



# **THE CLEARING CORPORATION OF INDIA LIMITED**

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Mumbai - 400 028

## **Business Continuity Planning at CCIL**

**Feb, 2016**

## **1. Background**

The Clearing Corporation of India Ltd. (CCIL) was set up in 2001 to provide an institutional infrastructure for the Clearing and Settlement of transactions in Government Securities, Money Market instruments, Foreign Exchange and other related products. The objective was to bring efficiency to the transaction settlement process, mitigate the risk emanating from settlement related problems and counter party risk. It aimed to pave the way for broadening and deepening the financial markets in the country. CCIL commenced its operations with the clearing and settlement operations in government securities market on February 15, 2002.

CCIL has set up a 100% subsidiary, The Clearcorp Dealing Systems (India) Ltd. (Clearcorp), which owns and manages various trading solutions like CBLO, Fx-Clear, NDS-OM, CROMS etc. for the market. As a measure of good corporate governance and as a risk management strategy, the trading facilities offered by CCIL were hived off into a separate subsidiary.

CCIL has also set up another 100% subsidiary, Legal Entity Identifier India Limited (LEIL) to hive off its Legal Entity Identifier (LEI) business. As a pre-LOU (Local Operating Unit), LEIL has the status of ROC (Regulatory Oversight Committee) endorsed LOU and will issue LEIs to legal entities in India that are globally acceptable. The functioning of LEIL as an LOU is under the regulation and oversight of the Reserve Bank of India, ROC and Global Legal Entity Identifier Foundation (GLEIF).

The organisation relies heavily on Information Technology to deliver its services. The in-house IT team with necessary support from software vendors performs the roles of project management, system/database/network administration, help-desk support and data Centre operations. It also undertakes software development and supports the Business Continuity Plan. Another major role it plays is in the area of Information System Security to secure the critical IT assets of the organisation. CCIL is certified under ISO/IEC 27001:2005 since 2006 for securing its information assets.

## **2. CCIL – A Financial Market Infrastructure (FMI)**

Financial Market Infrastructures (FMIs), which facilitate the clearing, settlement, and recording of monetary and other financial transactions can strengthen the markets they serve and play a critical role in fostering financial stability. An FMI should have comprehensive business continuity plan that addresses events posing a significant risk of disrupting operations, including events that could cause a wide-scale or major disruption.

CCIL, as one of the systemically important financial services entities regulated by Reserve Bank of India, has enormous responsibilities in providing uninterrupted services to the Indian Financial market.

To fulfill this responsibility; CCIL has put in place a comprehensive Business Continuity Plan (BCP) for disaster recovery (DR) in the event of any failure of its IT and/or business processes.

### **3. Business Continuity Plan**

Since, its inception CCIL has laid great importance to BCP. Over a period of time, BCP/DR capabilities have been upgraded significantly to meet the challenges of the requirements of rapid recovery and uninterrupted business operations.

CCIL has a well-documented Business Continuity plan, approved by its Board of Directors which is also shared with RBI as Regulator. The Business continuity plan document is updated periodically as and when new services are added or existing processes are changed or scope of improvement is seen.

#### ***a. Steering Committee / Command Team***

In the event of a disruption/disaster, the Steering Committee (SC) makes the decision with respect to declaration of disaster and invocation of BCP. The Steering Committee consists of the Managing Director, Heads of Departments and BCP team [i.e. Head of BCP, BCP in-charge (Business), BCP in-charge (IT)].

#### ***b. Business Continuity Team***

The business continuity team includes representatives from each department as well as their backups who are named as departmental BCP coordinators. BCP team including Chief Risk Officer (CRO), BCP in charge (Business) & BCP in charge (IT) coordinates all business continuity related activities and/or new initiatives. The technical team focuses on crisis response and recovery of technology related processes. The operations team has responsibility to complete the critical business functions and to ensure the business continuity. The support team has responsibility to provide services & supplies adequately, make necessary procurement and arrange for facilities like travelling, lodging & boarding etc. required for completion of necessary business activities.

#### ***c. Site Locations***

**Primary Location (including data centre):** CCIL's primary data centre (PDC) and active business centres located at Mumbai.

**On-City Data Centre (ODC):** An additional location of CCIL which holds an alternate data centre as on-city data centre (ODC) is located within the city around 25 kilometres away from Primary site. This location is also a local Alternate User Location (AUL) for business and IT teams in addition to serve as an alternate command centre for the senior management.

**Disaster Recovery (DR) Location:** The DR site including data centre is located around 150 kilometres away from the primary locations. The DR site data centre is a 'warm' site, ready to take over operations in case of any disaster/disruption at the primary & On-city data centres.

IT infrastructures available at all the data centres/sites, in the form of hardware, software, security, networking equipment etc. are identical to the primary site. Necessary technical and operational staffs are available in both the alternate locations.

All the above locations of CCIL are interconnected with a robust and resilient backbone network with sufficient redundancies. Members of CCIL & RBI are connected to CCIL through INFINET (Indian Financial Network) connectivity (*CUG: For Indian Financial Entities*) with sufficient redundancies.

**d. *Infrastructure Redundancy***

The entire IT infrastructures at all locations are having sufficient redundancy to ensure continuity of business operations and uninterrupted services to members. To support the uninterrupted IT operation, adequate redundancies have been provided for the utilities like – Communication network through back-up links, Alternate power supply through UPS & Diesel Generator (DG) etc.

**e. *Recovery Time Objective (RTO) & Recovery Point Objective (RPO)***

Currently, in most of disruption scenarios, CCIL is capable of recovering and restarting the critical operations within a very short period. RTO of CCIL meets the required international standards.

**f. *Testing of business continuity plan***

CCIL has been conducting live BCP operations quarterly covering all its data centres & infrastructure to test its own capability and resourcefulness in the face of disruption/disaster events.

**g. *Participation in DR/BCP Drills of Regulator or market participants***

CCIL always encourages members to participate in its BCP drills/live BCP operations whenever these are conducted. Apart from that, CCIL also provides necessary support to its members/Regulators during their respective business continuity drills. CCIL also participates in the BCP drills conducted by RBI.

**h. *Audit of BCP***

The BCP processes, documents of CCIL are reviewed by various internal or external Auditors (like Operational Auditors, System Auditors, and ISO Auditors etc.) on regular basis.

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