

Pre-Bid Meeting for SBI Life – Program DRISHTI

Data Re-engineering for Insights and Strategic Transformation Initiative



Confidential

Business requirements for SBI Life

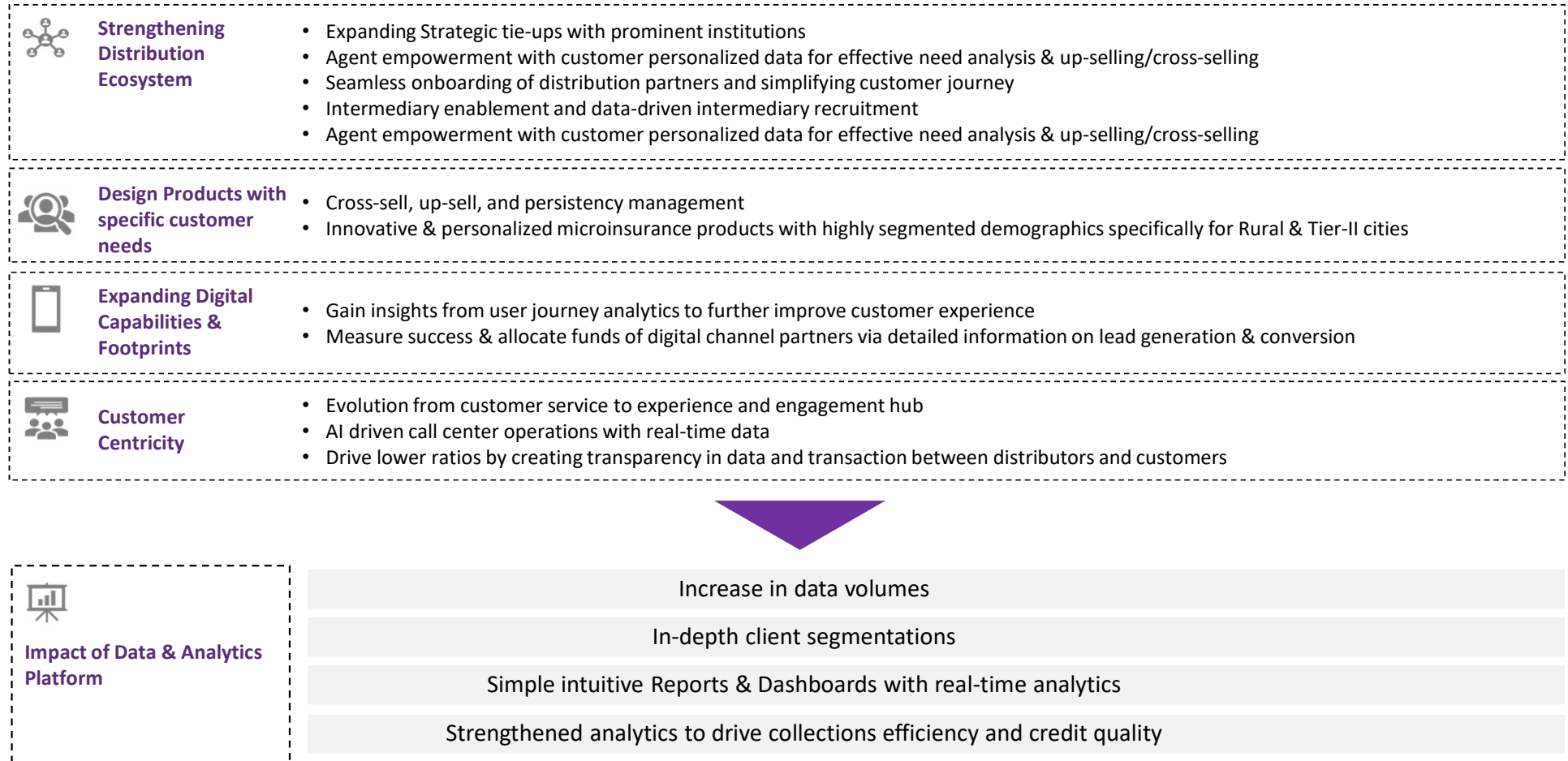
1. *SBI life's Vision & Mission*
2. *Strategic Focus Areas to enable SBI Life's Vision*



**SBI Life is undertaking a journey to realise the nation's ambition of
'Insurance for all'**

**To achieve this , SBI Life needs to build a digital enterprise with a stronger and robust data landscape to
strengthen the value the firm has created over the 25+ years of operations**

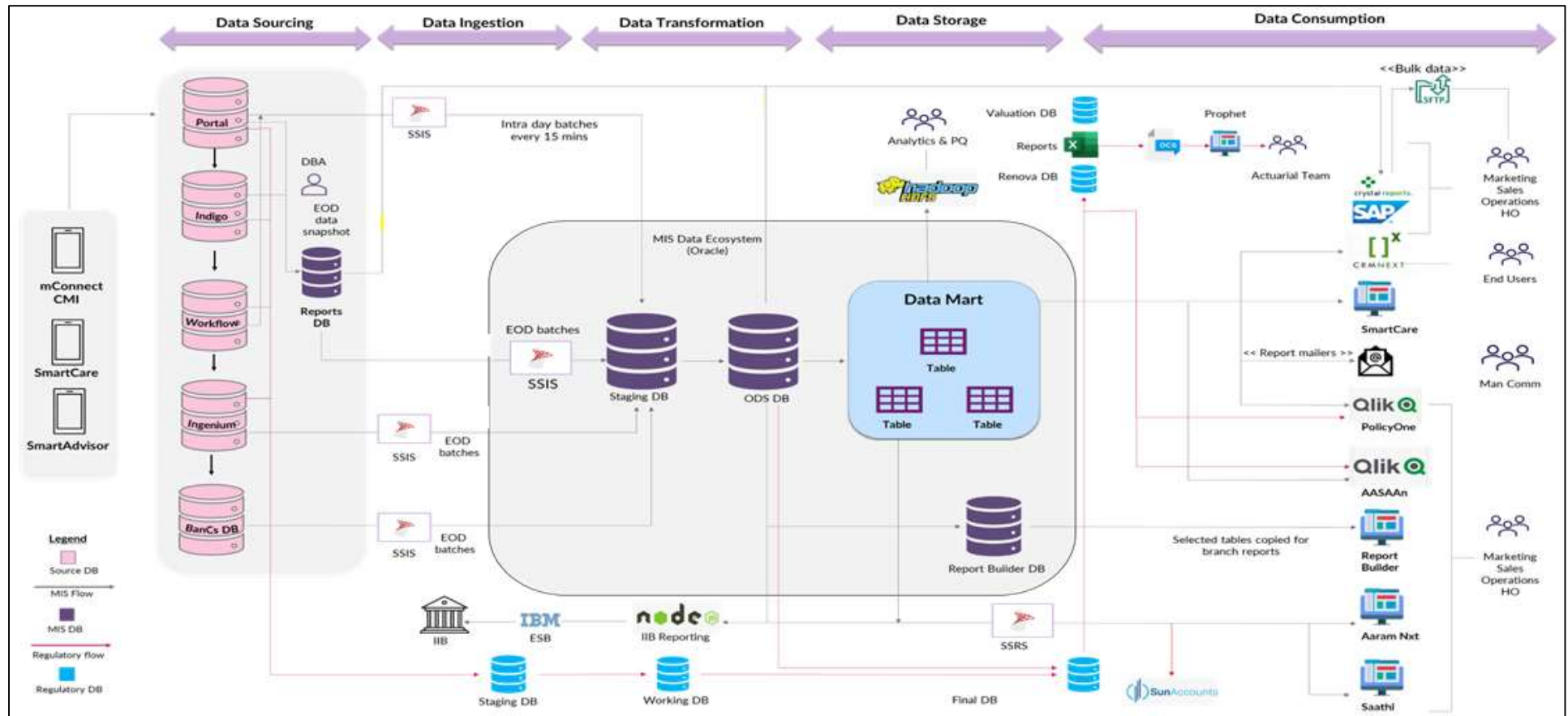
DRISHTI is envisaged to empower below focus areas and business outcomes:



Current State Overview

1. *Current state Architecture*
2. *Key Data Systems*
 1. *Data Sources*
 2. *Data Ingestion & Transformation*
 3. *Data Storage*
 4. *Data Consumption*

SBI Life's Current Data Architecture



Key Data Systems – Data Sources (1 /4)

Name	Data Store	Description	Specifications
Customer Onboarding	Oracle	In house mobile app to onboard customers. Used by sales team to generate BI, Need Analysis, input customer details and generate payment quote	1 GB
Cashiering	Oracle	Portal to process the money in (premium) received by customers for their new policies or renewal of existing policies.	1 GB
Underwriting	Oracle	Portal to verify, validate the data entry, documents of customers and accordingly process further for underwriting decision.	4 GB
PMS/PAS	Oracle	Policy Management or Admin System. Policy issuance and all policy servicing activities carried out from this system. These are 3 in numbers- Individual, Group and Fund business.	40 GB
CMS	Oracle	Channel management system that maintains the distributor details and the branch details	0.15 GB
Pay Systems	Oracle	Claims process flow portal. Claim intimation to approval.	0.29 GB
CRM	Oracle	Used by branches and call centre to service the customer queries	1.5 GB
EOD Snapshots		Daily EOD data snapshot from Portal, Indigo DB is taken between 6-7 pm after business hours	

Key Data Systems – Data Ingestion & Transformation (2/4)

Name	Data Store	Description
SSIS	SQL	Integrates data via real-time batches that run every 15 minutes and stored in Staging DB.
Staging DB	Oracle	The data is transformed and segregated in the ODS database for the respective MIS Data Marts of Retail, BanCa and PNBC.
ESB	IBM	Using Enterprise Source Bus data of any new policies issued by EOD is collated and uploaded on the IIB portal using API, As per regulatory requirement

Key Data Systems – Data Storage (3/4)

Name	Data Store	Description	Specifications
MIS	Oracle	This is an Operational Data Store consisting of various data marts catering to all the data and reporting needs of the organization	50 GB
Valuation	Oracle	This data store is for regulatory and valuation data extracts that are provided to regulatory/statutory and business users on periodic basis	30 GB (Monthly Refresh Volumes)
Analytics HDFS clusters	Hadoop	Data flows from Data Mart (MIS DB) to Hadoop clusters used by the Analytics & PQ team for the predictive analysis use cases	4 GB
Renova DB (Re-insurance)	Oracle	Month-end regulatory reports generated using the month-end snapshots are collated and leveraged for reinsurance requirements	40 GB

Key Data Systems – Data Consumption (4/4)

Name	Data Store	Description	Specifications
Reports	MS Excel	Month-end excel reports for Actuarial analysis generated as a part of Regulatory reporting are pushed to DCS for Prophet to be consumed by the Actuarial team for further analysis	
SSRS	SQL	ODS Data is fetched via SSRS to serve the various end User reporting platforms & applications like AaramNxt, SmartCare, Automated Management Reports and Qlik enabled Aasan & Policy One	
Crystal	SAP BO	Transactional & Operational reporting solution for scheduled reports	400 + reports
AARAM	SSRS	Anywhere Anytime Reporting And More for Static reporting layouts, accessible pan India. Developed on SSRS & MEAN stack	Avg. 600 + users & 250+ reports daily
Data Feeds & Mailers	SSRS, SSIS, QlikSense, NPrinting	Regulatory & Statutory data extracts / reports for Corporate Agents – SBI, Yes Bank etc	50+ types of mailer reports & score cards, trackers
AASAAAn	QlikSense	QlikSense based Advance Automated System for Advance Analytics(AASAAAn) for Geo Analytics	600+ dashboards

Target State

1. *Guiding principles of the Target State Architecture*
2. *Target State Architecture & Capabilities Enabled*
3. *OEM Guardrails*

Guiding Principles to support SBI Life's data journey (1 / 2)

I



Single source of truth leading to ensure data is accessed uniformly from a single place to get a unified view of data across the organization/departments

II



Maximize use of open data formats data that eases sharing and enables **interoperability between applications**

III



Accommodate increasing demands without compromising performance, efficiency with a design to scale on demand

IV



Ability to ingest and process large volumes of different data types – Structured, Semi-structured and unstructured

V



Separation of Storage & Compute will support innovation with new analytics capabilities without having to make large investments in on-prem technology

VI



Compatibility with existing infrastructure to leverage existing on-premises storage investments while also taking advantage of the cloud's flexibility

VII



Ease of Portability to Cloud to improve agility, avoid vendor lock-in and future proof against technology changes & business needs

VIII



Design components based on cloud-native principles while deploying solutions to be Hybrid

Guiding Principles to support SBI Life's data journey (2/2)

IX



Enhance user experience & build on user centricity with easy to use and intuitive data products

X



Drive domain-based models and build domain-based data products using standard & consistent metadata-based architecture

XI



Facilitate analysis & usage of data to drive business insights and decisions, and **enabling real-time Analytics for Faster Data Driven Decisions**

XII



Unified MLOPS integration and design for future readiness – Performance, AI/ML, Gen AI...etc

XIII



Secure by Design. Implement security in components at every stage – From Inception to deployment

XIV



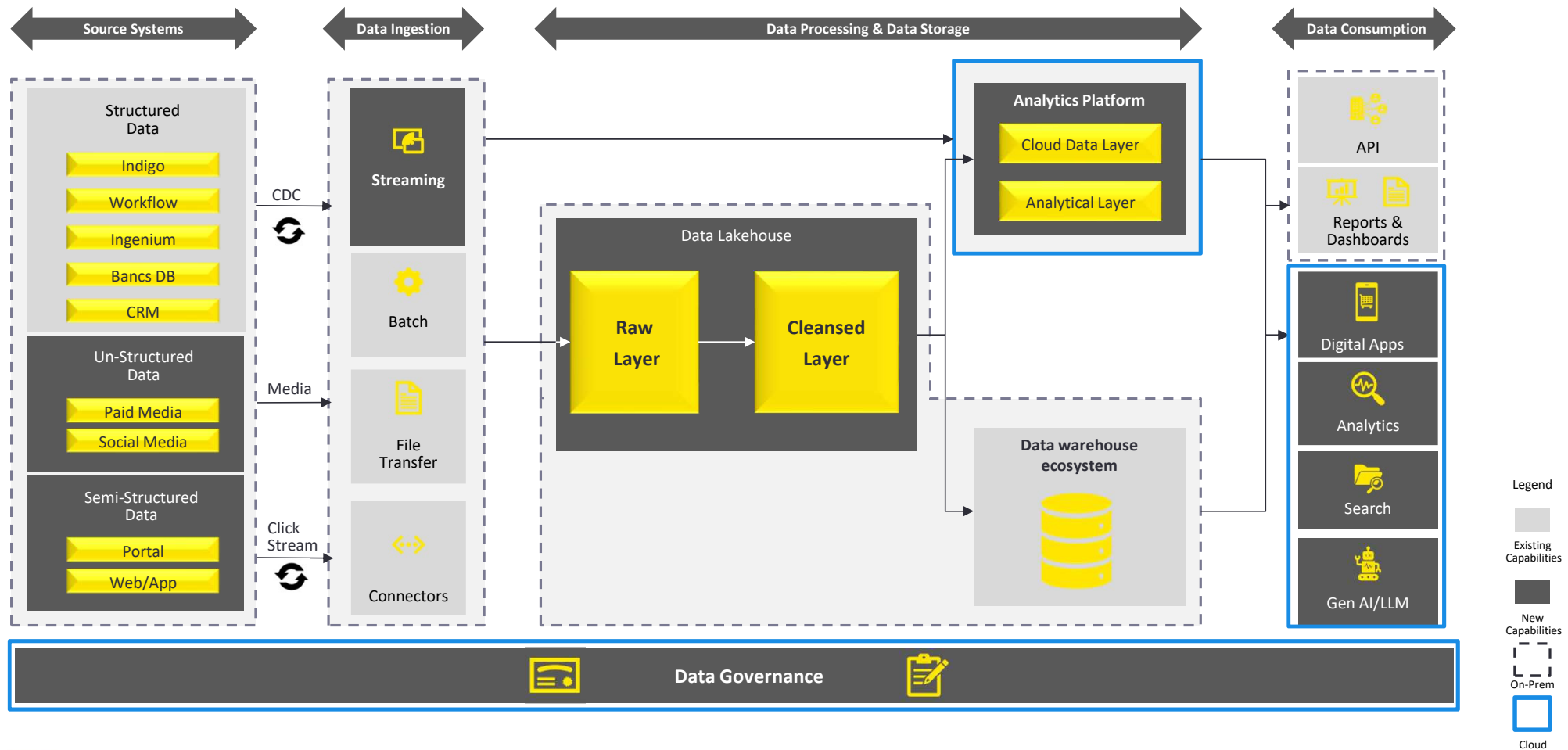
Use data governance to ensure Compliance, Privacy & Data Consistency

XV

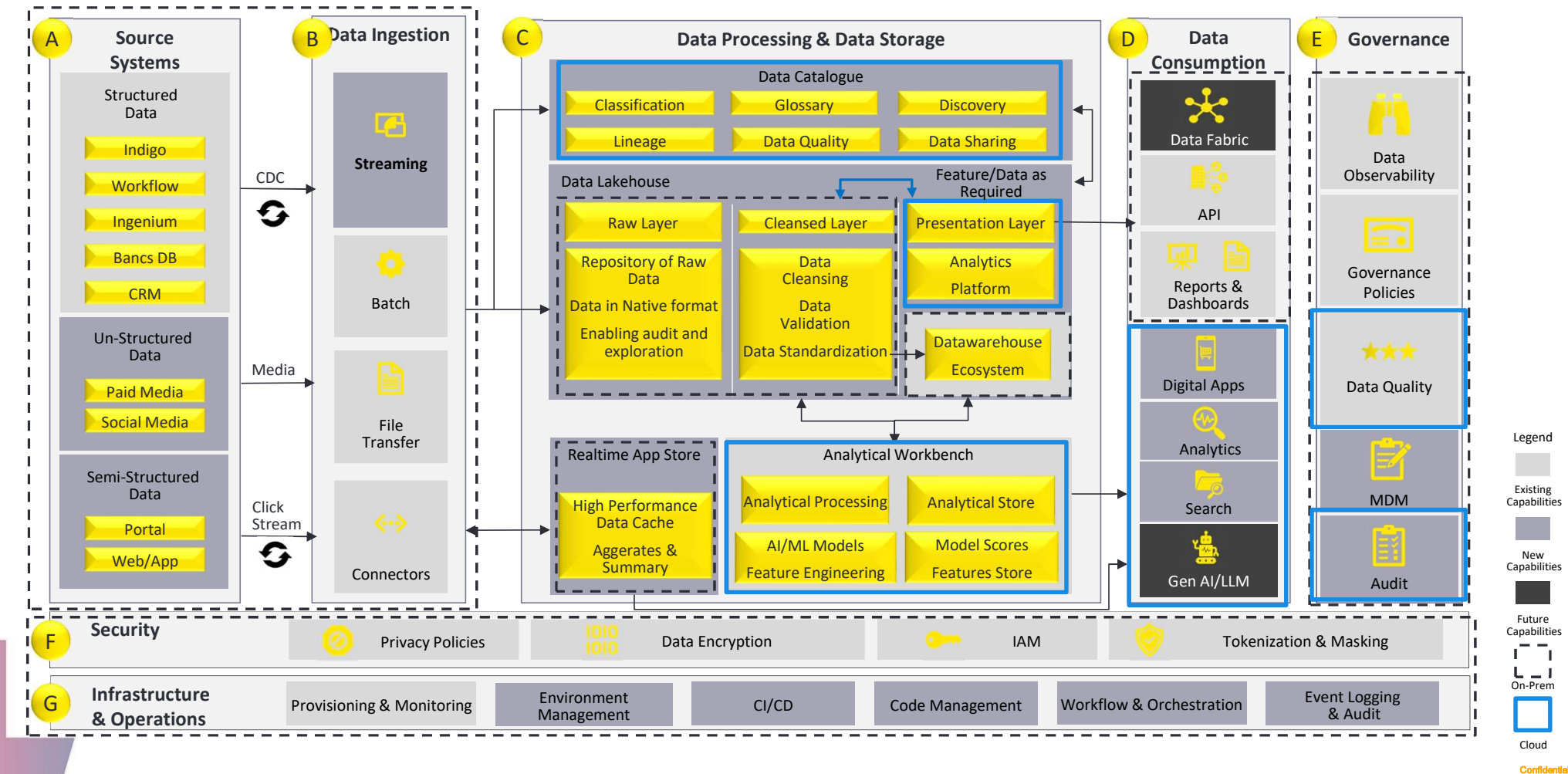


Talent Density in the Market to maintain competitive advantage and enable more sophisticated analytics and data processing capabilities






















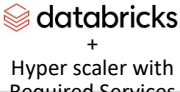









Blueprint of SBI Life's Future state Data Architecture (1/2)



Blueprint of SBI Life's Future state Data Architecture (2/2)



OEM Guardrails to follow

#	Layer	Layer Description	Capability	OEMs
1	B	Data Ingestion	CDC	   
2	B	Data Ingestion	Streaming	 
3	B	Data Ingestion	ELT processing tool	   
4	B	Data Ingestion	Managed File Transfer	 
5	C	Data Processing & Storage	Data Catalogue & Data Lineage	     <p>Note : Bidder to propose the most suited tools for Data Lineage based on ingestion and data processing technology stack</p>
6	C	Data Processing & Storage	On-prem Raw layer Object Storage	  
7	C	Data Processing & Storage	Data Marts & Data warehouse ecosystem	Existing solution is built on Oracle, which can be reused (Re-Engineering/Refactoring may be needed for a scalable Data warehouse solution)
8	C	Data Processing & Storage	DevOps , CI/CD	Will be established at Enterprise level and the solution architecture should be compatible with SBI Life's existing tech stack
9	C	Data Processing & Storage	Cloud Analytics Platform	   
10	C	Data Processing & Storage	Caching	   
11	D	Data Consumption	Reporting & Visualization	Existing Tools:   
12	G	Monitoring	Monitoring & Observability	Bidder to provide the most suited tools based on ingestion and data processing technology stack that they propose

Legend   

Scope Of Work

1. *Platform Build*
2. *Operate & Transfer of Platform*

Data Platform for DRISHTI: Build (1 / 2)

1	The proposed Data Platform for Program DRISHTI to enable capabilities of	Data ingestion (real-time & batch) across the systems, Data processing and transformation, Data storage Data quality Data security	Data governance and catalog, Master Data Management Data analytics and reporting, Change management/DevOps, Disaster recovery with high availability
2	Build hybrid data platform for SBI Life enabling deduplicated, cleansed, transformed, enriched, and curated layers of data		
3	Refactor and Re-engineer Data warehouse from the current ODS & Data Marts		
4	Migrate data from applications which may store data beyond ODS & Data marts		
5	Develop existing on-prem ETL data pipelines of the data warehouse as per the target architecture repointing them to the new data lake house		
6	Enable analytical platform for creation, management, and deployment of AI/ML models; text mining; and tracking and monitoring model performance		
7	Ensure that the current reports get the required data sets captured by the new Data Platform and Enable Self-Serve Analytics		

Data Platform for DRISHTI: Build (1 / 2)

8 Design data models to support future business use cases

9 Build 5 use case AI/ML models in the on-cloud analytics platform to enable easy consumption of the data to facilitate existing requirements as well as future requirements for modelling and scoring exercises

10 Integrate AI/ML Models and Qlik reports & visualization, business intelligence (BI)/Analytics with new Data Platform

11 Build Data marts/Data Warehouse/ Data Lake as appropriate, subsequently creating Data Products using these repositories

12 Enable shorter turnaround times (TAT) to deliver new data sets, use cases and holistic views

13 Enable integration for NLP/ML models for forward-looking services like chatbots, video KYC, automated risk assessment scoring models and sales-based applications

Data Platform for DRISHTI: Operate & Transfer

1 Project Duration : 3 Years (Including Support)

2 Bidder to provide Hypercare for 90 Days after 1st go-live till the end of contract period of 3 years

Support Coverage Requirments:

- Monday - Sunday | 24 X 7 IST for L1 Support
- Monday – Friday | 16 X 5 for L2 & L3 Support

Severity	Severity Description	Acknowledgement Time	Escalation to App/DBA/COE	Resolution time
P1	Critical	30 mins	2 hour	4 hours
P2	Non-Critical-Major	1 hour	4 hours	8 hours
P3	Non –Critical-Minor	24 hours	N/A	N/A

SLA Status	Target	Green	Yellow	Red
Availability %	99%	>=99%	98-99%	<98%

FAQs

1. *FAQs based on Architecture*
2. *FAQs based on OEM Guardrails*

FAQs based on Architecture

Sr. No	Question	Answer
1	What is the Scope of Digital Apps?	Not part of Scope for DRISHTI project to develop apps. Building a serving layer that provides data to digital apps using APIs in real-time or near real-time is in scope
2	What is the Scope for Analytical Workbench?	Analytical Workbench product is not part of DRISHTI's scope. H2O.AI/Cyborg are proposed as part of another program and may be used for integration & building 5 analytical use cases is in scope
3	Will the existing Data warehouse/Data Marts have to be expanded and refactored for the New Data Platform?	Yes. Current data marts will have to be tweaked to being in consistencies in terms of master data, reference data, quality checks and schema designs.
4	How much will the Existing Hardware be Re-used?	The Hardware for the existing capabilities as per the Guardrails will be re-used
5	Is the preferred approach for the Data Platform fully cloud or Hybrid?	Hybrid Architecture is the sought after approach for SBI life
6	What will be the Number of environments to be considered?	The 3 environments to consider are, Dev, UAT & Prod for both On-Prem DC & On-Cloud DC respectively. For DR, please consider only Prod i.e 1 environment
7	What is the roadmap for the current Hadoop ecosystem?	The Hadoop cluster will be retired gradually as part of DRISHTI's implementation and the data will be migrated to cloud analytics platform

FAQs based on OEM Guardrails

Sr. No	Question	Answer
1	Can the Bidder propose tools other than the ones listed in the Guardrails?	The Guardrails are to provide guidance for the proposed solution and are the preferred but not mandatory tech stack. The SIs may bid with other OEMs / technical stack provided they meet the desired design principles and should provide the required justification (Pros & Cons) for the proposed OEMs/Tech-stack.
2	What are the existing landing zones and can Hyper Scalers apart from the ones mentioned be proposed?	SBI Life currently has AWS & GCP landing zones. Hyperscalers outside the guardrails can be proposed , provided they adhere to the Guiding Principles
3	What is the MDM Tooling to be considered?	SBI Life is looking for a custom-built Analytical MDM on Data Warehouse. It is up to the SI to propose right tooling for the same
4	Will SBI Life be open to considering Open-Source software?	Yes, the Bidder can propose Open-Source software but will have to ensure Enterprise Support
5	What is the Data requirement for Data Quality Tooling?	Data Quality Tooling should be in line with the ETL tooling

Eligibility & Evaluation Criteria

1. *Overview of Techno-Commercial Evaluation*
2. *Eligibility Criteria*
3. *Evaluation Criteria*

Overview of Techno-Commercial Evaluation

- 1 Selection method of the Bidder will be Quality Cost Based Selection (QCBS)
- 2 The Technical Bids will be evaluated and assigned a technical score out of a maximum of 100 marks.
- 3 Only Bidders with an aggregate technical score of 70% or higher will qualify for the commercial bid evaluation
- 4 The Relative weightages for technical & commercial score will be 70:30

Eligibility Criteria

Criteria	Description
Legal Entity	The Bidder must be a Company/ LLP /Partnership firm registered under applicable Act in India
Sales Turnover and Company Net Worth	Bidding entity must have minimum average standalone turnover of Rs.500 Crores in the last three financial years (2021-2022, 2022-2023 and 2023- 2024) and should also have made profit (before tax) in 2 of the 3 financial years
Blacklisting	Bidders must not be blacklisted by any level of Indian government, PSUs, or banks in the past three financial years. They should have no ongoing litigation against SBI Life or other entities that could affect their ability to fulfil the RFP's requirements
Legal and Compliance	The service provider should ensure that there are no legal proceedings/inquiries/investigations by any statutory or regulatory or investigative agencies
Conflict of Interest	The Bidder to provide information that any of its subsidiary/partner firms haven't participated in the bid. The Bidder should not have any service agreement pending to be signed with SBIL for more than 6 months
Client References	<p>The bidder must have completed at least 2 data lakehouse/warehouse/data lake projects with a size of 50 TB each in the last 5 years. The projects should be similar in scope and size to SBI Life's context. At least one of these should be in India /global in the BFSI industry</p> <p>The Successful Bidder needs to submit a copy of client certificate or work order or completion certificate or extract from the contract mentioning the scope of work and list of data lake technologies used</p>

Evaluation Criteria

#	Evaluation Criteria	Description
1.	Understanding of Life insurance Business & SBI Life's business landscape	The bidder should have a deep understanding of Life insurance business in India, Insurance data models and domain knowledge and key challenges faced from a data / reporting / analytics perspective by firms and customers.
2.	Bidder's Experience	The bidder should submit at least 2 case studies with end-to-end implementation of Data Lakehouse/Data Warehouse /Data lake with a similar scope & size with at least one in BFSI (Indian or Global landscape) within last 5 years
3.	Quality of Proposed Technical Solution Architecture	Well defined design of the technical solution that should explain how various aspects of the solution will be performed:
		<div> 1. Clear understanding of Hybrid Architecture requirements 2. Data Ingestion 3. Data Processing 4. Data Migration from Existing Data Sources 5. Data Storage 6. Data Observability 7. Master Data Management 8. Data Quality </div> <div> 9. Data Security 10. Data Protection 11. Data Governance and Data Catalogue 12. Data Analytics and Reporting 13. Change Management/DevOps 14. Data Encryption 15. Proposed OEMs & partnerships to ensure compatibility of tools across layers </div>
4.	Implementation approach of the solution:	Clear understanding of how the solution will implement the hybrid architecture and clear understanding of the domain and functional knowledge, Project Plan & Timelines, Training Roadmap
5.	Quality of Team	Bidder should submit profiles of best of class professionals to ensure successful execution of the project – Evaluation based on CV & interviews

Commercial Submission Overview

1. *Total Cost of Implementation*
2. *Schedule 1: One time implementation*
3. *Schedule 2: Hardware Cost*
4. *Schedule 3: Software Cost*
5. *Schedule 4: Support Cost*
6. *Schedule 5: Cost of Roles*

Total Cost of Ownership

Sr. No	Description	Total Cost (excluding GST) (INR Lakhs)
1	Commercial Schedule 1 - One Time Implementation	
2	Commercial Schedule 2 - Hardware Implementation	
3	Commercial Schedule 3 - Software Implementation	
4	Commercial Schedule 4 - Support Implementation	
5	Commercial Schedule 5 – Cost of Roles/Change Requests (To be used on a need basis)	

1. One-time Implementation – cost to be quoted separately for – Data Lakehouse Build & Data Re-engineering , 5 Analytical use Cases Modelling & Building

– includes design, implementation, testing, deployment into production and roll-out support for the solution

2. Hardware Implementation – the vendor to provide the 5 year TCO for hardware procurement on behalf of SBI Life ; with a detailed Bill of Materials Table specifying the hardware requirements for DC, DR

3. Software Implementation – the vendor to procure and install the OEM software on behalf of SBI Life and provide the complete TCO for the same with the detailed Bill of Materials Table specifying the type, quantity and rate of the licenses

4. Support Implementation – cost to be quoted separately for all three modules - Hardware Technical Support, Data Platform BAU Support and Software Maintenance , Upgrades covering comprehensive annual technical support for all hardware components supplied and ongoing maintenance and support for the software products to enable the same.

5. Cost of Roles - Vendor is required to submit a detailed rate card of roles as listed

Commercial Schedule 1 : One Time Implementation

One-time Implementation cost to be quoted separately for –

- Data Lakehouse Build & Data Re-engineering
- 5 Analytical use Cases Modelling & Building

includes design, implementation, testing, deployment into production and roll-out support for the solution

Table 1 : One Time Implementation

Sr. No	Application	Total One Time Cost (in INR Lakhs)	Remarks (RFP Section(s))
1	Data Lakehouse Build & Data Re-engineering		Sections 6.3 Target State of DRISHTI's Data Platform & 6.4 Project Objectives & Scope
2	5 Analytical use Cases Modelling & Building		6.3.2.12 Volumetrics to be considered for the Data Platform for DRISHTI
	Grand Total		

Commercial Schedule 2: Bill of Material

The vendor is expected to provide the 5 year TCO for hardware procurement; with a detailed Bill of Materials Table specifying the hardware requirements for DC, DR

- An interim development environment on-premise/ on-Cloud as considered fit by the bidder until the hardware is commissioned. Once the hardware is installed and ready the interim development environment will be decommissioned and migrated to the Primary DC

Table 2 : Hardware Implementation

Sr.No	Hardware	Description	Primary Site/ DR Site/ On - Cloud	Environment (Prod,Dev, UAT, DR)	Licence Type (Perpetual/Subscription)	Year 1			Total Cost (in Lakhs)	PV (in INR Lakhs)
						Qty (A)	Rate per Unit (B) (in INR Lakhs)	5 Year TCO C= A*B		
1										
2										
3										
.....										

Commercial Schedule 3: Bill of Material

The vendor to procure and install the OEM software on behalf of SBI Life and provide the complete TCO for the same with the detailed Bill of Materials Table specifying the type , quantity and rate of the licenses

- An interim development environment on-premise/ on-Cloud as considered fit by the bidder until the hardware is commissioned. Once the hardware is installed and ready the interim development environment will be decommissioned and migrated to the Primary DC

Table 3 : Software Implementation

Sr.No	Software Name	Desc.	Primary Site/ DR Site/ On - Cloud	Environment (Prod,Dev, UAT, DR)	Licence Type (Perpetual/Sub scription)	Year 1			Year 2			Year 3			Year 4			Year 5			Total Cost	PV
						Qty (A1)	Rate per Unit (B1) (in INR Lakhs)	Year 1 Cost (A1*B1) (in INR Lakhs)	Qty (A2)	Rate per Unit (B2) (in INR Lakhs)	Year 2 Cost (A2*B2) (in INR Lakhs)	Qty (A3)	Rate per Unit (B3) (in INR Lakhs)	Year 3 Cost (A3*B3) (in INR Lakhs)	Qty (A4)	Rate per Unit (B4) (in INR Lakhs)	Year 4 Cost (A4*B4) (in INR Lakhs)	Qty (A5)	Rate per Unit (B5) (in INR Lakhs)	Year 5 Cost (A5*B5) (in INR Lakhs)		
1																						
2																						
.....																						

Commercial Schedule 4: Cost of Support

Support Implementation – cost to be quoted separately for all three modules

- Hardware Technical Support - covering comprehensive annual technical support for all hardware components supplied
- Data Platform BAU Support - Covering costs from year 2 to support the platform once it's built, up & running
- Software Maintenance , Upgrades - covering complete cost of ongoing maintenance and support for the software products

Table 4 : Support Cost

Sr.No	Support Category	Year 1 Cost (in INR Lakhs)	Year 2 Cost (in INR Lakhs)	Year 3 Cost (in INR Lakhs)	Year 4 Cost (in INR Lakhs)	Year 5 Cost (in INR Lakhs)	Total Cost (in INR Lakhs)
1	Hardware Technical Support						
2	Data Platform BAU Support						
3	Software Maintenance , Upgrades						
Grand Total							

Commercial Schedule 5 : Cost for Roles

Cost of Roles :

Vendor is required to submit a detailed rate card of roles as listed

Table 5 : Change Cost Requests / Cost Of Roles

Sr. No	Role	Person man day price (in INR Lakhs)	Remarks
1	Solution Architect		
2	Program Manager		
3	Data Engineering Lead		
4	Data Governance Lead		
5	Lead Business Analyst		
6	BAU Support Lead		
7	Data Engineer (support)		
8	Data Engineer		
9	Domain Expert		
10	Data Architect		
11	Quality Assurance Lead		
12	DevSecOps Engineer		
13	MLOps Engineer		
14	Lead Business Analyst		
15	Lead Data Analyst		

Appendix

Performance KPIs to be considered

#	Performance KPI	Performance Requirement
1	Data Load batch run time	Max time for any batch load for given systems as given in the indicative volumes in 2.2.1 should be 60 minutes
2	Batch data load concurrency	Ability to run at least 200 batch jobs in parallel
3	Report load Time	Time taken to load & refresh developed reports
3.1	Report size <= 5MB (Volume of data within the report with no filters & report level calculations)	3 seconds
3.2	Report size > 5MB & Report size <= 20 MB (Volume of data within the report with no filters & report level calculations)	10 seconds
3.3	Report size > 20 MB (Volume of data within the report with no filters & report level calculations)	20 seconds
4	Elongated time for completion of daily batch loads	By 7:00am
5	Analytics & Ad-hoc query runtime (avg data volume in a query as 100MB)	20 seconds (for a concurrency of 200 users)
6	RPO – Recovery Point Objective	Upto 45 minutes
7	RTO – Recovery Time Objective for Critical Systems	Time taken to restore databases & ETL Jobs
7.1	MIS DB	Upto 4 hours
7.2	ETL Jobs	Upto 6 hours
8	Real time data load latency	500ms for 5MB of data transfer
9	API latency Time for receiving & Closing a response (API servicing internal SBI Life applications)	<100ms for 99% of API Transfers
10	Service Uptime	
10.1	Data Lake / Lakehouse Uptime (including data ingestion, data repositories, data processing, data governance)	99 % (Monthly) – 3. 5 hours Downtime per month
10.2	Master Data Services	99% (Monthly) 5 minutes Downtime per month
10.3	Reporting & Analytics Solution	99% (Monthly) 6 hours downtime per month

Payment Structure

Sr No.	Deliverable	Payment %
1	Approval of Project roadmap and release plan	2
2	Approval of design document	3
3	Setup and installation of data platform solution components in the dev environment	5
4	Setup and installation of key data platform solution components in the UAT environment	5
5	Completion of build of Data Lake Architecture with required components On-Prem & Cloud	25
6	Complete delivery of analytical uses cases and self-service BI roll-out across business units	20
7	Establish data catalogue and data discovery features in the data lake platform	5
8	Activate real-time data streaming capabilities	10
9	Complete analytical MDM within the data lake platform	5
10	Completion of Roll-Outs & Go-Live of all Phases	20