

**GOVERNMENT OF INDIA  
MINISTRY OF FINANCE, DEPARTMENT OF REVENUE  
CENTRAL BOARD OF INDIRECT TAXES AND CUSTOMS  
DIRECTORATE GENERAL OF SYSTEMS AND DATA MANAGEMENT  
4<sup>th</sup>& 5<sup>th</sup>FLOOR, HOTEL SAMRAT  
NEW DELHI 110021**



**Industry Consultation  
For  
Selection of System Integrator for CBIC's Data Center  
Operations**

**16<sup>th</sup> December 2022**

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# 1. Invitation for Industry Consultation

Date: 16<sup>th</sup> Dec-2022

Directorate General of Systems and Data Management, Central Board of Indirect Taxes and Customs (hereafter referred to as CBIC), having its Office at 4th and 5th Floor, Hotel Samrat, Kautilya Marg, New Delhi 110021, invites prospective & eligible participants for Industry Consultation for “Appointment of System Integrator (SI) for CBIC’s Data Center Operations”.

CBIC is looking to leverage the best solution & infrastructure from SI/OEM available in the market to create a modern and state-of-art Data Center to deliver a seamless experience to its stakeholders. To execute the same and with an endeavor to follow a consultative approach, CBIC has decided to engage with reputed industry participants (SIs/OEMs) by inviting written submissions to enable development of an informed RfP for implementation & management of CBIC Data Centers. This Industry Consultation is being organized to consult with organizations that have prior experience in providing similar services, their solutions for the given scope and to understand their suggestions and concerns, if any.

Please note that this consultation shall be non-competitive. Responses related to this Industry Consultation will not advantage or disadvantage any prospective Service Providers in any manner whatsoever. Also, response to this Industry consultation is not binding on any organization for responding to RfP at a later stage. The RfP will be shared with the entire industry and not only with the participants of this industry consultation.

Interested Participants are advised to study this document carefully and submit their response to this industry consultation in the format specified in Section 5 of this document by 16<sup>th</sup> Jan-2023, 5 PM via email to **DCRFP.IndustryConsultation@icegate.gov.in**. The participants may also highlight any key suggestions/concerns regarding the scope of this Industry consultation.

CBIC reserves the right to further invite Organizations (OEM/SI) participating in this industry consultation any presentation or discussion, if required.

Chandra Madhav Singh  
Deputy Director  
Directorate of Systems & Data Management,  
NBCC Plaza, 1st & 2nd Floor,  
Sector -5, Pushp Vihar, Saket,  
New Delhi- 110 017.

## 2. Introduction to CBIC and its Data Center Operations

Central Board of Indirect Taxes and Customs (CBIC) is a part of the Department of Revenue under the Ministry of Finance, Government of India. CBIC was constituted under Section 3 of the Central Boards of Revenue Act, 1963 for matters relating to Indirect Taxation and mainly deals with the tasks of formulation of policy concerning levy and collection of duty/tax pertaining to Customs, Central Excise duties and GST, prevention of smuggling and administration of matters relating to Customs, Central Excise, GST and Narcotics to the extent under CBIC's purview. The Board (CBIC) is the administrative authority for its subordinate organizations, including Customs Commissionerates, Central Excise Commissionerates and Central GST Commissionerates.

The Central Board of Indirect Taxes and Customs has initiated a number of projects aimed at harnessing Information & Communication Technology (ICT) in achieving the objectives of Customs, GST and Central Excise administration. The Directorate General of Systems and Data Management (referred to as the Department) has been entrusted with the implementation of the projects related to Information & Communication Technology. For more information, refer to CBIC Website (<https://www.cbic.gov.in/>)

### 2.1 CBIC's Present IT Systems & Data Center Setup

CBIC currently hosts all of its IT applications at the Data Centers (DC) in Delhi and Chennai where certain applications are running in Delhi DC as primary Data Centre while others in Chennai DC as primary Data Centre. Each of these DCs has an attached near DC (NDC) for synchronous data replication. Further the IT operations of CBIC are monitored through 24\*7 Network Operations Center (NOC) in Delhi and Chennai. The NOCs monitor the status of infrastructure, application availability, network availability, etc. CBIC has a dedicated security setup that is managed and monitored through 24\*7 Security Operations Center (SOC) in Delhi. The current IT system along with the concerned vendors are depicted as follows:

Component Name	Vendor
ICES Application	NIC
CIS Application	Infosys
RMS Application	TCS
ACES-GST Application	Wipro
ADVAIT	IBM
ECCS	CMS
CBIC Website, Mail Messaging, Intranet	TCS
Network Services	BSNL, TCL
Data center Space, Power, Cooling	STT GDC
System Integration & Security Services	TCS

## 2.2 Current Locations

The Data center Infrastructure at CBIC is hosted at four locations as mentioned below:

- i. Primary Data Center, New Delhi– DC Delhi
- ii. Near Data Center, New Delhi – NDC Delhi
- iii. Primary Data Center, Chennai– DC Chennai
- iv. Near Data Center Chennai– NDC Chennai
- v. SOC - Delhi
- vi. NOC - Delhi and Chennai
- vii. Saksham Seva (Helpdesk) - Noida and Chennai

## 2.3 DC Architecture

CBIC has a 4 site DC setup with 2 Data Centers (DCs) and 2 Near Data Centers (NDC). Each DC is configured to host certain applications in active site and another DC acts as DR site for these applications. Both DCs are connected together through P2P links for non-sync replication of data to their respective DR site. Each DC is having a Near Data Center (NDC) for synchronous data replication & connected over a pair of Dark Fibers with redundancy. The facilities and operations at the DCs are ISO 27001, ISO 20000 and ISO 22301 certified. Both DCs are having dedicated ILL and MPLS cloud for access of applications by all stakeholders, internal & external.

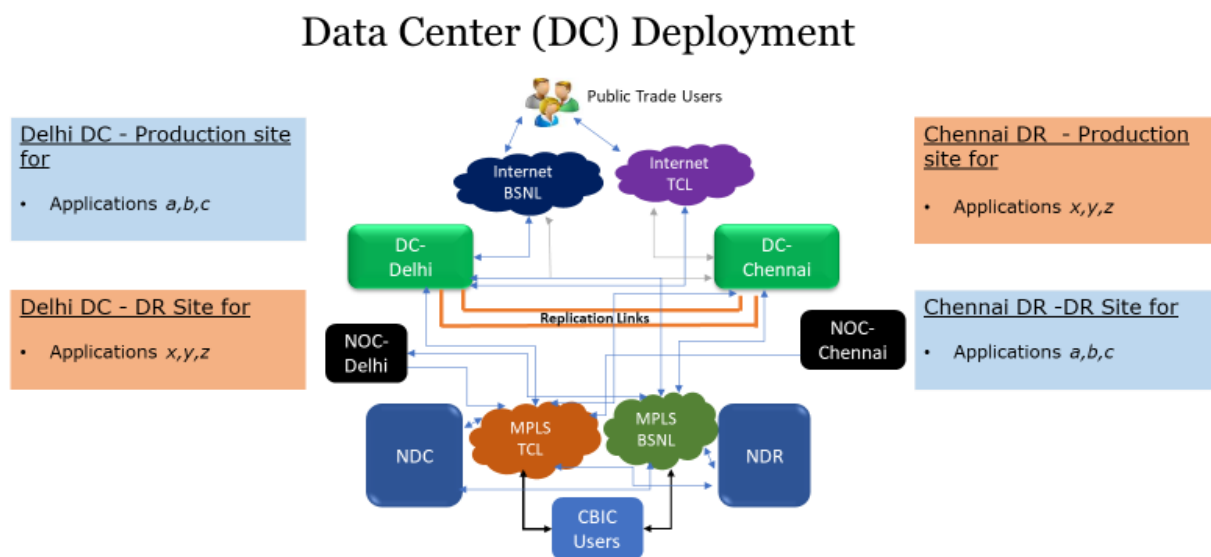


Figure1: Current IT Landscape

(The applications mentioned in the figure are indicative)

The high Level Infra stack (indicative) followed in CBIC is mentioned below:

Layer	Applications stack
Web & Middleware	IBM Websphere, MQ, Big data, Posidex, Neo4J, IBM SPSS modeller, Apache, Tomcat, Drupal, Solace, WSO2, Oracle BPM Oracle Weblogic, OSB Redhat JBOSS, Oracle Web Tier Oracle Forms and Report server, ESB, API gateway, DMS
Database	IBM DB2, Oracle DB, MySQL
Operating System	Red Hat Linux, Oracle Linux MS Windows
Virtualization / Containers	Redhat & VMWare Virtualization, RHCOS, Oracle VM
Servers	Blade Servers
Storage	Block storage, NAS scalable Storage, Disk Library, IAS Appliance
Networking	Networking

*Figure2: Application Layering Mapping (Indicative)*

The physical space for DCs and NDCs has been taken on Agreement from STT-GDC, who also provide power, cooling and physical security requirements.

### 3. Indicative Broad Scope of Work and Deliverables

1. Transition & Takeover of operations from Existing SI for managing infrastructure services, Application Support & Development.
2. Operation and Maintenance of Existing DC till all applications are migrated to new DC.
3. Provisioning of DC space and power at new locations
4. Migration of applications & services to new Data Center Setup (including migration of existing Appliances that are still in premium support.
5. Setting up of On-premises based Software Defined Datacenter with state-of-the-art technologies that should include Infrastructure Automation & Orchestration, Enhanced & predictive monitoring with analytics.
6. Provide & Manage State of the art security setup which should cover all layers of security in DC operations.
7. Provide connectivity between DCs & NDCs (for synchronous & asynchronous replication)
8. Setting up DC-DR setup in such a way that Switchover to other site would be seamless or with bare minimum RTO.

9. Upgrading Existing NOC & SOC to state-of-the-art monitoring & security tools, practices (On-Premise) Solution only and establishing NOC at DR site.
10. On-Prem based Mailing solution & Collaboration Suite.
11. Create a Centralized microservices-based Dev-Sec-Ops platform.
12. Create a Centralized Application Integration platform.
13. Monitoring and Administration of Data Center.
14. Monitoring of Software & hardware assets in automated way.
15. Coordination support with other application verticals.
16. Setting up and managing operations of CBIC Internal helpdesk with latest tools including chatbots.
17. Providing Facility Management Services at NBCC Plaza Office, Delhi.

#### **4. Challenges in the Current Setup that needs to be addressed in proposed solution**

1. The current 4 Data Center Design Architecture needs to be optimized. CBIC is open for suggestions regarding DC Design Architecture changes as well.
2. Currently DR drills take longer Downtimes (8-10 Hours) for Switchover/Switchback. The Switchover time needs to be reduced substantially.
3. Provision of Automation & Orchestration in DC operations is currently lacking.
4. There are multiple Virtualization OEMs which leads to Management issues.
5. There is lack of real time Capacity Monitoring & utilization of DC Infrastructure & Software.
6. There is an expensive Vendor Lockup in current setup.

## 5. Response Formats

### 5.1. Covering Letter

To,

Pr. DG (Systems), CBIC  
Hotel Samrat,  
Kautilya Marg, Chanakyapuri,  
New Delhi 110 021

Subject: Submission of the Industry Consultation Response for Appointment of System Integrator for CBIC's Data Center Operations.

Dear Sir,

We, the undersigned, offer to submit a Proposal on Appointment of System Integrator for CBIC's Data Center Operations with reference to your Request for Industry Consultation dated 16<sup>th</sup> Dec 2022. We are hereby submitting our Proposal in the prescribed format, which includes our key suggestions.

We confirm that the information contained in this response or any part thereof, including its exhibits, and other documents delivered to CBIC is true, accurate, verifiable, and complete. This response includes all information necessary to ensure that the statements therein do not in whole or in part mislead the CBIC in their intent of this Industry Consultation.

We agree to unconditional acceptance of all the terms and conditions set out in the Invitation for Industry Consultation and understand that CBIC may or may not use the information submitted by us in the final RfP scope.

It is hereby confirmed that I/We are entitled to act on behalf of our company/ corporation/ firm/ organization and empowered to sign this document as well as such other documents, which may be required in this connection.

Yours sincerely,

(Authorized Signatory)

Signature:

Name:

Designation:

Address:

Seal:

Date:



**5.2. General Information of the Organization**

S. No.	Item	Service Provider's Response
1.	Organization Name	
2.	Year Established	
3.	Incorporated in India (Yes or No)	
4.	Contact Person's Name (Authorized Signatory)	
5.	Address	
6.	Mobile	
7.	Telephone	
8.	Fax Number	
9.	Email Address	
10.	Brief Description of the Organization	

## Financial Details:

	FY 2019-20	FY 2020-21	FY 2021-22
Turnover from business in India (in INR crores)			
Turnover from SI implementation/Support Projects in India (in INR crores)			

**5.3. Experience of the Organization in SI or similar works (enclose separate sheet for each project)**

S. No.	Item	Service Provider's Response
1.	Name of Organization	
2.	Project Name	
3.	Name of Project Client	
4.	Country	
5.	<b>Contact Details of Project Client</b> <i>(Contact Name, Address, Telephone Number)</i>	
6.	<b>Role of Organization in the Project</b> (Please indicate clearly whether any outsourcing/consortium was involved in the execution of the work)	
7.	Value of the Project	
8.	Duration of Project (months)	
9.	Award Date (month/year)	
10.	Completion Date (month/year)	
11.	Narrative Description of the Project	
12.	Details of Work that defines the scope relevant to the requirement	

#### **5.4. Proposed Solution to the Indicative scope of Work**

This section should provide the detailed response of the organization regarding the proposed solution covering the various areas as mentioned in Section 3 while addressing the challenges described in Section 4. However, please note that CBIC is not looking for any cloud-based solutions and all solutions proposed should be based on on-premises deployment model only.

In addition to the mentioned areas, the participants may also provide any other suggestions/information/concerns related to the scope of this Industry consultation, which will enable CBIC to develop a comprehensive RfP.

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