



Let's Solve



# Reliability And Data Accuracy for Right Decisions - Data Assurance



A Larsen & Toubro Group Company



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Organizations are adopting newer technologies to draw insights from gathered data for driving their business strategies. Ensuring Data quality, integrity and security is no more optional. Many organizations are now looking for scalable, flexible and reliable cloud-based data warehouses. Infrastructure plays a key role for organizations to obtain an acceptable return from their data warehousing investments. Organizations usually face issues in areas of Data Coverage, Performance & Security of Data Processing Systems, Data Quality & Correctness, and Test Data Availability. Another issue is the lack of holistic data QA strategy, which not only impacts quality but also leads to higher expenses.

To overcome the above challenges, LTI has developed a proprietary innovative solution, RADAR (Reliability and Data Accuracy for Right Decisions), to handle data assurance needs.

## Data Assurance using RADAR

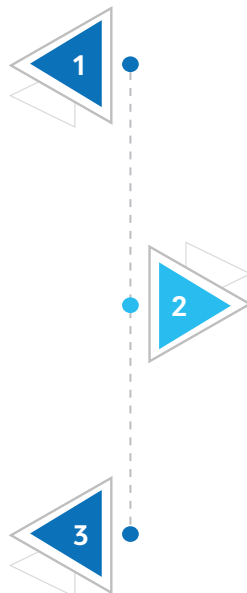
LTI's RADAR is designed with a keen focus around People, Processes and Technology engaged for Data Assurance. It offers end-to-end solutions across the data warehouse/business intelligence lifecycle as mentioned below:

### Data Warehouse Testing

- Data Structure and Schema Validation
- Data Quality & Integrity Validation
- Data Completeness & Correctness Validation
- E2E Business Rules Validation

### Data Migration Testing

- Data Transformation Validation
- Referential Integrity Verification
- Data Corruption/Redundancy Verification



### Business Intelligence Testing

- Dimensions and Metrics Validation
- Pixel to pixel text comparison and Layout validation
- Data reconciliation
- Report Testing



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## Reliability And Data Accuracy for Right Decisions



### Data Warehouse

Database comparison across:

- Oracle, Teradata, DB2, MySQL, SQL server, Sybase, Netezza, SAP BW
- Flat, Excel, CSV, PSV, XML, Fixed Length File



### Big Data Assurance

- Heterogeneous data sources validation
- Field level validations for structured and semi-structured data
- Checksum based data validation for un-structured data
- Data validation engine using MapReduce
- Validation in Hadoop cluster



### Business Intelligence & Reports

- Text and image comparison in PDF files
- Excel sheet comparator and merger utility
- XML comparator and merger utility

Enterprise Test Data Management Tools



Data Subset

Data Generation

Data Masking

## Business Benefits

- Dedicated DW/BI Testing Practice with a certified pool of domain and technical experts
- Strong expertise in setting up DW/BI Testing CoEs for global clients and a well-defined readily available DW/BI Process Framework
- Intensive Delivery Model, improving test data coverage upto 100%
- Proprietary comprehensive framework RADAR, enabling reduction in testing efforts by 60%
- Pre-defined Data Validation strategies to identify bad or unwanted data
- Continuous innovation by creating client-specific IPs, and implementing continuous improvement



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# CASE STUDY - Implementation of RADAR increases Test Coverage and Automation for a leading US-based P&C Insurer

## The Client

US-based Global Insurance Company, offering a wide variety of Insurance & Surety products, as well as Risk Management Services, to numerous types of businesses, organizations and individuals.

## Challenges



Large volume of data from multiple and disparate sources affecting Data Accuracy, Consistency & Reliability



Lack of technology agnostic automation tools



Extensive efforts & time required for comparing the volume of data

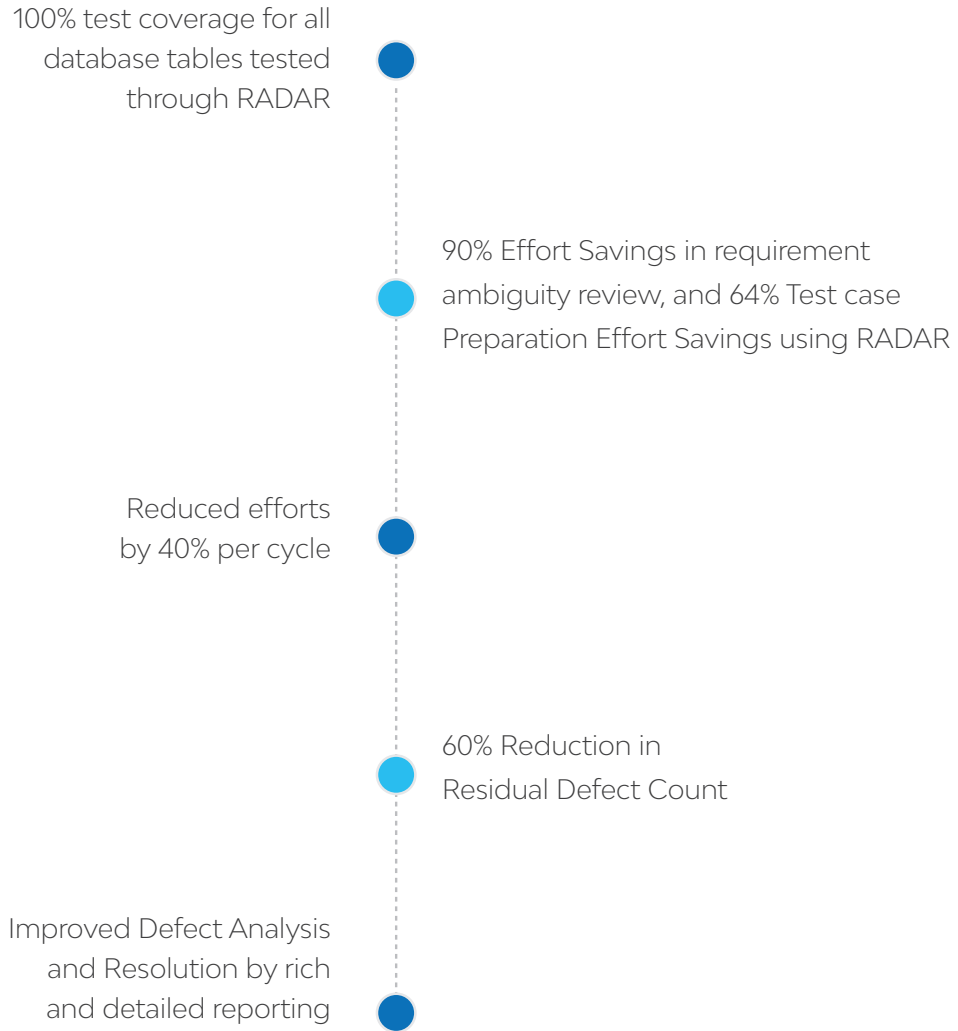
## LTI solution

- 90% Regression and Functional data testing automation
- Set up DW/BI Domain and Data assurance experts team
- Leveraged propriety tool RADAR for Data Validation for Oracle, DB2, Teradata, etc.
- Established a common ETL framework, to facilitate Application Development with built-in optimization
- Completed Risk based testing by preparing Test Suite, based on functionalities



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## Business benefit delivered



LTI (NSE: LTI, BSE: 540005) is a global technology consulting and digital solutions Company helping more than 300 clients succeed in a converging world. With operations in 27 countries, we go the extra mile for our clients and accelerate their digital transformation with LTI's Mosaic platform enabling their mobile, social, analytics, IoT and cloud journeys. Founded in 1997 as a subsidiary of Larsen & Toubro Limited, our unique heritage gives us unrivaled real-world expertise to solve the most complex challenges of enterprises across all industries. Each day, our team of more than 24,000 LTIites enable our clients to improve the effectiveness of their business and technology operations, and deliver value to their customers, employees and shareholders. Find more at [www.Ltinfotech.com](http://www.Ltinfotech.com) or follow us at @LTI\_Global

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