve as a SPOC for escalations, billing problems, personnel matters, and contract extensions.</p> <p>Serve as the primary contact for Customer stakeholder management.</p> <p>Cochair the monthly executive steering committee meetings.</p>
Technical delivery executive	<p>Part time.</p> <p>Take accountability for the Microsoft technical delivery team.</p> <p>Take accountability for communicating with the executive leadership team.</p> <p>Take accountability for the Microsoft capability to deliver and achieve program objectives.</p> <p>Attend the monthly executive steering committee meetings.</p>
Program manager	<p>Half time.</p> <p>Manage day-to-day Microsoft program delivery.</p> <p>Take responsibility for program issue and risk management, change management, program priorities, status communications, and status meetings.</p> <p>Coordinate Microsoft and Microsoft subcontractor resources.</p> <p>Cochair monthly executive steering committee meetings.</p>
Infrastructure architect	<p>Part time.</p> <p>Partner with the Customer infrastructure lead.</p> <p>Assist with the escalation of infrastructure problems.</p> <p>Provide technical oversight and process leadership to the Microsoft team.</p> <p>Review and provide guidance on program deliverables.</p> <p>Attend monthly executive steering committee meetings.</p>
Program architect	<p>Part time.</p> <p>Partner with the infrastructure and application architects (Customer and Microsoft) to accelerate migration velocity and change management.</p> <p>Assist with the escalation of technical problems.</p> <p>Attend monthly executive steering committee meetings.</p>
Modernization consultant	<ul style="list-style-type: none"> • Full time. • Take responsibility for deployment and configuration of project tools. • Coordinate UAT. • Coordinate migration factory activities. • Deliver factory progress reporting and metrics. • Work with business and technical owners to group migration catalog components (such as servers, applications, and databases) into business system collections. • Collect data through Customer interviews.

Role	Responsibilities
	<ul style="list-style-type: none"> Drive test specification validation with application support teams as part of the Planning phase.
Azure networking consultants (environment)	Part time and remote (time-boxed to 180 hours) <ul style="list-style-type: none"> Perform the Azure Advanced Networking environment assessment activities. Perform the Azure Advanced Networking environment planning activities. Perform the Azure Advanced Networking remediation and build activities.
Azure networking consultants (rapid migration)	Part time and remote (time-boxed to 20 hours) <ul style="list-style-type: none"> Assist the Customer with network subnet and routing changes associated with the rapid migration strategy.
Migration factory	Remote. Perform project management of factory tasks. Perform planning activities and document the process section of the migration plan. Perform unit-based migration activities according to the migration plan. Take responsibility for post-migration support and cutover support within the post-migration support timeframe. Create Planning and Migration phase reports.
Technical quality assurance (TQA) architect	Perform monthly TQA reviews of the program and included projects. Assist with technical risk identification and mitigation. Assist with change management.

4. Customer responsibilities and program assumptions

4.1. Customer responsibilities

In addition to Customer activities defined in the Approach section, the Customer is also required to:

Provide information.

- This includes accurate, timely (within three business days or as mutually agreed upon), and complete information.

Provide access to people and resources.

- This includes access to knowledgeable Customer personnel, including business user representatives, and access to funding if additional budget is needed to deliver program scope.
- Provide access with proper licenses to all necessary tools and third-party products required for Microsoft to complete its assigned tasks, unless provided by Microsoft in the Software products and technologies section.

Provide access to systems.

- This includes access to all necessary Customer work locations, networks, systems, and applications (remote and onsite).

Provide a work environment.

- This consists of suitable workspaces, including desks, chairs, and Internet access.

Manage non-Microsoft resources.

- The Customer will assume responsibility for the management of all Customer personnel and vendors who are not managed by Microsoft.
- The Customer will be responsible for scheduling program activities to be completed within the duration of the engagement, in accordance with the agreed-upon program schedule.

Manage external dependencies.

- The Customer will facilitate any interactions with related projects or programs in order to manage external program dependencies.
- The Customer will drive the onboarding and communication related to this program internally within the business groups and affiliates as necessary.

4.2. Program assumptions

The program scope, services, fees, timeline, and our detailed Solution are based on the information provided by the Customer to date. During the program, the information and assumptions in this SOW and the projects in the Exhibits sections will be validated, and if a material difference is present, this could result in Microsoft initiating a change request to cover additional work or extend the program duration. In addition, the following assumptions have been made:

Workday:

- The standard workday for the Microsoft team is between 8 AM and 5 PM, Monday through Friday.

Standard holidays:

- Observance of consultants' country-of-residence holidays is assumed and has been factored into the project timelines.

Remote working:

- The Microsoft team may perform services remotely.
- If the Microsoft team is required to be present at the Customer location on a weekly basis, resources will typically be on site for three nights and four days, arriving on a Monday and leaving on a Thursday.

Language:

- All communications and documentation will be in English. Local language support and translations will be provided by the Customer.
- Any deliverables produced in part or whole by the migration factory will be in US English only.
- The Customer-provided installation media and artifacts to be used by the migration factory will be in US English only.

Staffing:

- If necessary, Microsoft will make staffing changes. These can include, but are not limited to, the number of resources, individuals, and project roles.

Informal knowledge transfer:

- Customer staff members who work alongside Microsoft staff will be provided with information knowledge transfer throughout the program. No formal training materials will be developed or delivered as part of this informal knowledge transfer.

All Microsoft project team members, including the migration factory, are US citizens located within the United States of America.

The standard workday for the migration factory is between 8:00 A.M. and 5:00 P.M. Central U.S. Time, Monday through Friday, except for scheduled holidays. Limited exceptions can be made with advanced planning.

Appendix

5. Appendix: glossary of terms and acronyms

The following table contains definitions of common terms and acronyms used throughout this SOW.

Term	Definition
Legacy Windows Server	Windows Server computer version 2003, 2003 R2, 2008, and 2008 R2
Modern Windows Server	Windows Server computer version 2012 or newer
Legacy Linux server	The following Linux distributions are included: Third-party Red Hat, CentOS Project, Debian, Oracle, SUSE, and Ubuntu versions of Linux not on Azure-endorsed distributions as defined at https://azure.microsoft.com/en-us/documentation/articles/virtual-machines-linux-endorsed-distros
Modern Linux server	The following Linux distributions are included: Red Hat, CentOS Project, Debian, Oracle, SUSE, and Ubuntu versions of Linux on Azure-endorsed distributions as defined at https://azure.microsoft.com/en-us/documentation/articles/virtual-machines-linux-endorsed-distros/ Red Hat, CentOS, Debian, Oracle, SUSE, and Ubuntu versions of Linux distributions when the Customer has developed a custom template as defined at https://docs.microsoft.com/en-us/azure/virtual-machines/linux/create-upload-generic
Application package	An application installation package discoverable by the MAP toolkit; refers to a unique application package discovered on 1 or more Windows Server computers
Legacy application package	A unique application package discovered on 1 or more legacy Windows Server computers
Migration catalog	A custom Microsoft Services Solution hosted in a dedicated instance of Microsoft Dynamics CRM Online that can be used to store business system details including server, application package, database, web application, and server role inventory, and to track program progress

Term	Definition
Install testing	A lab-based validation of whether a legacy application package can be installed on a single modern Windows Server version by using the default, out-of-the-box operating system configuration; used as part of the application compatibility assessment
UAT	The step in the migration process in which the Customer validates the installation and configuration of the business system as ready for use
Second-level troubleshooting	Customer-led troubleshooting of server configuration, performance, or other required assistance when Microsoft troubleshooting and provided documentation does not result in a successful UAT result or migration
Business system	Grouping of servers, application packages, Windows roles or features, databases, and web applications that work together to solve a business scenario; defined by the Microsoft team working with the Customer team; assessment, planning, with migration occurring at the business system level
COTS	(commercial off-the-shelf) A term used to describe the purchase of packaged solutions that are adapted to satisfy the needs of the purchasing organization, rather than the commissioning of custom-made, or bespoke, solutions. Examples of COTS applications include Microsoft SQL Server and Microsoft Dynamics CRM.
Custom applications	Software (also known as bespoke software or tailor-made software) developed for a specific organization or other user. As such, it can be contrasted with the use of software packages developed for the mass market, such as COTS software or existing no-cost software.
Migration factory	A remote group within Microsoft Services that works in coordination with an onsite Microsoft team to perform planning and migration services at scale by using Customer-provided remote access connectivity <ul style="list-style-type: none"> This factory is located within the United States of America and staffed by US citizens.
Noise application packages	Application packages related to any of the following categories, which are not required to be directly migrated by Microsoft but instead provided by the Customer through the target server image or existing systems management solutions:

Term	Definition
	<div> System driver packages Hotfixes or service packs Agents or admin consoles System management utilities Hardware management utilities Antivirus or backup components </div> <div> Language packs Monitoring agents Client agents Antimalware software </div>
Business system planning complete	<p>Planning complete—ready for migration: business system and associated servers for which the program team has completed planning activities as defined in this document for the assigned migration strategy and workstream</p> <p>Planning complete—migration strategy and workstream change: business system and associated servers for which the program team has completed planning activities as defined in this document for the assigned migration strategy and workstream to the point where it has been determined that the business system or servers require a migration strategy or workstream change</p> <p>Planning complete—highly complex: business system and associated servers for which the program team has completed planning activities as defined in this document for the assigned migration strategy and workstream to the point where it has been determined that such servers belong to a highly complex business system and are out of scope</p> <p>Planning complete—replace: business system and associated servers for which the program team has completed planning activities as defined in this document for the assigned migration strategy and workstream to the point where it has been determined by the business system owner that such servers will be replaced by another project already in progress</p> <p>Planning complete—retire: business system and associated servers for which the program team has completed planning activities as defined in this document for the assigned migration strategy and workstream to the point where it has been determined by the business system owner that such servers will be retired</p> <p>Planning complete—remain: business system and associated servers for which the program team has completed planning activities as defined in this document for the assigned migration strategy and workstream to the point where it has been determined by the business system owner that such servers will remain in their existing environment and configuration</p>
Azure IaaS-supported, Azure IaaS-endorsed, or Azure IaaS-allowed operating systems	<p>The following operating systems are either supported or endorsed for Azure IaaS. Operating system support is provided by the operating system vendor independent of this endorsement.</p> <p>Linux: https://azure.microsoft.com/en-us/documentation/articles/virtual-machines-linux-endorsed-distros/</p>

Term	Definition
	<p>Windows Server 2008 R2 and later: https://support.microsoft.com/en-us/kb/2721672</p> <p>Additionally, the following operating systems can be run through the use of Windows Server 2012 Hyper-V integration drivers. Note that Azure gallery images are not provided by Microsoft for these operating systems; operating system support is not included, and lifecycle supportability remains defined on the Microsoft software lifecycle site: https://support.microsoft.com/en-us/lifecycle</p> <p>Windows Server 2008 Windows Server 2003</p>
Rapid migration ready server	A server in which the virtual machine replication tool can begin replication to Azure. A rapid migration ready server will have passed any required change management, approvals or other gates to have the server ready to migrate.

6. Appendix: key program reports and acceptance forms

The following forms are included with this SOW. Reports are examples and might be substituted with CRM Online or Power BI reports at Microsoft discretion.

Phase	Form
Assessment	Template—migration strategy and workstream assignment report
Planning	Template—planning complete report
Planning	Deliverable acceptance form—migration plan
Migration	Deliverable acceptance form—migration UAT acceptance
Migration	Template—migration complete report

Exhibits

7. Exhibit: Azure Cloud Foundation

Introduction

This project will be the first phase of the program. In this project, we will assist the Customer with establishing Microsoft Azure as the cloud platform into which existing datacenter servers for two state departments will be migrated.

Subsequent project phases will focus on server migration for additional state departments

In this project, Microsoft will assist the Customer with designing and implementing Azure infrastructure to support the Customer's security, governance, and workload archetype requirements. This project represents one iteration of design and implementation conducted over a period of 16 weeks.

We are time-boxing the design and implementation effort in recognition of the iterative process required for cloud, the need to demonstrate progress, and the potential benefit to having environments for collaborating across teams such as security, governance, and workload.

In addition, tools, processes, and roles must change when organizations move to a cloud Service model by establishing a new workload, moving an existing on-prem Service or workload to the cloud, or introducing major changes to any on-prem workloads. This project includes an Azure Operations Readiness and Governance workstream to assist in this transition.

7.1. Project objectives and scope

7.1.1. Objectives

The objectives of this project are listed for each workstream in the following table.

Workstream	Objectives
Azure platform design and implementation	<p>Design and implement Azure as a platform for cloud-based applications and services.</p> <p>Develop an infrastructure-as-code solution to implement the design using DevOps practices, and Azure DevOps tooling.</p>
Privileged Access Workstation (PAW) for cloud services management	<p>Design and implement a PAW for the security-enhanced management of Azure services by privileged user roles. This PAW is used by Azure Active Directory accounts with Tier 0 privilege, such as global administrators.</p> <p>The PAW will itself be configured and managed using cloud services to minimize security dependencies on the Customer's on-premises environment.</p>
Azure platform management	<p>Establish basic monitoring and management functionality using Azure Monitor, Alerts, and Log Analytics.</p> <p>Setup Azure Update Management to update Windows and Linux virtual machines in Azure.</p> <p>Set up and configure Azure Backup as an integrated cloud backup for up to 160 Azure virtual machines in a single recovery services vault (baseline).</p>
Azure Active Directory	<p>Establish integration between your on-premises AD DS environments and Azure Active Directory to support onboarding to Azure.</p> <p>Activate and configure Azure Active Directory self-service password management, self-service group management, privileged identity management (PIM), and group-based licensing assignment.</p> <p>Activate and configure Azure Multi-Factor Authentication (MFA) and configure Azure Active Directory conditional access policies for a tenant, applying controls to Azure Active Directory-integrated applications.</p>

Workstream	Objectives
Azure Operations Readiness and Governance	<p>Assist with understanding and adopting recommended practices for operating and governing Azure workloads from the Azure Cloud Foundations scope and Services in the cloud model.</p> <p>Explain how operations are different in the cloud.</p> <p>Prepare for required and recommended Azure operations practices.</p> <p>Integrate the cloud Service delivery with existing processes or improve processes where necessary.</p>

7.1.2. Areas in scope

General project scope

Microsoft will provide Services in support of the following scope.

Project management and governance

Area	Description	Assumptions
Project management and governance	<p>Microsoft will support the Customer with project management and governance on the Customer's transformation to Azure through the following activities.</p> <p>Act as single point of contact for all Microsoft-related activities in the context of this project.</p> <p>Establish the program governance and own the communication plan.</p> <p>Monitor the consistency of design decisions across workstreams and teams.</p> <p>Facilitate the collaboration of the different Microsoft structures with the Customer's stakeholders involved in the project.</p> <p>Perform weekly and monthly reporting of progress.</p> <p>Manage the backlog in Azure DevOps with the Customer product owner.</p>	

Azure platform design and implementation

Area	Description	Assumptions
Azure platform design and implementation	<p>Discovery</p> <p>Structured customer interviews and whiteboarding sessions to learn about the Customer's cloud strategy, current</p>	<p>Design</p> <p>This project will use a new Azure DevOps project. Setup</p>

Area	Description	Assumptions
	<p>architecture and practices, and desired future state</p> <p>Discovery from up to 40 Azure subscriptions using Azure Advisor, Azure Security Center, and CloudDocket.</p> <p>Insights</p> <p>Implement 1 Power BI dashboard to help gain insights into the Customer's current and desired future state.</p> <p>Develop an initial Azure design proposal for this design iteration.</p> <p>Design</p> <p>Conduct a design workshop to present, discuss, and explore the Azure design proposal.</p> <p>Assist the Customer with setting up a new Azure DevOps project</p> <p>Assist the Customer with the configuration of the Azure portion of an ExpressRoute network</p> <p>Implement</p> <p>During the first implementation iteration, up to 3 VDC design patterns will be incorporated into the Customer's infrastructure-as-code solution.</p> <p>During the first implementation iteration, some prioritized activities of the backlog will be addressed.</p> <p>Implement the approved design in 1 region for a non-production environment using infrastructure-as-code and DevOps practices.</p> <p>Deploy the validated design in 1 region for the production environment.</p>	<p>will occur during the Design phase.</p> <p>Implement</p> <p>The Customer will participate in all implementation step activities, including planning, implementation, demonstration, and retrospective activities.</p> <p>The Customer will be responsible for determining the final prioritization of all backlog items.</p> <p>The implementation timeframe will be determined in coordination with the Customer.</p> <p>Implementation is timeboxed to the build and stabilize phases of the project.</p> <p>Microsoft will not configure the physical routers or network virtual appliances.</p>
Service delivery and operations capability review and plan	<p>Assess current operational processes and capabilities to get an improved understanding of the current state.</p> <p>Understand the desired state and what the Customer has already done toward its goal of the desired state and upcoming go-live.</p> <p>In collaboration with the Customer, build a plan and a roadmap for the desired state prioritization.</p> <p>Where possible, review any existing tools and processes that can be used going forward.</p>	<p>Existing operational process documentation exists, and the Customer will walk Microsoft through the current state.</p> <p>The Customer will provide current pain points related to the current operations processes and capabilities.</p> <p>Key Customer subject matter experts (SMEs) and decision makers are</p>

Area	Description	Assumptions
		available to work with Microsoft.
Operation and processes readiness	<p>Recommend operational roles and tasks to set expectations for delivery implementation.</p> <p>Assess current major incident management, problem management, and event management processes to provide updates and recommendations in support with different integration points.</p> <p>Assess change and release processes and provide updates and recommendations based on the desired state.</p> <p>Where possible, review any existing tools and processes that can be used going forward.</p>	<p>Major incident management, problem management, event management, and change and release management processes exist and are documented.</p> <p>Service management tool changes that are required will be done by the Customer.</p> <p>The Service management tool exists, or processes will be tool agnostic.</p>
Cloud governance	<p>Assess current IT governance and provide recommendations.</p> <p>Recommend an approach for decision and policy management.</p> <p>Develop workflows and processes in relation to changes and new services that are introduced into the organization.</p> <p>Identify roles and develop a roles and responsibility matrix.</p> <p>Establish Azure Governance Charter in the following disciplines: Cost Management, Security Baseline, Resource Consistency, Identity Baseline, and Deployment Acceleration</p>	<p>The IT governance model exists and is documented.</p> <p>This will be an extension to an existing governance model for the Customer and we are not building any new governance structure.</p> <p>Active leadership and the involvement of key SMEs is assumed.</p> <p>Executive sponsorship is in place.</p>

PAW for cloud services management

Area	Description	Assumptions
PAW for cloud services management	<p>Deploy up to 10 PAW devices on 1 supported hardware model.</p> <p>Configuration of devices using Windows Autopilot.</p> <p>Configure a Microsoft Intune compliance policy for PAW devices.</p> <p>Configure Microsoft Intune configuration policies to harden PAW devices.</p> <p>Configure Windows Update for Business policies.</p>	<p>Only one hardware profile will be supported for PAW deployments.</p> <p>Administrative and support applications include PowerShell modules for: Azure compute, AAD, MSONline, and AAD PIM.</p> <p>The PAW workstream is dependent on</p>

Area	Description	Assumptions
	Configure Intune to deliver identified administrative and support applications for PAW devices. This activity is time-boxed to 16 hours of effort.	functionality delivered by the Error! Reference source not found. workstream; specifically AAD Identity Management, and AAD Conditional Access and Multifactor Authentication (MFA).
Windows Defender Advanced Threat Protection (ATP)	Activate Windows Defender ATP for PAW devices. This activity is time-boxed to 8 hours.	PAW devices must be able to communicate directly with the Windows Defender ATP service endpoint.
Azure Security Center	<p>Activate Azure Security Center (ASC) for 1 Azure Subscription or Management Group.</p> <p>Creation of 1 Azure (Security) Policy assignment based on the built-in "Initiative" created for ASC onboarded subscriptions.</p> <p>Onboard PAW devices in ASC for monitoring of security state. This activity is timeboxed to 8 hours of effort.</p> <p>Skills transfer and handover to operations. This activity is timeboxed to 4 hours of effort.</p>	<p>Monitored computers must be running an operating system supported by the Microsoft Management Agent (MMA).</p> <p>Customer is responsible for installing the MMA on supported Linux computers, with Microsoft's guidance.</p>

Azure platform management

Area	Description	Assumptions
Azure platform management	<p>Monitoring</p> <p>Conduct a 1-day workshop to:</p> <ul style="list-style-type: none"> Deliver the monitoring workshop. Deliver the monitoring design session. <p>Design the monitoring solution.</p> <p>Build out the monitoring design on up to 250 agents.</p> <p>Create 1 Azure dashboard.</p> <p>Create up to 10 Azure alerts.</p> <p>Implement the Network Performance Monitor.</p> <p>Implement the ExpressRoute Monitor.</p> <p>Patch Management</p> <p>Conduct a 4-hour workshop providing an overview of Azure analytics and its</p>	

Area	Description	Assumptions
	<p>capabilities to manage the software update process across Windows and Linux servers hosted on Azure IaaS.</p> <p>Document the patch management design.</p> <p>Assist with streamlining the software update management process.</p> <p>Assist with the setup and configuration of the Azure update management solution.</p> <p>Backup and Recovery</p> <p>Conduct a 4-hour workshop that provides an overview of Azure Backup.</p> <p>Lead a planning session to discuss Azure Backup requirements, policies, and configuration.</p> <p>Document the Azure Backup design.</p> <p>Assist with deploying an Azure Backup solution.</p> <p>Create and configure 1 Recovery Service Vault(s) for backing up Azure Virtual Machines for each of the two state departments.</p> <p>Configure Azure Backup on up-to 200 Azure Virtual Machines.</p> <p>Assist with reviewing backup reports.</p>	

Azure Active Directory

Area	Description	Assumptions
Azure Active Directory integration	<p>Integrate 1 Azure Active Directory tenant with up to 3 AD DS forests for synchronization and authentication. Microsoft will deliver the following to achieve this:</p> <p>Installation and configuration of Azure Active Directory Connect synchronization to Customer specifications on up to 2 servers (1 primary and 1 staging), timeboxed to options that are configurable through the Azure Active Directory Connect configuration wizard.</p> <p>Configuration of Azure Active Directory authentication using password synchronization, pass-through authentication, or federated authentication.</p> <p>Implementation of the Azure Active Directory seamless single sign-on (SSO) feature</p>	

Area	Description	Assumptions
	<p>optionally if the Customer is not using federated authentication.</p> <p>Installation of the Azure Active Directory Connect Health Agent and demonstrate it to the Customer if the Customer is licensed for Azure Active Directory Premium.</p>	
Azure Active Directory: Identity Management	<p>Implement and configure Azure Active Directory: Identity Management capabilities in 1 Azure Active Directory tenant. Microsoft will deliver the following to achieve this:</p> <p>Implementation and configuration of Azure Active Directory self-service password reset to Customer specifications</p> <p>Implementation and configuration of Azure Active Directory self-service group management to support management of cloud-based security groups</p> <p>Configuration of Azure Active Directory group-based licensing to assign licenses to users based on Customer-defined licensing profiles</p> <p>Implementation of Azure Active Directory PIM with basic configuration and demonstration, to support PAW implementation</p>	
Azure Active Directory conditional access and MFA	<p>Configure Azure MFA and Azure Active Directory conditional access in 1 Customer tenant to help secure Azure Active Directory–integrated applications and services. Microsoft will deliver the following to achieve this:</p> <p>Configuration of Azure MFA to Customer specifications.</p> <p>Design and implementation of Azure Active Directory conditional access policies in the tenant. 2 Conditional Access policies will be created for the PAW solution (refer to the Error! Reference source not found. workstream).</p> <ul style="list-style-type: none"> Implementation and configuration of Azure Active Directory Identity Protection to Customer specifications and demonstration to the Customer if the Customer is licensed for Azure Active Directory Premium P2. 	<p>Only applications that are integrated with Azure Active Directory will be subjected to MFA or conditional access policy.</p> <p>If access is restricted to managed or compliant devices, Intune will be used for MDM. Hybrid Azure Active Directory join will be used for domain-joined computers.</p> <p>Implementation of these services is scoped separately.</p>

Software products and technologies

The products and technology that are listed in the following table are required for project implementation. The Customer is responsible for obtaining all identified licenses and products.

Product and technology item	Version	Ready by
Azure subscription	Not applicable	Project start date
Azure DevOps Services including Azure Boards, Azure Repos, and Azure Pipelines	Not applicable	Project start date
VDC Toolkit for DevOps	Latest	Plan phase
Power BI Desktop edition	Power BI Desktop edition at no cost	Project start date
Microsoft Enterprise Mobility and Security (EMS)	E5	Build phase
Microsoft Defender ATP	Not applicable	Build phase
Microsoft 365	E5	Build phase
Active Directory Domain Services	2008–2016	Start of the project
Azure Active Directory	Basic or Premium	Start of the project
Azure Active Directory Premium (Required for self-service password and group management; the group-based license assignment can be implemented with Azure Active Directory Basic.) P2 is required for Azure Active Directory Identity Protection.	P1 or P2	Build phase

System integration

The following system integration is in scope for the project.

Integration	Description of scope	Responsibility	Ready by
Azure Active Directory	On-premises Active Directory Domain Services will be integrated with Azure Active Directory.	Microsoft with Customer support	End of the project

Environments

The following environments will be required to deliver the project.

Environment	Location	Responsibility	Ready by
Development	1 region selected by the Customer	Customer	Project start
Production	1 region selected by the Customer	Customer	Project start

Testing

Testing

The following testing is included in the scope of the project. If the Customer has responsibility for testing, the Microsoft effort to support that activity is identified. If additional time is needed for Microsoft testing support, then it can be requested through the **Error! Reference source not found.** described in this SOW.

Test type (environment)	Description	Responsibility		
		Has responsibility for testing?	Provides data or test cases	Provides guidance and support
Unit testing (development)	Unit testing is automated for each build and focuses on determining if a unit of code functions as intended. The Microsoft effort to support this testing is limited to the Build phase.	Microsoft	Microsoft	Customer
System testing (development)	System testing focuses on determining whether functionality meets design. During the Plan phase a high-level test plan will be created to guide testing activities. This test plan is a Microsoft Excel workbook listing up to 5 test cases, expected results, and observed results. Testing is focused on Customer-specific scenarios as opposed to generic testing of Azure fundamentals. The Microsoft effort to support this testing is limited to the Build and Stabilize phases.	Microsoft	Customer	Customer

7.1.3. Areas not in scope

Any area not explicitly included in the Areas in scope section is not in scope for Microsoft during this project. Areas not in scope for this project include, but are not limited to, those areas listed in the following table.

Area	Description
Product licenses and subscriptions	Product licenses (Microsoft or non-Microsoft) and cloud service subscriptions are not included.
Hardware	Microsoft will not provide hardware for this project.
Integration with third-party software	Microsoft will not be responsible for integration with third-party software.
Data migration	Data migration activities are not in scope for this project.
Product bugs and upgrades	Product upgrades, bugs, and design change requests for Microsoft products are not in scope for this project.
Source code review	The Customer will not provide Microsoft with access to non-Microsoft source code or source code information. For any non-Microsoft code, Microsoft Services will be limited to the analysis of binary data, such as a process dump or network monitor trace.
Process reengineering	Designing functional business components of the solution is not included.
Customer change management	Designing—or redesigning—the Customer's functional Customer is not included.
Networking	Configuration of physical network devices, such as routers and firewalls, and virtual network appliances deployed on Azure is not in scope.
Certification and accreditation	Customer regulatory compliance certification and accreditation activities outside of general support for existing Customer processes are not in scope.
Workloads	Workload application compatibility, custom application remediation, configuration, or integration of workloads, whether Microsoft or third-party, is not in scope.
Import of existing agile boards	Import of existing agile boards is out of scope.
Physical server setup, management, and maintenance	The following is not in scope:

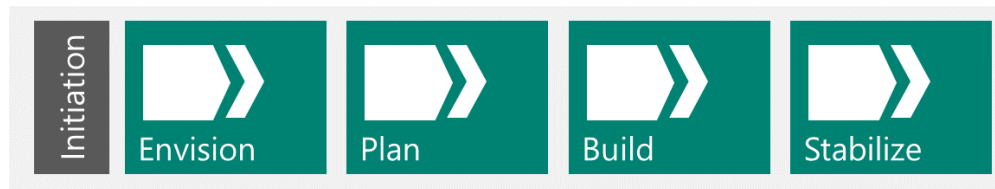
Area	Description
	Physical server setup, installation, and networking interfaces or evaluation of new hardware or software Ongoing production operational support
Networking configuration and hardware token usage and management	Internet Protocol Security, smart cards, and FIDO2 devices are out of scope.
PAW as a virtual machine	Deploying PAWs or productivity workstations as virtual machines is not in scope.
Discovery	Discovery and categorization of administrative tasks and applications are not in scope.
Virtual private network (VPN) integration	Integration of the Customer's VPN solution is out of scope.
Azure Application Insights	Monitoring web applications is not in scope.
Azure Automation Runbooks	Creating Azure Automation runbooks is not in scope.
Azure Application Autoscale	Autoscale of applications is not in scope.
Azure Event Hubs	Sending Azure Monitor data to Azure Event Hubs is not in scope.
Azure Logic Apps	Creating Azure Logic Apps for use with Azure Alerts is not in scope.
Ingest and export APIs	Using APIs to create custom action to either ingest or export Azure Monitor data is not in scope.
AD FS	The following is not in scope: Customization of AD FS sign-in pages AD FS integration with applications or services beyond Azure Active Directory
Azure Active Directory: Identity Management	Changes to individual group objects to accommodate self-service management in Azure Active Directory, including conversion of synchronized groups to cloud-based groups, are not in scope.

Area	Description
Azure MFA server or third-party MFA providers	Deployment of the on-premises Azure MFA server is outside the scope of this project, as is integration with a third-party multi-factor authentication provider.

7.2. Project approach, timeline, and deliverable acceptance

7.2.1. Approach

The project will be structured following the Microsoft solution delivery methodology across four distinct phases: Envision, Plan, Build, and Stabilize. Each phase has distinct activities and deliverables that are described in the following sections.



Engagement initiation


Before beginning the project, the following prerequisites must be completed.


Category	Description
Microsoft activities The activities to be performed by Microsoft	Conduct a preinitiation call or meeting to initiate team formation and communicate expectations. Document the project launch prerequisites using input from this SOW. Track the status of launch prerequisites and adjust the engagement initiation phase start date accordingly. Conduct a detailed walk-through of this SOW with the Customer to agree upon an initial project schedule and approach. Create an initial timeline to be presented during the kickoff meeting. Prepare and share the detail plan for the Discovery phase and tentative plan for the Design phase, including suggested dates and an agenda. Identify key personnel from the Customer side. Develop a responsibility assignment matrix (RACI) for the Customer and Microsoft.
Customer activities The activities to be performed by the Customer	Attend and participate in the preinitiation call. Assign project initiation and launch prerequisites responsibilities to accountable Customer leadership and establish target completion dates. Complete the project initiation and launch prerequisites. Staff the project with the required Customer resources in the time frames that were agreed upon in the preinitiation call.

Category	Description
	The establishment of an ExpressRoute circuit with the organization's selected ExpressRoute provider can take several weeks, therefore Customer negotiations with a vendor should start as early as possible.

Envision

During the Envision phase, the team (Microsoft and the Customer) will reach agreement on a shared vision for the project and the specific scope that will be required to make that vision a reality.

	
Category	Description
Microsoft activities The activities to be performed by Microsoft	<p>Participate in the joint kickoff of the discovery workshop with the Customer cloud lead.</p> <p>Conduct the discovery workshop, topics include:</p> <ul style="list-style-type: none"> ○ Cloud Strategy ○ Cloud Governance and Management ○ Identity and Access Management ○ Security ○ Networking ○ Monitoring ○ Backup and Recovery ○ DevOps and Automation <p>Discover and review the current state IT service management practices and operational models.</p> <p>Facilitate participation from the Customer SMEs and decision makers.</p> <p>Lead with open-ended questions about critical design areas.</p> <p>Perform dedicated note taking and team note taking.</p> <p>Conduct a close out meeting to review action items, parking lot items, set expectations for the Insights phase, and begin scheduling the Design phase. Confirm required Azure resource providers (Azure Advisor, Azure Security Center) have been activated by the Customer.</p> <p>Use the CloudDokit tool to discover the Customer's Azure Subscriptions and generate the reports</p> <p>Deploy the Continuous Cloud Optimization Power BI dashboard and present its capabilities to customer.</p>
Customer activities The activities to be performed by the Customer	<p>Participate in the joint kickoff of the discovery workshop with the Microsoft tech lead.</p> <p>Share by leading discussion and whiteboarding sessions to help Microsoft understand the Customer's current and desired future state.</p> <p>Facilitate participation from the Customer SMEs and decision makers.</p> <p>Provide documentation and access to existing IT operation, Service management, and governance processes that are currently in place.</p>


	
Category	Description
	<p>Verify that prerequisites are met to connect the Customer datacenter to Azure. Either an ExpressRoute or a VPN connection is required at the beginning of the engagement.</p> <p>Procure a non-trial Azure subscription or verify that an Azure enrollment is in place.</p>
Key assumptions	<p>The relevant Customer SMEs and decision makers are available for the discovery workshop. Scheduling will occur during the Pre-engagement phase.</p> <p>Customer representatives are expected to present the current environment in detail to the Microsoft team.</p> <p>The Customer has a general knowledge of the cloud workload and Service being implemented, its features and capabilities, and has developed a consensus on intended use relative to current communication and collaboration solution usage.</p>

Deliverables

Name	Description	Responsibility
None	Microsoft will report on what we learned during the Discovery step in the Design step (Plan).	Microsoft

Plan


During the Plan phase, the team will develop a detailed plan for the project that includes a list of activities that are to be completed, and the project schedule.

	
Category	Description
Microsoft activities The activities to be performed by Microsoft	Azure platform design and implementation Conduct the internal Insights workshop to review discovery data and arrive at an initial design proposal. <ul style="list-style-type: none"> Establish a Microsoft internal Azure DevOps project to organize notes from the discovery workshop. Create a Power BI dashboard to visualize data from the discovery phase. Map the Customer's requirements to Microsoft's: demonstrated practices, design guidance, and reference patterns.

Category	Description
	<ul style="list-style-type: none"> ○ Create an initial design proposal. Highlight key areas and key Customer requirements addressed by the design. ○ Prepare the design documentation: presentation, design and plan document, preparation checklist, test plan, backlog. <p>Conduct the design workshop with the Customer</p> <ul style="list-style-type: none"> ○ Use the Power BI dashboard to review insights gained from the discovery step. ○ Present the initial design proposal to the Customer, topics include: <ul style="list-style-type: none"> • Subscription Organization and Governance • Migration Landing Zones • Network • Shared Services • Identity and Access Management • Policy Management • Platform Management and Monitoring • Automation. ○ Explore key areas of the design to empower the Customer to take decisions. ○ Explore Customer's key requirements addressed by the design. ○ Assist the Customer with obtaining approval of this design iteration. <p>Assist the Customer with establishing a new Azure DevOps project in the Customer's subscription for this project.</p> <ul style="list-style-type: none"> ○ Create a backlog to track design decisions and implementation activities. ○ Import the VDC Toolkit containing initial source code and pipeline. <p>Assist the Customer with establishing external network connectivity to Azure as defined in the scope section above.</p> <p>PAW for cloud services management</p> <p>Conduct a solution overview and planning workshop to inform the customer how the Cloud PAW solution is architected and capture any environment specific design decisions where appropriate.</p> <p>Produce a preparation checklist which details the tasks that must be completed to allow for implementation of the integration solution, including the resources that must be procured.</p> <p>Produce a design and plan document that reflects the PAW implementation.</p> <p>Produce a draft of the PAW implementation document.</p> <p>Azure Operations Readiness and Governance</p> <p>Service delivery and operations capability review and plan:</p>

Category	Description
	<ul style="list-style-type: none"> ○ Conduct up to 2 interactive workshops to understand the current state as it relates to operational processes and capabilities. ○ Conduct up to 2 interactive workshops to understand the desired state and put together a plan and roadmap on how to achieve the operational desired state with a focus on the CloudOps and DevOps models. ○ Where possible, review any existing tools and processes that can be used going forward. <p>Operational and process readiness:</p> <ul style="list-style-type: none"> ○ Conduct up to 2 interactive working sessions to assess the incident management, problem management, change and release management, and event management processes with a focus on the CloudOps and DevOps models. ○ Lead whiteboarding sessions to define process modernization recommendations for each in-scope process area. ○ Conduct up to 2 interactive workshops and planning sessions to review the recommended role and operational guidance required to manage in-scope services. ○ Document workload and Service roles associated to tasks for in-scope services. ○ Provide informal knowledge transfer and conduct up to two informational sessions to review recommended operating tasks for in-scope services. ○ Where possible, review any existing tools and any automation in place to see how they can be used going forward. <p>Cloud governance:</p> <ul style="list-style-type: none"> ○ Conduct up to 2 interactive workshops to review and assess the current IT governance structure. ○ Develop and validate recommendations for updates and changes to the IT governance structure to include new cloud workload and Service focusing on the DevOps model. ○ Conduct up to 2 interactive workshops and sessions to define an approach for decision frameworks and IT policy management. ○ Conduct up to 2 interactive workshops and sessions to develop governance workflows, processes, and a responsible, accountable, consulting, informed (RACI) matrix with a focus on the DevOps model. ○ Conduct 1 interactive workshop to develop policies for the following 5 Azure governance disciplines: <ul style="list-style-type: none"> • Cost Management

Category	Description
	<ul style="list-style-type: none"> • Security Baseline • Identity Baseline • Azure Resource Consistency • Deployment Acceleration <ul style="list-style-type: none"> ○ Host a validation session for materials created during workshops. ○ Create up to 5 Azure Blueprints for based on Azure governance policies ○ Host a validation session for materials created during workshops. <p>Azure platform management</p> <p>Conduct a workshop up to 8 hours in length to gather requirements, information about the current environment, and necessary Customer decisions.</p> <p>Produce a preparation checklist.</p> <p>Produce a design and plan document.</p> <p>Patch Management</p> <p>Workshop on the software update process and the Update Management solution</p> <p>Backup and Recovery</p> <p>Workshop regarding Azure Backup architecture, components used, storage options, backup policy, and reporting.</p> <p>Recovery vault planning.</p> <p>Backup configuration planning.</p> <p>Azure Backup report planning.</p> <p>Azure Active Directory</p> <p>Conduct an assessment and planning workshop to gather requirements, information about the current environment, and Customer design decisions.</p> <p>Assist the Customer with the implementation of the Office 365 IdFix directory synchronization error remediation tool to identify conflicts and formatting errors in AD DS that need to be remediated prior to directory synchronization.</p> <p>Produce a preparation checklist that details the tasks that must be completed to facilitate implementation of the integration solution, including the resources that must be procured.</p> <p>Produce a design and plan document.</p> <p>Conduct an assessment and planning workshop to gather requirements and information about the current environment, provide education related to Azure MFA and Azure Active Directory conditional access capabilities, and facilitate Customer design decisions.</p>

	
Category	Description
	<p>Design Azure Active Directory conditional access policies based on Customer requirements.</p> <p>Produce a preparation checklist.</p> <p>Produce a design and plan document.</p> <p>Provide general guidance and answer questions during Customer-led completion of identified preparation tasks.</p> <p>Provide input to end-user communications related to the solution.</p>
Customer activities The activities to be performed by the Customer	<p>Manage all Change and Release Management activities associated with implementation.</p> <p>Manage all end-user communication associated with implementation.</p> <p>Participate in any demonstrations or operational handover workshops for skills and knowledge transfer.</p> <p>Azure platform design and implementation</p> <p>Confirm external network connectivity to Azure.</p> <p>Prepare a new Azure DevOps project.</p> <p>Azure Active Directory</p> <p>Run the Office 365 IdFix tool in each in-scope AD DS forest and provide the results to Microsoft for evaluation. The tool requires read-only permissions in AD DS.</p> <p>Complete IdFix error remediation in the on-premises AD DS forest and user principal name changes, if necessary.</p> <p>Azure Platform Management</p> <p>Identify servers or workloads to be managed by Azure Backup.</p> <p>Identify servers to be managed by update management.</p>
Key assumptions	<p>Participants will be prepared to engage in the workshops to provide insight, make decisions, and engage in discussions to support the completion of all areas in scope.</p> <p>The Customer's Azure environment must be ready for the Build phase.</p> <p>Items in the preparation checklist can be remediated within 2 weeks (the specified period). Environmental changes must be made in a manner that supports the overall schedule. Delays can affect the overall schedule and require a change order.</p> <p>The Customer's Azure DevOps project will be used as the DevOps planning and code repository tool.</p>

Deliverables


Name	Description	Responsibility
Power BI dashboard	A PBIX file containing a dashboard to visualize data from the discovery phase.	Microsoft
Preparation checklist	An Excel spreadsheet that documents the tasks which must be completed by the Customer and the resources that must be procured to allow for the completion of in-scope work	Customer
Design and plan	A Microsoft Word document that captures design decisions made during the workshop, documents the design for the solution, and details the high-level plan for the completion of in-scope work	Microsoft
Test cases	An Excel spreadsheet that documents the test cases which will be implemented to validate that the implemented solution functions as designed	Microsoft
Azure DevOps backlog	This deliverable defines the tasks, effort, responsible party, and sequencing to complete the project. Alaska – State Department of Administration owns the backlog. Microsoft advises, the State decides.	Microsoft
Infrastructure-as-code artifacts	Infrastructure-as-code automation templates to deploy and configure your container infrastructure on Azure	Microsoft
Operation plan and roadmap	A Microsoft Word document that lists out an operation plan and roadmap with a modern Service management and DevOps focus	Microsoft
Roles and responsibilities	A Word document or Microsoft Excel spreadsheet that outlines the recommended key roles and corresponding responsibilities for in-scope services	Microsoft
Process modernization recommendations	A Word document and associated Microsoft Visio process flows that provides modernization recommendations for major incident management, problem management, change	Microsoft

Name	Description	Responsibility
	and release management, and event management	
Governance charter	A Word document that contains the governance charter and structure, and includes workflows, roles and responsibilities, and a RACI for the governance structure	Microsoft
Identity Baseline	A Word document and associated artifacts (Excel and Visio) providing specific actions and recommendations regarding Azure native tools, policies, processes, roles, and responsibilities to effectively govern Azure identity.	Microsoft
Identity Baseline Blueprint	A draft Azure blueprint to apply the agreed RBAC model to new or existing subscriptions.	Microsoft
Security Baseline	A Word document and associated artifacts (Excel and Visio) providing specific actions and recommendations regarding Azure native tools, policies, processes, roles, and responsibilities to effectively govern Azure security.	Microsoft
Security Baseline Blueprint	A draft Azure blueprint to apply the default security policies & settings for new or existing subscriptions.	Microsoft
Cost Management	A Word document and associated artifacts (Excel and Visio) providing specific actions and recommendations regarding Azure native tools, policies, processes, roles, and responsibilities to effectively govern Azure cost management.	Microsoft
Cost Management Blueprint	A draft Azure blueprint to apply a set of default policies to underpin the cost management discipline.	Microsoft
Resource Consistency	A Word document and associated artifacts (Excel and Visio) providing specific actions and recommendations regarding Azure native tools, policies, processes, roles, and responsibilities to effectively govern Azure resources.	Microsoft
Resource Consistency Blueprint	A draft Azure blueprint to apply a set of default policies to underpin the resource consistency discipline.	Microsoft

Name	Description	Responsibility
Deployment Acceleration	A Word document and associated artifacts (Excel and Visio) providing specific actions and recommendations regarding Azure native tools, policies, processes, roles, and responsibilities to enable accelerated deployment of Azure resources and solutions.	Microsoft


Build

During the Build phase, the team will build all of the aspects of the solution and prepare it for final testing.

	
Category	Description
Microsoft activities The activities to be performed by Microsoft	<p>Azure platform design and implementation</p> <p>Assist the Customer with implementing the approved design using infrastructure-as-code and DevOps practices.</p> <p>Lead the development and testing of the infrastructure-as-code solution.</p> <p>Modify the infrastructure-as-code solution to begin working against the prioritized backlog to meet the design requirements.</p> <p>Work to complete the backlog that was defined and prioritized in the Plan phase.</p> <p>Update, review, and reprioritize the backlog.</p> <p>PAW for cloud services management</p> <p>Provide general guidance and answer questions during customer-led completion of identified preparation tasks.</p> <p>Finalize the PAW implementation document.</p> <p>Produce test cases that will be used to validate the solution functions as designed.</p> <p>Implementation activities necessary to deliver PAW devices:</p> <ul style="list-style-type: none"> ○ Azure Active Directory configuration ○ Microsoft Intune configuration ○ Windows Defender ATP configuration <ul style="list-style-type: none"> • Assist customer with the configuration of WD ATP • Assist the customer to extend the pilot to additional users • Conduct Operations Workshop • Finalize WD ATP Design and Plan document ○ Azure Security Center configuration <ul style="list-style-type: none"> • Enable Security Center • Assign Administrator Roles/Permissions • Configure Log Analytics Workspace • Configure Azure Security Policy • Onboard Azure and non-Azure computers

Category	Description
	<ul style="list-style-type: none"> • Enablement of VMs for JIT Access <p>Produce Delivery Summary document.</p> <p>Azure platform management</p> <p>Install and configure Log Analytics. Install Windows/Linux agents Configure Azure Monitor for VMs solution Install and configure Agent Health solution in Log Analytics Create Azure dashboard Install and configure the Network Performance Monitor solution in Log Analytics. Install and configure the ExpressRoute Monitor solution in Log Analytics.</p> <p>Patch Management</p> <p>Activate and configure the Azure Update Management Solution. Assess the current Software Update Management process. Install Microsoft Monitoring Agents ((MMA) on up to 25 identified IaaS servers to be managed. Assist in integration of SCCM with Azure Update Management, if needed. Assist in integrating the IaaS servers update process with the Customer software update management process. Assist in developing the update deployments: Update deployment computer groups. Update deployment exclusions. Update deployment sequenced cycles (schedules). Assist in providing report capabilities (Azure Dashboard, View Designer, or Power BI).</p> <p>Backup and Recovery</p> <p>Configure Azure Backup infrastructure</p> <ul style="list-style-type: none"> ○ Create a recovery services vault. ○ Configure recovery services vault. ○ Configure backup (storage replication type). ○ Select servers to protect. <p>Monitoring and alerting</p> <ul style="list-style-type: none"> ○ Configure backup alerts. ○ Configure notifications. <p>Azure Backup report infrastructure</p> <ul style="list-style-type: none"> ○ Configure diagnostics (archive, event hub, log analytics). ○ Configure Power BI. <p>Azure Active Directory</p> <p>Produce test cases that will be used to validate the implemented solution functions as designed.</p>

Category	Description
	<p>Install and configure Azure Active Directory Connect, including Azure Active Directory authentication agents if the Customer selects pass-through authentication.</p> <p>Complete the initial synchronization with Azure Active Directory and implement ongoing regular synchronization.</p> <p>Configure the Azure Active Directory seamless SSO feature if the Customer selects it and is not using federated authentication.</p> <p>If AD FS is chosen for authentication, install AD FS and WAP and configure the farm.</p> <p>If AD FS is chosen for authentication, provide AD FS product knowledge during the Customer-led configuration of load balancers and other networking equipment.</p> <p>Configure the authentication of Customer domains in Azure Active Directory.</p> <p>Configure and demonstrate Azure Active Directory Connect Health if the Customer is licensed for Azure Active Directory Premium.</p> <p>Configure and demonstrate Azure Active Directory B2B.</p> <p>Produce test cases that will be used to validate the implemented solution functions as designed.</p> <p>Complete validation testing for the solution.</p> <p>Produce a delivery summary document.</p> <p>Configure Azure Active Directory self-service password reset.</p> <p>Configure Azure Active Directory self-service group management.</p> <p>Configure Azure Active Directory group-based licensing.</p> <p>Configure and demonstrate Azure Active Directory PIM.</p> <p>Complete validation testing</p> <p>Resolve defects</p> <p>Produce delivery summary report</p> <p>Configure Azure MFA.</p> <p>Implement the Azure Active Directory conditional access policies that were initially scoped for test user accounts.</p> <p>Implement and configure Azure Active Directory Identity Protection.</p> <p>Complete validation testing of the solution.</p> <p>Apply the MFA and conditional access solution to users; this can optionally be performed through a phased rollout. Microsoft will disengage after 1 week of the phased rollout, after which the Customer will be responsible for completion.</p> <p>Demonstrate Azure Active Directory Identity Protection for the Customer.</p> <p>Produce delivery summary report</p>
<p>Customer activities</p> <p>The activities to be performed by the Customer</p>	<p>Perform implementation activities with assistance from Microsoft.</p> <p>Manage all Change and Release Management activities associated with implementation.</p> <p>Manage all end-user communication associated with implementation.</p>

	
Category	Description
	<p>Participate in any demonstrations or operational handover workshops for skills and knowledge transfer.</p> <p>Azure platform design and implementation</p> <p>Contribute to the development and testing of the infrastructure-as-code solution.</p> <p>Contribute to the modification of the infrastructure-as-code solution to begin working against the prioritized backlog to meet the design requirements.</p> <p>Work to complete the backlog that was defined and prioritized in the Plan phase.</p> <p>Update, review, and reprioritize the backlog.</p> <p>Azure Active Directory</p> <p>If the Customer selects a third-party federated identity provider, provide subject matter expertise for that identity provider and implement the configuration required to use federated authentication with Azure Active Directory. Engage the product vendor, as necessary.</p> <p>If deploying the solution to users through a phased rollout more than 1 week in duration, complete the rollout to users after Microsoft disengages.</p>
Key assumptions	<p>Unit testing of the infrastructure-as-code automation solution will occur throughout the Build phase.</p> <p>Activities in the Build phase are time-boxed as defined in the Timeline section.</p>


Deliverables

Name	Description	Responsibility
Implementation iteration completion report	This report lists the in-scope items that have been completed during the implementation iteration, any planned work that was not completed, and any project risks or problems. This report is produced as an output of each implementation iteration.	Microsoft
Test cases	An Excel spreadsheet that documents the test cases which will be implemented to validate that the implemented solution functions as designed.	Microsoft
Azure DevOps backlog	This deliverable defines the tasks, effort, responsible party, and sequencing to complete the project.	Microsoft

Name	Description	Responsibility
	Alaska – State Department of Administration owns the backlog. Microsoft advises, the State decides.	
Infrastructure-as-code artifacts	Infrastructure-as-code automation templates to deploy and configure your container infrastructure on Azure	Microsoft
Solution demonstration	This deliverable demonstrates the solution as developed thus far.	Microsoft

Stabilize

During the Stabilize phase, the team will focus on testing the solution and preparing it for release.

	
Category	Description
Microsoft activities The activities to be performed by Microsoft	Provide assistance to Customer SMEs as they perform system testing of the solution, update test case documentation, and update the backlog
Customer activities The activities to be performed by the Customer	Coordinate resources for, and conduct, all testing needed to review features and functionality. Lead system testing of the solution. Take ownership of the solution for ongoing management and support.
Key assumptions	The Customer will perform all testing, with Microsoft assistance. Activities in the Stabilize phase are time-boxed as defined in the Timeline section.

Deliverables

Name	Description	Responsibility
Delivery summary	A Word document that summarizes the work completed, provides any relevant maintenance guidance, and documents any recommended next steps	Microsoft
Implementation iteration completion report	This report lists the in-scope items that have been completed during the implementation iteration, any planned work that was not completed, and any project risks or problems. This report is produced as an output of each implementation iteration.	Microsoft

Name	Description	Responsibility
Test cases	An Excel spreadsheet that documents the test cases which will be implemented to validate that the implemented solution functions as designed	Microsoft
Azure DevOps backlog	This deliverable defines the tasks, effort, responsible party, and sequencing to complete the project. Customer owns the backlog. Microsoft advises, the Customer decides.	Microsoft
Infrastructure-as-code artifacts	Infrastructure-as-code automation templates to deploy and configure your container infrastructure on Azure	Microsoft
Solution demonstration	This deliverable demonstrates the solution as developed thus far.	Microsoft

7.2.2. Timeline

During project planning, a detailed project timeline will be developed. All dates and durations are relative to the project start date and are estimates only.

Component	Envision	Plan	Build	Stabilize	Total
Azure platform design and implementation	5 days	15 days	10 days		30 days
PAW for cloud services management	0 days	2 days	17 days	0 days	19 days
Azure platform management (monitoring)	0 days	3 days	5 days	2 days	10 days
Azure platform management (patch management)	0 days	1 day	3 days	1 day	5 days
Azure platform management (backup and recovery)	0 days	2 days	2 days	1 day	5 days
Azure Active Directory integration	0 days	2 days	5 days*		7 days
Azure Active Directory identity management	0 days	3 days	11 days*		14 days
Azure Active Directory conditional access	0 days	4 days	11 days*		15 days
Service Delivery & Operations Readiness Review & Plan	3 days	7 days			10 days
Operation & Process Readiness Planning	2 days	8 days			10 days

Component	Envision	Plan	Build	Stabilize	Total
Cloud Governance Planning	2 days	18 days			20 days
Total:	12 days	55 days	64 days	4 days	145 days

*Note that for these components, the number of days in this table represents **effort** in days based on the hours assigned to relevant tasks in the WBS, and that the WBS also shows a longer duration in days based on time allocated to the Customer for remediation activities.



7.3. Project roles and responsibilities

The key project roles and the responsibilities are as follows.

Customer

Role	Responsibilities
Project sponsor	Make key project decisions. Serve as a point of escalation to support clearing project roadblocks.
Project manager	Serve as the primary point of contact for the Microsoft team. Manage the overall project. Deliver the project on schedule. Take responsibility for Customer resource allocation, risk management, and project priorities. Communicate with executive stakeholders.
Technical team lead	Serve as the primary technical point of contact. Take responsibility for technical architecture and driving decisions that facilitate the Azure design creation. Coordinate the installation and configuration activities of the required hardware elements.
Network lead	Serve as the primary point of contact for the subject area. Verify connectivity to Azure, VPN, or ExpressRoute. Take responsibility for managing and performing the installation and configuration of subject area components.
Storage or backup lead	Serve as the primary point of contact for the subject area. Take responsibility for managing and performing the installation and configuration of subject area components.
Security lead	Serve as the primary point of contact for the subject area. Take responsibility for managing and performing the installation and configuration of subject area components.

Role	Responsibilities
Identity and Active Directory lead	Serve as the primary point of contact for the subject area. Take responsibility for managing and performing the installation and configuration of subject area components.
Operations lead	Serve as the primary point of contact for the subject area. Verify that Azure services will be integrated in the existing management environment. Take responsibility for managing and performing the installation and configuration of subject area components.
Operations SMEs	Provide the estimated project commitment as needed to participate in workshops and interviews. Collaborate as needed with Microsoft resources to work on developing/enhancing operations processes for DevOps model Take ownership to drive consensus within Customer's organization with assistance from Microsoft.
Application or workload lead	Serve as the primary point of contact for the subject area. Provide insights into current or planned workloads deployed on Azure. Take responsibility for managing and performing the installation and configuration of subject area components.

Microsoft

Role	Responsibilities
Delivery manager	Manage and coordinate the overall Microsoft project. Serve as a single point of contact for escalations, billing problems, personnel matters, and contract extensions. Coordinate Microsoft and Microsoft subcontractor resources but not Customer resources.
Microsoft project manager	Manage and coordinate Microsoft project delivery. Take responsibility for problem and risk management, change management, project priorities, status communications, and status meetings. Coordinate Microsoft and Microsoft subcontractor resources but not Customer resources.
Azure architect	Serve as the technical lead for the entire project and take responsibility for the scope. Lead the Fit/Gap analysis and architecture sessions and deliver selected workshops. Take responsibility for the Azure reference design document and drive the decision process with the Customer. Assist with Azure configuration and other solution build activities. Assist with solution testing. Support the solution walk-through.

Role	Responsibilities
Azure consultants	<p>Perform the Fit/Gap analysis.</p> <p>Deliver the architecture design sessions.</p> <p>Write the Azure reference design document.</p> <p>Lead the Azure configuration and other solution build activities using infrastructure-as-code principles.</p> <p>Lead the solution development activities.</p> <p>Lead solution testing.</p> <p>Lead the solution walk-through.</p>
DevOps consultant	<p>Lead the Azure DevOps configuration and other solution build activities using infrastructure-as-code principles.</p> <p>Coach the project team from Microsoft and the Customer on the agile delivery method, focusing primarily on the Azure DevOps toolset and including understanding of communication and backlog management (epics, features, and tasks).</p>
Microsoft security consultants	<p>Deliver the architecture design sessions for security.</p> <p>Lead the ASC configuration and other solution build activities related to security.</p> <p>Contribute to the solution development activities.</p> <p>Contribute to solution testing.</p> <p>Contribute to the solution walk-through.</p>
Modern Service Management (MSM) Microsoft project manager	<p>Manage and coordinate Microsoft project delivery.</p> <p>Take responsibility for issue and risk management, change management, project priorities, status communications, and status meetings.</p> <p>Coordinate Microsoft and Microsoft subcontractor resources.</p> <p>Typically, project managers will be part time on these engagements.</p>
MSM Microsoft lead architect	<p>Design the overall solution.</p> <p>Provide guidance based on Microsoft-recommended practices.</p> <p>Typically, architects are part time on the engagement.</p>
MSM Microsoft delivery consultants	<p>Deliver the required workshops to complete defined deliverables.</p>