



# MASTERING REGULATORY DATA

STRATEGIC GUIDE TO BUILD RESILIENT DATA STRATEGY  
FOR FINANCIAL SERVICES ORGANIZATIONS



## Table of Contents

Executive Summary.....	3
Introduction.....	3
Challenges faced by Organizations in Managing Regulatory Data.....	4
The Archetype for Regulatory Data Strategy & Operating Model.....	6
Pillars of Regulatory Data Strategy.....	6
Key Data Roles and Forums for effective Regulatory Data Governance.....	8
Data Roles.....	8
Data Forums .....	9
How we can help in transforming your regulatory data landscape.....	10
Conclusion .....	11

## Executive Summary

Financial Institutions are steadily awakening to the immense potential of data as a powerful asset. Yet, without meticulous stewardship, data can morph into a quagmire of inconsistencies and pitfalls, leading to poor decision-making. Since the Basel Committee issued its “Principles for effective risk data aggregation and risk reporting” (BCBS 239) a decade ago, data quality and its provenance have become a top priority for regulators globally. By prioritizing data standardization and robust controls, financial services industry has significantly improved data quality, integrity, and accuracy, leading to greater confidence in reporting. A

comprehensive data governance framework emerges as a critical and indispensable tool. Building good governance isn't a one-time step, it is an ongoing shift that needs leaders involved every step of the way.

This article aims to provide an overview of how well a defined regulatory data strategy and governance framework can enhance the accuracy, integration, access, security, and management of data across the organization thereby making data a strong ‘corporate asset’.

## Introduction

Robust data management, ensuring data accuracy and completeness, underpins effective regulatory compliance and reduces the risk of regulatory investigations and penalties. Unfortunately, many organizations face challenges in establishing a strong foundation of data accuracy and completeness, resulting in inaccurate regulatory reporting, increased likelihood of regulatory fines and penalties, and elevated operational and reputational risks.

Regulators worldwide are placing a growing emphasis on maintaining high-quality regulatory data repositories to facilitate accurate reporting and ensuring adherence to regulatory

obligations. Many regulators are exploring ways of establishing direct access to regulatory databases to verify the accuracy of regulatory filings. Furthermore, regulatory environment is becoming increasingly complex with regulations like Basel IV, MIFID II, SFDR, APRA's Data Collections Roadmap etc., that necessitate financial institutions to maintain accurate, complete, clean data-stores. The data must also be readily analyzed and actionable to comply with growing regulatory demands. Additionally, with the rise of unstructured data and new technologies like Generative AI in regulatory reporting and regulatory compliance, the challenge of maintaining such a data repository will multiply manyfold in the years to come.



## Challenges faced by Organizations in Managing Regulatory Data

Drawing from our extensive and well-established experience in pioneering regulatory data transformation for prominent financial services institutions, coupled with insights gained from client interactions, we have identified several common challenges that organizations face in maintaining robust regulatory data:



### Fragmented Data Sourcing and Management:

Regulatory data is increasingly becoming large and diverse, with wide range of data types like structured, semi-structured and unstructured data, making it cumbersome to acquire, process, standardize and manage the data effectively.



### Siloed Data repository:

Data is complex, fragmented, and spread across data-silos making it hard to get a single source of truth.



### Non-standard Data Taxonomy:

Absence of standard business definitions of regulatory data elements, for e.g. different business units create and maintain their own taxonomies. When the same data element has different labels or interpretation in different taxonomies, it can lead to incorrect decision-making and inconsistent reporting. Moreover, it is challenging for organizations to collaborate and exchange data across business units, which impedes cross functional projects.



### Absence of Standard Data Quality and Issue Management Framework:

Data quality and accuracy have always been a big challenge. Data coming from various sources, manual interventions along different stages of data lifecycle and inconsistent standards of data processing and distribution severely impact the quality of data, from acquisition to consumption. Without clear ownership of data quality, issues often go unaddressed or are handled inconsistently, resulting in reactive issue management and remediation.



### Ad-hoc Operating Model:

Non-standardized and inconsistent operating model across the organization including non-standardized data lifecycle, processes, personas, roles, and responsibilities.



### Weak Governance and Controls:

Lack of effective Data Governance and Controls framework, absence of standard policies and procedures around data management and a weak regulatory change management framework make it difficult to effectively track and control regulatory data.



### Rapidly evolving technology landscape and large data volumes:

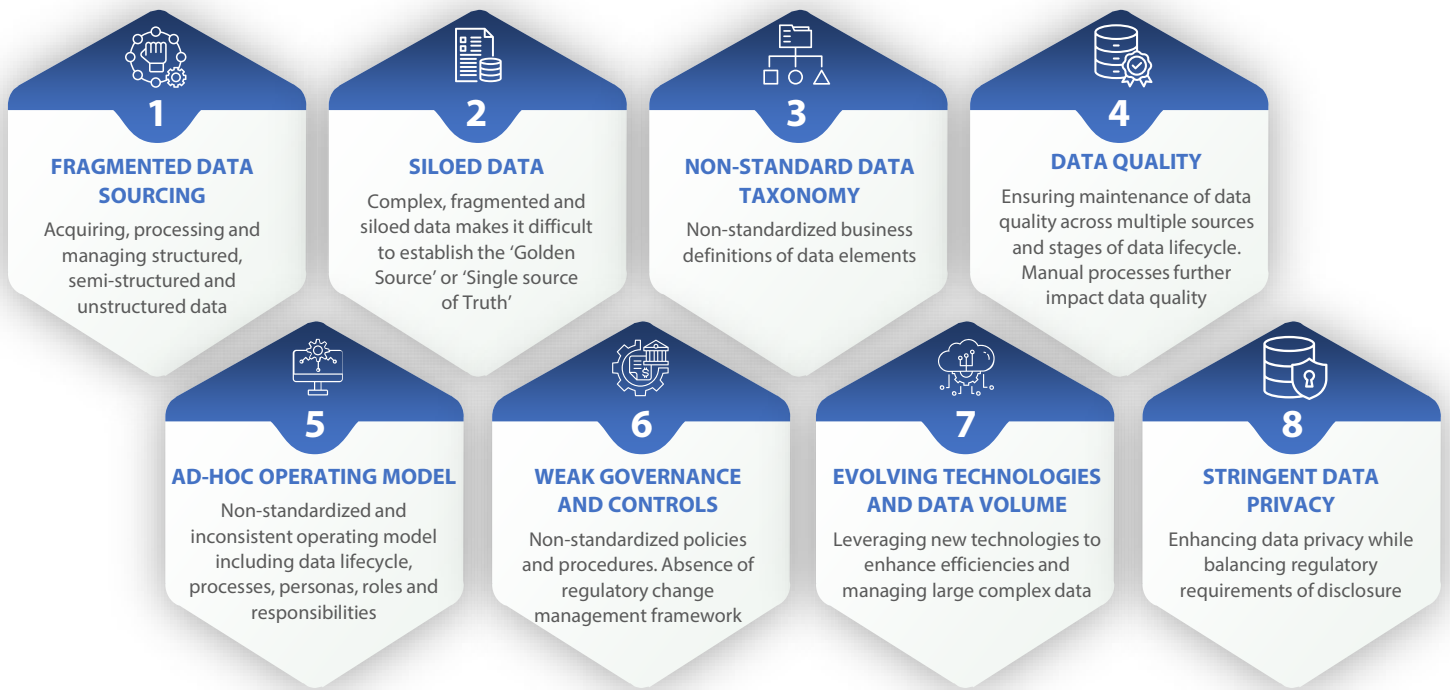
The format and structure of data can change quickly with the introduction of new technologies and new regulatory requirements. This warrants frequent modifications to data systems and procedures to guarantee compliance. Many organizations still rely on legacy systems that may not be able to cope with the volume and complexity of new data types. Organizations are also struggling to develop viable use cases for leveraging new technologies like Generative AI and Blockchain in managing the regulatory data requirements.



### Stringent norms on Data Privacy:

For transparency purposes, regulatory data may need to be made publicly available; however, this may run counter to data privacy laws that demand the protection and anonymization of personal data. It might be challenging to strike a balance between preserving individual privacy and enabling data accessibility. Implementing robust data privacy measures and incident response plan becomes an essential measure.

Addressing these challenges requires a **robust data strategy** that encompasses **data governance, technology, and organizational change**. Banks need to implement standardized data management processes, invest in data quality, and develop a culture of data compliance.



*Illustration 1: Challenges faced by organizations in managing regulatory data*



# The Archetype for Regulatory Data Strategy & Operating Model

It is important to define the end-state vision and objectives of any transformation program. This helps in guiding the transformation program and keeping it on track during the project execution. The end state vision of a typical regulatory data strategy program is:

### Robust operating model:

To develop a standardized, global Operating Model that defines the roles, responsibilities, and processes for regulatory data management and governance. The operating model should ensure traceability, transparency, accountability, and auditability of data while also being scalable and replicable across the enterprise.

### Enhanced data quality:

To enhance the quality of data available for regulatory reporting and compliance across the various data quality parameters.

### Create a centralized repository:

To create a single, standard, central repository of regulatory data elements, which will be made available to all stakeholders.

### Integrate continuous improvement in the End-state Operating Model:

To create an operating model and governance framework with principles of continuous improvement and sustainability acting as the cornerstone of design.

### Identify and implement technology solution:

To define the use cases for technology solutions that will meet the needs of the business, manage the data, and enhance efficiencies. Document the business requirements and identify a platform which can automate processes, enhance operational efficiencies, and reduce possibilities of errors.

### Embed Data Privacy:

Principles of data privacy need to be embedded in the design of future state regulatory data strategy to ensure that compliance is ensured with regulatory requirements while fulfilling the fiduciary responsibilities the bank has towards its customers.



## Pillars of Regulatory Data Strategy

To achieve the end-state vision of the transformation journey, the organization should focus on the following ten pillars of data strategy:

DATA GOVERNANCE		ORGANIZATION						DATA USAGE	
		Roles and Responsibilities		Hierarchy/ Reporting Lines		Key Data Roles			
Metrics and Reporting	DATA TAXONOMY	DATA QUALITY	OVERSIGHT & MONITORING	DATA POND	DATA SECURITY	DATA INNOVATION	Regulatory Reporting	Regulatory Risk	
	Identification	DQ Dimensions	Rules	Data Integration	Access Control	Tools	Regulatory Change		
	Input/ Source	DQ Rules	Reconciliation	Breaking Silos	Cross Border Data	Operating Model			
	Definition	Thresholds	Data Lineage	Mapping	Regulatory Compliance				
	Mapping	Issue Management	KRI Monitoring	Retention, Archival & Deletion	Incident Response				
	Hierarchy		Issue Management						
	Relationship								
Policies and Standards	Tagging								
DATA CULTURE									
Data Literacy			Data Driven Decisioning		Data Accessibility		Training		

Illustration 2: Pillars of Regulatory Data Strategy

## 1. Data Taxonomy:



Setting up a hierarchical structure separating data into specific subject areas/ classes based on common characteristics. This includes:

- a. Creation of centralized data elements inventory
- b. Defining a standard taxonomy including data relationships, hierarchy, mapping etc.
- c. Identification of data owners
- d. Developing guidelines for updating and maintaining the inventory and taxonomy

## 2. Data Quality:



Ensuring regulatory data is accurate, timely, complete, reliable, and consistent. This includes:

- a. Define standard Data Quality Dimensions. Draft Data Quality rules around each dimension and setup acceptable thresholds
- b. Define the KQIs, metrics and dashboards for periodic monitoring of data quality
- c. Define processes for managing data quality issues
- d. Define an issue remediation framework

## 3. Data Oversight and Monitoring:



Monitoring checks performed throughout the data lifecycle from generation to data usage. This includes:

- a. Define Oversight and monitoring framework for the enterprise
- b. Setup data access controls for personas
- c. Monitor KRIs to measure overall effectiveness of data oversight
- d. Define issue management framework to mitigate issues identified

## 4. Data Pond Capabilities:



Building a strong data repository which becomes the 'single source of truth'. Data pond would be a centralized datastore which can help break silos. This includes:

- a. Define data pond capabilities for the integration of data
- b. Formulate guideline for data acquisition, standardization, aggregation and consumption
- c. Define data access controls and document framework for data retention, archival and deletion

## 5. Data Privacy and Security:



Enhancing data privacy and security procedures to ensure data follows standard protocols mandated by the enterprise as well as regulators. This includes:

- a. Define data access controls
- b. Embed Privacy by Design
- c. Define framework for periodic review of data security protocols
- d. Define additional controls based on the organization needs and regulatory requirements e.g. cross-border data transfer requirements

## 6. Data Innovation:



Leveraging technology to enhance efficiency and accuracy in managing data effectively. This includes:

- a. Aligning data innovation goals with enterprise goals
- b. Documenting business requirements for data tools
- c. Enabling selection of IT tool for data management
- d. Vendor evaluation and comparison framework

## 7. Data Culture:



Driving a culture of 'data based decisioning' by

- a. Enhancing data literacy. Periodic communication on data and around data
- b. Organizing relevant training and enablement sessions on data and its usage
- c. Providing access to relevant data and tools for driving data driven insights

## 8. Organization:



Creating a data organization with clear responsibilities for each stakeholder. Moving to a persona-based view of roles in the data organization. This includes:

- a. Detailed personas for regulatory data management
- b. Designing organization hierarchies
- c. Defining clear RACI matrix
- d. Clear Communication channels

## 9. Data Governance:



Establish clear policies, processes, and guidelines for effective data governance and management:

- a. Design policies and procedures with clear guidelines on effective data capture, integration, and reporting.
- b. Processes to promote consistent and coherent practices around data and improve the quality of enterprise data
- c. Governance model, KPIs and reports to monitor health of data and to ensure responsible handling of data across the enterprise
- d. Right tools and technology to provide 360-degree view of data and issues related to data

## 10. Data Usage:



Understand the usage of data across various stakeholder groups and functions. This includes:

- a. Mapping of data usage by personas
- b. Develop acceptable data usage policies and ensuring adherence to policies
- c. Ensure data availability based on acceptable usage policies

## Key Data Roles and Forums for effective Regulatory Data Governance

The pillars of data strategy need to be supported by dedicated regulatory data roles and forums. Earlier, the quality of data reported to regulators was primarily the responsibility of the regulatory report owners. However, ownership and accountability for data is quickly changing to be shared by all three lines of defense. To ensure timely availability of high-quality data for various regulatory requirements, it is imperative for organizations to define some dedicated roles/personas across the business functions.

### Data Roles



**1. Chief Data Officer (CDO):** Oversees the organization's data strategy, ensuring that it is used effectively across all departments. CDO is responsible to lay out the strategy for data governance, analytics, and data-driven decision-making.

#### Key responsibilities:

- **Strategic Leader:** Directs the organization's data strategy, ensuring that it is aligned with business objectives and is integrated across all departments. Promote data-driven decision-making and oversee the development of data infrastructure and capabilities.
- **Collaborative Partner:** CDO collaborates closely with senior leadership, business units, and IT departments to understand data needs, develop solutions, and facilitate cross-organizational collaboration.



**2. Data Owner:** Tasked with execution of policies, guidelines, and memorandums of understanding that specify the proper use of the data, as well as the taking necessary actions to protect it.

#### Key responsibilities:

- **Maintaining data integrity and quality:** Establish a criterion for data quality, defining standards for the data's timeliness, quality, and completeness. Data owners draft procedures for monitoring and improving data quality, evaluate data quality on a regular basis and address any problems with corrective action.
- **Data asset management:** Create a catalogue of all data that falls under their purview, including the format of the data, data source, purpose of the data, storage and archival of data. Data owners are responsible for determining the risks, value, and the lifecycle of each data asset, and subsequently establish a plan for the protection of the data all the way through disposal of data.
- **Data security and privacy:** Create and implement encryption, access controls, technology, and data security rules. Data owners are responsible to observe applicable data privacy laws. They are also responsible for responding to security situations, including data breaches.





**3. Data Steward:** Oversees specific data assets within an organisation, ensuring their quality, accuracy, and security. They work with all the stakeholders to establish data standards and policies.

**Key responsibilities:**

- **Subject Matter Experts:** Experts in the specific data assets they manage. They are familiar with the data's meaning, lineage, quality issues, and potential applications within the organisation.
- **Data Access and Usage Facilitators:** Work with stakeholders to define data access controls, provide data utilisation training, and support data-driven initiatives. They advocate for the proper application of data to generate insights and solve business problems.



**4. Data Custodian:** Oversees the physical storage as well as access control of an organization's data, ensuring its backup, protection from unauthorised access, and availability for authorised users.

**Key responsibilities:**

- **Technical Expert:** Understand data storage technologies, security protocols, and best practices for data management. They oversee data assets' physical storage, backup, and security.
- **Data Access Gatekeepers:** Prevent unauthorised data access, implement data access controls, manage user permissions, and monitor access logs. They ensure that data privacy regulations and organisational policies are followed.
- **Data Availability Champions:** Manage storage systems, optimise data performance, and provide technical support to ensure that data is easily accessible to authorised users. They work towards restricting downtime to a minimum and ensure data is accessible for critical business operations.

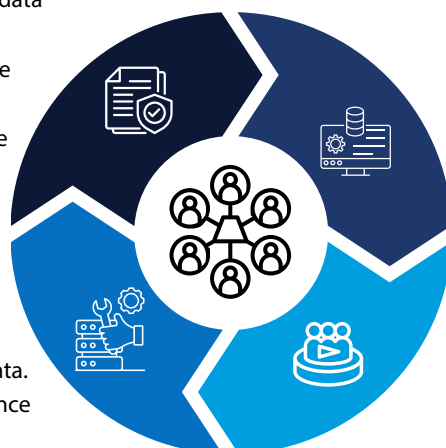
Along with these roles, regulatory data governance model should also be supported with appropriate governance forums and hierarchy. Some of the key forums and committees that support regulatory data governance are listed below-

## Data Forums

### 1. Data Governance Steering Committee:

Comprises of senior executives from various departments across the organization that play a crucial role in setting the strategic direction for data governance initiatives. The committee oversees any implementation projects, provides guidance and support to data owners, and stewards and represents the organization on data governance matters to external stakeholders.

**2. Data Governance Office (DGO):** The Data Governance Office (DGO) is responsible for defining and enforcing guiding principles, policies, and standards across the enterprise data. DGO ensures that the regulatory data governance policies and procedures are implemented consistently and effectively. It serves as a single point of contact for data-related issues and facilitates collaboration across departments.



**3. Data Governance Forum:** Encourages stakeholder collaboration and engagement, ensuring buy-in and commitment to the data governance programme. The insights and feedback are critical for continuously improving data governance practices.

**4. Data Governance Working Group:** Contributes towards defining data ownership, stewardship, and usage guidelines by facilitating cross-functional discussions and knowledge sharing about data management practices. The objective of this group is to raise awareness around data governance principles and their importance within the organization.

## How we can help in transforming your regulatory data landscape

The ever-shifting regulatory landscape and its intricate web of data demands across diverse markets create an imperative for organizations to act decisively.

Our Regulatory Data Strategy and Governance services have empowered our clients to design forward-looking strategies, construct robust frameworks, and establish well-defined processes. These services have also facilitated a proactive approach to managing regulatory data, enabling clients to anticipate and swiftly adapt to data-related changes and technological trends within the current regulatory landscape.

### Our solutions:



**1. Assessment and Design of Regulatory Data Strategy and Governance model** – We support organizations in conducting an in-depth evaluation of their operating model to keep up with current and emerging regulatory data requirements. Leveraging the pillars of regulatory data strategy, industry benchmarks, and our experience in the field, we help in developing practical solutions to seamlessly integrate regulatory data management and governance into existing compliance processes, thereby boosting efficiency and accuracy.

As a part of the design phase of our offering, we help in defining roles and responsibilities, processes, and artefacts for regulatory data management and governance. This enables us to assist clients in understanding and protecting their data, as well as implementing appropriate activities, technology, and controls to ensure that the regulatory data is suitable for intended use.

#### Key outcomes:

- Assessment of current data capture and management processes to analyze how the organization currently collects, stores, processes and consumes regulatory data.
- Identification of challenges in the current state and specific actions to address the challenges, including potential process streamlining, technology solutions, and governance enhancements.
- Data Governance policies and standards, clearly outlining who owns, manages, and controls different types of regulatory data.
- Process flows and RACI matrix, specifying responsibilities, accountabilities, and decision-making authority for stakeholders.
- Roles and responsibilities of governance forums, establishing dedicated bodies to oversee data governance principles.



**2. Design of Data Quality and Issue Management Framework** – We provide organizations with an approach to design and deploy the organizational models, policies, procedures, and standards to effectively govern and sustain the quality of enterprise data, and to track and resolve data quality issues. Our approach leads to proactive monitoring of data quality leading to reduction in reporting errors with complete auditability across the data value chain.

#### Key outcomes:

- Standardized Data Quality and Issue Management Framework.
- Identification of Critical Data Elements (CDEs). Definition of data quality dimensions and creation of comprehensive data quality matrix for CDEs.
- Data quality KPIs and KQIs to measure quality of data. Reports and dashboards with ability to drill-down and slice-dice the data quality results across different dimensions and levels of granularity.
- Well defined Issue remediation framework to facilitate structured root cause analysis (RCA) and resolution of data quality issues.
- Ongoing monitoring of data quality issues and remediation efforts.





**3. Selection of Right Tools and Technology** – We assist organizations to analyze the performance of vendors offering Regulatory data management solutions. Our proven vendor evaluation framework allows to assess the capability of vendors across a range of criteria and business situations to identify the best performing vendors overall, and with specific capability in managing data quality to meet regulatory expectations and increase internal reliance on data.

**Key outcomes:**

- Identify functional and technical requirements for automation of key processes across the data lifecycle.
- A customized framework containing contextualized objective parameters for evaluation of vendor solutions based on the organization's requirements.
- Guided vendor selection for key data quality areas for an optimal data quality setup, encompassing dimension setup, rule definition and key quality indicator (KQI) calculation, comprehensive issue management, workflow optimization, and taxonomy management.
- Ongoing vendor performance monitoring to track and measure a vendor's performance against pre-defined KPIs.

## Conclusion

The increasing complexity of regulations and stringent requirements on maintaining regulatory data quality will force organizations to re-evaluate their regulatory data strategy and operating model. This rethink needs to be anchored around the pillars of data strategy highlighted in this article. It will also require a fundamental shift in the way the regulatory data organization operates, cutting across business lines and support functions to enable seamless, accurate and timely availability of regulatory data for reporting. Investing in regulatory data management lays the groundwork for secure, compliant, and cost-efficient data utilization. This unlocks its full potential, boosting communication and risk mitigation. Our expertise in the field of regulatory data management can help your organization in preparing for the next phase of transformation.



## About the Authors



### Abhinav Jain

**Associate Partner, IC FSI**

[abhinav\\_jain@infosys.com](mailto:abhinav_jain@infosys.com)

Abhinav has over two decades of experience in the financial services industry, with a focus on Risk and Compliance. He has led the modernization engagements of many large global banks in their financial risk initiatives and helped them in multiple areas of regulatory compliance (ranging from setting up data warehouses, regulatory reporting to responding to MRAs)



### Pallavi Mishra

**Principal, IC FSI**

[pallavi.mishra01@infosys.com](mailto:pallavi.mishra01@infosys.com)

Pallavi is a leader in regulatory and data space with strong international experience of over 17 years in helping banks stay at the top of their regulatory agenda by complying to regulations, responding to MRAs, delivering remediation programs and leading regulatory transformation. Her track record boasts triumphant orchestration of multimillion-dollar transformative initiatives and sales endeavours.



### Asheesh Shekar

**Senior Consultant, IC FSI**

[asheesh.shekar@infosys.com](mailto:asheesh.shekar@infosys.com)

Asheesh has over 10 years of experience in Consulting and Banking. His experience has been focused on Regulatory Risk, Managing Regulatory Data, Issue Remediation and Organization Design. He has managed large scale transformation programs for leading players in capital markets and banking. He has also worked with the Government of India on advising them on their programs and policies.



### Sudharma Varadarajan

**Senior Consultant, IC FSI**

[sudharma.v@infosys.com](mailto:sudharma.v@infosys.com)

With 8 years of experience in regulatory compliance, Sudharma focuses on control testing, regulatory reporting, and third-party risk management. She began her career at EY, where she gained experience in regulatory compliance and external audit. Now at Infosys Consulting, she is leading risk management programs for financial institutions ensuring compliance with regulations.

For more information, contact [askus@infosys.com](mailto:askus@infosys.com)



© 2024 Infosys Limited, Bengaluru, India. All Rights Reserved. Infosys believes the information in this document is accurate as of its publication date; such information is subject to change without notice. Infosys acknowledges the proprietary rights of other companies to the trademarks, product names and such other intellectual property rights mentioned in this document. Except as expressly permitted, neither this documentation nor any part of it may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, printing, photocopying, recording or otherwise, without the prior permission of Infosys Limited and/or any named intellectual property rights holders under this document.