TASK ORDER – POC proposal for zD&T implementation

This Task Order is entered into pursuant to and incorporates herein by reference the terms and conditions of the Consulting and Services Agreement, entered into as of the 1st day of January, 2010 (the “Agreement”), by and between **Morgan Stanley Services Group Inc.** (“Morgan Stanley”) and Infosys Limited (“Consultant”). In the event any terms of this Task Order conflict with the terms of the Agreement, the terms of this Task Order shall govern. All capitalized terms used herein shall have the same meaning ascribed in the Agreement.

1. Introduction & Overview

One of the key enablers for agility and DevOps is the availability of mainframe test environments and ability to spin it off on demand. The purpose of this POC is to prove that the mainframe test containers that are isolated and autonomous can be provisioned very quickly. The broad activities involve:

* Deep dive analysis and candidate application(s) identification for the POC
* Install zD&T v12 successfully on the Linux hardware
* **Levelset matching of zD&T environment with source native environment (**Install IBM and CA products on zD&T – DB2, SPUFI, CICS, CTG, compilers for COBOL, REXX, file manager, VSAM and CA7. Apart from these any other product deemed necessary as the POC progresses will be discussed and taken up)
* **Establish the environment base image**
* **Establish base image for Shared processes & Shared Data upon which the candidate application has direct dependency.**
* Scope the boundary of the application(s) to be provisioned
* Build/copy/lift and shift the source application to zD&T
* Identify the data source and create/clone the database on zD&T
* Demonstrate effective use for both a batch & online testing to achieve shift left in testing – shakedown testing
* **Prove cloning of the base image and application image – capability to spin off an environment in hours**
* Publish Draft Findings / recommendation report

**Project will be executed in agile scrum mode**

The PoC is expected to prove the below benefits:

Ability to quickly spin off an environment with application(s) (within few hours)

Savings due to faster environment provisioning and shift left – better quality code is moved to next higher environment

Developer autonomy – developers can make changes to any resource within these environments and test it

1. Description of Services and Deliverables:

Table 1:

| **Milestone** | **Activities** | **Deliverable(s)** | **Delivery Date** | **Acceptance Criteria** | **Acceptance Date** | **Invoice Amt (USD)** |
| --- | --- | --- | --- | --- | --- | --- |
| Successful installation of zD&T and levelset installation (zos, middleware, USS) | * Assessment of landscape, candidate application and required products on zD&T * Setup Linux and accesses * Install zD&T * Setup RACF profiles * Replace default ADCD definitions with Native mainframe definitions * Install 3rd party products | * An assessment report on landscape and recommended provisioning approach * A working zD&T environment | 10/11/2019 | -Sprint goals  -Morgan Stanley sign-off on deliverables | 10/15/2019 | 12,862 |
| Application & Data provisioning; Cloning of environment | * Copying Application resources – loadmodules, maps, files, JCLs, PROCs, datacards, etc * DB migration and copying of data * Shakedown testing by application team * Baseline the image * Cloning the environment from base image to create a new one | * A working zD&T environment with application and data * A cloned environment that can be very quickly provisioned | 11/8/2019 | * Application teams can successfully perform \*smoke test and make changes to components * Cloning works and environment provisioned quickly (within few hours) * Morgan Stanley sign-off on deliverables | 11/15/2019 | 11,000 |
|  |  |  |  |  |  |  |
| **TOTAL** | | | | | | **$ 23,862** |
| * **Smoke test indicates basic sanity testing of the application to quickly check if its fit for purpose. It DOES NOT indicate a full functional test. It will be done by the Application Dev team** | | | | | | | |

**III.** **Consulting Fee and Payment Schedule** (No payment due until after Acceptance in accordance with Agreement.) Morgan Stanley will pay Consultant a Fixed Fee (the “Fixed Fee”) of **$ 23,862** (Twenty three thousand eight hundred and sixty two) upon Morgan Stanley’s Acceptance of Deliverables in accordance with the above payment schedule. No additional Fees shall be paid for Services performed unless otherwise agreed to by prior written consent of Morgan Stanley.

Consultant will perform and complete through Acceptance all Services under this Task Order for the Fixed Fee, regardless of whether the Services performed by Consultant’s personnel at the applicable rates meets or exceeds the Fixed Fee amount set forth herein. The resource staffing estimates set forth below in Table 2: [Resource Loading Schedule], are utilized by Consultant in determining the Fixed Fee of the Services provided under this Task Order based upon Consultant’s understanding of the scope of such Services.

**Table 2: Resource Loading Schedule**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **#** | **Consultant Name** | **MSID** | **Super Function** | **Skill Track / Env** | **Position** | **Loc** | **Exp Lvl** | **# of Prof Days** | **USD Daily Rate** (Per Rate Card) | **Total Cost** |
| 1 | TBD | TBD | Technical | Mainframe | Developer – Senior - Architect | India | Senior | 37.4 | $231.28 | $8,649.87 |
| 2 | TBD | TBD | Technical | Mainframe | Specialist Developer | India | Intermediate | 40 | $190.16 | $7,606.40 |
| 3 | TBD | TBD | Technical | Mainframe | Specialist Developer | India | Intermediate | 40 | $190.16 | $7,606.40 |
|  |  |  |  |  |  |  |  |  | **Fixed Fee Total** | **$23,862.67** |

**Rounded $23,862**

**Assumptions:**

* Infosys will arrange for trial licenses for zD&T
* Morgan Stanley provides all necessary infrastructure like VMs, accesses, software, licenses, etc
* Morgan Stanley provides mainframe infrastructure SMEs to support Infosys for the PoC work (zos, storage, RACF, etc). Some of the tasks involves:
  + Configurations of SMP/E, SMS, RACF, ACF, auto exits etc
  + Configurations of Db2, CICS, Webservice, Message Queue & Batch scheduler
  + Other specific 3rd party products (list of identified software's)
  + Levelset matching of zD&T with native mainframe
    - z/os version
    - Middleware versions (CICS, DB2, MQ, etc)
    - Language versions
    - Compiler versions
    - 3rd party software versions (BMC, CA, etc)
  + CICS plex, TSQs, etc to be copied/defined along with all control file entries
* All pre-requisites that Infosys identifies before the start of work is in place
* Application technical SME support to be provided for the identified candidate application
* All 3rd party products (like BMC, CA-7, etc) that is needed on zD&T will be licensed and agreed with vendor to be used on zD&T (can be bypassed for PoC but required for pilots)
* If any new findings are seen in the assessment phase and there is an impact to the agreed dates, it will be taken up with Morgan Stanley management.
* Shared process and shared data remains constant, if not sync up process should be built to keep the environment base image updated.
* The overall size of the application with the environment base image should be between 3-4 TB if 4 core zD&T is build.

**Maximum authorized expense for reimbursement:** USD $0

Consultant will expend all amounts necessary to perform and complete all Services regardless of whether the maximum authorized expense amount set forth above is met or exceeded. Maximum authorized expense amount for reimbursement is subject to Exhibit B of the Agreement, “Expense Reimbursement Policy for Consultants”. All expenses must be pre-approved by Morgan Stanley in accordance with the terms of the Policy. Consultant will invoice Morgan Stanley against pre-approved expenses for actual expenses incurred not to exceed a maximum of USD $0 or 0%. All undisputed Fees and expenses shall be paid in accordance with the Agreement.

**IV. Financial Control Information**

Manager: Mike Pinkerton

Sr. Manager: Kiran Karkhanis

Cost Center:

Start Date: 9/16/19

End Date: 11/15/19

Location: India

TFR #:

**V. Change control process**

Should Morgan Stanley and Consultant want to change any project timelines or services and Deliverables in connection with the Services performed hereunder, such change will be subject to the following change control process:

A change in scope identified at any stage of the Services will be conveyed by Morgan Stanley to Consultant in the form of a change request document mutually agreed upon by the parties. The change request will then be assessed by Consultant to evaluate its impact on feasibility, time schedules and cost; provided, however, that a change request that does not, in the reasonable opinion of Consultant, result in material additional costs to Consultant, will not require the procedures set forth above, and the Consultant will promptly comply with such change request. Consultant will present this assessment to Morgan Stanley for its approval as soon as practicable, and in no event later than ten (10) days of receiving Morgan Stanley’s request.  Consultant will incorporate the change as requested by Morgan Stanley after receiving Morgan Stanley’s approval.

VI. Status Reports: (Frequency): Weekly

VII. Authorized Morgan Stanley Employees

Consultant’s personnel will accept direction only from the following Morgan Stanley employees or officers, or such other Morgan Stanley personnel, as they designate:

Michael Pinkerton

**VIII. Notices**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| MS Sourcing Manager | | MS Project Sponsor | Consultant Representative | |
| Poonam Kanojia | | Mike Pinkerton | Arindam Chatterjee | |
| Morgan Stanley | | Morgan Stanley & Co. LLC | Infosys Limited | |
| Athena Bldg. No. 5, Sector 30  Mindspace, Goregaon (West),Mumbai IN-MH 400 090, India | | 1 New York Plaza, 11th Floor  New York, NY 10004 | 1 World Trade Center, 285 Fulton St A, New York, NY 10006 | |
| +91 22-6641-0025 | | Michael.Pinkerton@morganstanley.com | 510-365-9630 | |
| Poonam.kanojia@morganstanley.com | | +1 212 276-1800 | arindam.chatterjee@infosys.com | |
| Morgan Stanley | | |
| Attn: CMS Admins | | |
| 1585 Broadway, 24th Floor | | |
| New York, NY 10036 | | |
| Email: [CMSAdmins@morganstanley.com](mailto:CMSAdmins@morganstanley.com), and | | |
| [IT\_Sourcing\_Leadership@morganstanley.com](mailto:IT_Sourcing_Leadership@morganstanley.com) | | |

IX. Insurance Certifications

Insurance certificates required under Section 13.2 of the Agreement are to be delivered to Morgan Stanley via email @ [CMSAdmins@morganstanley.com](mailto:CMSAdmins@morganstanley.com), and annually thereafter, and at least thirty (30) days prior to any expiration of each insurance policy.

**XI. Location of Services**

Check if the Services under this Task Order will be provided in a jurisdiction other than the Primary Jurisdiction, which is

[NY] **[Identify primary jurisdiction under the Agreement]**

**IN WITNESS WHEREOF, the parties have caused this Task Order to be executed by their duly authorized representatives.**

**INFOSYS LIMITED**  **MORGAN STANLEY SERVICES GROUP INC.**

By: By:

Name: Arindam Chatterjee Name:

Title: Senior Director Title:

Date: Date: