# भारतीय बीमा विनियामक और विकास प्राधिकरण

## Insurance Regulatory and Development Authority of India

REF No.  - **IRDAI/IT/19-20/02**

24 Aug 2019

**Expression of Interest**

**for**

**TRANSITION OF BUSINESS ANALYTICS PROJECT**

Issued by

INSURANCE REGULATORY AND DEVELOPMENT AUTHORITY
Insurance Regulatory and Development Authority of India
Sy. No. 115/1, Financial District,
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**INVITATION FOR EXPRESSION OF INTEREST (EOI)**



भारतीय बीमा विनियामक और विकास प्राधिकरण
**INSURANCE REGULATORY AND DEVELOPMENT AUTHORITY OF INDIA**

**FOR TRANSITION OF BUSINESS ANALYTICS PROJECT**

Insurance Regulatory and Development Authority of India (IRDAI) India invites Expression of Interest from interested IT Service Providers for transitioning the Business Analytics Project (BAP) of IRDAI and maintenance of the same for a period of 7 years beyond November 2019. Service Provider will also be responsible for enhancing the services / functionality of BAP including replacement of existing Servers.

For overview of the existing system, scope, pre-qualification criteria, bidding terms and conditions and suggested response formats, please visit our website http://www.irdai.gov.in

Interested Service Providers who meet the pre-qualification criteria may submit their Expression of Interest with all the necessary documents through Central Public Procurement portal https://eprocure.gov.in/cppp along with the covering letter duly signed by an authorized signatory as per the document submission schedule mentioned below in section 3.

## PART I: GENERAL TERMS

### 1. GOALS OF THIS EXPRESSION OF INTEREST(EOI)

The objective of this EOI is to solicit proposals from the interested bidders for participation in a bid process for selection of Service Provider for continued maintenance and operation of BAP services beyond Nov'2019. The Service Provider will be responsible for transitioning the existing BAP services and providing services on the BAP to IRDAI for an expected period of 7 years beyond the contract period of the current operator. In addition to providing the services on BAP, the Service Provider will also be responsible for enhancing the functionalities of BAP, which is henceforth referred to as BAP-2.0. The EOI intends to bring out the details with respect to scope of services that are deemed necessary to share with the interested bidders.

### 2. EOI ISSUING AUTHORITY

Insurance Regulatory and Development Authority of India (IRDAI) is a statutory body established u/s 3(1) of IRDAI Act, 1999 to protect the interests of policy holders of insurance policies and to regulate, promote and ensure orderly growth of the Insurance Industry and for matter connected therewith or incidental thereto. IRDAI is based out of Hyderabad and has two regional offices Delhi and Mumbai. Please visit the website www.irdai.gov.in for information about the IRDAI.

This Expression of Interest (EOI) is issued by Insurance Regulatory and Development Authority of India (IRDAI), intended to short-list the potential bidders for BAP 2.0. IRDAI's decision with regard to the short-listing of bidders through this EOI shall be final and the IRDAI reserves the right to reject all the bids without assigning any reason.

| Project Title | Selection of Service Provider  for BAP 2.0 |
|---|---|
| Organization | Insurance Regulatory and Development Authority of India(IRDAI) |

| Contact Person | Shri Akshat Singh Patel, Assistant Manager, IT Department<br>Phone: 040-20204116 |
|---|---|
| Contact Person (Alternate) | Shri . UtpalKumar, Assistant Manager<br>Phone-040-20204118<br><br>Shri. Mahesh Agarwal, Deputy General Manager, IT<br>Phone: 040-20204160<br><br>Shri. A.R. Nithiyanantham, Chief General Manager, IT<br>Phone: 040-20204181 |
| Contact Details | Insurance Regulatory and Development Authority of India, Sy. No. 115/1, Financial District,<br>4th floor, Information Technology Department<br>Nanakramguda<br>Gachibowli, Hyderabad – 500032<br>Phone: 040-20204116<br>Email: it@irdai.gov.in |

## 3. TENTATIVE CALENDAR OF EVENTS

The following table enlists important milestones and timelines for completion of bidding activities:

| S.No | Milestone | Date and time (dd-mm-yyyy; hh:mm) |
|---|---|---|
| 1 | Release of Expression of Interest (EoI) | 24-Aug-2019   06:00 |
| 2 | Last date for submission of written questions by bidders | 02-Sep-2019   15:00 |
| 3 | Bidders Conference (Pre Bid Meeting) | 03-Sep-2019   11:00 |
| 4 | Publish response to the Queries | 06-Sep-2019   15:00 |
| 5 | Document download start date | 24-Aug-2019   06:00 |
| 6 | Document download end date | 27-Sep-2019   15:00 |
| 7 | Bid submission start Date | 09-Sep-2019   15:00 |
| 8 | Bid submission end Date | 27-Sep-2019   15:00 |
| 9 | Opening of EOI | 01-Oct-2019   11:00 |
| 10 | Declaration of Short listed Bidders | 03-Oct-2019   15:00 |

## 4. AVAILABILITY OF THE EOI DOCUMENTS

EOI can be downloaded from the IRDAI's website www.irdai.gov.in given under Section Tenders and https://eprocure.gov.in/cppp. The bidders are expected to examine all instructions, forms, terms, project requirements and other details in the EoI documents. Failure to furnish complete information as mentioned in the EoI documents or submission of a proposal not substantially responsive to the EoI documents in every respect will be at the bidder's risk and may result in rejection of the proposal.

## 5. BIDDERS' CONFERENCE

IRDAI will host a bidder's Conference in Hyderabad at the address given under Contact Details Section 2 of this document. The Conference is tentatively scheduled as per the schedule given in Section 3. The representatives of the interested organizations (restricted to two persons) may attend the bidders' conference at their own cost. The purpose of the conference is to provide bidders with any clarifications regarding the EoI. It will also provide each bidder with an opportunity to seek clarifications regarding any aspect of the EoI and the project. The venue for the bid conference will be at the address given in Section 2.

## 6. VENUE & DEADLINE FOR SUBMISSION OF PROPOSALS

Proposals, in its complete form in all respects as specified in the EoI, must be submitted to in the CPPP portal. IRDAI may, in exceptional circumstances and at its discretion, extend the deadline for submission of proposals by issuing an addendum to be made available on the IRDAI's website, in which case all rights and obligations of IRDAI and the bidders previously subject to the original deadline will thereafter be subject to the deadline as extended.

## PART II: SCOPE OF SERVICES AS PER CURRENT CONTRACT

### 1. BACKROUND

Business Analytics Project (BAP) was implemented with the following objectives:

a)   Automation of Registration and other connected activities for Insurers, Brokers, Surveyors, and Third Party Administrators

b)   Automation of Product approvals, Branch office opening and advertisements

c)   Enable regulated entities to file their periodical returns online and ensure compliance to the return filing process.

d)   Efficient management of data and information received by IRDAI from Insurers, intermediaries (Brokers, Corporate Agents and Surveyors) etc. and TPAs in the form of financial statements, investment schedule, actuarial reports & reports on re-insurance.

e)   To enhance the efficiency of IRDAI in the preparation of monthly, quarterly & annual and any other periodic Business Analytics Reports and their publications involving Automating extraction of information.

f)   Business Analytics Project (BAP) System is designed for

- Effective supervision & regulation including compliance
- Monitoring trends of the insurance industry
- Risk based assessment of functioning of Insurers
- Providing Early Warning Signal
- Initiating corrective action

g)   Make data capture simple and timely and user friendly.

As part of the BAP, IRDAI has introduced the concept of e-filing, doing away with manual filing and paper based records in its departments. IRDAI has also undertaken substantial business process re-engineering of its processes with an objective of providing enhanced service levels to its stakeholders.

## 2. Usage Statistics

The below table provides statistics on the usage of various services of BAP:

| Statistics since inception till 13-May-2019 | Count |
|---|---|
| Total Numbers of Registrations processed (new , renewals and modifications) for Brokers, TPAs and Surveyors) | 31, 576 |
| Total number of Products processed (new, modifications and width drawls) | 6,345 |
| Total number of Advertisements processed | 64, 734 |
| Total number of Office filings processed | 4,077 |
| Total Help desk Tickets ( Since 2013) | 28,474 |

Frequency of the returns filed under various modules of BAP.

| Modules | Monthly | Quarterly | Half-Yearly | Annual | Adhoc | Grand Total |
|---|---|---|---|---|---|---|
| Actuarial Life | | 1 | | 40 | | 41 |
| Actuarial Nonlife | | 1 | | 11 | | 12 |
| Corporate Agent | | 3 | | 9 | | 12 |
| F&A Life | | 26 | | 26 | 2 | 54 |
| F&A Nonlife | | 27 | | 16 | 2 | 45 |
| Health | 3 | 5 | | 8 | | 16 |
| Investment Life | | 14 | | | | 14 |
| Investment Nonlife | | 11 | | | | 11 |
| Life | 5 | 28 | 1 | 3 | 5 | 42 |
| Non-Life | 1 | 10 | 0 | 4 | | 15 |
| Reinsurance | | 1 | 1 | 16 | | 18 |
| Broker | | 4 | 1 | 14 | | 19 |
| Surveyor | | | | 1 | | 1 |
| TPA | 1 | 1 | | 6 | | 8 |
| Grand Total | 10 | 132 | 3 | 154 | 9 | 308 |

### 3. Total No. of users in BAP

| S.No. | Particulars | Count of users |
|---|---|---|
| 1 | Insurers | 1208 |
| 2 | IRDAI Internal Users | 62 |
| 3 | Brokers and TPAs | 1448 |
| 4 | Peer Regulators, Govt. bodies and others | - |
| 5 | Surveyors | 22882 |
| 6 | Total no of active users in BAP | 25538 |
| 7 | Total no of inactive users in BAP | 2251 |
| 8 | Average concurrent users per month for the last 6 months | 500 |
| 9 | Maximum no. of concurrent users recorded in BAP | 600 |

L&T InfoTech (LTI) here-in-after called as "Support Partner (SP)" has been providing services on a BOT (Build, Operate and Transfer) model to IRDAI since 2011. LTI has been responsible for end-to-end service delivery that includes

i. Development and maintenance of the BAP portal.

ii. Supply and maintenance of the associated Infrastructure at the DC-DR &NDR.

iii) Provide hosting facilities for primary, Near DR and DR through Tier-III Data center service provider

iii. Provide and manage network connectivity between DC-DR, DC/DR and the client side locations

iv. Operational services such as Helpdesk, Handholding Support, SLA monitoring and management to assist IRDAI in performing its tasks on the BAP portal

v. Continuous enhancement of BAP through agreed Change management process

vi) Annual technical support for the supplied software licenses through SAP.

## 4. Business and Administrative Processes covered under BAP

The major business and administrative processes covered under BAP are as follows:

➡ Insurer Level:

- ▶ Insurer - Registration
- ▶ Life - Office Filing, Advt, Return Submission
- ▶ Non-Life - Office Filing, Advt, Return Submission, Product filing
- ▶ Re-Insurers - Yet to be implemented (part of Non-Life as of now)
- ▶ Health - Office Filing, Advt, Return Submission, Product filing
- ▶ Actuarial - Product filing (Life), Return Submission
- ▶ F&A (Life) - Return Submission
- ▶ F&A (Non-Life) - Return Submission
- ▶ Investments - Return Submission
- ▶ Helpdesk – Ticketing system ( Solman)
- ▶ Insurer level workflow for signing and submissions

➡ Intermediaries Level

TPA – Registrations and  Return Submission

- ▶ Broker - Registrations and  Return Submission
- ▶ Surveyors - Registrations and  Return Submission

➡ IRDAI Level

- ▶ Workflow - Product, Office Filing, Advertisement, Licensing Approval, evaluation of periodical returns
- ▶ View Periodical Returns, Compliance Check
- ▶ Levy Penalty, Dept. wise Standard Reports
- ▶ Standard Reports
- ▶ Dashboards
- ▶ Exception Reports
- ▶ Adhoc reports
- ▶ SLA monitoring related to Complaints

Other major third-party Integration

- Payment Gateway (Bill desk)

- E-signing and validations

- E-mail relay services

- SMS gateway integration

The other salient features of BAP are as follows:

➡ Workflow driven applications

➡ E-filing of returns in various data formats CSV, Excel and XML

➡ Automated reminders on deadlines.

➡ Automated e-mail prompts to HODs on filing status.

➡ In-built validations (across the forms / across the modules for data integrity

➡ Digital Signature for submission.


LTI is responsible for end-to-end implementation and maintenance of BAP. The major activities of SI include:


1. Revalidation of Functional Requirements Specifications and freezing the requirements

2. Design, development and implement Business Analytics Project (BAP) as the requirements finalized

3. Undertaking Change Management Process and providing training to end-users (Insurers, Intermediaries and IRDAI users)

4. Supply of Hardware and software licenses

5. Deploy the hardware in Primary, NDR and DR, software, implement the developed application and maintain the same

6. Hardware maintenance including back-to-back-warranty support from OEM for 7 years

7. Maintenance of developed applications for a period of 7 years

8. Provide hosting facilities for Primary, NDR and DR for a period of 7years

9. Provide Technical Support and help desk support for a period of 7 Years

10. Implement Changes in the developed application with less than 10 man days of effort

11. Ensuring successful end-to-end operations of BAP portal for a period of 5 Years

**5. Need for the Expression of Interest:** With the contract with the current support partner ending in November 2019, the IRDAI has initiated the process of selection of Service Provider who would be responsible for providing end-to-end services on BAP for an expected period of about 7 years beyond the contract period of the current operator. In addition to providing the services for BAP, the Service Provider will also be responsible for enhancing the services / functionality of BAP, which is henceforth referred to as BAP 2.0. In light of the criticality of the services wherein continuity and performance of operations has to be ensured, IRDAI plans to select the Service Provider before the expiry of the current contract so as to ensure smooth transition.

**A document Containing the detailed overview of existing system and the current scope of work & services is enclosed at Annexure-A**

# PART III: INDICATIVE SCOPE OF BAP 2.0

## a) Scope of Application (BAP 2.0)

It is envisaged that BAP 2.0 will be the next version of BAP with additional business and administrative processes in its scope designed to provide a significantly enhanced experience to the end-users through a major revamp of some of the current interfaces.

Some of the major enhancements under consideration include:

i. Upgrading of BAP to the Current Technology Versions of SAP Components including new user Interfaces using UI 5

ii. Harmonizing the data elements of BAP, Design and implement Master Data Templates for the data requirements of BAP in XBRL forms for collection of data.

The prospective bidder would be required to study the current method of submission of Data by the regulated entities and consolidate the same into **Master Data Templates,** wherein each entity (Life Insurer, General Insurer, Health Insurer, Reinsurer, etc.) would submit data on Monthly/quarterly/Half-yearly/Annually in a codified format (code, value) instead of current method of submission of data module-wise / department-wise data templates.

iii) Develop and implement new software modules for the following functionalities

iv). Business intelligence including dash boards for top management.

v) Interfaces with other Operational systems such as IGMS and SAP-ERP

vi) The underlying software platform needs to be upgraded / migrated as necessary, depending on the approach by the bidder. The infrastructure (server-side, network, & client side) needs to be augmented where possible and replaced where obsolete to ensure continued support from the OEMs and deliver the solution as per the service levels defined by IRDAI

**b) Scope of Services for BAP 2.0**

The Service Provider selected through this bidding process will be responsible for smooth transitioning the entire suite of applications, infrastructure, and services under BAP from the current operator.

Further, the Service Provider has the option of

i. Maintain the current system till the new hardware is in place, migrate the entire application into new hardware infrastructure, upgrade the software & incrementally develop the additional business & administrative processes targeted for BAP 2.0 on top of the existing system

ii. or maintain the current system for some period and in parallel rebuild and migrate the entire solution as deemed fit for delivering the services under the scope of BAP 2.0 (including the services of BAP 2.0)

The Service Provider has to ensure continuity and performance of the operations. The pre-qualified bidders, to whom the RFP will be released, will be provided with opportunity for due-diligence before the submission of their techno-commercial proposal during the RFP bid process. The pre-qualified bidders will have to send the requests beforehand for required documentation on the current business processes, applications, infrastructure and operations & services, so that the same can be provided by IRDAI to the bidders during the due-diligence process.

Service Provider shall have an option to submit proposal based on either **on-premise solution or cloud platform** of the approved vendors by MEITY. (**any one option only**)

### c. Payment Model

For the current operator, payments were made after achieving the milestones of application development & certification and data migration. All the other payments during the operations and maintenance phase are Service Level Agreement based and made on a quarterly basis at the end of the quarter. Similar milestone based payments for milestones (if any) and performance based quarterly payments during the operations and maintenance phase is being considered for the new operator.

### d. Setting up of maintenance Team in IRDAI

The selected service Provider shall set up a maintenance team and Helpdesk Team in the IRDAI Head office, Hyderabad during the maintenance phase. The requirements given in this Expression of Interest are indicative only and IRDAI will seek inputs from the pre-qualified bidders in further refining the requirements and all aspects of services before finalizing the Request for Proposal.

# Part IV:

# Bidding Terms and Pre-Qualification Criteria

## 1. CONDITIONS UNDER WHICH THIS EOI IS ISSUED

i) This EoI is not an offer and is issued with no commitment. IRDAI reserves the right to withdraw the EoI and change or vary any part thereof at any stage. IRDAI also reserves the right to disqualify any bidder, should it be so necessary at any stage.

ii) IRDAI reserves the right to withdraw this EoI if IRDAI determines that such action is in the best interest of the Organization.

iii) Short-listed bidders would be issued formal tender enquiry/Request or Proposal inviting their technical and commercial bids at a later date.

iv) Timing and sequence of events resulting from this EoI shall ultimately be determined by IRDAI.

v) No oral conversations or agreements with any official, agent, or employee of IRDAI shall affect or modify any terms of this EoI and any alleged oral agreement or arrangement made by a bidder with any department, agency, official or employee of IRDAI shall be superseded by the definitive agreement that results from this EoI process. Oral communications by IRDAI to bidders shall not be considered binding on IRDAI, nor shall any written materials provided by any person other than IRDAI.

vi) Neither the bidder nor any of the bidder's representatives shall have any claims whatsoever against IRDAI or any of their respective officials, agents, or employees arising out of, or relating to this EoI or these procedures (other than those arising under a definitive service agreement with the bidder in accordance with the terms

thereof).

vii) Applicants who are found to canvass, influence or attempt to influence in any manner the qualification or selection process, including without limitation, by offering bribes or other illegal gratification, shall be disqualified from the process at any stage.

viii) Each applicant shall submit only one Pre-qualification requirements proposal.

## 2. RIGHTS TO THE CONTENT OF THE PROPOSAL

For all the bids received before the last date and time of bid submission, the proposals and accompanying documentation of the Pre-Qualification proposal will become the property of IRDAI and will not be returned after opening of the pre-qualification proposals. IRDAI is not restricted in its rights to use or disclose any or all of the information contained in the proposal and can do so without compensation to the bidders. IRDAI shall not be bound by any language in the proposal indicating the confidentiality of the proposal or any other restriction on its use or disclosure.

## 3. ACKNOWLEDGEMENT OF UNDERSTANDING OF TERMS

By submitting a proposal, each bidder shall be deemed to acknowledge that it has carefully read all sections of this EoI, including all forms, schedules and annexure hereto, and has fully informed itself as to all existing conditions and limitations.

## 4. EVALUATION OF PRE QUALIFICATION PROPOSAL

The bidders' Pre-Qualification Proposal in the bid document will be evaluated as per the requirements specified in the EoI and adopting the pre-qualification criteria spelt out in this EoI. The Bidders are required to submit all required documentation in support of the pre-qualification criteria specified (e.g. detailed project citations and completion certificates, client contact information for verification, profiles of project resources and all others) as required for evaluation.

## 5. LANGUAGE OF PROPOSALS

The proposal and all correspondence and documents shall be written in English.

## 6. PRE-QUALIFICATION CRITERIA

This process is open to all Bidders who fulfill the eligibility criteria as set out below and is in agreement with IRDAI as per terms & conditions of this EOI document. The Bidders should furnish documentary evidence supporting the information provided by them as part of the bidding process.

**a.** A printed application format as prescribed on the bidding organization's letterhead with all required information and authorized representative's initials shall be submitted along with the proposal. Do not otherwise edit the content of the proposal cover letter as per **PART-IV Annexure-1.**

b. Prequalification proposal will be used for assessing the bidders on the basis of prequalification criteria laid down in this EOI. Therefore, the bidders are required to submit this proposal in specified format furnishing all the required information and supporting documents.

c. A bid may be rejected at prequalification stage itself and not considered for technical bidding if it fails to satisfy the prequalification criteria specified in this EOI.

d. All the pages of the documents should be duly signed and stamped and numbered.

e. The complete set of Documents should be properly indexed.

The invitation for bids is open to all entities registered in India who fulfil prequalification criteria as specified below:

a. IRDAI reserves its right to subject the bidders to security clearances as it deems necessary

b. The participation is restricted to companies registered in India.

c. The Bidder for BAP 2.0 project should satisfy all of the criteria below on its own:

i. The Bidder should be a company registered under Indian Companies Act 1956. The company should be primarily providing IT / ICT / ITeS operations in India for at least the last ten financial years for the year ending 31st March 2019 as evidenced by the Certificate of Incorporation issued by the Registrar of Companies, India. The bidder (Service Provider) will be a single legal entity.

ii. The Bidder should be a profitable company for the last three years and must have an annual turnover of not less than **INR 600 Crores** for each of the last three financial years ending 31st March 2018. Out of the Total turnover of the company at least INR **200 Crores or above should be from** system integration and **IT services** for each of the last three years. The net worth of the company must be above INR 100 Crores in the current financial year.

iii. The Bidder must have executed transitioning (from an existing operator to the bidder) of 'Turnkey IT Projects' of total contract value of INR 60 Crores or above.

iv. The Bidder (Service Provider) must have at least 2000 full time IT professionals on its payroll

v. The bidder (Service Provider) must be:
   a. CMMI level 5 **and**
   b. SAP authorized partner in India for Build, Extend and Develop solutions **or** SAP Global Strategic **Service** Partners

The certificate should be valid for at least a period of one year from the date of submission of the bid

vi) Banned or Blacklisted Companies by any State / Central Government or any Government Institutions in India will not be eligible to participate. An undertaking in the shape of affidavit, to this effect, signed by authorized signatory, has to be submitted.

Notes:

*1. In case of long duration projects that include operations and maintenance services in scope, it is expected that the bidder has successfully completed transitioning phase in the project.*

*2. 'Turnkey IT Projects' relates to projects involving IT Application, IT Infrastructure, and Operations & Maintenance Services on the application & infrastructure and provide end-to-end support.*

*3. In case of bidders where the CMMi certification is under renewal, the bidders shall provide the details of the previous CMMi certification and the current assessment details for consideration in the EoI process.*

*4. In respect of the cited projects, the bidder should have been directly responsible for the implementation of the projects and not just a member of a consortium.*

***5. Only Project Citations completed / started in the last 5 financial years (2014-2019) will be considered for evaluation.***

## 7. RESPONSE REQUIREMENTS

i) The Response to the Pre-Qualification Requirements shall be prepared in accordance with the requirements specified in this EoI and in the format prescribed in this document for each of the above mentioned qualifying criteria as proof of having the minimum requirements.

ii) Proposals must be direct, concise, and complete. All information not directly relevant to this EoI should be omitted.

iii) The pre-qualification proposal should be submitted online through CPPP portal.

iv) The proposal should contain the copies of references and other documents as specified in the EoI.

v) A board resolution / Authorization letter from CEO of bidding Company authorizing the Bidder to sign/ execute the proposal as a binding document and also to execute all relevant agreements forming part of EoI shall be included in the proposal

vi) IRDAI will not accept delivery of proposal in any manner other than that specified in this EoI. Proposal delivered in any other manner shall be treated as defective, invalid and rejected.

## 8. EOI PROPOSAL

The EOI Proposal should be submitted online with the following details.

Bidders are requested to submit their responses for the Pre-Qualification Requirements in five (5) parts, clearly labelled according to the following categories:

### 1. Part I – Covering Letter and Board Resolution / Authorization letter from CEO

a. Covering Letter from the Bidder as per the format provided in Part-IV - Annexure Response Format – Form I

b. Board resolution / Authorization letter from CEO authorizing the Bidder to sign/ execute the proposal as a binding document and also to execute all relevant agreements forming part of EoI

### 2. Part II – Details of the Organization

a. This part must include a general background of the respondent organization (limited to 400 words) along with other details of the organization as per the format provided in the EoI (Annexure Response Formats– Form II). Enclose the mandatory supporting documents listed in format.

b. The bidder must also provide the financial details of the organization as per format provided in the EoI (Annexure Response Formats – Form III). Enclose the

mandatory supporting documents listed in format.

### 3. Part III – Relevant Project Experience for Transitioning of Turnkey IT Projects

a. Respondents must provide details (client organization, nature / scope of the project, project value) of Turnkey IT project experience as per the format provided in the EoI (Annexure Response Formats – Form IV). The projects mentioned here should match with the projects quoted by the respondent in order to satisfy the qualification requirements. Enclose the mandatory supporting documents listed in format.

### 4. Part IV – Proof of Fulltime IT Professionals in the Bidder's Organization

a. The bidder must enclose certified copy by Statutory Auditor or Company Secretary of the bidder's organization with the number of full time IT professionals in the bidder's organization.

### 5. Part V – Proof of Certification

a. Assessment and Certification of the required certification (CMMi Level 5).
(Annexure Response Formats – Form V)

## 1. FORM I: COVERING LETTER

(Company letterhead)

[Date]

To,

The Chief General Manager (IT)
Insurance Regulatory and Development Authority of India
Sy No. 115/1, Financial District,
4th floor, Information Technology Department
Nanakramguda
Gachibowli, Hyderabad – 500032

Dear Sir,

**Ref: Expression of Interest Notice for Selection of Service Provider   for IRDAI**

**Business Analytics Project V 2.0**

Having examined the Expression of Interest (EoI), the receipt of which is hereby duly acknowledged, we, the undersigned, intend to submit a Pre-qualification requirements proposal in response to the Expression of Interest (EoI) for Selection of Service Provider for IRDAI BAP 2.0.   We attach hereto the response as required by the EoI, which constitutes our proposal.  Primary and Secondary contacts for our company are:

| | | |
|---|---|---|
| **Name:** | | |
| **Title:** | | |
| **Company Name:** | | |
| **Address:** | | |
| **Web Site** | | |
| **Phone:** | | |
| **Mobile:** | | |

| Fax: | | |
|---|---|---|
| E-mail: | | |

We confirm that the information contained in this response or any part thereof, including its exhibits, and other documents and instruments delivered or to be delivered to IRDAI is true, accurate, verifiable and complete. This response includes all information necessary to ensure that the statements therein do not in whole or in part mislead the department in its short-listing process. We fully understand and agree to comply that on verification, if any of the information provided here is found to be misleading the short listing process, we are liable to be dismissed from the selection process or termination of the contract during the project, if selected to do so, for providing Service Provider Services on BAP 2.0. We agree for unconditional acceptance of all the terms and conditions set out in the EoI document. It is hereby confirmed that I/We are entitled to act on behalf of our company/ corporation/ firm/ organization and empowered to sign this document as well as such other documents, which may be required in this connection.

Dated this Day of  **2019**

(Signature)

(In the capacity of)  (Name)  Duly authorized to sign the Tender Response for and on

behalf of:

(Name and Address of Company) Seal/Stamp of bidder

Witness Signature:
Witness Name:
Witness Address:

## CERTIFICATE AS TO AUTHORISED SIGNATORIES

I,…………………………, the Company Secretary of ………………………, certify that ………………………………………………………… who signed the above Bid is authorized to do so and bind the company by authority of its board/ governing body.

Date:
Signature: (Company Seal)
(Name)

## 2. FORM II: GENERAL DETAILS OF THE ORGANIZATION

| | |
|---|---|
| Name of organization | |
| Nature of the legal status in India | |
| Legal status reference details | |
| Nature of business in India | |
| Date of Incorporation | |
| Date of Commencement of Business | |
| Address of the Headquarters | |
| Address of the Registered Office in India | |

Other Relevant Information:

Website address:

PAN No:

GST No.:

**Mandatory Supporting Documents:**

a) Certificate of Incorporation from Registrar Of Companies( ROC)

b) Relevant sections of Memorandum of Association of the company or filings to the stock exchanges to indicate the nature of business of the company

## 3. FORM III: FINANCIAL DETAILS OF THE ORGANIZATION

| | FY 2016-17 | FY 2017-18 | FY 2018-19 |
|---|---|---|---|
| Revenue (in INR crores) | | | |
| Profit Before Tax (in INR crores) | | | |
| Revenue from IT services and system integration services (in INR crores) | | | |

**Mandatory Supporting Documents:**

a. Auditor Certified financial statements for the Last three financial years; 2016-17,2017-18 and 2018-19 (Please include only the sections on P&L, revenue and the assets, not the entire balance sheet.)

b. Unaudited financial statements certified by the Company auditor for the latest year (2018-19)  (in case the auditor certified statement for 2018-19 is not available)

c. Certification by the company auditors supporting the revenue break-up for IT Services and System Integration Services

## 4. FORM IV: TRANSITIONING OF TURNKEY IT PROJECT EXPERIENCE

| General Information | |
|---|---|
| **Name of the project** | |
| **Client for which the project was executed** | |
| **Name and contact details of the client** | |
| **Current Status** | |
| **Project Details** | |
| Description of the project | |
| Geographical Scope | |
| Outcomes of the Project | |
| Scope of Transition | |
| Business Processes | |
| Applications | |
| Technologies Used | |
| Infrastructure | |
| Operations & Services | |
| Number of Locations / Sites | |
| **Other Details** | |
| | |
| Duration of Transition (post selection) | |

| | |
|---|---|
| Total Duration of the project (no. of months, start date, completion date) | |
| Total cost of the project | |
| Total cost of the services provided by the Bidder | |
| Other Relevant Information | |

Mandatory Supporting Documents:

a) Letter from the client duly indicating the salient points like cost, period, scope of services like software, hardware, networking, O&M etc. and successful completion of the projects

**Project Capability Demonstration**

Complete details of the scope of the project shall be provided to indicate the relevance to the pre-qualification criterion (which is part of minimum qualification criteria).

## 5. FORM V: DETAILS OF CMMI CERTIFICATION

| | |
|---|---|
| Level of CMMi Assessment | |
| Date of Assessment | |
| Validity of the Assessment | |
| Name of the Assessing company and their contact details | |
| Units / Locations Assessed | |

**Mandatory Supporting Documents**

(i)     Proof of Certification

In case of bidders where the CMMi certification is under renewal, the bidders shall provide the details of the previous CMMi certification and the current assessment details for consideration in the EoI process.

## ANNEXURE-A


## OVERVIEW OF EXISTING SYSTEM AND CURRENT SCOPE OF WORK


This section provides details of the following:

a) Architectural and Information view of BAP
b) Business Process Covered in BAP and corresponding Solution mapping to SAP components
c). Underlying Infrastructure for BAP
d). Operations & Maintenance Services provided by the current operator


### a) Architectural and Information view of BAP


### Architecture Views

- **Architecture components:** Elaborates the major components of the envisaged Business Analytics Solution through which data will flow

- **Functional View:** Elaborates the functional components of the Solution

- **Information View:** Elaborates the information life cycle starting from acquiring the data, processing, storing to churning out information and consuming. This view shows the interactions within the various solution components

# Solution Components
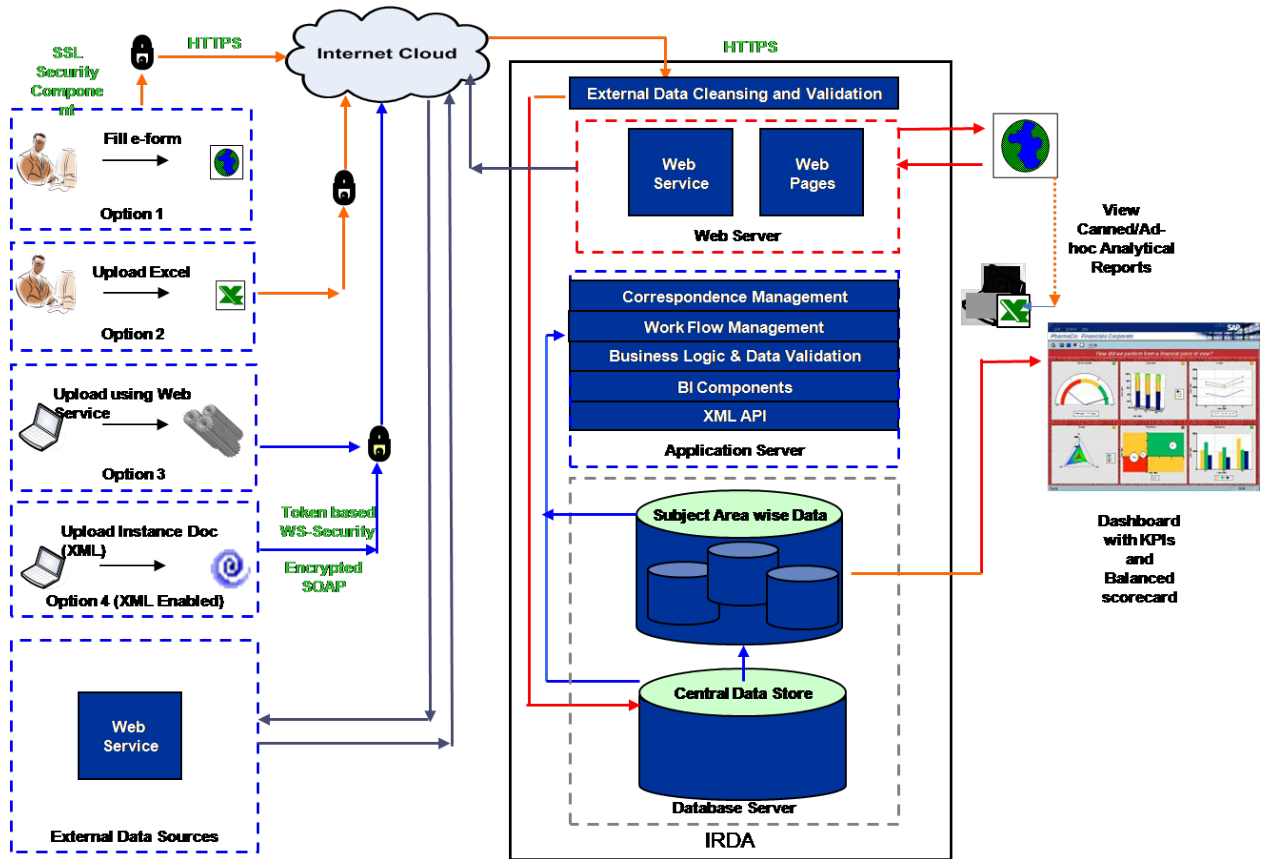
## Information view of BAP
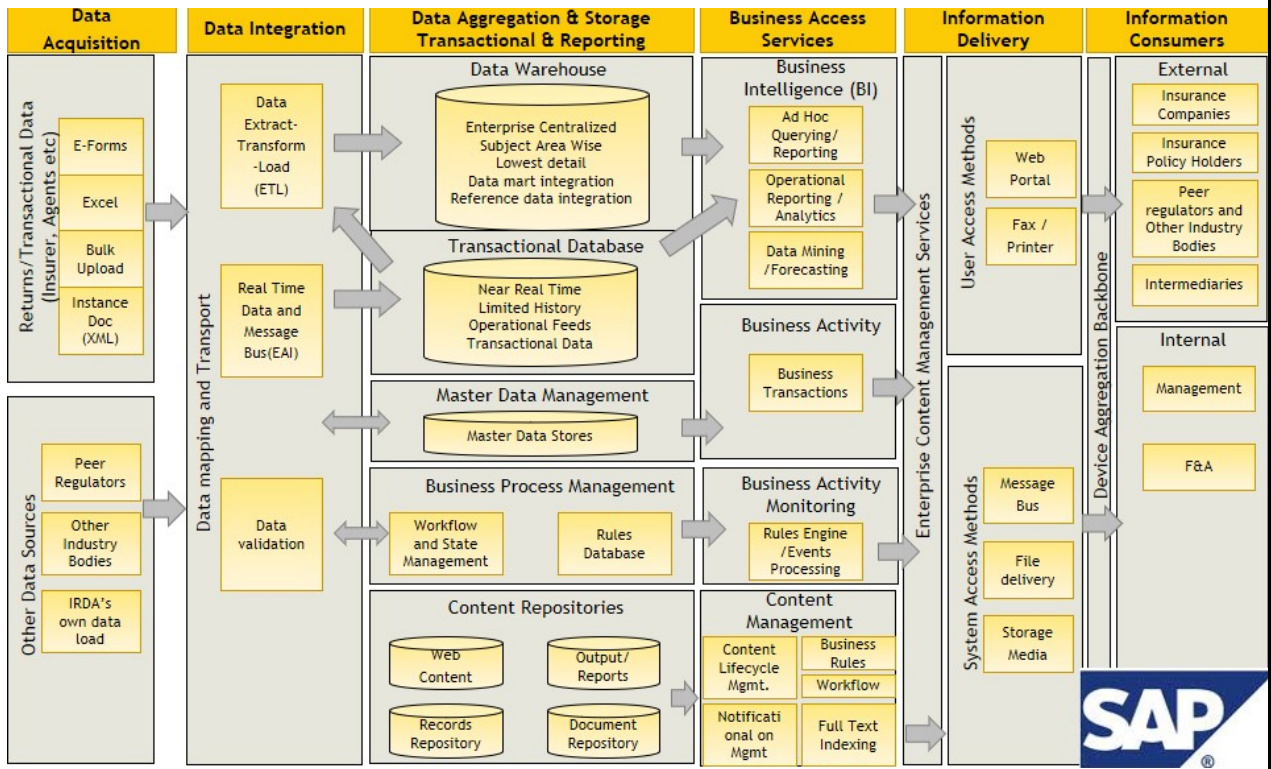
## b) Business Processes Covered in BAP: Mapped with SAP based solution for Business Analytics project for IRDA

BAP has been deployed in multiple SAP Netweaver based solutions in Enterprise portal, KM, BO XI R3 (web intelligence), crystal reports 2008 and Xcelsius environments and RDBMS (DB2).

# Key Processes Mapping for BAP Solution

### E-Filling & Online Submission

**SAP Enterprise Portal & SAP NetWeaver BPM**

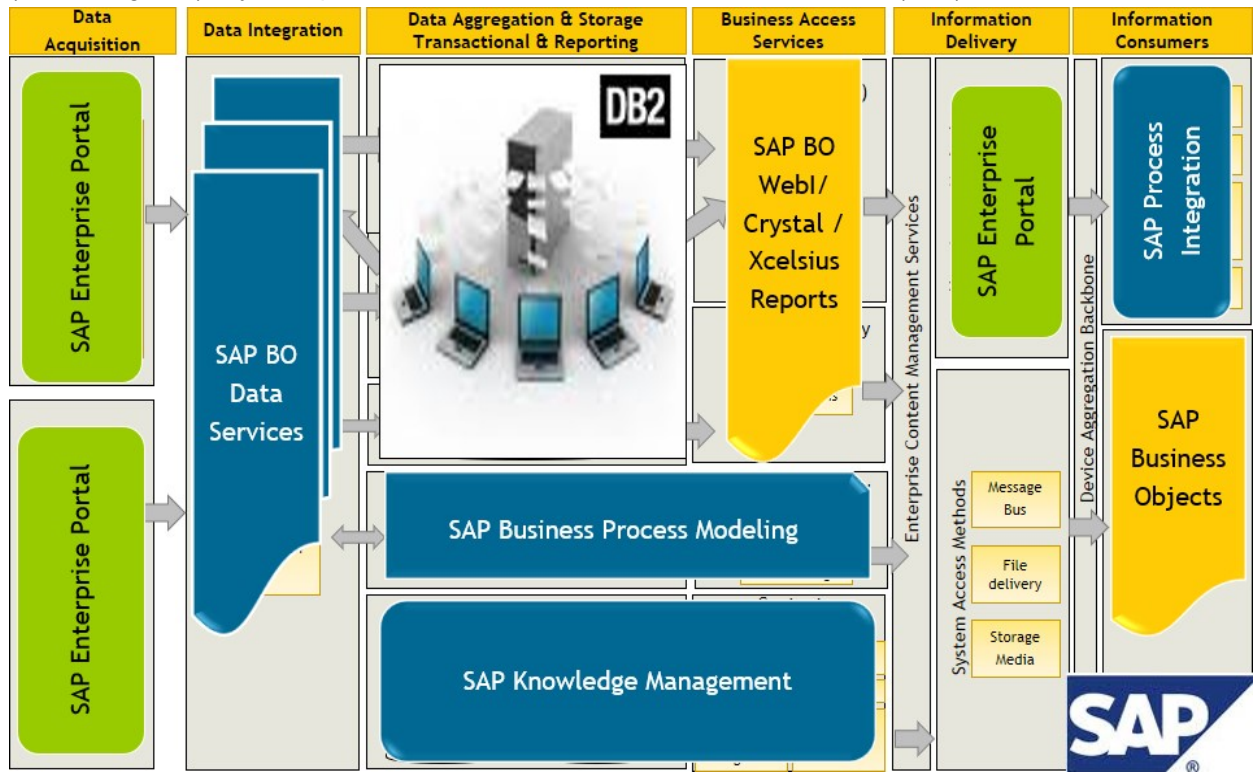- **Value Add:** Create a portal with defined views for each user with the necessary personalization and the workflow needed to process the filings and applications.

### Reporting & Analytics

**SAP Business Objects (BO)**

- **Value Add:** Complete set of tools to Extract, Transform and Load data in the format required and display it as reports or dashboards with user defined personalization

### Tracking & Monitoring

**SAP Enterprise Portal (EP)**

- **Value Add:** Solution with inherent capability to track submissions and monitor the status on portal site
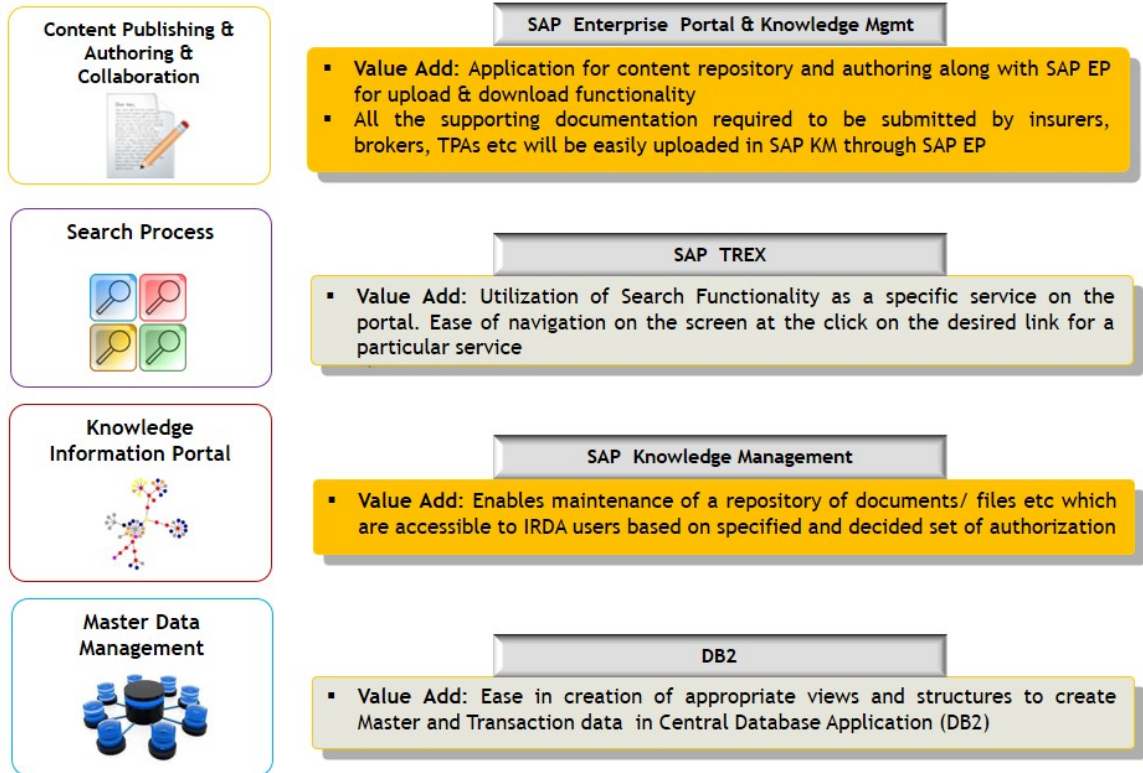
### Workflow Process

**SAP NetWeaver BPM & SAP EP**

- **Value Add:** Strong workflow engine which supports multiple levels of workflow and can be integrated to SAP Enterprise Portal
- Capability to generate reports, alerts and notifications and send the same to the users inbox through the internet or using SAP mailbox

# Key Processes Mapping for BAP Solution

| | |
|---|---|
| **Content Publishing & Authoring & Collaboration** | **SAP Enterprise Portal & Knowledge Mgmt**<br>▪ **Value Add:** Application for content repository and authoring along with SAP EP for upload & download functionality<br>▪ All the supporting documentation required to be submitted by insurers, brokers, TPAs etc will be easily uploaded in SAP KM through SAP EP |
| **Search Process** | **SAP TREX**<br>▪ **Value Add:** Utilization of Search Functionality as a specific service on the portal. Ease of navigation on the screen at the click on the desired link for a particular service |
| **Knowledge Information Portal** | **SAP Knowledge Management**<br>▪ **Value Add:** Enables maintenance of a repository of documents/ files etc which are accessible to IRDA users based on specified and decided set of authorization |
| **Master Data Management** | **DB2**<br>▪ **Value Add:** Ease in creation of appropriate views and structures to create Master and Transaction data in Central Database Application (DB2) |

The tabular illustration below details the BAP solution implemented for IRDA. The various processes referred to in the RFP have been given along with the respective solution component. A detailed analysis of individual functionality and mapping into SAP solution stack has also been given below.

| Sr. no | High Level process | Proposed High Level Solution |
|---|---|---|
| 1. | **E-Filing/ Online submission** –<br>**Online Filing:** Submission of returns and data by insurers<br>**File and Use:** Addition, deletion and updating of the products by the insurers<br>**Licensing of intermediaries such as brokers, surveyors and ATIs:** Application, licensing, renewal and duplication processes etc.<br>**Inspection Planning** | SAP Enterprise Portal along with SAP Netweaver BPM provides the ability to create a portal with defined views for each user with the necessary personalization and the workflow needed to process the filings and applications.<br><br>▪ The forms have developed using excel templates. The form data are validated in the UI screens of Portal before final submission. The data entered by the end users (Insurers/TPA/brokers/surveyors/IRDA personnel's) will get stored and reside in RDBMS (DB2).<br>▪ UI screens of portal were appropriately designed to provide details (e.g. new product etc.) based on user selection.<br>▪ Client side validations like mandatory fields, summations etc. have been built in the forms as well as in the UI screens. Automatic validation of the processes like disclosure submitted, time of reporting against threshold timing, insurer data against the various ratings etc. happens during the filing process. Such validations will |

| Sr. no | High Level process | Proposed High Level Solution |
|---|---|---|
| | **Management:** Inspection planning for the inspections program to be carried out by the IRDA personnel | be built inside the application/process layer of portal.<br>▪ Applicant will be notified with the alerts and error messages appropriately during online filing process.<br>▪ Successful completion for filing will be acknowledged.<br>▪ For processes that require approvals like product data uploads, documentations, conditional documents etc. SAP BPM layer along with process layer will be utilized.<br>Various periodic reports like modification history of products, valuation bases in comparative format etc. will get generated through BO reporting framework. This framework will use the information from the underlying RDBMS. These reports will enable IRDA personnel to monitor any delay in submission.<br><br>▪ Batch programs have been developed in BO which will be scheduled periodically to monitor various approvals. Automatic notification will be generated by the batch programs to inform appropriate department.<br>▪ Various application forms like TPA new and renewal application would be entered through portal UI layer, and then tracked through BPM layer. Portal will provide interface to upload documents which will be uploaded to the content repository SAP KM after successful submission by the user.<br>▪ Automated alerts will be sent to applicant in case approval of application fails at any stage. All the information about the application and approval process will be logged in to RDBMS for further reporting.<br>▪ Tracking of processes like license will be done through automatic scheduling of the programs. Alerts would be generated and mailed to appropriate users in case expiry date of the license is approaching and renewal is not yet received. |
| 2 | **Reporting and Analytics –**<br>**Reporting:** General reporting requirements for IRDA<br>**Advanced Reporting:** Advanced reporting requirements specifications like drilldown, drill through and other analysis etc.<br>**What-If Analysis:** Scenario building and generation requirements<br>**General Analytics:** General analytical requirements specifications for IRDA<br>**Adhoc Analysis and Dynamic Querying Requirements:** based | SAP Business Objects (SAP BO) has been implemented for Business analytical reporting to IRDA. The solution delivers the complete set of tools needed to extract , transform and load data in the format required and display it as reports or dashboards with user defined personalization.<br><br>▪ Data will be pulled in DB2 database with SAP BO Data services<br>▪ BO reports will be generated on top of DB2 cubes<br>▪ These reports will have functionalities mentioned in left block |

| Sr. no | High Level process | Proposed High Level Solution |
|---|---|---|
| | on As and When Analytical Need of IRDA **Top Management Dashboard Requirements** | |
| 3 | **Tracking and Monitoring –** Tracking and monitoring for compliance with respect to the online submission process by different external stakeholders. | SAP Enterprise Portal(EP) has the inherent ability to track submissions and monitor the same<br><br>▪ Tracking of processes like licensing, renewals etc. will be done through automatic scheduling of the programs. Alerts would be generated and mailed to appropriate users in case expiry date of the license is approaching and renewal is not yet received.<br>▪ Programs have been written in process layer of SAP EP to track the status of applications/forms submitted.<br>▪ Additionally, various programs have been developed in SAP BO, for periodic monitoring of the applications/forms submitted online by the various stakeholders. These programs would be scheduled to run in background so that automatic generation of necessary notifications or alerts can happen. |
| 4 | **Workflow -** Approval, review and rejection mechanism of various internal processes within and outside IRDA | SAP Netweaver BPM has a very strong workflow engine which supports multiple levels of workflow and is integrated to SAP Enterprise Portal.<br><br>▪ For processes that involve approvals, rejections or reviews like product data uploads, documentations, conditional documents etc. SAP BPM layer along with process layer will be utilized. This process layer manages the workflows and as a result of which automatic notifications, alerts are generated and sent to the users. |
| | **Alerts and Notifications** - Alerts sent to external stakeholders e.g. email sent to insurers reminding the submission date of returns and e.g. emails sent due to any delay in delivery from any team member | SAP Enterprise Portal along with SAP Business Objects have the capability to generate reports, alerts and notifications and send the same to the users in box through the internet or using SAP mailbox. |
| | **Content Publishing and Authoring -** upload/download documents by both the internal and external users of the system | **SAP Enterprise Portal (Knowledge Management)** is the application for content repository and authoring along with SAP EP for upload/download will be done.<br><br>▪ All the supporting documentation required to be submitted by insurers, brokers, TPAs etc will be uploaded in SAP KM through SAP EP.<br>▪ UI layer comprising of portal screens will provide interfaces to end users for uploading supporting documentation in KM<br>▪ If document is hardcopy, then it should be scanned to convert to |

| Sr. no | High Level process | Proposed High Level Solution |
|---|---|---|
| | | electronic format which can be uploaded through portal. Scanning will be done by user outside the system. |
| | **Search -** Allows users to search for a specific service in the portal, instead of trying navigate to the link for that particular service | SAP Enterprise Portal has this built in capability. Here, technically, SAP TREX has been utilized to search for a specific service in the portal. The search results would be displayed on the screen as a hyperlink. A click on the desired link will navigate the user to the respective service.<br><br>Indexing services of TREX have been configured to provide speedy search results. |
| | **Collaboration -** Services rendered by the portal however these are not necessarily owned by the portal. Instead these services may be borrowed for other portals or applications | SAP Enterprise Portal ( Knowledge Management ) has been connected to external applications like payment gateways etc.<br><br>Collaboration features of SAP KM will enable the IRDA personnel's to link to publish their documents/messages etc. through bulletin boards, message boards, hereby enabling the intercommunication amongst various IRDA departments. |
| | **Personalization -** Allows the user to personalize the web pages, look & feel and save favorite links etc. | SAP Enterprise Portal comes with native features which enable personalization by each user for content relevant to the user. |
| | **Knowledge Information Portal –** Data repository or library of different documents like company information, research papers, other documents accessible to IRDA internal users | SAP Enterprise Portal comes with a Knowledge Management component ( KM ) which enables maintenance of a repository of documents/ files etc which are accessible based on authorization<br><br>▪ All the supporting documentation required to be submitted by insurers, brokers, TPAs etc will be uploaded in SAP KM through SAP EP.<br>▪ UI screens would be provided to upload and download the documents as per the authorizations.<br>▪ Various access permissions have been built in for addition, modification and deletion of the documents.<br>▪ SAP KM will provide the user to create newsletter, templates, forms and surveys.<br>▪ Content of the portal can be authored, tracked and managed with extensive features as provided by SAP KM. |
| | **Master Data Management –** Creating, editing and maintaining of the organizational master data at a centralized location | Master Data Management will be enabled in the Central Database application with appropriate views and structures to create Master and Transaction data.<br><br>The entire master data would be created and managed at central location in RDBMS. The data captured from the online submissions etc. would also reside in the underlying layer of RDBMS. |
| | **Security Management –** | For the user authentication in the SAP systems, various mechanisms are supported. The basic user ID & password is the standard |

| Sr. no | High Level process | Proposed  High Level  Solution |
|---|---|---|
|  | Authentication, authorization, fraud detection, access management, secure communication channel, single sign on and encryption | mechanism while there is also support for use of the SSL protocol and the client certificates for user authentication. Single sign-on through logon tickets and client certificates is also supported. External authentication mechanisms like Secure network communications (SNC), Integrated windows authentication and mechanisms using the Java authorization and authentication service (JAAS) is also supported. For the portal applications, authentication based on user ID & password has be implemented. The J2EE engines running the SAP portal provide a comprehensive framework of J2EE roles with the support of UME roles for user authorizations. The systems have their own logging mechanisms for failed logon attempts and locking of users after certain number of failed attempts. The J2EE engine supports use of Protection domains and policy configuration in the security provider service to define access control lists. The applications support the use of secure socket layers for communication with different components of the application.<br><br>Single Sign-on feature has not been implemented. |
|  | **Application and systems management**<br><br>- Logging, exception handling, monitoring, release and patch management, audit trail, replication management, metadata management, server statistics analysis, data migration & integration,<br>- SLA management, application integration | SAP Netweaver Administrator is the tool that will be used for administration and monitoring, offering a central entry point to the whole SAP Netweaver system landscape. The Logs and Traces plug-in in the SAP NWA allow you to view all the text logs and traces that are generated from the system landscape. Relevant alerts are generated in the monitoring work centres for appropriate actions. SAP releases patches for its system components at regular intervals. These patches are applied to the system components through SAP's Java support package manager. The systems can be configured for various levels of audit trails which are then available as audit logs on the application which can be viewed through the NWA. The systems would be configured to provide an overview of the logs generated by data management tools and the data replication tools. The monitoring work centre of the NWA provides vital statistics on performance of different servers and system components. SLAs are effectively managed through Solution Manager.<br>Application integration have been done with the help of Process integration layer as provided by SAP PI. Standard adapters (like JMS, iDOC, JDBC, mail etc.) have been used |

## Existing technology versions and count in BAP

| APPLICATION NAME | COUNT IN DC: | COUNT IN DR: |
|---|---|---|
| IBM DB2 9.7 Fix pack 4 | 28nos | 9nos |
| NW7.3 JAVA Portal Application Server | 6nos | 2nos |
| SBOP 4.2 Support pack 3 | 3nos | 1nos |
| Data Service 4.2 Support Pack 8 | 3nos | 1nos |
| Information Steward 4.2 SP3 Patch 8 | 3nos | 1nos |
| NW7.3 Process Integration | 3nos | 1nos |
| NW7.1 Solution Manager | 1nos | 1nos |
| SAP Web Dispatcher | 2nos | 1nos |
| SAPROUTER 7.20 | 1nos | 1nos |
| SAP Trex 7.1 | 3nos | 0nos |

| | | |
|---|---|---|
| Windows 2008 R2 Ent | 2 nos | 0nos |
| Windows 2008 R2 Std. | 3 nos | 1nos |
| Redhat Enterprise Linux (1-2Socket) | 17nos | 7nos |
| VMware vSphere Std. | 1nos | 0nos |
| LTO 5 backup cartridges | 20nos | 20nos |
| Symantec End point Protection | 3 | 1 |
| Symantec Net Backup Server 7.1 | 1nos | 1nos |
| Symantec Net backup client 7.1 | 11nos | 8nos |
| Symantec net Backup SAN | 8nos | 4nos |
| Symantec  Net backup DB | 2 nos | 2nos |
| Symantec  Net backup Drive | 4 nos | 4nos |
| VPN license - ASA5530 - | 750nos | |

## Hosting Facility

The support partner provided hosting facilities through Tata Communications Ltd (TCL) at Hyderabad DC for providing co-location services. The support partner has supplied and installed the IT infrastructure for the Business Analytics solution at the Hyderabad DC and also at the DR site at Chennai. The support partner has also provisioned the bandwidth required for connecting these sites to each other as well with IRDAs both internal and external users.

The following diagram illustrates how end users of IRDA gets accessing the application from their respective locations.
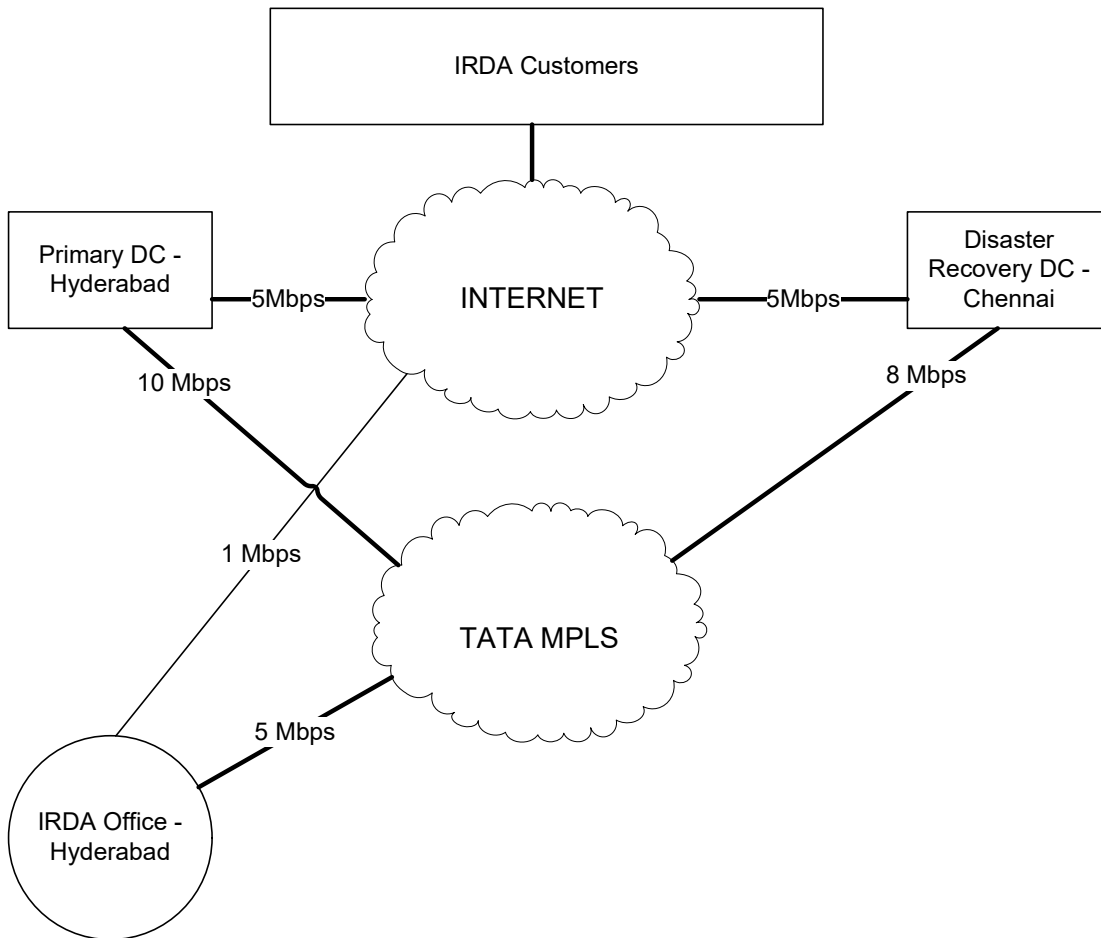


- The MPLS links have been recently upgraded to 20 Mbps under fully meshed any to any MPLS network.

**Infrastructure Scope of The support partner**

- Deployed server and storage hardware for data center (DC) and disaster recovery center (DR) deemed suitable for implementation of BAP as per IRDA's requirements.
- Deployed Network equipments such as switch, routers and load balancer as required by the solution.
- Maintenance hardware setup during warranty period and thereafter during the stipulated period of Annual Maintenance Contract (AMC)
- Installation and configuration of Operating System with required licenses
- Provide Co-location facilities and required bandwidth for the application using Tata Communications as a vendor for a period of 6 years (including implementation period) for the DC infrastructure and 5 years for the DR infrastructure
- Provide remote monitoring and infrastructure support of the application hosted at Tata Communications DC at Hyderabad and Chennai]

The following section provides the detailed activities that are being carried out in each of the areas mentioned.

**IT landscape for Business Analytics Solution**

# Systems Landscape
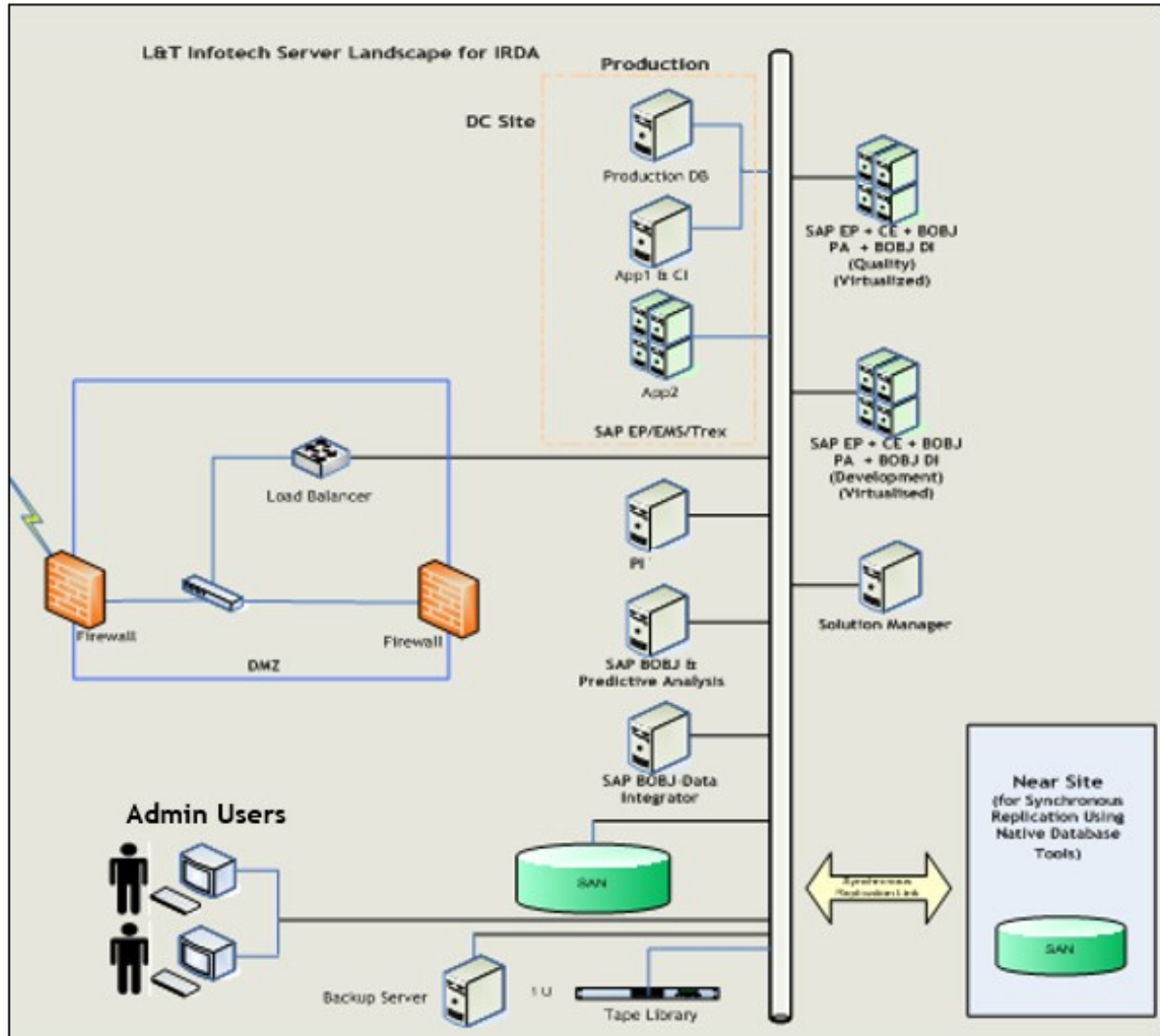


- The internet and MPLS WAN links are having redundant ring structure for high availability.
- The DC location has firewall with IPS and Load-Balancers in HA.

- The SLB has a license for GSLB so as to have the webservers available all the time over internet.
- The data replication will happen between DC and DR in asynchronous manner over MPLS and in synchronous manner at Near DC.
- The DR location has a single firewall with IPS and Load-Balancer with GSLB license.
- The heart-beat for GSLB failover will be over the internet and the NS records will be changed when the DC internet link or the internet router LAN interface goes down.
- The webserver and app server are load balanced using the SLB.

The following table illustrates the IT infrastructure that will be supported as part of the BAP environment.

| Infrastructure | Type | Qty |
|---|---|---|
| Servers | Linux | 18 |
| Database | DB2 | 8 |
| Storage | SAN | 3 |
| Backup device | Tape library | 2 |
| Network | Switches, Routers, Loadbalancer, Firewall with IPS' | 17 |

| SI No. | Location (DC or DRC) | Component Name | Purpose | Brand/Make | Model/Series | Part No. | Quantity | No. of CPU | Cores | Memory | Storage Space |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | DC | Dell(TM) PowerEdge(TM) M910 High Performance Intel Blade | Database Server | Dell | Dell(TM) PowerEdge(TM) M910 | 210-30775 | 1 | 4 | 16 | 64 GB | 2 x 300 GB |
| 2 | DC | Dell(TM) PowerEdge(TM) M910 High Performance Intel Blade | App1 & CI Server | Dell | Dell(TM) PowerEdge(TM) M910 | 210-30775 | 1 | 4 | 16 | 64 GB | 2 x 300 GB |
| 3 | DC | Dell(TM) PowerEdge(TM) 2 Socket Half Height M610 Blade Server | 1) App2 Server 2) PI 7.0 Server | Dell | Dell(TM) PowerEdge(TM) M610 Blade Server | 210-27780 | 2 | 2 | 8 | 32 GB | 2 x 300 GB |
| 4 | DC | Dell(TM) PowerEdge(TM) M910 High Performance Intel Blade | SAP BOBJ & Predictive Analysis Server | Dell | Dell(TM) PowerEdge(TM) M910 | 210-30775 | 1 | 4 | 24 | 64 GB | 2 x 300 GB |

| 5 | DC | Dell(TM) PowerEdge(TM) 2 Socket Half Height M610 Blade Server | SAP BOBJ-Data Integrator Server | Dell | Dell(TM) PowerEdge(TM) M610 Blade Server | 210-27780 | 1 | 2 | 12 | 32 GB | 3 x 300 GB |
| 6 | DC | Dell(TM) PowerEdge(TM) 2 Socket Half Height M610 Blade Server | Solution Manager Server | Dell | Dell(TM) PowerEdge(TM) M610 Blade Server | 210-27780 | 1 | 2 | 8 | 16 GB | 2 x 300 GB |
| 7 | DC | Dell(TM) PowerEdge(TM) M910 High Performance Intel Blade | 1) Quality Server for SAP EP + CE + BOBJ PA + BOBJ DI in a virtualized environment  2) Development Server for SAP EP + CE + BOBJ PA + BOBJ DI in a virtualized environ | Dell | Dell(TM) PowerEdge(TM) M910 | 210-30775 | 2 | 4 | 16 | 32 GB | 2 x 300 GB |
| 8 | DC & DR | Dell(TM) PowerEdge(TM) 2 Socket Half Height M610 Blade | 1) Backup Server for DC  2) Backup Server for DR | Dell | Dell(TM) PowerEdge(TM) M610 Blade Server | 210-27780 | 2 | 2 | 8 | 16 GB | 2 x 300 GB |

| | | | Server | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | 2 | 2 | 8 | 32 GB | 2 x 300 GB |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | DR | Dell(TM) PowerEdge( TM) 2 Socket Half Height M610 Blade Server | Production Database & CI Server | Dell | Dell(TM) PowerEdge( TM) M610 Blade Server | 210-27780 | 2 | 2 | 8 | 32 GB | 2 x 300 GB |
| 10 | DR | Dell(TM) PowerEdge( TM) 2 Socket Half Height M610 Blade Server | PI 7.0 Server | Dell | Dell(TM) PowerEdge( TM) M610 Blade Server | 210-27780 | 1 | 2 | 8 | 32 GB | 3 x 300 GB |
| 11 | DR | Dell(TM) PowerEdge( TM) M910 High Performanc e Intel Blade | SAP BOBJ & Predictive Analysis Server | Dell | Dell(TM) PowerEdge( TM) M910 | 210-30775 | 1 | 4 | 24 | 32 GB | 2 x 300 GB |
| 12 | DR | Dell(TM) PowerEdge( TM) 2 Socket Half Height M610 Blade | SAP BOBJ-Data Integrator Server | Dell | Dell(TM) PowerEdge( TM) M610 Blade Server | 210-27780 | 1 | 2 | 12 | 32 GB | 3 x 300 GB |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Server | | | | | | | | |
| 13 | DR | Dell(TM) PowerEdge(TM) 2 Socket Half Height M610 Blade Server | Solution Manager Server | Dell | Dell(TM) PowerEdge(TM) M610 Blade Server | 210-27780 | 1 | 1 | 6 | 16 GB | 2 x 300 GB |
| 14 | Near Site | Dell(TM) PowerEdge(TM) 2 Socket Half Height M610 Blade Server | Near Site Server | Dell | Dell(TM) PowerEdge(TM) M610 Blade Server | 210-27780 | 1 | 1 | 4 | 16 GB | 2 x 300 GB |
| 15 | DC | EMC CX4-120 SPE COMBO SAN Storage | SAN Storage for DC | EMC | CX4-120C8 | CX4-120C8 | 1 | - | - | - | 1) 7 x 1000GB 7200RPM SATA 2) 10 x 600GB 15K 4GB FC |
| 16 | DR | EMC CX4-120 SPE COMBO SAN | SAN Storage for DR | EMC | CX4-120C8 | CX4-120C8 | 1 | - | - | - | 10 x 600GB 15K 4GB |

| | | Storage | | | | | | | | | | FC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | Near Site | EMC AX4-5F Storage Array | Storage for Near Site | EMC | AX4-5F | AX4-5F | 1 | - | - | - | | 1000GB 7200RPM SATA 3GB DRIVE |
| 18 | DC | Cisco MDS 9148 Multilayer Fabric Switch | SAN Switch for DC | Cisco | MDS9148 | MDS9148 | 2 | - | - | - | | - |
| 19 | DR | Cisco MDS 9124 Multilayer Fabric Switch | SAN Switch for DR | Cisco | MDS9124 | MDS9124 | 2 | - | - | - | | - |
| 20 | DC & DR | Power Vault(TM) TL2000 Rack Mount Tape Library | Tape library for DC and DR | Dell | PowerVault(TM) TL2000 | 210-32490 | 2 | - | - | - | | - |

| 21 | DC | Dell(TM) PowerEdge(TM) R310 Rack Server | Web Despatcher | Dell | Dell(TM) PowerEdge(TM) R310 Server | BECTH6Y_3 | 2 | 1 | 4 | 32 GB | 2 x 300 GB |

# Logical Storage Solution



**IRDA Logical Solution Schematic**
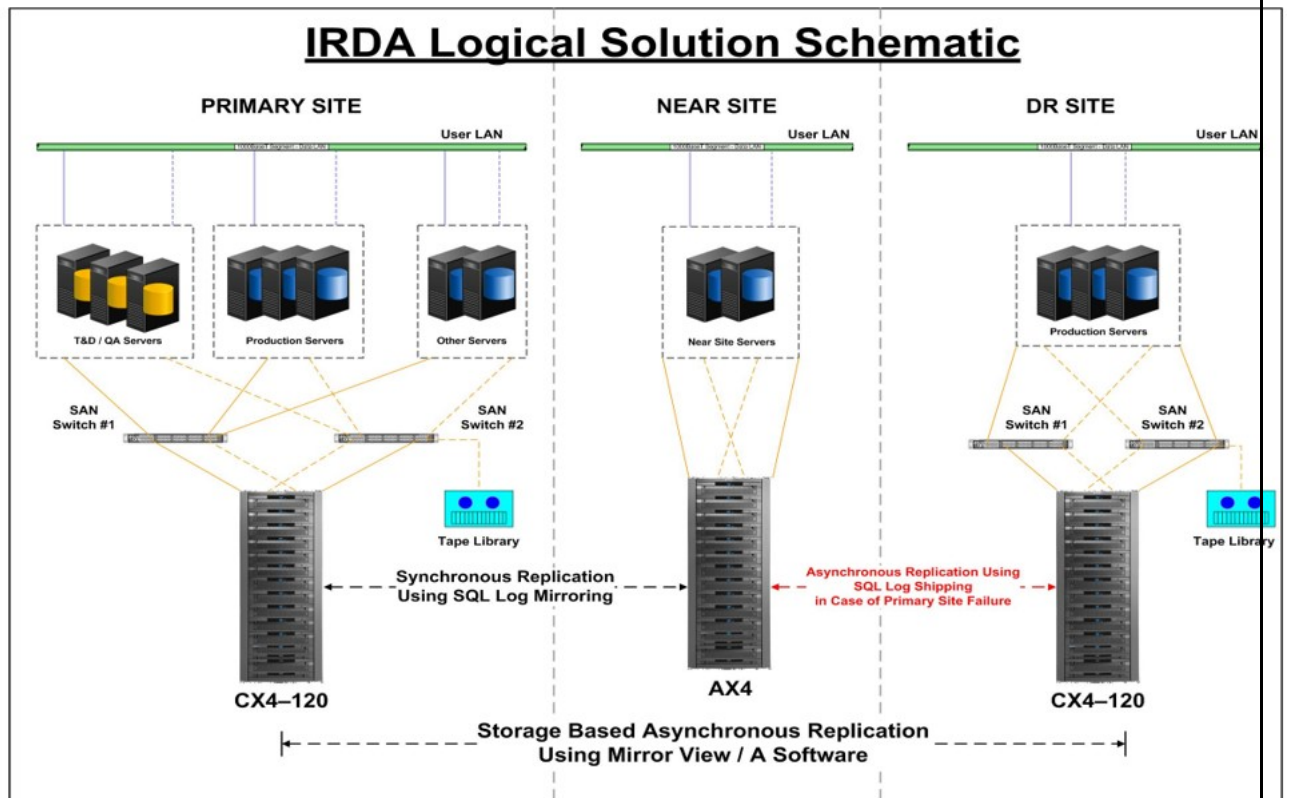
No Data Loss Between Primary & Near Site (Synchronous Replication)

- For Critical Application which require No Data Loss, The Data from the Primary Site & Near Site are replicated synchronously.
- The Synchronous Data Replication between Primary & Near Site is achieved using Database Log Mirroring (Native Database Tools).
- Database Log Mirroring ensures that whatever data is written in the Primary Site is simultaneously written to the Near Site before the Commit is given to the Database Host
- This Ensures that there's no data loss even in case of a Primary Site Failure and the RPO is near zero
- In the event of Primary Site failure, the data from Near Site to the DR Site would be replicated asynchronously by Archived Log Shipping to ensure that the DR Site also has the same level of Data as Near Site
- Critical applications with RTO = 2 Hour would be resumed from the DR Site

The Bandwidth between the Primary & Near Site have to be sized so that the RTT (Round Trip Time) < 5 ms to enable synchronous replication between the sites

**Details of Software Licenses for SAP components currently used**

| Sr. No. | Component Name / Description | No. of Licenses |
|---|---|---|
| 1 | SAP Application Expert Users | 5 |
| 2 | SAP Application Information User | 500 |
| 3 | SAP Netweaver Developer User | 2 |
| 4 | SAP Netweaver Administrator User | 1 |
| 5 | SAP Netweaver Process Integration | 2 |
| 6 | SAP Netweaver Business Rules Management | 2 |
| 7 | SAP Netweaver Foundation for Third Party Applications, CPU based | 2 |
| 8 | SAP Business Objects BI package (CPU) | 12 |
| 9 | SAP Business Objects Data Services (DI & DQ) | 4 |

Note: The Annual Technical Support (ATS) with for SAP the above are currently being paid through our Support partner (LTI)

**d) Operations & Maintenance Services provided by the current operator**

**Scope for Co-location**

LTI is providing co-location facility at Tata Communications datacenter (DC) in Hyderabad for primary and NDR. The DR site for the BAP setup is in Tata Communications DC at Chennai. The bandwidth required for connecting the various locations is provided by L&T Infotech through Tata Communications Ltd (TCL). In addition, L&T Infotech is providing the internet connectivity to the DC and the DR site for IRDAs external users through TCL.

Scope of services for co-location includes the following
- Providing co-location space at identified Tata Communications DC (Hyderabad) and DR (Chennai) hosting locations
- Setup of server, storage, network and firewall environment at DC and DR locations
- Deploying operating system on the servers
- Provisioning of SAN storage for servers
- Provisioning and maintaining of backup infrastructure
- Provisioning and maintaining of connectivity for IRDA users (both internal and external)
- Provisioning and maintaining of connectivity between DC and DR locations

**Ongoing Infrastructure Support**

L&T InfoTech manages the entire IT infrastructure that are required for the Business Analytics Project. Their resources provide support to the related servers, storage, network devices from IRDA office and from their Pune Center.

The following table provides the list of activities that are carried out as part of current engagement.

| S.No | Support Area | In-Scope Infrastructure | Scope of Services |
|---|---|---|---|
| 1 | Unix/Linux Support | 16 Linux servers | <ul><li>OS Administration & patch management</li><li>Performance monitoring based on CPU, memory, system services, alerts/events logs, disk space etc.</li><li>User and Group Management</li><li>User, print and device management</li><li>Volume manager administration</li><li>Basic application management (Monitoring and coordination)</li><li>System scheduling and job administration/monitoring</li><li>Scripts and Cronjob Management</li><li>Firmware upgrades</li><li>Vendor coordination for issue & problem resolutions</li><li>Installation & upgrades of drivers</li><li>OS upgradation</li></ul> |
| 2 | Network Support | 17 devices including routers and switches | <ul><li>Check for network performance, link utilization and alerts</li><li>Provide troubleshooting & resolution of network tickets</li><li>Device Configuration Management</li><li>Planning and execution of IOS, software, firmware upgrades for network devices</li><li>Provide network management and troubleshooting</li><li>OEM/vendor co-ordination for spare replacement and hardware issues</li><li>Preparation of daily reports for status reporting as per agreed formats and updating of all tickets in ticketing system</li><li>Provide monthly reports to L&T Infotech PM on trend analysis and network availability</li></ul> |
| 3 | Storage & Backup Support | 7.2 TB of data | <ul><li>Add, delete and Changes in RAID Configuration</li><li>Monitor & Manage Storage</li><li>Provide administration and configuration of storage</li><li>SAN space management (Capacity management)</li><li>Monitoring, administration and configuration of switches</li><li>Provide support in firmware upgrades on storage & switches</li><li>Performance Monitoring and Analysis support</li><li>LUN Management (Allocation & Reclaim)</li><li>SAN zone management</li><li>SAN switch management and monitoring</li><li>Maintaining detailed reports of storage infrastructure</li><li>Coordinate with vendor for compatibility issue & problem resolutions</li></ul> |

| S.No | Support Area | In-Scope Infrastructure | Scope of Services |
|---|---|---|---|
| 4 | Database Support | 8 DB2 databases | <ul><li>Monitoring status of instances, databases and check for availability</li><li>Monitoring logs across applications for performance related issues</li><li>Monitoring table space and log file sizes for internal database objects</li><li>Monitor for parameters like Disk sort/read/write rate, CPU utilization, network waits etc</li><li>Managing archive log space and active log space</li><li>Work on performance and query tuning activities</li><li>Schedule downtimes for patch and software upgrades</li><li>Performing backups in accordance with the backup policies</li><li>Provide monthly reports on problem & capacity management</li></ul> |
| 5 | Security Administration | 35 devices | <ul><li>Reporting and resolution of security incidents</li><li>Antivirus Support</li><li>Implementation of security patches</li><li>Periodic review of security logs</li><li>Implementation of secure domain policies as per IRDA's security policy</li></ul> |

**System Administrator for Infrastructure Support**

L&T InfoTech has also provided a system administrator who works as per the directives of the Project Management Office and act as the second level of support for the in-scope infrastructure.

**DR Drill:  Once in six months**

**Annual maintenance including Technical Support**

**Technical Support**

As a part of AMC, LTI has set up an appropriately staffed and centralized helpdesk for providing Technical support to various users of the BAP application.

The following list provides the detailed activities that are being carried out by the Technical support team:

- Provide L1 helpdesk support for the BAP application
- Log calls into the service desk ticketing tool upon receiving e-mails from end-users
- Support to be provided based on the SOPs shared by SAP application team
- Escalate to designated L2 support teams namely applications support, infrastructure support if calls do not get resolved as per the SOPs shared

## Operation and Maintenance

LTI is responsible for operations and maintenance of BAP for a period of 7 Years.   As a part of operations and maintenance activities, LTI provides

| |
|---|
| Development and Implementation |
| Training |
| Application Support |
| Service Monitoring |
| Problem Management Support |
| Incident Management Support |
| Backup/Restore Management |
| Release and Deployment Support |
| Configuration Management Support |

| |
|---|
| Service Testing |
| Production Assurance |
| Knowledge Management |
| Capacity Management |
| Availability Management |
| Solution Design Services |
| Storage Management |

The above services provided by LTI are governed by strong SLAs:

**TRANSITION OF BUSINESS ANALYTICS PROJECT**

**TO BAP 2.0**

**SCOPE OF WORK**

1.  **New BAP solution should address the following Aspirations:**

a)  Smooth transition with minimal hindrances from the current environment to the new environment (in the same SAP upgraded stack / any other solution proposed by the bidders).

b)  Designing and implementation **Master Data Template** formats for submission of returns, statements and reports by the insurers/intermediaries/TPAs. Currently all regulated entities submit data to each department in their own specific return format which causes duplication of data submission involving minimal to moderate changes in inter departmental formats. To avoid this, it is proposed that in the new system, all input templates of monthly, quarterly, half-yearly and annual returns will be harmonized and the regulated entities will submit the data in the codified formats ( code and values)  to IRDAI BAP system at their prescribed frequencies.

c)  Better user experience (UX) for different levels of user

d)  IRDAI Lower management users – simple reports
    IRDAI Middle management  users – Trends and predictive analysis
    IRDAI Top management users – Live Dashboards

e)  Minimal efforts to be involved in designing of the adhoc reports by business users and more elaborative visualization.

f)  Current and advance solutions for Business intelligence and Business Objects reporting.

g) The upgraded solution should be supported by the respective OEMs for another 7 years.

h) **Technology version upgradation:** whenever new patches or releases for any technology (quoted by the bidder) is released by OEM will be performed regularly by the bidder and reports for the same will be submitted to IRDAI.

i) Timely upgradation of all relevant and deliverable project documents including documents related to Change Requests will be performed by the bidder and the same will be intimated to IRDAI.

j) Exhaustive Regression and Automation testing of all existing BAP modules and all newly created and redeveloped modules will be done by the bidder. Existing gaps will be identified and opportunities to streamline the existing processes to be explicitly mentioned in the report.

k) Automated Scripts /Cronjob to be developed and deployed for automated generation of the alerts and triggers for daily health check of the system, successful backup or backups failure, memory/CPU/file-system space utilization above desirable threshold etc., Application or application related services unavailability, Bandwidth utilization more than desirable threshold for both lease line and Internet line, etc.

l) Chat bot functionality shall be developed as part of the BAP redevelopment work by the IA and including the question bank related to all issues in consultation with the respective departments of IRDAI.

m) The upgraded portal will be security audited by a Cert-in empaneled cyber security auditor.

n) Change management system should be very flexible, agile, cost-effective and should be capable being implemented on the fly as we have lot of frequent changes in the regulation which needs to be incorporated in the different modules

of the system. The maintenance team to be deployed in IRDAI will also be responsible for implementing changes in the developed application on an on-going basis.

o) Simple and user friendly incident management system for BAP technical issues.

p) Availability of the user interface with latest UI technology on PC, mobile, and tablet platforms and having compatibility with all available browsers.

q) Zero dependency on system settings like java run time, pop up settings, plugins, add-ons installations etc. UI portal should be user friendly for non-technical persons as majority of our end user base is from age group 40-50 and non-technical.

r) Portal should be highly secure without vulnerabilities like duplicate login session and should be SSL supported and encrypted.

s) New system which can aid to departmental users to do the analytics, raise early warning signs / alarms for quick and informed decision making process.

t) The regulated entities should be able to submit the data in XBRL format.

u) Hardware sizing to be provided with latest available servers with enhanced features supporting DC-DR failover and BCP in the market with a vision of getting OEM consistent support for next 7 years.

v) Reliable backup solutions which can be tested periodically to ensure complete data availability with industry standard RPO and minimal RTO in case of DC failure.

w) 9*6 for six working days every week technical support for end user with telephonic helpline and very simple and robust incident/ ticket handling system based on end user priority.

x) 24 X 7 for the infrastructure to be deployed in IRDAI and DR facility.

y) Proposed solution should have provision for onsite support team for development, technical and support purposes.

z) SAP Software Component based Business Analytics Solution should ensure smooth Integration with External/Internal interfaces eg: PayGov payment gateway interface.

2. **Expectations from proposed solution:**

a) The bidder must size the components of the proposed solution to meet the throughput, capacity and performance. The bidder shall submit the sizing methodology in response to the EOI. Adequate on-site spares or availability of such spares within the specified time frame of uptime requirements to restore the system back to normal state in the event of failure should be provided. The bidder must clearly propose and specify application/software/utilities compatible with existing applications/utilities installed. The bidder is responsible for supply, installation, configuration of entire solution ensuring existing functionality will be maintained.

b) The number of concurrent users is currently 500, but the same will be doubled with the timeframe of 5 years. There will be other users also accessing the system in a limited way. The system should be able to support up to 1000 concurrent users during peak times in future. These users will be part time users to support investigations, inspections, etc. The total named users would be around 50,000 users.

3. **Takeover Portal Operations**

a) The selected service provider will take over the portal operations from the current service provider including source code of the existing application by

setting up of appropriate development and quality environment at their location.

b) Shifting the portal operations to the identified hosting services providers (Primary, DR and NDR) and make the portal operational from new hosting service provider

c) Setup of new helpdesk operations, takeover helpdesk operations from the current service provider and make the new helpdesk facility operational.

d) Service provider will also maintain the existing hardware setup in a comprehensive manner and maintain the existing application till such time the new portal is operational.

## 4    Upgrade / re-develop the existing Portal

i.    Replace of existing hardware setup (excluding Storage) to cater the need of increased user base, better user experience and better performance of portal.

ii.    Upgrade the portal software to the latest SAP technology stack

iii.    Development of new modules for managing the registrations and e-filing of the following intermediaries:

      a.  Web aggregator

      b.  Cross Border re-insurance

      c.  IMF

      d.  Health module (on-line filing of returns and development of reports)

iv.    Enhanced helpdesk supports operations including handling of incoming phone calls, e-mail messages and incident management.

v.    Setting up of new portal and Provide Infrastructure Management services for the same.

vi.    Maintain Primary, Near DR, Disaster Recovery Facility for BAP

vii.    Acts as System Integrator for the overall performance of BAP by providing end-to-end services and support.

5. **Maintenance of upgraded / newly developed portal:**

   a) Provide application maintenance services for the upgraded BAP portal including implementation of Changes as per the requirement of IRDAI for a period of 7 years

   b) Provide Hosting and Helpdesk Operations as per the SLAs for a period of 7Years

   c) Provide end-to-end support during the maintenance period.

   d) The detailed requirements are as follows:

6. **Replacement of existing hardware setup:**

   a) The existing servers (except SAN storages which are being replaced now) have reached EOL and End-of-Support and hence, they require replacement.

   b) The new hardware setup should be adequately size to meet the requirements of next 7 years and also taking into account of proposed enhancements in terms of functionalities and Technology

7. **DEVELOPMENT OF MASTER DATA TEMPLATES FOR COLLECTION OF DATA**

Currently, the returns are submitted by the regulated entities (Insurers / Intermediaries) in the form of Excel templates. The data are validated and on successful validation, returns are digitally signed by insurers and filed. This submitted information are taken into consideration by various user departments for further analysis. When there are regulatory changes, considerable time is required to be spend in implementing the changes. ( Eg. Inclusion of a data element/column requires many changes in the application (excel formal, data validation, data –upload programme, data base structure etc.) which is a time consuming process. It is also felt that same data are collected in multiple forms by various departments in different frequents. The bidder will be required to develop a master data template for the entire BAP data requirement by studying the all the

data submission formats of BAP. The new data template will have only THE codes and values (number or amount) which will provide flexibility of adding a data element in the formal with minimal changes in the application.

## 8. SETTING UP OF INHOUSE TEAM FOR MAINTENANCE OF APPLICATION AND PROVIDE TECHNICAL SUPPPORT:

The maintenance and helpdesk support team would be stationed in-house at IRDAI's location, Hyderabad for providing on-going maintenance and technical support. The maintenance team will also take care of implementing changes in the application on an on-going basis.

## 9. SETTING UP OF NEW INFRASTURE RELATED TO PRIMARY & NDR IN IRDAI, HYDERABAD AND MAINTAIN THE SAME IN-HOUSE:

It is planned to setup the primary setup in IRDAI, Hyderabad. DR facility will be provided by the bidder. The entire infrastructure (Primary, Near DR and DR) should be managed through infrastructure management services 24 * 7