

# **FUTURE - PROOFING THE IBC - INSOLVENCY OF A DATA CENTRE OR A CLOUD SERVICE PROVIDER**

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## INTRODUCTION

Cloud computing is growing at a phenomenal pace across the globe. As per Statista, the statistics portal for market data, around 60% of the worldwide corporate data in 2022 was stored in the cloud. COVID-19 pandemic gave an impetus to the adoption of cloud as the corporates with on-site servers lagged to adapt to remote work. Pandemic upended a lot of established practices which may or may not continue in the post-pandemic era; the current tug-of-war between employees and employers on the concept of work-from-home being one such aspect. Nevertheless, for the moment, cloud computing continues to grow. In fact, the backing of giant corporates and the convenience of cloud have lulled our senses to any impending risks including that of insolvency.<sup>1</sup> However, with the volume of data residing in the Cloud and the Data Centres (DCs), an insolvency of a large service provider can have massive disruptive effects on the economy. An example pertaining to the Insolvency and Bankruptcy Code, 2016 (IBC/ Code) will illustrate the aforesaid. Regulation 4C of IBBI (Insolvency Resolution Process for Corporate Persons) Regulations, 2016 (CIRP Regulations) requires an Interim Resolution Professional to open an email account for all correspondence. This email account has to be handed over to the Resolution Professional (RP) in case of a replacement and to the Liquidator thereafter in case a resolution is not achieved. The common market practice is to open a 'Gmail' account to comply with the CIRP Regulations. Imagine a scenario where Gmail is facing a technical issue that continues for a few days; the insolvency resolution process of most of the corporates will come to a standstill. What is true of IBC, holds true for the corporates and the Government, though at an infinitely larger scale. Thus, complacency *vis-à-vis* insolvency of Cloud Service Providers (CSPs) and DCs may come to haunt us one day; the event of insolvency will have a magnitude much larger than a few days of technical glitch. The problem may get compounded as the Government is actively promoting these sectors.

A December 2022 press release of the Ministry of Information and Broadcasting, Government of India states that India would be a Cloud Computing and Data Centre Hub. DCs were included in the harmonized list of infrastructure in October, 2022.<sup>2</sup> Presently, India has around 800 MW installed power capacity for DCs and is projected to grow to 1700MW by March 2025; developers have a pipeline of over 3000MW to be delivered over next 10 years requiring a capex of ~USD 23Bn.<sup>3</sup> There are about 20 Cloud Service Providers empanelled with Ministry of Electronics and Information Technology.<sup>4</sup> (MeitY)

However, DC owners and a CSP are not necessarily the same corporate/legal entity. The Hyperscale<sup>5</sup> Data Centres are owned by the CSPs; the Co-location Data Centre rent out space to CSPs and to the companies

who keep their servers and networking equipment at a third-party location; and the Captive Data Centres usually belong to the Governments / public sector.

It may be argued that a fast-growing sunrise sector is not an insolvency candidate. However, growth attracts multiple players, and it is inevitable that some will fail; white swan events are a given. Distress may arise due to change in macro-economic situation;<sup>6</sup> customers renegotiating contracts with service providers,<sup>7</sup> unavailability of enough land and electricity,<sup>8</sup> local opposition,<sup>9</sup> climate protests,<sup>10</sup> excessive leverage and inadequate cash-flows as described in examples below, regulatory changes including sustainability directives or licensing requirements for imports, modification of tax laws, investigation from anti-competition authorities,<sup>11</sup> geopolitical issues,<sup>12</sup> cloud proposition turning expensive or technological obsolescence,<sup>13</sup> and any other black swan event.

Also, it is likely that big technology companies i.e., the Hyperscale CSPs may not rent DCs in future, but build their own. As building data centres is expensive, the highly indebted Co-location DCs in a rising interest rates environment may undergo financial distress.

Thus, numerous factors can lead to insolvency. Insolvency can take three forms: insolvency of the DC, insolvency of the CSP or insolvency of both the DC and CSP. Before the peculiarities of such insolvencies and the issues that may need to be addressed, are ventured into, the article first examines some real-life examples of the aforesaid categories and the resultant consequences.

## **INSOLVENT DATA CENTRE**

Insolvency of a DC can result into huge costs for its customers; both financial and non-financial. A case in the point is the bankruptcy of DC operator Cyxtera Technologies Inc., a provider of Co-location services in June, 2023. Dell, which was a customer of Cyxtera was forced to orchestrate a complex and costly migration to a new DC. Furthermore, due to migration, Dell expected to incur additional costs of USD 75M for procurement, certifications and breach of its customer contracts.<sup>14</sup> An insolvency of a DC in India of a similar scale can thus wreak havoc for some of the corporates.

### **Cyxtera Technologies Inc.**

Cyxtera was a medium sized corporate. It had agreed to go public through a merger with a blank-check firm, in a deal valuing the entity at \$3.4 billion. If it would have been an Indian company, it would have been in the list of Top 200 corporates in terms of market capitalisation. India had a total DC capacity of 800MW as of December, 2022.<sup>15</sup> In comparison Cyxtera singularly had 245 MW of capacity, was operating at more than 60 locations when it filed for U.S. bankruptcy protection, two years after

the company went public. The company cited financial difficulties and funding shortage as the reason. The company's operations were spread across 30 markets, though its subsidiaries in Germany, Singapore, and the United Kingdom were not included in the US court-supervised process.<sup>16</sup> The company had a net loss of USD 355M in 2022. The bankruptcy had a ricocheting effect on the Digital Core REIT of which Cyxtera was a tenant. The peculiarities of Real Estate Investment Trust (REIT) are discussed later in the paper.

## **INSOLVENT CLOUD SERVICE PROVIDERS**

In the first instance the insolvency of CSPs seem to be beyond the realm of possibilities as the names that first come to mind are those of the prominent Hyperscale CSPs. However, in their heydays the possibility of distress was unthinkable for many a corporates like Kodak, Nokia, Blackberry etc. Moreover, not all CSPs are Hyperscalers.

Insolvency of CSPs may be consequential for India. The MeitY empanelled CSPs fall in three categories; Public Cloud (PC), Virtual Public Cloud (VPC), and Government Community Cloud (GCC). None of the Hyperscalers i.e., Amazon, Google, Microsoft, Oracle etc. are empanelled as GCC. GCC is meant for departments where dedicated security is required, including that of Government, along with an isolated environment. Thus, though the security risk may have been addressed by a separate class of GCC providers, no *modus-operandi* for insolvency risks is provided. The only reference to insolvency is provided in the model Master Services Agreement of MeitY wherein it states that the purchaser of services may terminate the agreement if the service provider reports an apprehension of bankruptcy.

Moreover, a regulated entity may use any of the CSPs, irrespective of size, especially for data localization requirements of various regulators, an aspect discussed later in the paper. Insolvency of such a CSP may lead to systemic issues.

Also, the pricing tactics of Hyperscalers will lead to margin pressure on all other CSPs. In some instances, this may result in paucity of customers for such CSPs, further aggravating the situation. A recent bankruptcy, that of American Virtual Cloud Technologies Inc. arose as it was not able to garner the planned customer base.

### **American Virtual Cloud Technologies Inc.**

American Virtual Cloud Technologies, Inc. and two of its subsidiaries filed for Chapter 11 protection in January, 2023. The need for Chapter 11 protection arose primarily by an inability to operate profitably as a going concern and a waning liquidity position. The company had a cloud-based, real-time communications platform, offering proprietary unified communications as a service, communications platform as a service,

Microsoft Teams Direct Routing as a Service, and SIP Trunking as a Service capabilities. It supported the digital and cloud transformation of mid-market and enterprise customers across virtually any device, on virtually any network, in virtually any location.<sup>17</sup> Moreover, though the company managed to have strategic partnerships with AT&T, IBM/Kyndryl, and Etisalat it was unable to attract the customer base it needed.

## **INSOLVENT DATA CENTRE AND CLOUD SERVICE PROVIDER**

The pertinent factors described above for insolvency of DCs and CSPs are the same when the entity is a combination of a DC and a CSP. However, even though a framework for insolvency of DCs and CSPs is to evolve, a quick resolution and availability of interim finance, as in the case of Sungard Availability Services LP, can minimize disruptions for customers.

Also, some of the factors enumerated above were listed by the CEO of Sungard at the time it filed for bankruptcy; ‘challenges in capital structure, COVID-19, macroeconomic trends, delayed customer spending decisions, insourcing, reduction in IT spending, energy inflation and reduction in demand for certain services’.<sup>18</sup>

### **Sungard Availability Services LP**

Sungard Availability Services LP filed for Chapter 11 bankruptcy in April, 2022 with simultaneous proceedings in Canada and UK: three years after settling a previous Chapter 11 filing as it continued to be overleveraged. Although the company eliminated more than \$800 million in debt in its last Chapter 11 filing, the company still had \$424 million of debt on its books, which it could not service.<sup>19</sup> Incidentally, the company also had operations in India though they were not affected by bankruptcy.

11:11, a managed infrastructure solutions provider focused on cloud, security, and connectivity solutions, acquired in early November, 2022, Sungard AS’ Cloud and Managed Services (CMS) business, consulting business, and four DCs. Similarly, 365, a leading provider of network-centric colocation solutions, too acquired in early November, 2022, a majority of Sungard AS’ U.S.-based Co-location DCs and Network Services business<sup>20</sup>. On the other side of Atlantic managed services company Redcentric Solutions (RSL) bought three DCs of the UK branch of Sungard in June 2022.<sup>21</sup>

### **UKCloud**

The example of UKCloud should serve as an example of a cautionary tale for India. MeitY has floated a tender in last quarter of calendar year 2022 for selection of a Program Management Agency for setting up 200MW hyperscale DCs. This National Government Cloud (NGC) was to

firewall all data generated by various arms of Government including sensitive defence data.<sup>22</sup>

UKCloud was a British public-sector cloud provider, established in 2011, and boasted customers such as central and local governments, the police, the Ministry of Defence, the National Health Services, Home Office, Driver and Vehicle Licensing Agency, and Ministry of Justice, Genomics England, the University of Manchester, and more was placed into liquidation in October, 2022. Also, UKCloud was a prominent supplier to government procurement frameworks such as G-Cloud and the government's Digital Marketplace.<sup>23</sup> However, the British Government did not have the budgetary resources to support UKCloud.

The move to liquidate UKCloud drew a lot of criticism. 'UKCloud do an awful lot of the heavy work at proof-of-concept stage in UK government, only to have the actual contract for delivery – which can run into hundreds of millions of pounds – wrested away and given to a hyperscale cloud provider'.<sup>24</sup> 'It's hard to see what is gained by actively undermining a successful British company in this way',<sup>25</sup> a sentiment shared by several within UKCloud's 300-strong partner and reseller community. 'If 90% of your customer base is public sector, then the Cabinet Office is effectively making it a foregone conclusion by forcing all of their paying clients to leave'.<sup>26</sup>

As mentioned above Meity is in the process of setting up a NGC which is going to be repository of sensitive information akin to the UKCloud. Also,

MeitY has recently awarded a contract to restructure National Informatics Centre (NIC) as well as Digital India Corporation (DIC). NIC provides the government with essential digital services such as email, network infrastructure, data centres, software applications, cloud services, chat platforms, security measures, and more. DIC has played a key role in developing important digital services such as Digilocker that allow access to e-versions of documents, and Government e-Marketplace (GeM), the centralised platform for public procurement. The real risk lies in the private sector potentially prying strategic control from the government's hands.<sup>27</sup>

Thus, it would be good for us to imbibe the lessons of UKCloud. The article now examines the peculiarities that will arise from the insolvency of a DC/CSP.

## **EFFECT OF OTHER LAWS ON INSOLVENCY OF DATA CENTRE AND / OR CLOUD SERVICE PROVIDERS**

IBC had been subjected to numerous legal challenges since its enactment vis-à-vis its standing versus other acts and statutes: State Statutes, Prevention of Money Laundering Act, State Tax Laws, Securities and Exchange Board of India Act, Prevention of Corruption Act, Income



Tax Act, Customs Act etc. IBC has triumphed other laws in all of the aforesaid instances as it was a latter law with a non-obstante clause under section 238. However, this may not hold true going forward as new laws get enacted with their own non-obstante clauses.

The draft Data Centre Policy 2020<sup>28</sup> (DCP) stipulates that DCs should be declared as an Essential Service under The Essential Services Maintenance Act, 1968 (ESMA). The rationale provided is that the inclusion of DC under the ESMA will enable seamless continuity of services even during times of calamities or crisis. The Telecom Regulatory Authority of India (TRAI) too endorses the aforesaid viewpoint.<sup>29</sup> ESMA primarily deals with striking employees, is a central legislation, though many states have enacted their own versions of ESMA.

If enacted in the present form, the interaction of ESMA with IBC will give rise to a conflict. Both the legislations have a non-obstante clause; though IBC is the latter legislation, the notification for DCs falling under ESMA will be issued post commencement of IBC. Which of the two shall prevail?

One may contend that ESMA may not conflict with IBC as ESMA is geared towards ensuring employees perform their respective tasks. However, in most cases, admission to an insolvency is a lagging indicator of stress. Months before a corporate debtor (CD) is admitted, it would have started delaying payments to creditors, utilities, statutory authorities, employees etc. In such scenario employees are exploring opportunities elsewhere. Thus, if ESMA is enforced, will a managerial person be allowed to resign and leave, if the committee of creditors (CoC) is agreeable to such an act? What happens if no resolution plan is received, and the National Company Law Tribunal (NCLT) orders a liquidation under section 33 of IBC? Can ESMA still mandate employees to continue working? Section 33(7) states that *‘the order for liquidation shall be deemed to be a notice of discharge to the officers, employees and workmen of the corporate debtor, except when the business of the corporate debtor is continued during the liquidation process by the liquidator’*.

The TRAI paper further recommends that DCs shall be included in the list of exemptions from inspections under provisions of the Factories Act, 1948, Shops and Commercial Establishment Acts, other labour laws, and laws on wages. Some states have already granted full exemption from the provisions of Factories Act, 1948, labour laws etc. In such a scenario, will the workmen dues of twenty-four months and dues of employees other than workmen for twelve months be subjected to waterfall under section 53 of IBC?

Another law, that will influence insolvency of DCs/CSPs, is the Digital Personal Data Protection Act, 2023 (DPDPA). DPDPA defines Data Principal as an individual to whom the personal data relates and where

such individual is a child includes the parents or lawful guardian of such a child. Consent of Data Principal is required to process his/her personal data for the specified purpose. However, the Act under section 4 states that personal data of a Data Principal can be processed for lawful purposes (without consent) and certain legitimate uses. Furthermore, under section 7 of DPDPA, certain legitimate uses means, amongst others, that personal data of Data Principal can be Processed<sup>30</sup> for compliance with any judgement or decree or order issued under any law for the time being in force in India, or any judgement or order relating to claims of a contractual or civil nature under any law for the time being in force outside India.

This brings up a question. Can the Insolvency Professional (IP), who may be in the shoes of Data Fiduciary or Data Processor, in case of an insolvency, sell data and more so share data of a third party for recovery of debt? Regulation 29 of CIRP Regulations deals with sale of assets outside the ordinary course of business:

The Resolution Professional may sell unencumbered asset(s) of the corporate debtor, if he is of the opinion that such a sale is necessary for a better realisation of value under the facts and circumstances of the case: Provided that the book value of all assets sold during corporate insolvency resolution process period in aggregate under this sub-regulation shall not exceed 10% of the total claims admitted by the Interim Resolution Professional.

The data *per-se* will not have any recorded book value.

Furthermore, section 14(1)(d) of IBC puts a moratorium prohibiting, *‘the recovery of any property<sup>31</sup> by an owner or lessor where such property is occupied by or in the possession of the corporate debtor’*. This clause is intended to keep a going concern. The owner is compensated for aforesaid harm by granting a priority under Regulation 31(b) of CIRP Regulations; *‘Insolvency resolution process costs under section 5(13)(e) of IBC shall mean amounts due to a person whose rights are prejudicially affected on account of the moratorium imposed under section 14(1)(d) of IBC’*. Additionally, section 18 mandates RP to take control and custody of CD’s assets. However, the explanation to the section excludes *‘assets owned by a third party in possession of CD held under trust or other contractual arrangement including bailment’*. Thus, can a RP share & disclose data for recovery of debt under DPDPA which does not even belong to the CD?

Also, section 36(4) of IBC buttresses the argument of not using third party assets. The said section defines assets that will not form part of the liquidation estate assets and shall not be used for recovery in the liquidation, i.e., *‘assets owned by a third party which are in possession of the corporate debtor, including assets held in trust for any third party’*. Thus, the intersection of the aforesaid two acts may create a conflict. Furthermore, DPDPA under section 38(2) states that *‘in the event of*



any conflict between a provision of this Act and a provision of any other law for the time being in force, the provision of this Act shall prevail to the extent of such conflict’.

A few of the IBC procedures will require additional steps by the IP due to DPDPA. Section 29A lists out criterion wherein a person is not eligible to submit a resolution plan. A number of stipulated conditions pertain to individuals, who will be a Data Principal under DPDPA and the information about such individuals may not be available in public domain. Similarly, Regulation 35A of CIRP Regulations requires the RP to determine whether the CD has been subjected to any PUF<sup>32</sup> transactions. In both of the aforesaid situations the IP will have to seek ‘specific-order’ from NCLT, due to the requirements of DPDPA, to access the data of specific individuals, to form an opinion.

## **UNIQUE ASPECTS OF INSOLVENCY OF CLOUD SERVICE PROVIDERS AND DATA CENTRES**

### **Aspects pertaining to moratorium under section 14**

As described above a moratorium is imposed from the insolvency commencement date. The moratorium under section 14(1)(d) prohibits recovery of any property by an owner or lessor where such property is occupied by or in the possession of the CD.

However, what happens when the CD has protection of moratorium but does not have the cash to provide services? 2e2, the datacentre service provider and systems integrator that went into administration in 2013 asked its customers for nearly £1M in funding if they wanted uninterrupted services and access to their datacentre facilities. The enterprise-level users were asked to pay most of the datacentre costs and smaller businesses are being asked to pay £4,000 plus VAT.<sup>33</sup> In such instances, if the CD is unable to raise interim finance will the CoC provide for such finance, or the debtor must fall back on customers? Also, will such customer finance be treated as interim finance? This is because section 5(15) of IBC defines interim finance as any financial debt raised by the RP during the insolvency resolution process period. Further, financial debt under section 5(8) of IBC includes any amount raised having the commercial effect of borrowing.

Another debate will ensue on the definition of essential goods and services under section 14(2) of IBC; the supply of these shall not be terminated or suspended or interrupted during moratorium period. Regulation 32 of CIRP Regulations further clarifies that essential goods shall mean electricity, water, telecommunication services and information technology services to the extent these are not a direct input to the output produced or supplied by the CD. The regulation also gives an example, that water supplied to a CD will be essential supplies for drinking and sanitation purposes, and not for generation of

hydroelectricity. In case of a DC, electricity, water, telecommunication services, and information technology services may be classified as ‘direct input to the output produced’. It is highly likely that the aforesaid will be classified as critical goods or services to protect the value of CD. However, critical goods or services require payment for the period post the insolvency commencement date and the debtor should have funds available to that extent.

### **Undervalued transactions under section 45**

The first requirement in determining an undervalued transactions is its valuation. This is easier said than done; an OECD report states that though data is called the new oil putting precise numbers on its costs and benefits remain elusive. The report states that data have a specific combination of economic characteristics that distinguish them from other production inputs and have implications for the measurement of their value. Information on prices and volumes might not adequately reflect users’ valuation of their data. Due to the specific characteristics of data, data markets are difficult to establish and sustain. Indeed, significant amounts of data collected by private entities are not traded in markets. As most data are not traded, only a small portion of their value can be measured based on market statistics.<sup>34</sup>

Moreover, the three commonly used methods<sup>35</sup> to value data will not be appropriate as they primarily deal with valuation of data basis their existing use. However, the valuation of data depends not only on its current use but also on the alternate uses.

The bankruptcy of Caesars Entertainment Corp in 2015 gives us a glimpse of value that resides in data. The most valuable asset in the bitter bankruptcy feud wasn’t the opulent Roman themed resort at the heart of the Las Vegas strip but the big-data customer royalty programme valued by creditors at USD 1 billion. *‘Creditors groups alleged that transaction involving the loyalty programme were insider deals, sponsored by Caesars parent entity and private equity sponsors, Apollo Global Management LLC and TPG Capital’.*<sup>36</sup> Thus, creditors were considering the transaction as undervalued and preferential. Thereafter, the cofounder of Apollo Global Management, resigned from the board of Caesars after an investigation found that he had led a deal that was undervalued and short-changed the now bankrupt unit.<sup>37</sup>

An example from the COVID-19 period too exhibits the alternate-use valuation of data; not of bankruptcy but of a restructuring under distress. United Airlines and American Airlines secured multibillion dollar loans by collateralizing MileagePlus and AAdvantage loyalty programs. United’s customer data was valued at USD 20 Bn whereas its market cap was about USD 9Bn. American’s data was valued in a range of USD 19.5 Bn to USD 31.5Bn whereas its market cap was less than USD 8Bn.<sup>38</sup>

Finally, section 45 requires that in case there is an undervalued transaction it should be made void and reversed. Though, the monetary value may accrue back to CD how likely it is that the data will revert? The data may have taken myriad forms, may have been on-sold, or may have been fed to train an artificial intelligence model and thus may no longer be an exclusive proprietary asset of the CD.

### **Class of creditors**

As described above the data has a monetary value, though the exact determination of that value is subjective. In case the data has been on-sold or the data-owners are not able to remove their data and change the service provider due to the insolvency moratorium, shouldn't the data owners be treated as some form of 'class of creditors' to the extent of their loss in value? The value may be determined basis any of the valuation methods or may be determined as defined in the contract; usually, an overall cap linked to revenue under that contract for the CSP. Also, how different are the aforesaid data owners from the folks who use safe-deposit lockers in banks for their valuables or the fixed deposit holders in an insolvency apart from the fact that the data owners do not earn interest.

### **Practicality of implementation of insolvency related clauses**

It is likely that *ipso facto* clauses will be built into contracts between the customer and the DC/CSP; the model contract of MeitY has a clause on similar lines.

Hon'ble Supreme Court in *Gujarat Urja Vikas Nigam Limited*<sup>39</sup> had stated that barring the circumstance of 'death of a CD' the *ipso facto* clauses will be allowed to function.

Given that the terms used in Section 60(5)(c) are of wide import, as recognized in a consistent line of authority, we hold that the NCLT was empowered to restrain the appellant from terminating the PPA. However, our decision is premised upon a recognition of the centrality of the PPA in the present case to the success of the CIRP, in the factual matrix of this case, since it is the sole contract for the sale of electricity which was entered into by the Corporate Debtor. In doing so, we reiterate that the NCLT would have been empowered to set aside the termination of the PPA in this case because the termination took place solely on the ground of insolvency. The jurisdiction of the NCLT under Section 60(5)(c) of the IBC cannot be invoked in matters where a termination may take place on grounds unrelated to the insolvency of the corporate debtor. Even more crucially, it cannot even be invoked in the event of a legitimate termination of a contract based on an *ipso facto* clause like Article 9.2.1(e) herein, if such termination will not have the effect of making certain the death of the corporate debtor. As such, in all future cases, NCLT would have to be wary of setting aside valid contractual terminations

which would merely dilute the value of the corporate debtor, and not push it to its corporate death by virtue of it being the corporate debtor's sole contract (as was the case in this matters unique factual matrix).

Nevertheless, in case of an insolvency of DC or CSP, the applicability of such *ipso facto* clauses may come in question and be subjected to litigation.

Reserve Bank of India (RBI) Directions<sup>40</sup> on outsourcing of information technology services mandate that in order to mitigate the risk of unexpected termination of the outsourcing agreement or insolvency / liquidation of the service provider, regulated entities (RE) shall retain an appropriate level of control over their IT-outsourcing arrangement along with right to intervene, with appropriate measures to continue its business operations. Further, it shall be ensured that availability of records to the RE and the RBI will not be affected even in case of liquidation of the service provider. Similarly, Securities and Exchange Board of India<sup>41</sup> (SEBI) mandates that an agreement/contract made by an entity regulated by SEBI, shall include a terms/provisions/clauses in its outsourcing agreement, specifying the resolution process for events of default, insolvency, etc. and indemnities, remedies, and recourse available to the respective parties.

However, both RBI and SEBI directions do not delve into the details of actions to be taken in case of an insolvency.

### **Treatment of subsidized assets**

Several state governments are giving a host of subsidies to set-up DCs: land at a concessional rate, capital subsidy in building and infrastructure, rebate on building fee etc. How will such subsidies be treated in case the successful resolution applicant wants to use the facility for purpose other than a DC; for example, will the land be valued at full rate and the state government have a right to the differential amount as their claim?

### **Insolvency is not applicable to REITs**

Globally, several DCs are part of a REIT i.e., legal form of a trust; Cyxtera described above. India will not be an exception to this trend. Global REITs like Digital Realty, Equinix, and Iron Mountain, have invested in India. Moreover, private equity investors who are the largest investors in DCs may also choose to create a REIT. Alternate Investment Funds too can be incorporated in India in the form of a trust, amongst other options.

However, trusts suffer from one drawback i.e., insolvency cannot be instituted against them; section 2 of IBC which specifies against whom insolvency can be filed does not include trusts.

## OPERATIONAL ASPECTS TO CONSIDER

### Access to data in required format

In case of a potential insolvency, while data could be accessed, it may not be in a format that is usable to customers. Lack of operational transparency within the cloud may result in providers holding and processing data strictly not in accordance with customers' needs. Under the layers of abstraction, cloud providers may or may not decide to change the format of the data or store it in the way they seem fit for their infrastructure or for their platform.<sup>42</sup>

### Time required to retrieve data

Nirvanix, the US-based cloud storage provider gave customers two weeks' notice before it was to shut down when it filed for Chapter 11 bankruptcy protection.<sup>43</sup> Such a situation brings us to one of the most significant challenges in cloud storage; the difficulty in moving large amounts of data from a cloud. While bandwidth has increased significantly over the years, even over large network links it could take days or even weeks to retrieve terabytes or petabytes of data from a cloud. For example, on a 1 Gbps link, it would take close to 13 days to retrieve 150 TB of data from a cloud storage service over a WAN link.<sup>44</sup> The situation would aggravate as all the customers will be trying to pull out data from the 'pipes' at the same time. Customers thus need to plan methods of data retrieval in the event their cloud service provider goes bankrupt.

## MITIGATION MEASURES

IBC was drafted at a time when DCs and cloud computing were not as prevalent as they are today. The financial architecture of the world has changed since then. Cloud computing has become the norm; DC and/or CSP may have data of RBI regulated entities, SEBI regulated entities and Insurance Regulatory and Development Authority of India (IRDAI) regulated entities. In addition, all the adjacent 'techs' i.e., fintech, insurtech etc. store their data in cloud. Insolvency thus can create disruption in the larger financial ecosystem.

Also, according to a BIS report,<sup>45</sup> *'financial institutions that were using on-premises technological infrastructure at the end of 2020 had plans to switch, on average, 40% of their business operations to public cloud during 2021'*. It is highly likely, that in India too, this trend will exacerbate in the years to come.

To mitigate such a situation a modus-operandi equivalence of section 227 of IBC may be envisaged; the Central Government in consultation with 'appropriate regulator' (to be constituted) notify DCs or CSPs for the purpose of insolvency. Admittedly, the law will not be applicable to DCs and CSPs outside the jurisdiction of Indian authorities, nevertheless,

due to data-localization<sup>46</sup> requirements, a segment of the important data will be covered.

*Vis-à-vis* DCs and CSPs not under Indian jurisdiction, subjecting such asset class to rules of cross-border insolvency may be explored; this may offer minor benefits, as other jurisdictions too would be grappling with aspects of insolvency discussed in this paper.

It is over three years since the report on cross border insolvency as well as the rules and regulations therein have been released. However, for some strategic reasons the legislation has been deferred. Though, a delay in implementation is detrimental to creditors<sup>47</sup> but a measured sectoral approach for implementing cross-border insolvency, in this case, DCs and CSPs can help test the waters. This will be an obverse mirroring of the recommendations in the cross-border insolvency report; herein a sector is expressly included whereas in the report some sectors were being excluded.

The only other way to mitigate the risk of insolvency is by usage of more than one CSP.

## CONCLUSION

Insolvency law in India is evolving, and Insolvency and Bankruptcy Board of India and the legislature had been proactive to iron out any deficiencies. Recent amendment to section 14 of IBC wherein an exception was carved out for a CD who has entered into transactions, arrangements or agreements, for the Production Sharing Contracts, Revenue Sharing Contracts, Exploration Licenses and Mining Leases made under the Oilfields (Regulation and Development) Act, 1948 (53 of 1948) is a case in point.

Similarly, the law around DCs and CSPs is evolving.

There's a vacuum in terms of rules, norms and agreements that govern digital trade. Several models are vying for influence. China promotes an approach rooted in sovereignty and security. Several data protection laws, including the Cybersecurity Law, the Data Security Law, and the Personal Information Protection Law form the core of a system based on control over and access to data through localisation requirements. The European Union has made privacy central to its approach, through its GDPR legislation. By contrast, America largely puts commerce first.<sup>48</sup>

Jurisprudence at the moment is scant. Section 363(b)(1) of the US Bankruptcy Code provides that a company can sell its customers data (personally identifiable information about individuals) if its privacy policy unambiguously permits such a sale. However, if the privacy policy does not so permit, a consumer privacy ombudsman has to be appointed who after notice and hearing may approve such a sale after giving due consideration to facts, circumstances and conditions. Though, not



pertaining to a DC or a CSP, the guidelines for sale of data in US bankruptcy, were laid down in the case of *Federal Trade Commission v. Toysmart.com*. Toysmart was a popular online retailer who collected customer information, and had a privacy policy not to share customers information with outside parties. Toysmart attempted to sell customer data in bankruptcy. Federal Trade Commission sued to stop the same. The resultant settlement has been the template for sale of personal identifiable information. The conditions were '(a) customer information was sold as part of a package with other assets, (b) the buyer was in same line of business, (c) buyer agreed to Toysmart's privacy policy and (d) the buyer took affirmative consent from Toysmart's customers'.<sup>49</sup>

DPDPA, though not explicitly addressing insolvency, has provided a carve out under section 17(e) by allowing processing of data if required for a scheme of compromise or arrangement or merger or amalgamation of two or more companies or a reconstruction by way of demerger or otherwise of a company, or transfer of undertaking of one or more company to another company, or involving division of one or more companies, approved by a court or tribunal or other authority competent to do so by any law for the time being in force.

In such a fluid scenario, India can establish a precedence to establish a soft law that cater to DC and CSP insolvencies after public discussion and deliberation amongst experts. The law should cover modalities of interaction with other data laws, structures to which insolvency law will be applicable, aspects of moratorium, methods of valuation, configuration of class of creditors, determination of undervalued transactions, methodology to evaluate resolution plan in case of a proposed alternate usage of assets and the operational aspects.

<sup>1</sup> In this paper the words insolvency and bankruptcy have been used interchangeably.

<sup>2</sup> Ministry of Finance, Department of Economic Affairs, Policy and Planning Unit, The Gazette of India, CG-DL-E-11102022-239561, No 262, New Delhi, Tuesday, October 11, 2022.

<sup>3</sup> Avendus, Data Centres Powering Digital India, May, 2023, p. 3.

<sup>4</sup> Ministry of Electronics and Information Technology, GI Cloud (Meghraj), Audit Status of Cloud Service Providers.

<sup>5</sup> Hyperscale means ability to rapidly scale-up by adding resources i.e., servers and storage. Major Hyperscalers are AWS, Microsoft Azure, Google Cloud and Meta Platform.

<sup>6</sup> Lin B. (2023), "Companies look to pay tech vendors based on business outcomes not usage", The Wall Street Journal, July 5; *"Recent interest in outcome-based pricing—which has been around for decades but not gained widespread traction in technology—is being driven by tighter technology budgets and customer pushback against big cloud-computing charges, analysts say. Most cloud providers charge customers based on the amount of computing power they use, on an as-needed basis, but that can lead to huge, unexpected cloud bills when usage surges"*.

<sup>7</sup> Roy S. and Bhalla T. (2023), "How start-ups are cutting cloud costs, renegotiating deals with service providers", *The Economic Times*, March 27.

<sup>8</sup> Miller R. (2023), "After a Record 2022, Limits on Land and Power May Slow Data Center Growth in 2023", Data Center Frontier, February 10; *"In many markets developers will need to work much harder at securing land well in advance (3 years) of needing it and should pursue cover land plays while waiting for utilities to get the power to the site"*.

<sup>9</sup> Lehuédé S., (2022), "Big Tech's New Headache: Data Centre Activism Flourishes Across the World", LSE, November 2; *"Intense water usage in Cerrillos, Chile; Data centres in Ireland forecast to use over one quarter of the country's electricity supply by 2028; Agriculture protection in Netherlands"*.

<sup>10</sup> Cappella N., (2023), "Data Centre protests are on rise but are they effective?", Techerati, Apr 20; *"Netherlands: Activists vs. Microsoft; Northern Virginia: Citizens for Fauquier County vs. Amazon; East London: Campaign to Protect Rural England vs. Digital Reef."*

<sup>11</sup> Clark S., (2023), "Amazon, Microsoft, Google, push back on UK regulator's cloud competition concerns", mlex, July 7.

<sup>12</sup> Hayashi Y. and McKinnon J. (2023), "U.S. Looks to Restrict China's Access to Cloud Computing to Protect Advanced Technology", The Wall Street Journal, July 4.

<sup>13</sup> Bousquette I. (2023), "The AI Boom is here. The cloud may not be ready", The Wall Street Journal, July 10; *"Much of the infrastructure wasn't built for running such large and complex systems. Cloud sold itself as a convenient replacement for on-premise servers that could easily scale up and down capacity with a pay-as-you-go pricing model. Much of today's cloud footprint consists of servers designed to run multiple workloads at the same time that leverage general-purpose CPU chips. The existing economic models of primarily the public cloud environment weren't really optimized for the kind of demand and activity level that we're going to see as people move into these AI systems. On premises, companies could save on costs like networking and data storage"*.

<sup>14</sup> Zhang M. (2023), "Dell's Unexpected Data Centre Migration: Consequences of Cyxtera's Bankruptcy", Dgtl Infra, July 24.

<sup>15</sup> Avendus, Data Centres Powering Digital India, May 2023, p. 3.

<sup>16</sup> "Data center operator Cyxtera files for bankruptcy", *Reuters*, June 5, 2023.

<sup>17</sup> New Generation Research, (2023), "American Virtual Cloud Technologies Inc. – "Pure Play Cloud Communications and Collaboration Company", Files for Bankruptcy; Onetime SPAC cites Burdensome Public Company Costs, Will Continue Sale Efforts in Courts", Bankruptcy Data, January 11, 2023.

<sup>18</sup> Riley D. (2022), “Cloud Services Provider Sungard AS files for Chapter 11 bankruptcy”, Silicon Angle, April 11.

<sup>19</sup> *Ibid.*

<sup>20</sup> “Sungard AS Successfully Completed Transactions with 11:11 Systems and 365 Data Centres”, Business Wire, November 3, 2022.

<sup>21</sup> Judge P. (2022), “Redcentric buys remaining Sungard UK data centers from bankrupt business”, DCD, June 8.

<sup>22</sup> Thathoo C. (2022), “Govt kicks off bid to develop National Govt Cloud, Plans 200MW Data Centre”, Inc42, November 15.

<sup>23</sup> Jowitt T. (2022), “UK Cloud placed into compulsory Liquidation”, Silicon, October 26.

<sup>24</sup> Donnelly C. (2021), “Cabinet Office slammed after advising users to ditch UKCloud as further investment nears”, ComputerWeekly.com, November 29.

<sup>25</sup> *Ibid.*

<sup>26</sup> *Ibid.*

<sup>27</sup> Singh P. (2023), “India gets BCG, McKinsey to fix its digital infra. The price is more than the fee”, The Ken, June 13.

<sup>28</sup> Ministry of Electronics & Information Technology (e-Governance Division), Data Centre Policy 2020- Draft for discussion, No.xxx/YY/2020, p. 9.

<sup>29</sup> Telecom Regulatory Authority of India, Recommendations on Regulatory Framework for Promoting Data Economy Through Establishment of Data Centres, Content Delivery Networks, and Interconnect Exchanges in India, , November 18, 2022, pp.14, 19, 20.

<sup>30</sup> “Processing” in relation to personal data, means a wholly or partially automated operation or set of operations performed on digital personal data, and includes operations such as collection, recording, organisation, structuring, storage, adaptation, retrieval, use, alignment or combination, indexing, sharing, disclosure by transmission, dissemination or otherwise making available, restriction, erasure or destruction.

<sup>31</sup> Section 3(27) of IBC defines property as including money, goods, actionable claims, land and every description of property situated in India or outside India and every description of interest including present or future or vested or contingent interest arising out of, or incidental to, property.

<sup>32</sup> PUFEE stands for Preferential transactions under Section 43, Undervalued transactions under section 45, Fraudulent transactions under section 66 and Extortionate transactions under section 50 of IBC.

<sup>33</sup> “2e2 datacentre administrators hold customers’ data to £1m ransom”, Computerweekly.com, February 8, 2013.

<sup>34</sup> OECD publishing, Measuring the value of Data and Dataflows, OECD Digital Economy Papers, December 2022, No 345, p. 6, 27.

<sup>35</sup> The three commonly used methods are: market approach i.e., basis the value in market. However, active markets for data are handful with low volumes and darkweb is not an appropriate legal benchmark; income approach i.e., cash flows that are attributable specifically to the dataset and cost approach i.e., costs incurred, and investments made for that particular dataset.

<sup>36</sup> OaKeefe K., (2015), “Real Prize in Caesar’s fight: Data on Players”, the Wall Street Journal, March 19.

<sup>37</sup> Rucinski T., and Hals T., (2016), “Apollo architect of Caesars deal quit bankrupt unit’s board – documents”, Reuters, April 6.

<sup>38</sup> Laney D. (2020), “Your company’s data may be worth more than your company”, Forbes, July 22.

<sup>39</sup> *Gujarat Urja Vikas Nigam v. Mr. Amit Gupta & Ors.*, 2021, The Supreme Court of India Civil Appellate Jurisdiction, Civil Appeal No. 9241 Of 2019, March 8, 2021.

<sup>40</sup> Master Directions on Outsourcing of Information Technology Services, RBI/2023-24/102, DoS.CO.CSITTEG / SEC.1 / 31.01.015 / 2023-24, April 10, 2023.

<sup>41</sup> Framework for adoption of cloud services by SEBI regulated entities, Securities and Exchange Board of India, Circular SEBI/HO/ITD/ITD\_VAPT/P/CIR/2023/033, March 6, 2023.

<sup>42</sup> Curran N., (2022), "Is big cloud too big to fail? What cloud concentration risk means for the future of banking", Finextra, February 4.

<sup>43</sup> Dobie A. (2013), "Failed Cloud Storage Provider Nirvanix files for bankruptcy", information age, October 3.

<sup>44</sup> "Nirvanix's demise emphasizes the need for hybrid clouds and storage mobility", Forrester, September 18, 2013.

<sup>45</sup> Crisanto J. et al (2022), "Big tech interdependencies – a key policy blind spot", FSI Insights - No. 44, Bank for International Settlements, July 5.

<sup>46</sup> Several legislation provide for Data Localization: Companies Act 2013, under section 94 require covered organizations to store data at the registered office; RBI Notification RBI/2017-18/153 DPSS.CO.OD No. 2785/06.08.005/2017-2018 dated April 6, 2018 requires all banks, system participants, service providers, intermediaries, payment gateways, third party vendors and other entities (by whatever name referred to) in the payments ecosystem, who are retained or engaged by the authorised / approved entities for providing payment services to store full end-to-end payments data in India; IRDAI Regulations requires all insurers to store insurance data within India; SEBI indirectly provides for the same by requiring the regulated entities to store data only with the data-centres empanelled by MeitY and holding a valid Standardized Testing and Quality Certification audit status.

<sup>47</sup> Mehta D. (2022), "Delay in implementing cross border insolvency is detrimental to Indian creditors", *The Economic Times*, Sep 6.

<sup>48</sup> In Asia Data Flows are part of a new great game, *The Economist*, July 10, 2023.

<sup>49</sup> Kalman A. (2021), "Data Privacy in Bankruptcy: Towards a Deux Ex Machina", *Columbia Business Law Review*, March 26.