



INTERNATIONAL CENTER FOR BIOSALINE AGRICULTURE

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# ICBA Migration to IaaS Cloud Platform REQUEST FOR PROPOSAL

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**International Center for Biosaline Agriculture - ICBA is an international, non-profit organization that aims to strengthen agricultural productivity in marginal and saline environments through identifying, testing and facilitating access to sustainable solutions for food, nutrition and income security.**



## I. GENERAL INFORMATION

### A. Purpose

This document specifies the requirements for proposals regarding hosting the applications and infrastructure of International Center for Biosaline Agriculture (ICBA) into a Public Cloud platform. The Public Cloud shall be capable of supporting all the requirements given in this document. The solution should also provide the standard cloud features expected such as Self Service, Elasticity and Capacity On demand along with suitable implementation and migration recommendations.

### B. Who May Respond

IT companies who can provide infrastructure as a Service (IaaS) should respond to this RFP.

### C. Instructions on Proposal Submission

#### 1. Submission Timeline

Proposals must be submitted no later than **October 15<sup>th</sup>, 2016 before 04:00PM (UTC+04:00)**.

#### 2. Conditions of Proposal

All costs incurred in the preparation of a proposal responding to this RFP will be the responsibility of the bidder and will not be reimbursed by ICBA.

#### 3. Instructions to Prospective Contractors

Your proposal should be addressed as follows:

**ICBA Migration to IaaS Cloud Platform**

[Procurement@biosaline.org.ae](mailto:Procurement@biosaline.org.ae)

It is important that the Bidder's proposal be submitted to the designated email at the appointed date.

Failure to do so may result in premature disclosure of your proposal. It is the responsibility of the Bidder to insure that the proposal is received by ICBA, by the date and time specified above. Late proposals will not be considered.

#### 4. Right to Reject

ICBA reserves the right to reject any and all proposals received in response to this RFP.

#### 5. Notification of Award

It is expected that a decision selecting the successful firm will be made within two (2) weeks of the closing date for the receipt of proposals. Upon conclusion of final negotiations with the successful firm, all bidders submitting proposals in response to this Request for Proposal will be informed, in writing, of the outcome.

## II. SCOPE OF SERVICES

### A. Requirements Overview

ICBA is standardizing the hosting of its applications and needs to be supported by a Public Cloud platform that is able to provide the required Infrastructure as a Service (IaaS). The required components need to be deployable without code changes and must be supported by the related OEMs.

#### I. Existing server details

Description	CPU	RAM
Email	1	32
ArcGis, Sage	1	32
ERP Test	1	20
ERP Prod	1	32
Fileserver	1	32
Domain cont 1, dhcp	1	32
Domain cont 2	1	32
Antivirus, Applications server	1	20
AVAYA Mgmt	1	8
ESXi 1	2	64

#### II. Platform Requirements

ICBA requires the public cloud platform to support Windows and Linux based operating systems based on x86 based infrastructure.

The Public Cloud platform must provide an option for ICBA to select between:

- non-shared single tenant virtual infrastructure built on an existing managed hypervisor
- dedicated physical resources that are not shared and specific to ICBA
- A combination of the above two in a single connected environment

The provided platform must specify how it is availing the best performance, resources and security options for the ICBA workloads.

The Public Cloud platform must include in the offer enterprise level support that is available 24x7, including tickets, live chat, online references and phone calls.

#### III. Hypervisor & Migration support

The hypervisor used on the public cloud must include:

- Ability to provision and de-provision virtual servers
- Ability to provide High Availability and clustering of physical resources that are virtualized for hypervisor use
- Ability to extend the hypervisor to have native Site Recovery capability across different datacenters in case of Disaster or Data center failures



- Ability to extend the hypervisor to support Software Defined Networking including NFV

ICBA requires the ability to easily and seamlessly migrate virtualized resources to/from the Public Cloud. Virtualized resources are currently based on VMware platform.

ICBA also requires that ability to migrate existing physical servers to the public cloud platform with a simple migration path providing an option to either use a suitably provided hypervisor or direct to a bare metal server.

#### **IV. Replication**

ICBA requires the ability to provide:

- Storage and backup replication across data centers.
- Active Directory replications with a centralized MSAD server.
- Antivirus Synchronizations with a centralized Antivirus server.

#### **B. Platform Resiliency**

The Public Cloud must provide resiliency options to allow the running of servers and workloads with minimal downtime or no data loss.

Resiliency is needed across the provided infrastructure including but not limited to compute, networking and storage resources along with public cloud datacenter (location) resiliency and connectivity to off cloud locations.

#### **C. Network and Connectivity**

The Public cloud must be able to provide the following options:

- Support for 1GB to 5GB of daily data transfer to the Public Cloud. The solution needs to provide suitable connectivity options along with required bandwidth to support the expected data transfer load
- Any system or data access to/from the cloud infrastructure must be provided used secured non-public options such as encrypted VPN tunnels
- ICBA should be able to control access level using firewall rules between
- resources hosted within the Cloud infrastructure
- resources hosted between External resources and the Cloud Infrastructure
- Suitable firewall/policies configuration options need to be exposed to ICBA cloud admins
- Load Balancing capabilities must be provided

Public Cloud must provide unlimited, unmetered data transfer capability between all the cloud's datacenters and unlimited, unmetered upload data capacity.

The solution must clearly provide all the requirements needed to support the solution including any networking requirements needed for client access or to integrate the Public Cloud with the local datacenter. Any capacity and bandwidth requirements need to be clearly stated based on the provided details.

#### **D. Storage**

The Public cloud must be able to provide the following options:

- Storage to include Block, Object and File storage types.
- Storage based on Performance or Endurance options built in where applicable.
- RAID groups for disk redundancy support on bare metal and dedicated resources.

- Disk Types – SAS, SATA, SSD.
- IOPS with different tiers including 0.25, 2 or 4 IOPS/GB which must remain consistent with use of the storage allocated.

The minimum required storage capacity requirements:

- Total block storage for servers – 10 TB with high IOPS.
- Total backup storage – 10 TB with low IOPS.

## E. Backup

The Public Cloud platform must provide a suitable solution for periodic backups of the servers hosted in the cloud

This support should include common industry tools for backup solutions such as R1Soft or Evault

The public cloud must support the backup and recovery of virtualized servers such as servers running on VMware vSphere or Hyper V as well as dedicated bare metal servers.

## F. Monitoring

The Public Cloud platform must provide the facility to monitor servers hosted in the Cloud using enterprise level monitoring tools. The requirement is limited to infrastructure monitoring to provide visibility of resource and server availability.

- Where VMware or virtual servers are used, they must support the ability to be monitoring by VMware vSphere with Operations Management (vSOM)
- Monitoring tools must provide an option to extend to monitoring servers across different data centers (public and private) using the same unified interface.

## G. Provisioning

The Public Cloud must support the automated provisioning of servers for the operating systems required along with the following options:

- Ability to select Control panel software such as cPanel, Plesk Panel or Parallels Plesk Panel
- Ability to provision resources using a self-service interface and covering the following:
- Non-shared single tenant virtual infrastructure
- Bare Metal Servers that provide the maximum performance and security.
- Support VMware or Hyper-V platforms (vSphere, VSOM, VRA, vCenter or MS System Center with minimum enterprise plus licenses).

## H. Computing Capacity and Elasticity

The Public Cloud must provide at least the following computing capacity;

- Total CPU – 22 cores
- Total Memory – 256 GB

The platform must provide the option for ICBA to decide on the ratio of physical to virtual resource over-commitment on both CPU and RAM.

The cloud must be able to optimize the overall utilization of the hardware by dynamically allocating resources based on predefined workload policy or based on real-time capacity demand  
The platform needs to provide the capability to scale up or down server resources on virtual, dedicated and bare metal servers without minimal commitments for the year.

## **I. Planned System Maintenance**

The Public Cloud must provide a facility to do maintenance and upgrades with minimal downtime

## **J. Portability**

The Public Cloud platform should have a technical capability to smoothly transfer workloads and servers to/from the cloud infrastructure. This should cover movement of workloads from external locations, transfer of workloads from the Cloud to external sources as well as transfers within the cloud data centres.

## **K. Administration**

The Public Cloud should provide a role based administration interface.

## **L. Security**

The Public cloud platform must support industry security standards and ensure data, resources and users are protected across the provided environment. Environment and data must include encryption of data, secured data transfer, firewalls and gateways protecting any connected endpoints on both the public cloud and the private datacenters.

Any devices required on the private datacenter must be clearly stated as part of the proposal.

The Public Cloud platform should provide the following requirements;

- Compliance with global security standards including ISO 27001, ISO 27017 and ISO 27018.
- Compliance with Cloud Security Alliance (CSA).
- Compliance with PCI.
- Compliance with HIPAA.
- Data encryption capabilities.
- Auditing of resources hosted in public cloud.
- Protection against DDOS attacks.
- Host Intrusion Protection with Reporting.
- IPS, WAF and physical Firewall capabilities.

## **M. Knowledge Transfer**

- During the infrastructure migration, bidder shall provide knowledge transfer of the data migration process and tools, operational aspect of the cloud environment.
- Training should be provided to the IT personnel for the new administration and cloud features.

### III. PROPOSAL CONTENTS

The Bidder, in its proposal, shall, as a minimum, include along with the technical proposal, the following:

#### A. Experience/Qualifications

The Bidder must meet and demonstrate the following minimum qualifications:

- Well-established company with at least four (4) years of presence in the local market,
- Demonstrated success in planning, managing, and supporting at least five (5) successful infrastructure migration projects to cloud.
- Certified Cloud Providers.

#### B. References

The Bidder is required to provide references of clients with similar projects he has worked with in the last 2 years. The contact details of the references are required.

#### C. Price

The Bidders are required to present a breakdown of the cost:

- 1- Provide a unit based pricing (i.e. per virtual host or per VM with standard configuration as per ICBA requirements) and billing schedule.
- 2- Separate quote for infrastructure migration services.

### D. PROPOSAL EVALUATION

ICBA will review proposals and make recommendations to the management for final approval. ICBA Management may request a meeting with some qualified Bidders prior to final selection.

Proposals will be reviewed in accordance with the following criteria:

Range	Criteria	Minimum –Maximum
<b>Non-Price</b> 60%	Technology and solution design.	25%
	Proposal according to the required services highlighted in the scope.	15%
	Company Portfolio	10%
	References feedback	10%
<b>Price</b> 40%		