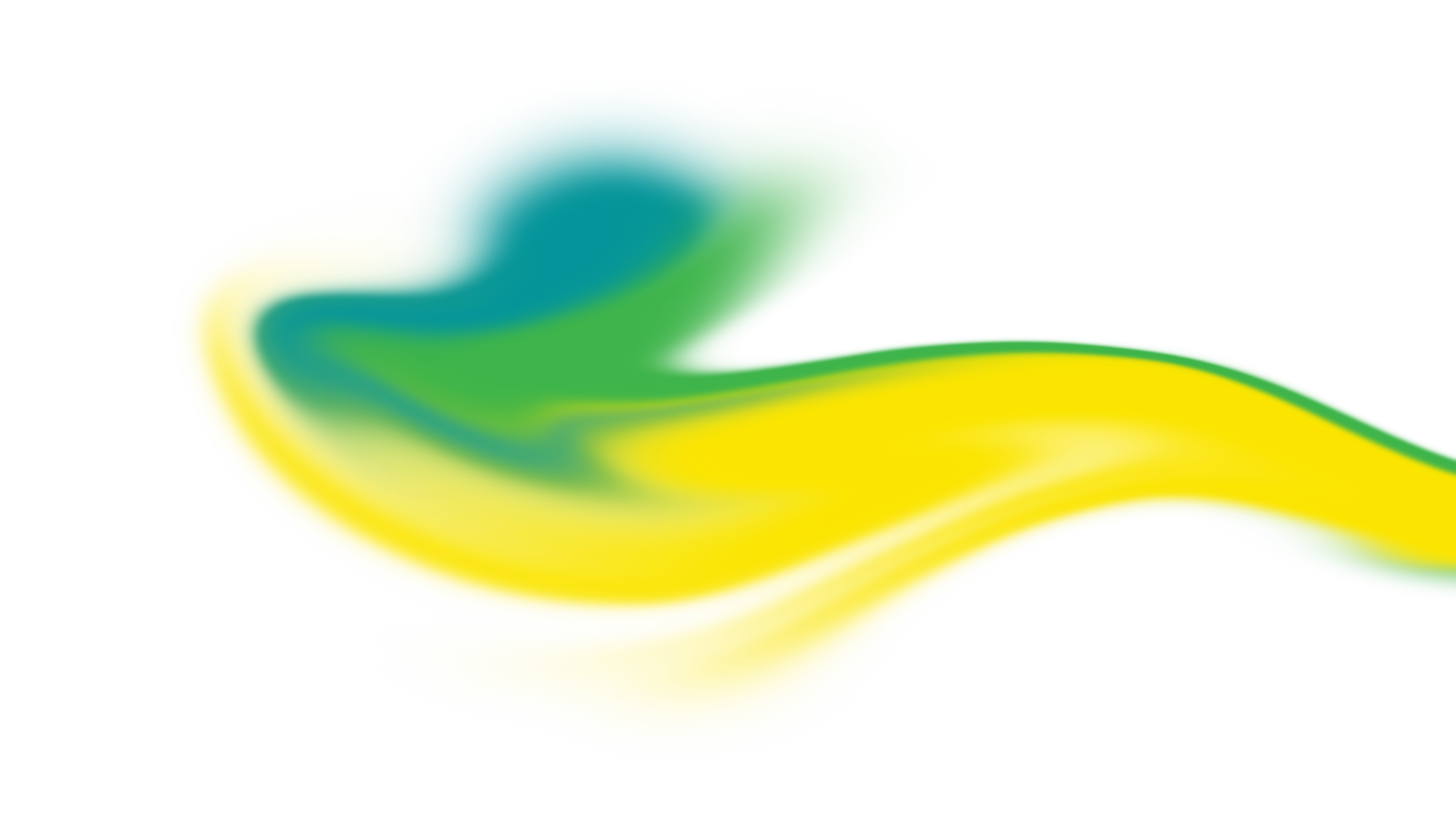
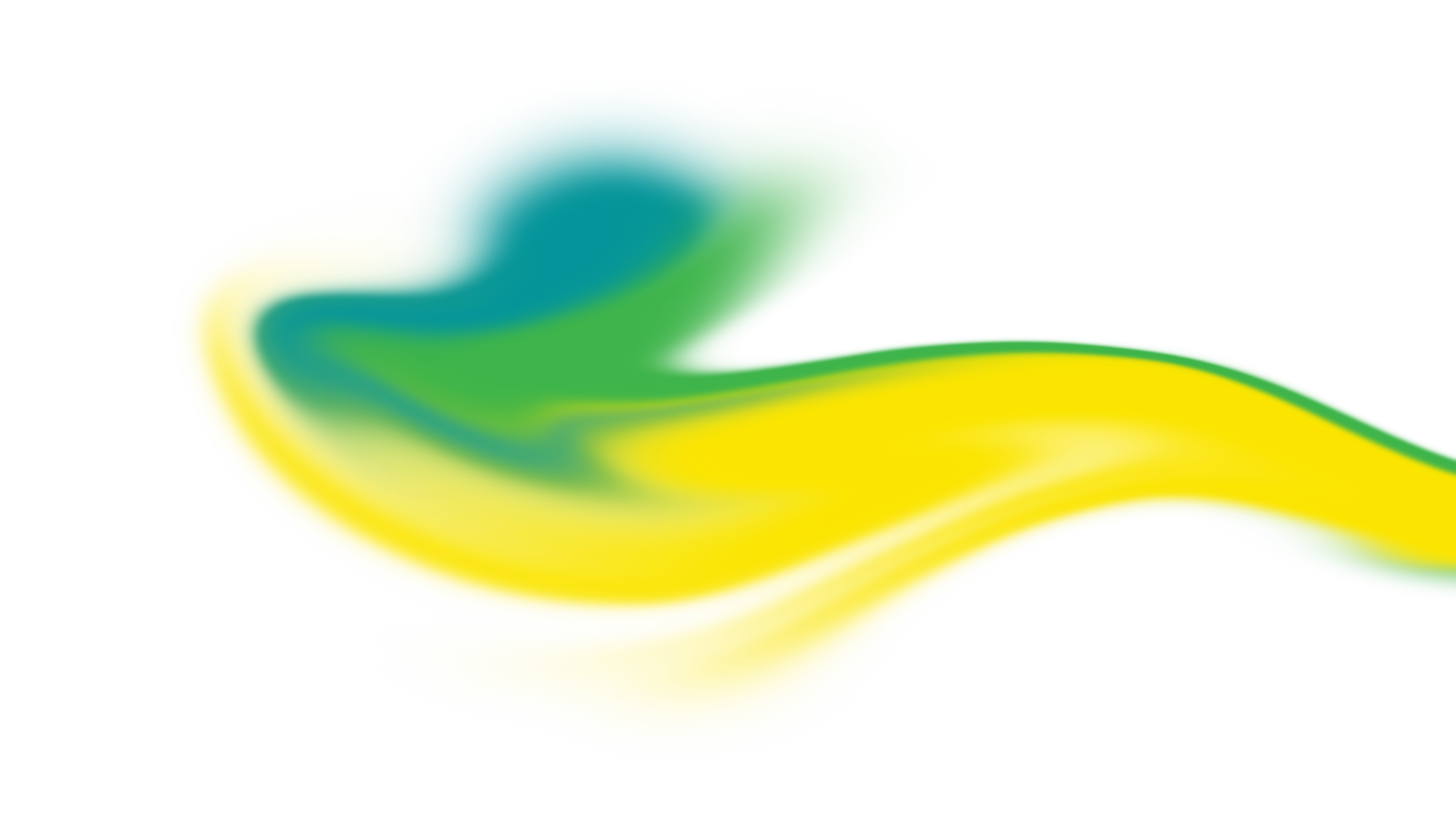


The

**Happiest Minds Proposal Response to**

**ABB to Upgrade Angular Versions.**

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# Executive Summary

# About Happiest Minds

Happiest Minds Technologies Limited (NSE: HAPPSTMNDS), a Mindful IT Company, enables digital transformation for enterprises and technology providers by delivering seamless customer experiences, business efficiency and actionable insights. We do this by leveraging a spectrum of disruptive technologies such as: artificial intelligence, blockchain, cloud, digital process automation, internet of things, robotics/drones, security, virtual/augmented reality, etc. Positioned as ‘Born Digital. Born Agile’, our capabilities span digital solutions, infrastructure, product engineering and security. We deliver these services across industry sectors such as automotive, BFSI, consumer packaged goods, e-commerce, Edutech, engineering R&D, hi-tech, manufacturing, retail and travel/transportation/hospitality.

A Great Place to Work-Certified™ company, Happiest Minds is headquartered in Bangalore, India with operations in the U.S., UK, Canada, Australia and Middle East.



**Our Businesses**

Graphical user interface, text

Description automatically generated

# Requirement Details

## Our understanding

ABB- has Smart Master Application which is deployed on Azure cloud environment. We must implement the infrastructure automation using ARM template with recommended settings. Also automate the Orchestrator script should take inputs from JSON/Excel configuration file and Meet Microsoft regulatory, compliance and standards

| **S No** | **Functional and Non-Functional Requirements** | **Output** |
| --- | --- | --- |
| 1 | * Automate the Azure Resource creation. * Automate the deployment steps of SmartMaster. * Convert manual steps into ARM template with recommended settings. * Create ARM templates in a modular way so that they’re reusable. * Write Orchestrator scripts to integrate required ARM modules. * Orchestrator script should take inputs from JSON/Excel configuration file. * Meet Microsoft regulatory and compliance standards. * Write template expressions that extend the capabilities of JSON | ARM templates, Orchestrator scripts, configuration files, Script files, Design document updates/impact analysis doc, WBS, SW code, defect triage notes, Updated TFS components, SCA, review  Records. |

The following are the details of the scope considered for this proposal.

## In Scope

* Creating the ARM templates for azure resources.
* Automate the deployment steps of SmartMaster.
* Automate the Azure Infrastructure/Resource creation.
* Convert manual steps into ARM template with recommended settings.
* Write Orchestrator scripts to integrate required ARM modules and script should take inputs from JSON/Excel configuration file.
* Implement the Infrastructure automation using Azure DEVOPS Pipeline.

## Out of Scope

* Any Improvement to Backend, Applications.
* Application Deployment automated is out of scope.
* New application and infrastructure upgrade is out of scope.
* DB and Data Migration activity is out of scope.
* Enabling the SSO/Active Directory/user management is managed by ABB Team.
* Any DNS is managed by ABB Team.

## Assumptions

* Happiest Minds will have access to Application, Infrastructure and Deployment during the Discovery phase.
* Documentation of Existing Infrastructure, High-level/low-level Architecture, Infrastructure walkthrough will be provided by ABB.
* ABB will provide access to Azure Cloud and necessary tools and login permissions.
* Any license procurement is managed by ABB.
* ABB to provide access to the existing Infrastructure, management tool.
* Operating system used on existing Infrastructure - Windows Server 2016 (64 bit), Windows 10

## Dependencies

* Documentation of Existing Infrastructure, High-level/low-level Architecture, Infrastructure walkthrough will be provided by ABB.
* ABB will provide an access to Application, Infrastructure and Deployment Pipeline during the Discovery phase.

# Technical Execution approach

|  |  |
| --- | --- |
| Step 1 - Discovery   * Gain an Infrastructure and technical understanding of the Infrastructure /Application and functional flow. * Understanding Azure cloud environment and service used. * Understanding the Azure DEVOPS Pipeline and the functional flow * Understand the third-party libraries used and their compatible versions. | Deliverables   * Discovery Report with Feasibility Study * If required, Revised Approach, Timeline, and price. |
| Step 2 – Create an ARM templates and Orchestrator scripts.   * Create an ARM template for all the Azure Cloud service in a modular way so that its reusable. * Create an ARM template Cloud VM. * Create an Orchestrator scripts, that is pulling the values from JSON/Excel configuration file. | Deliverables   * ARM template for all the Azure Cloud service * ARM template Cloud VM * Orchestrator scripts and JSON/Excel configuration file. |
| Step 3 – Create an Azure pipeline to Automate the infrastructure creation.   * Create an Azure DEVOPS Service Connection to Establish the connection between the Azure DEVOPS to Azure Infrastructure. * Create an Azure DEVOPS Pipeline and release to automate the infrastructure creation. * Use Azure Repo to Maintain the Orchestrator scripts, ARM template and JSON/Excel configuration file. | Deliverables   * Infrastructure pipeline and release pipeline. * Azure Repos. * Azure cloud Infrastructure. |
| Step 4 - Test and validate the infrastructure.   * Run the Pipeline and release Pipeline. * Update the JSON/Excel configuration file values. * Deploy the Application to New Environment and validate the same. | Deliverables   * Test and validate the Pipeline and Infrastructure. * Document for Pipeline and pipeline execution flow. |

# Project Milestones

ABB- Smart Master manager and Vendor assigned team would discuss and come to mutual agreement on the feature development/bug fixes/enhancements and testing that need to be undertaken during the specified work package milestone period based on the priority and engineer availability.

The work which can be undertaken and executed by Vendor engineer in month is considered as one work package. The project will be executed in a work package model and will be billed accordingly.

| **Milestone #** | **Target Date** | **Deliverables to be completed as part of Milestone** |
| --- | --- | --- |
| Kickoff | To |  |
| Milestone #1 (Discovery) | T0 + 2 Week | Understanding the Existing Infrastructure and application deployment flow and cycle. |
| Milestone #2 | T0 + 6 weeks | ARM template for all the Azure Cloud service  ARM template Cloud VM  Orchestrator scripts and JSON/Excel configuration file. |
| Milestone #3 | T0 + 10 weeks | Infrastructure pipeline and release pipeline.  Azure Repos.  Azure cloud Infrastructure. |
| Milestone #4 | T0 + 12 weeks | Test and validate the Pipeline and Infrastructure. |
| Milestone #5 | T0 + 13 weeks | Document for Pipeline and pipeline execution flow. |

# Acceptance of deliverables

The planned deliverables would be in accordance with the available work package. Completion of each deliverable shall be considered only after ABB- Smart Master acceptance is done.

At the end of mutually agreed milestones between ABB- Smart Master manager and Vendor team member, acceptance of monthly work package milestone shall be communicated to the Supplier within 10 days, on expiration of said 10 days work package shall be deemed as accepted. It is assumed that the milestone will be monthly. In case of bugs or issue this should be communicated to Supplier and Supplier will make sure this is addressed in subsequent milestones.

# Operating System Requirements

Windows Server 2016 (64 bit), Windows 10

# Tools/Technologies to be used in the project.

Azure cloud, Azure DEVOPS, ARM, PowerShell, JSON/Excel