

APN Partner Deal Acceleration Program –**Project Plan**

[*HostBooks* ] – [MothersonSumi INfotech & Designs Ltd.] – [Date]

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|  | **Partner Credentials on AWS**  **Submitted By**  MothersonSumi INfotech & Designs Limited  **MMM-DD-YYYY** |  |

**Revision History**

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**Disclaimer**

This deck outlines general guidance from AWS on what expectations we have to cover broader base of customer requirements. The intent is to make it easier for APN partners to work on funding requirements and reduce the cycle time. With sample text to refer, this is helpful for partners in building comprehensive SoW (Statement of Work). However, this deck shouldn’t be looked at as an ideal SoW. Sections identified below may not always apply and based on specific customer requirements, the contents of SoW will have to be updated/carved out by the partner team.

Please seek your own legal advice when writing SoW for customers

# Project Overview

## Executive summary

MothersonSumi INfotech & Designs Ltd. (MIND) is a part of Joint venture between **Samvardhana Motherson Group** (SMG) of India and **Sumitomo Wiring Systems** of Japan (SWS).

MIND is a provider of end-to-end software and engineering design solutions to companies around the globe. MIND started as an IT arm of the group in the year 2000 to support the IT needs of Samvardhana Motherson Group and Sumitomo Wiring Systems worldwide. MIND has further ventured into European and American Market to customers who are non-SWS and SMG to expand our services.

MIND's headquarters and development centers are in Noida (near New Delhi), India. MIND is a CMMi Level 5, an ISO 9001:2008 and ISO 27001 certified company. Since its inception in 2000, MIND has emerged as a strong world class IT Company with projects across the globe. MIND has multi-lingual software development capabilities including Japanese and German.

MIND is a Microsoft Gold Certified Partner, AWS, Azure & Google Cloud Service Provider, Oracle GOLD OPN partner and partner with other big IT brands.

MIND has Data Center (Level 3) services, Security Consulting Services Enterprise IT Helpdesk (Multi-lingual), Remote Application Management, Performance Management & Capacity Planning, Network Management Services and Application Hosting. MIND has defined Business Continuity (BC) and Disaster Recovery (DR) plans to mitigate risk of business disruption for its customers.

HostBooks provides a comprehensive cloud-based platform for all the major accounting solutions like GST, E-Way Bill, TDS, Point of Sale(POS), Payroll, and Accounting. With the perfect blend of Accounting and Cutting-edge Technology, it aims at minimizing the compliance time with seamless user experience. Be it filing GST/TDS returns, E-way Bill generation or managing your business finances, it boosts up productivity and cuts down the operational costs by keeping everything intact.

## Business Requirement

HostBooks has an online portal, used by accountants and commerce professionals. They use the portal to use services like GST filing and E-way bill payments.

Though they had an on-premise firewall in place, but the customer was facing multiple challenges in analyzing the logs generated by the firewalls deployed at multiple locations. AWS cloud service WAF can consolidate firewall data from multiple regions at one place.

The biggest challenge here is the collection of WAF firewall logs from client website for analysis and then combining these insights to be displayed together in a single dashboard as a one-stop solution.

The next challenge is performing log analysis which is critical for understanding the effectiveness of any solution offered, it is valuable for day-to-day troubleshooting and also for long-term understanding of how the application is performing.

Also, while troubleshooting logs from multiple regions, how to perform root cause analysis for exceptional cases like IP repudiation, BOT Requests, 403 error, Firewall blocking is a difficult task.

## Pain Points in the current environment

Challenges faced by the *CUSTOMER* in the current environment include

* Performance bottlenecks during peak hours of the day/week/month/at the time of running batch jobs
* Increased load times, application response time
* Wide variety of skills required to manage tech stack
* Capturing and processing WAF logs in real time
* Analysis of WAF logs is time consuming















## Project Success Criteria

* WAF centralized logging under test environment will define the success
* Implementing the infrastructure setup of the proposed solution in development environment
* Unified access to WAF logs on AWS
* Access to client application
* Lower cost and robust architecture

## Pre-Requisites

* Architecture diagram, documentation, inventory and performance details of the existing environment will be made available
* AWS Administrator/necessary access to AWS Partner to start and work on the project
* Customer to provide access to clickstream logs
* Assign an executive to work collaboratively with joint accountability of the program

## Dependencies

* Project is bound by timelines due to license/data center contract expiration
* Network bandwidth requirement for end user connectivity to AWS
* Site-to-site VPN between customer application and AWS region
* Integration between AWS Managed Microsoft AD with on prem Data center
* Dependencies from on-premises data center on file server, license server and antivirus server

## Assumptions

* Logs are near real time and without any delay.

## In-scope

MIND discussed the problem with the customer and after analyzing the business problem, it was determined that Amazon Kinesis Data Firehose would fit the business problem. Solution flow proposed consisted of the following steps.

* With the access to full AWS WAF logs, we currently have the ability to analyze all the logs generated by AWS WAF while it’s protects the web applications. In addition, Amazon Kinesis Data Firehose is used to forward these logs to Amazon Simple Storage Service (Amazon S3) for the purpose of archival, and to Amazon Elasticsearch Service for further analysis which is then represented in Kibana as dashboard.
* This allows us to find out in near-real time that which AWS WAF rules are getting triggered, the reason why are they being triggered, and by which request.
* Long-term analysis is also done by creating a historical view of previous logs.
* The Centralized Logging solution offering enables organizations to collect, analyze, and display Amazon WAF logs in a single dashboard.
* These collected logs provide troubleshooting and root-cause analysis for any kind of exception for say Blacklist IP, IP repudiation, BOT Requests, 403 error, Firewall blocking, IP repudiation limit cross etc.
* The offering contains a suite of infrastructure services that deploy a centralized logging solution.
* It uses Amazon Elasticsearch Service (Amazon ES) and Kibana, an analytics and visualization platform that is integrated with Amazon ES, which together results in a unified view of all the log events.
* Amazon Kinesis Data Firehose streams the data coming from WAF to Amazon Elasticsearch Service and concurrently stores the data to S3.
* Then these errors are visualized in Kibana which will use streamed data to perform real-time root cause analysis for exceptions in a customizable, user-friendly dashboard.

## Out of Scope

1. Issues related to application configuration, setup, and stability along with application testing
2. Any third-party components deployment or third party software solution configuration
3. Any report generation
4. Any production deployment related activity including DevOps pipeline and infrastructure
5. Performance testing on production volume data
6. Procurement of any software, tools or pertinent licenses unless specifically mentioned in this SOW
7. Any upgrades required to other systems to enable them to work with the new setup
8. Training for clients’ team
9. Non-functional requirements like application load testing, benchmarking is responsibility of the customer
10. No SLAs are defined in terms of application up-time, page load time, throughput estimates, and availability
11. Issues arising out of DoS attacks (Denial of Service), malware, virus and security related issues. However, these will be attended by partner on a best effort basis and charged on actual efforts
12. Any unplanned changes to the AWS design, new technology stack support, deployment or infrastructure will be out of scope. If and when so desired, these must go under a Change Management process
13. Any licenses / tools cost not specified in this proposal will be customer ’s responsibility
14. Any security / legal / compliance audits

## Risks and Mitigation

|  |  |
| --- | --- |
| **Risk** | **Mitigation** |
| **Single AZ setup** | Educate and sensitize the customer highlighting the potential of business impact; customer owns the risk |
| **Change of architecture** | While moving from PoC to production there can be change of the architecture which may lead to change in cost |
| **Stringent timelines, any delay will have a cascading effect** | Requested artefacts should be provided within 2 business days. Also, a dedicated PM from customer would be required for governance activities |
| **Performance bottlenecks impacting overall SLA** | Performance testing to be done by *customer* during the implementation phase with production-like data in a separate environment.  Observations to be shared with development team for required course corrections. |
| **Lack of support from business, existing partner** | Manage project timelines through regular governance agreed mutually by partner and customer at the time of project initiation. Escalate in timely fashion in case of any issues/risks |
| **Lack of testing assets and tools to validate the implementations** | customer to provide the input & output for comparison testing from their existing application |
| **Technical issues while executing the migration to AWS** | AWS Business support plan will be purchased |

## Raci Matrix

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Tasks/Activities** | **Responsible** | **Accountable** | **Consulted** | **Informed** |
| Project initiation & Kick-off | MIND | HOSTBOOKS | AWS | HOSTBOOKS |
| Infra setup and configuration - Foundation | MIND | HOSTBOOKS | AWS | HOSTBOOKS |
| Discovery | MIND | MIND | AWS/ HOSTBOOKS | AWS/ HOSTBOOKS |
| Design | MIND | MIND | AWS/ HOSTBOOKS | AWS/ HOSTBOOKS |
| Implementation | MIND | MIND | AWS/ HOSTBOOKS | AWS/ HOSTBOOKS |
| Code Build | MIND | MIND | AWS/ HOSTBOOKS | AWS/ HOSTBOOKS |
| Code Review | HOSTBOOKS | HOSTBOOKS | AWS | AWS |
| Validation | MIND | HOSTBOOKS | MIND | AWS |
| Sign-off | HOSTBOOKS | HOSTBOOKS | AWS/ MIND | AWS/ MIND |



# Solution Architecture Diagram

## Architecture on AWS

Diagram

Description automatically generated

## Overview of the Architecture

1. AWS WAF is a web application firewall that is monitoring the HTTP(S) requests from HostBooks platform.
2. WAF collected logs which will provide troubleshooting and root-cause analysis for any kind of exception. For say,
   1. Blacklist IP
   2. IP repudiation
   3. BOT Requests
   4. 403 error
   5. Firewall blocking
   6. IP repudiation limit cross etc.
3. The collected logs would be streamed through Amazon Kinesis Data Firehose.
4. The streamed logs will be stored in S3 which can be later referred for historical analysis.
5. Simultaneously, these logs are sent to Amazon Elasticsearch service for security related analysis.
6. The logs from Elasticsearch service are sent to Kibana for further analysis giving security related insights. It helps to aggregate important findings from multiple regions in a single dashboard.
7. Simplify your database administration by running your database layer in Amazon RDS using either Aurora or MySQL.
8. Amazon EC2 instances access shared WordPress data in an Amazon EFS file system using Mount Targets in each AZ in your VPC.
9. Use Amazon EFS, a simple, highly available, and scalable network file system so WordPress instances have access to your shared, unstructured WordPress data, like php files, config, themes, plugins, etc

# Project Execution / summary of milestones & deliverables

|  |  |  |
| --- | --- | --- |
| **Scope Schedule** | | |
| **Activity** | **Wk1** | **Wk2** |
| Setting up of Amazon WAF |  |  |
| Streamed logs to S3 through Amazon Kinesis Firehose |  |  |
| Streamed logs to Amazon ElastisSearch through Amazon Kinesis Firehose |  |  |
| Performed Analytics on ElastisSearch data through Kibana |  |  |

## Expected AWS Cost Breakdown by Services

The monthly estimate for this project can be reviewed by following the below link:

https://calculator.aws/#/estimate

## Acceptance

*[To conclude a project, define acceptance process here. For example:*

*Upon completion of a Phase, PROVIDER will submit the associated tangible Deliverables, to CUSTOMER accompanied by an Acceptance Form in the form set forth in Appendix B to this SOW. Upon such submission, CUSTOMER will review, evaluate and/or test, as the case may be, the applicable Deliverable(s) within eight (8) business days (the “Acceptance Period”) to determine whether or not each Deliverable(s) satisfies the acceptance criteria for the particular Deliverable in all material respects. If the Deliverable satisfies its acceptance criteria in all material respects, CUSTOMER will furnish a written acceptance confirmation to PROVIDER via the Acceptance Form prior to the end of the Acceptance Period. For a Deliverable that is not accepted due to a non-conformity or defect, CUSTOMER will indicate the detailed reasons for such rejection on the Acceptance Form and return the Acceptance Form together with the associated tangible rejected Deliverables, if any, to PROVIDER (a “Rejection Notice”) within the Acceptance Period. Upon receipt of a Rejection Notice, PROVIDER will promptly correct any defects or non-conformities to the extent required so that each Deliverable satisfies the requirements of this SOW and its acceptance criteria in all material respects. Thereafter, PROVIDER will resubmit a modified Deliverable to CUSTOMER , accompanied by the Acceptance Form and the process set forth above will be repeated. However, CUSTOMER will limit its review, evaluation and/or test of each resubmitted Deliverable to determining whether or not PROVIDER has corrected the defects or non-conformities identified in the Rejection Notice and to the effects or impact which PROVIDER’s corrections or modifications have on other Deliverables or other portions of the same Deliverable. If CUSTOMER fails to provide PROVIDER with the above described Rejection Notice prior to the end of the applicable Acceptance Period, then the corresponding Deliverable(s) are deemed accepted.]*

Typical deliverables at the end of the engagement are Standard Operating Procedures, Build document. However, what the customer desires for acceptance needs to be discussed and agreed upon before beginning of the engagement

# Resources & Cost Estimates

*[List all billable and non-billable resources involved in the project]*

*APN partner are required to ensure Project Plan and the Work Break Down list is comprehensively charted out. Each task should be broken down in to as much details as possible and efforts listed down should be justifiable*

Partner Technical Team

1. Title - Name
2. Title - Name

|  |  |
| --- | --- |
| Resource | Rate (USD) / Hour |
| Solution Architects |  |
| Engineers |  |
| Other (Please specify) |  |

|  |  |  |
| --- | --- | --- |
| Project Plan and Work Break Down List | | |
| Infrastructure Creation and Implementation | | |
| Common Infrastructure & Activities | | |
| Roles | **Sub task** | **Effort required (person days)** |
| Technical Architect | Discuss the Application and Infrastructure Architecture. Understand Dependencies and Integration points |  |
| Create Document, Reviews from Customer, Corrections and Document sign off |
| Sr. Cloud Engineer | AWS Account Creation / Setup or Gain access if existing A/c and IAM (Roles, Policies, Groups and Users) Access Setup |  |
| Setup of Cloud Trail & Billing with their S3 Buckets |
| Setup Network components like VPC, OpenVPN, Subnets, Routing Tables, NAT, Bastion/RDP GW etc. as per the architecture |
| Setup of NACL's & Security Groups and configuration of security rules as per the document. |
| Setup of S3 Buckets |
| Setup of Base AMI's (App / Layer wise) with latest OS patches & software's required by the applications. |  |
|  | **Total** |  |
| Kubernetes Architecture | | |
| Roles | **Sub task** | **Effort required (person days)** |
| Sr. Cloud Engineer | Setup and configuration of the Kubernetes cluster |  |
| Sr. Cloud Engineer | Setup and configuration of the Worker Nodes |  |
| Sr. Cloud Engineer | Configuration of AutoScaler on Kubernetes cluster |  |
| Sr. Cloud Engineer | Setup and configuration of Load Balancer Ingress Controller |  |
| Sr. Cloud Engineer | Setup of Cluster Level monitoring using Open Source tools |  |
| Sr. Cloud Engineer | Setup of ElasticCache service |  |
| Sr. Cloud Engineer | Setup Client Build Environment with Fileshare |  |
| Sr. Cloud Engineer | Setup HashiCorp Vault and configure KMS |  |
| Sr. Cloud Engineer | Setup ALB and WAF then configure it to route requests to servers |  |
| Sr. Cloud Engineer | Setup RDS with MySQL |  |

|  |  |  |
| --- | --- | --- |
| Sr. Cloud Engineer | Support to customer on application setup.  (Deployment server in case of Web/App/Api) |  |
|  | **Total** |  |
|  | **Data Migration (for all 7 customers)** |  |
| Roles | **Sub task** | **Effort required (person days)** |
| Sr. Cloud Engineer | Migrate Data from Cloud SQL to RDS |  |
| Sr. Cloud Engineer | Migrate Data from Cloud storage to S3 |  |
|  | **Total** |  |
|  | **CI/ CD** |  |
| Roles | **Sub task** | **Effort required (person days)** |
| Sr. Cloud Engineer | Setup and configure Jenkins server for the application deployment |  |
| Sr. Cloud Engineer | Setup Jobs for various services |  |
| Sr. Cloud Engineer | Take care of roll back in case of failures |  |
| Sr. Cloud Engineer | Test the entire solution end to end |  |
| Sr. Cloud Engineer | Walk through of the entire branching and workflow of DevOps setup |  |
| Sr. Cloud Engineer | Corrections on feedback |  |
|  | **Total** |  |
|  |  |  |
|  | **For v5/6 Architecture (For all 7 customers)** |  |
| Roles | **Sub task** | **Effort required (person days)** |
| Sr. Cloud Engineer | Setup of EC2 instances according to architecture |  |
| Sr. Cloud Engineer | Setup ALB and configure it to route requests to servers |  |
| Sr. Cloud Engineer | Setup RDS with MySQL |  |
| Sr. Cloud Engineer | Support to customer on application setup. (Deployment server in case of Web/App/Api) |  |
| Sr. Cloud Engineer | Cloud Watch Alerts and Setup of Standard / Custom Metrics - ASG Metrics |  |
| Cloud Watch Dashboards Setup |
| Sr. Cloud Engineer | Configure GuardDuty and AWS Config |  |
| Sr. Cloud Engineer | Handover & Documentation. |  |
|  | **Total** |  |

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  | **Data Migration (For all 7 customers)** |  |
| Roles | **Sub task** | **Effort required (person days)** |
| Sr. Cloud Engineer | Migrate Data from Onpremise/Cloud to RDS |  |
| Sr. Cloud Engineer | Migrate Data from Onpremise/Cloud storage to S3 |  |
|  | **Total** |  |
| Project Management | | |
| Roles | **Sub task** | **Effort required (person days)** |
| Project Management | Project will conduct governance with Technical Team and Customer Stakeholders |  |
|  | **Total** |  |



Cost Contribution distribution between Partner, *CUSTOMER*, AWS:

|  |  |  |
| --- | --- | --- |
| Party | Contribution (USD) | % Contribution of Total |
| *CUSTOMER* |  |  |
| Partner |  |  |
| AWS |  |  |

## Project Sponsor(s) / Stakeholder(s) / Project Team

*[Identify and list the CUSTOMER ’s Executive Sponsor and Project Stakeholders, including Title and Description (describe their role and responsibilities in the organization). The Executive Sponsor is the individual with overall accountability for the project. The Sponsor is primarily concerned with ensuring that the project delivers the agreed business benefits. Project stakeholders are entities that have an interest in a given project, and usually represent a business group or organization]*

**Partner Executive Sponsor**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Title | Description | Email / Contact Info |
|  |  |  |  |

***John Doe SVP Finance Head of Financial Services***

**Project Stakeholders**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Title | Stakeholder for | Email / Contact Info |
|  |  |  |  |

***Ivan Doctorow Sr. Manager, QA IT – Testing / QA***

***Jane Smith Director, PMO Program Management Office***

***Dan Jacobs VP, IT Operations IT Operations – Networking***

**Partner Project Team**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Title | Role | Email / Contact Info |
|  |  |  |  |

***Steve Jones Delivery Manager Project Manager***

***Philip McDaniels Sr. Solutions Architect Architect; Technical Lead***

**Project Escalation Contacts**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Title | Role | Email / Contact Info |
|  |  |  |  |

***Steve Jones Delivery Manager Project Manager***

# Appendix A – technical project plan for migration project

Migration Project Plan must demonstrate a consistent methodology and process applied through multiple migration phases as exemplified below. Though specific details may vary from project to project, a solid migration framework with major phases and work areas must be clearly identified and exercised consistently across all the projects.

The migration work scope and deliverables below are for guidance and demonstration purposes. Refer to AWS [Migration Consulting Competency Checklist](https://partnercentral.awspartner.com/sfc/#version?selectedDocumentId=0690h000003pc7y) for details. Actual project details may include other work items not limited to the following areas.

|  |  |
| --- | --- |
| Phase | Work Area and Deliverables |
| Assess | Migration Readiness Assessment (MRA) -  MRA determines *CUSTOMER* ’s readiness based on [AWS Cloud Adoption Framework](https://aws.amazon.com/professional-services/CAF/) comprised of Business, People, Governance, Platform, Security, and Operations perspectives.  Deliverables should include an assessment report with suggested actions and Statement of Work for executing the Mobilize phase next.  Total Cost of Ownership (TCO)–  The purpose of TCO analysis at assess phase is to perform rapid discovery and create TCO report.  Deliverables should include a detailed business case with focus on TCO modelling, business value assessment and detailed migration cost. |
| Mobilize | The purpose of Mobilize phase is to validate foundational migration capability and business case and plan migration project next. Mobilize may consist of the following work streams:   * Mobilize phase execution and migration planning * Portfolio discovery and analysis * Operations model assessment and design * Landing Zone design * Initial implementation Security specification * Migration pilot implementation as per [Appendix B](#_Appendix_B_–) * Migration team/organization establishment, Team RACI, training plan, and training activities * Detailed Business Case justification supported by Total Cost of Ownership (TCO) calculations   Deliverables should reflect the results of each of the work streams. |
| Migrate & Modernize | Migrate -  The migration project may consist of the following work areas on a per application basis:   * Design: migration pattern, application architecture, operations, cutover plan and process, reusable templates, migration tooling, and validation test plan * Migration: servers, databases, data, infrastructure services, followed by basic validation test * Integration: connectivity, application interfaces, operations (backup/restore, ...) * Validation: functional, performance, reliability, security, compliance * Cutover: meeting RTO and RPO with rollback plan   Modernize –  Modernization may be performed as part of migration work or post migration. The modernization project may consist of following areas on a per application basis:   * Assessment:Figure out motivation driver to modernize an application. Assess the amount of effort, time and cost to modernize. Assess the cost savings with modernization options (replatform, refactor, repurchase etc.) * Design: Migration pattern, target application architecture and AWS Services, operations, cutover plan and process, migration tooling and validation test plan. * Development: Develop or modify application to use AWS managed platform. * Validation: functional, performance, reliability, security, compliance * Cutover: meeting RTO and RPO with rollback plan   Optimize -  It may involve one or more of the following work areas.   * Cost optimization (e.g., right-sizing services, resource reservation, leveraging spot instance, monitoring and analyzing service usage and cost) * Application optimization (e.g., performance, functional, design) * Process optimization (e.g., development process automation) * Operational optimization (e.g., operations support systems, infrastructure as code))   Deliverables should reflect the results of each of the work areas. |
| Completion | Reach the project closure with the *CUSTOMER* .  Deliverables should include *CUSTOMER* ’s acceptance letter and training materials. |

# Appendix B – Pilot Migrations in Mobilize phase

The Application Migrations work stream defines an agile approach to migrate applications to AWS during the Mobilize Phase. This work stream helps *CUSTOMER* s get hands-on experience in migrating different types of applications to AWS using standard migration tools and process, working together with AWS and/or Partner migration experts. It also helps bring some of the outputs from other work streams, such as Security, Risk & Compliance, Operational Integration, and Landing Zone together through live-migrations.Although the number of applications migrated in this work stream is normally no more than 10, it is largely indicative of how the majority of applications can be migrated as detailed discovery and analysis is completed for the rest of the portfolio.

**General Guidelines for selecting applications for Pilot**

Applications that are web-based (accessed via web browsers), 2 or 3tiered (web-app-database); running a supported operating systemon virtual or physical hardware; have no dependency (or are loosely coupled) on other applications in data center/on-prem; have little (less than 1 Mbps) connectivity needs back to data center or *CUSTOMER* has Direct Connect; no shared data storage (SAN/NAS) with other applications; runs on AWS RDS supported databases ; Database size less than 20GB; not to exceed 20 server instances; preferably, stateless-architecture (can be deployed in a clustered mode using load balancer); preferably, at least 50% test automation for expedited testing/certification; preferably, well understood and documented architecture; acceptable (less than 2 hours) downtime.

In addition to above guidelines, there are other factors to be considered based on *CUSTOMER* ’s process, application criticality, commitment, SME availability.

General Examples of applications preferred for Pilot Migrations:

Online properties/Marketing sites

Intranet applications built on n-tiered architecture

Content Management Systems

Web Applications

Marketing, Sales and Service applications

General Examples of applications not recommended for Pilot Migrations:

ERPs and CRMs– SAP, PeopleSoft, Oracle ERP, Microsoft Dynamics, Seibel

Financial Reporting Systems

Data Warehouse

Information Lifecycle Management, ETL, B2B data exchanges,

EAI and middleware

Citrix-based workloads

**Outcome**

*CUSTOMER* resources trained in migration tools, AWS services, monitoring, and best-practices

*CUSTOMER* ramped-up on scalable migration factory framework