

Experience the commitment



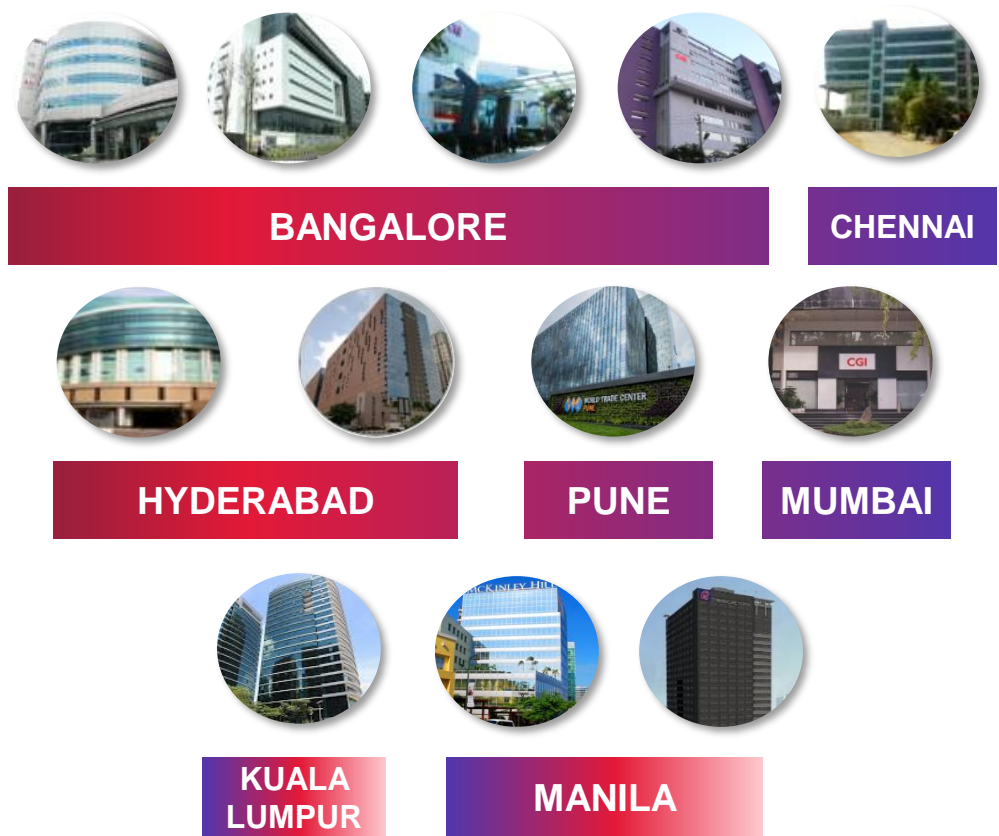
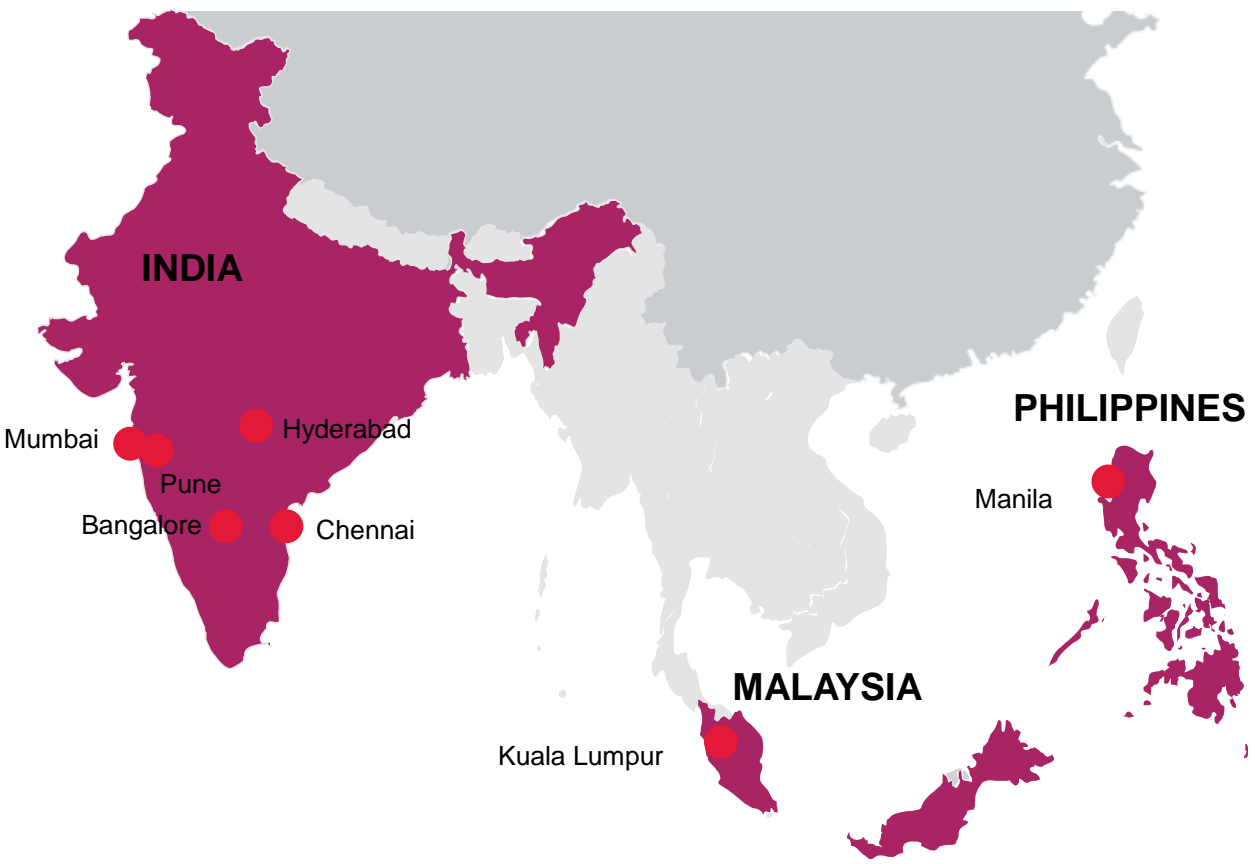
**CGI**



Confederation of Indian Industry  
125 Years - Since 1895

# INTRODUCTION

CGI is a global end-to-end IT and business process services leader



## ASIA PACIFIC GLOBAL DELIVERY CENTERS OF EXCELLENCE

3

countries

12

offices

7

cities

# Leveraging Kaizen practices and Lean principles to Transform Service Quality for Work Order Management system

- **Goal / Objective** : Service Quality Transformation through Automation and Efficient Processing. Benefits being Productivity gains, Faster processing, Happy Clients and Satisfied Members
- **Theme** : Practice Continual Improvements and adopt Lean principles to reduce waste and enhance Service Quality for a large Order Management eco-system. Leverage Automation, Innovation, Tools and Techniques, latest development and deployment methodologies in the program.








Project commencement date : Ongoing Support

Facilitator



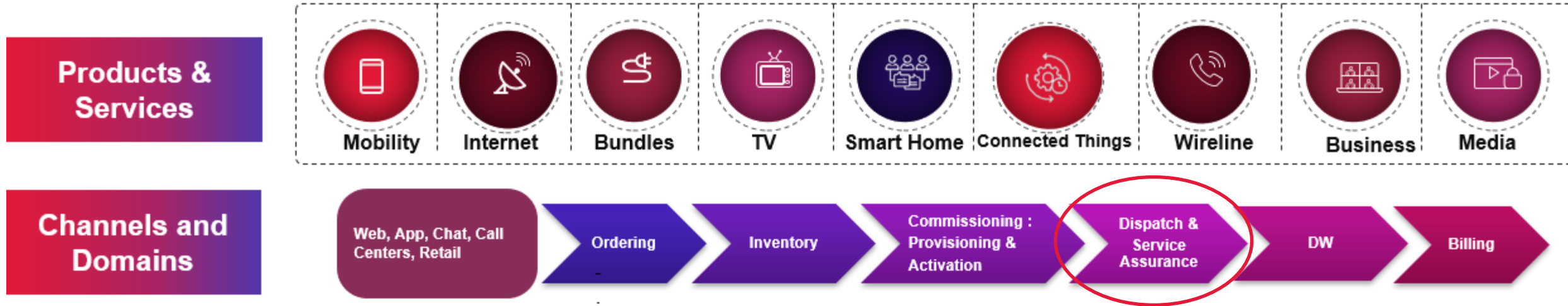
Karthi R

Quality Lead

Presenter	Presenter	Presenter	Presenter	Member	Member	Member
						
Sai Prakash Y	Printu Abraham	Aanchal Tandon	Gowrikanth B	Raushan Kumar	Basavaiah Kotte	Karunkrishna M
Delivery Director	Delivery Manager	Technical Prime	Quality Lead	Technical Prime	Technical Prime	Technical Prime

# Project Overview

Client is a North America telecommunications giant, offering a wide range of products and services with self-serve capabilities to end customers. We at CGI provide end-to-end services to over 60 critical Business systems.



Work Order Management (WOM) system, built on Oracle's product OSM, creates Work Orders for Field Technicians to track and complete all tasks associated with a customer order. WOM ingests information from customer channels, performs validations and creates work orders that Technicians consume and complete customer order lifecycle.

## Challenges

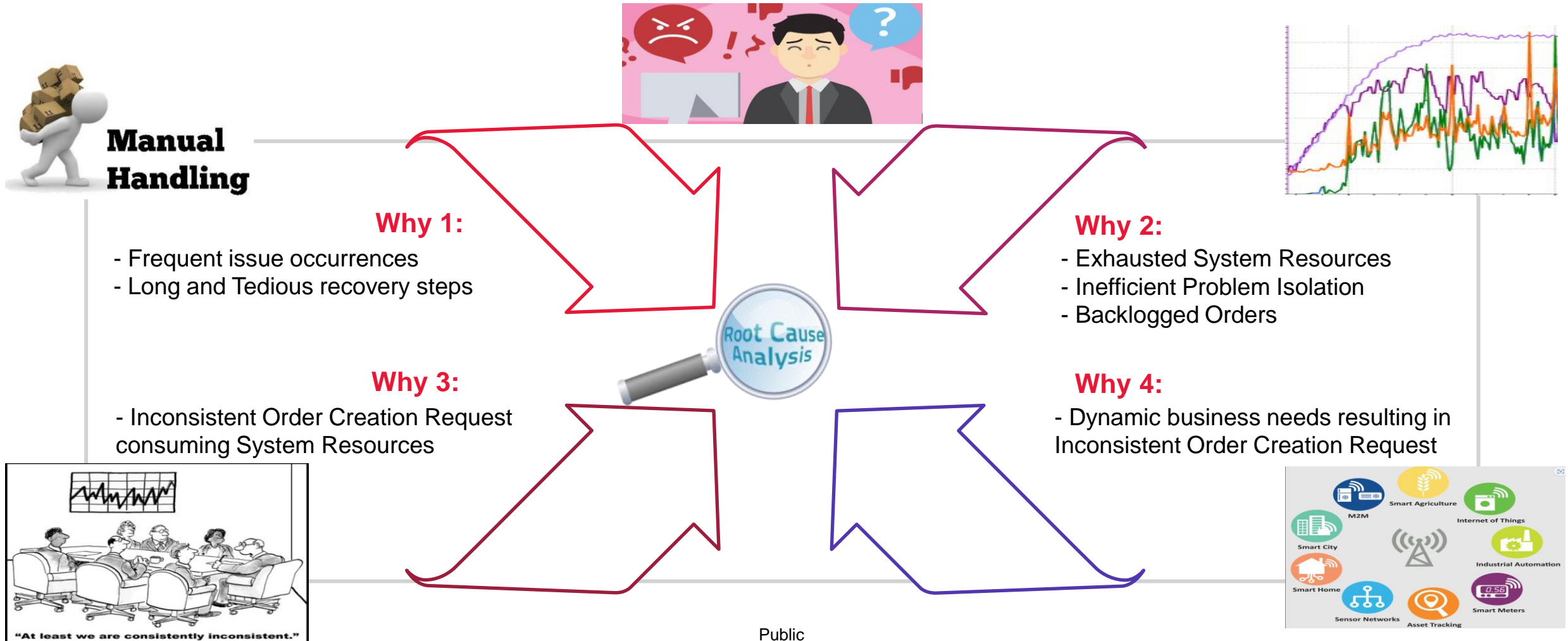
- Fast changing market landscape; Frequent new feature rollouts; ***Volatile production environment.***
- Tedious ***manual recovery activities*** from outage and ***higher MTTR.***
- Multiple new members in the team; Inconsistent knowledge of business, requiring ***more efforts to resolve issues.***



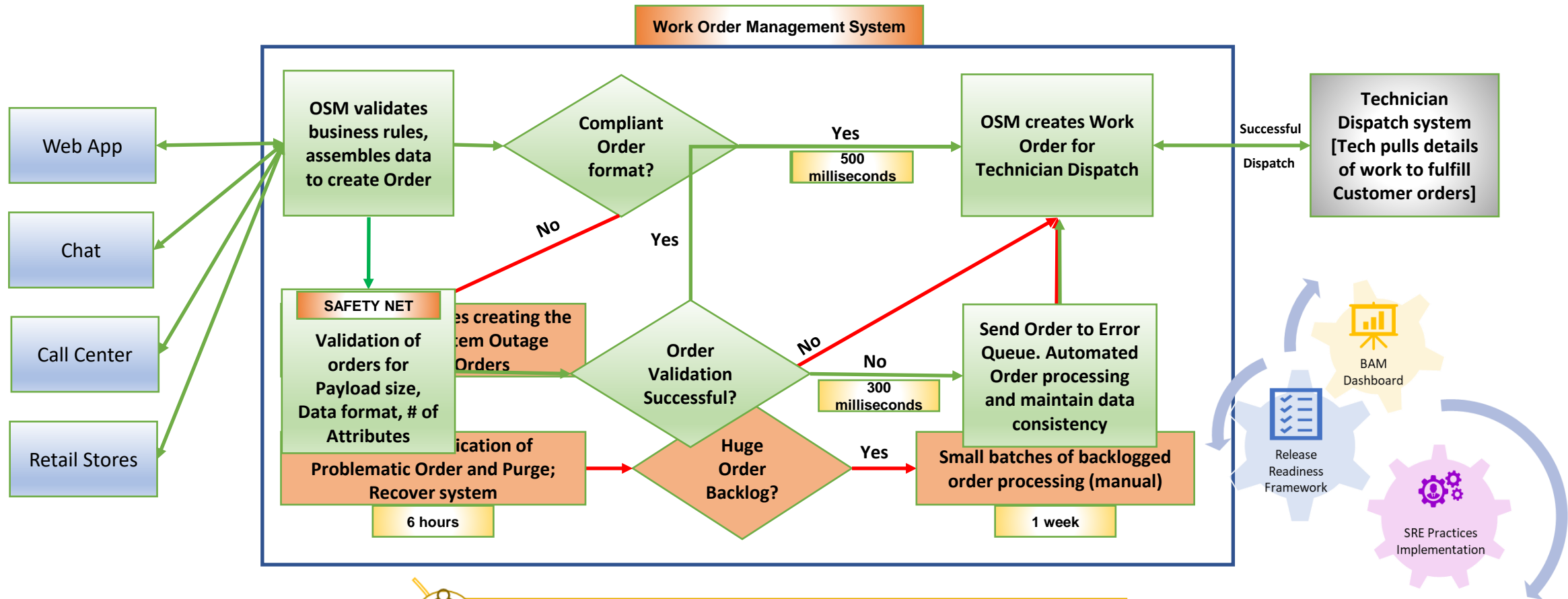
# Identifying the Cause


## Problem Statement


- **Missed end-customer commitments** due to frequent disruptions leading to revenue loss, declining customer satisfaction.
- Longer, complex recoveries leading to **additional manual efforts, loss of productivity, lower member morale**.
- **Reduced Service-Reliability** due to the delayed or missed customer appointments, higher MTTR.





# Work Order Creation journey – Before and After





**SAFETY NET – Why?**

**Best place to trap errors**

**Average Daily Order Volume of 17 K**

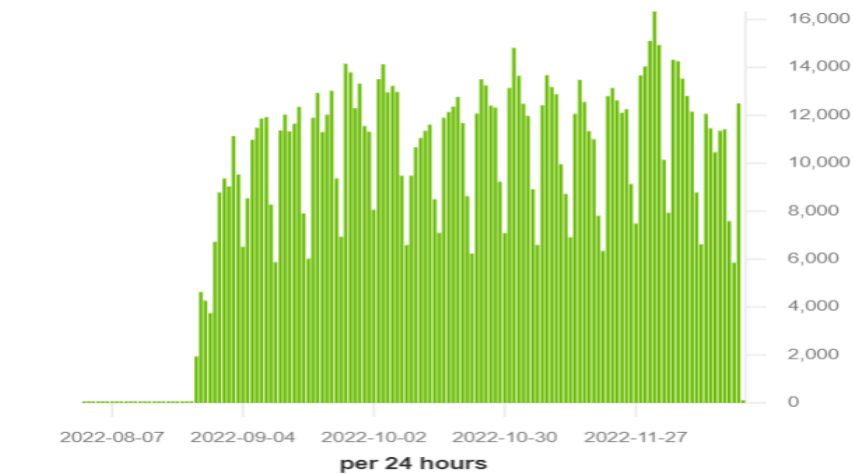
**Over 4.5 K order backlog post Outage**

**~ 4 minutes to manually identify and process order**

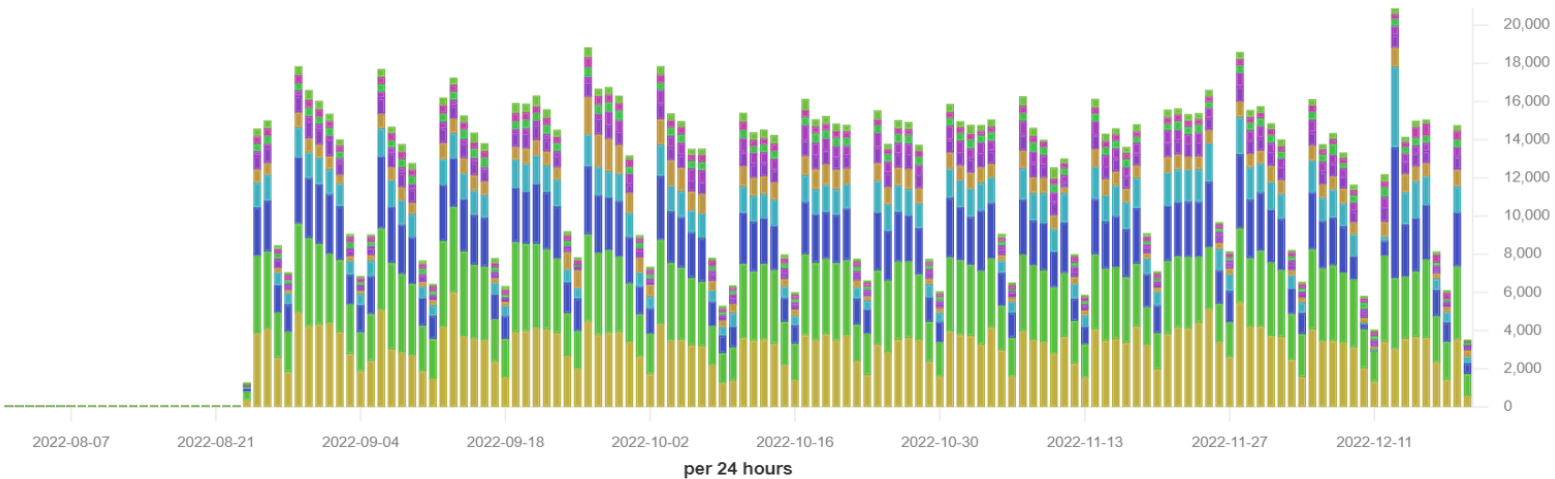
**Parameters for continuity**

# Solution Snippet: BAM Dashboards & Code

Volume of CLICK Orders by Click Due Date



Volume of Total Orders Received by Source System



```
public class OsmXMLApiWebClient {  
    Logger logger = LoggerFactory.getLogger(OsmXMLApiWebClient.class);  
  
    private String url;  
    private String username;  
    private String password;  
  
    private WebClient webClient;  
  
    MultiValueMap<String, String> myCookies = new LinkedMultiValueMap<>();  
  
    @PostConstruct  
    public void login() throws SSLException {  
        logger.info("PostConstruct for login");  
        SslContext sslContext = SslContextBuilder.  
            .forClient()  
            .trustManager(InsecureTrustManagerFactory.INSTANCE)  
            .build();  
  
        HttpClient httpClient = HttpClient.create()  
            .tcpConfiguration(tcpClient -> tcpClient  
                .proxy(proxy -> proxy  
                    .type(ProxyProvider.Proxy.HTTP)  
                    .host("127.0.0.1")  
                    .port(8888))  
                .secure(t -> t.sslContext(sslContext)));  
  
        webClient = WebClient.  
            .builder().clientConnector(new ReactorClientHttpConnector(httpClient))  
            .baseUrl(url)  
            .codecs(codecs -> codecs  
                .defaultCodecs()  
                .maxInMemorySize(10 * 1024 * 1024))  
            .build();  
    }  
}
```

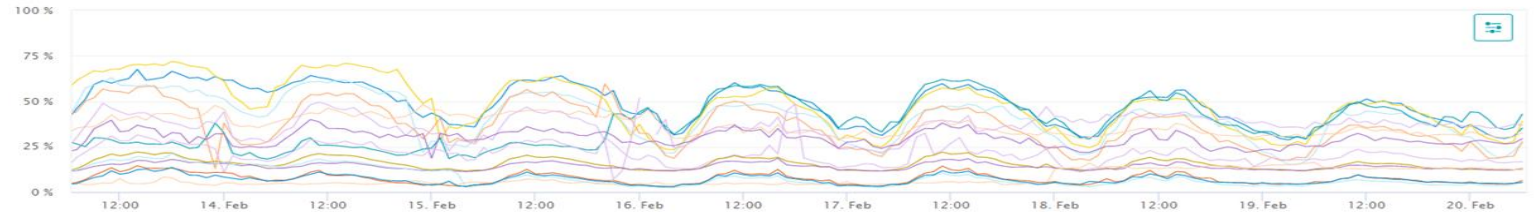
WOF Order stats table

Source System	Total orders	Missing Orders	Delayed Orders	No Work Derived Orders	False Cancel Orders
COM	663	27	81	256	73
COPS	0	0	0	0	0
HOTS	477	8	340	0	76
MAXIMO	95	19	68	0	2

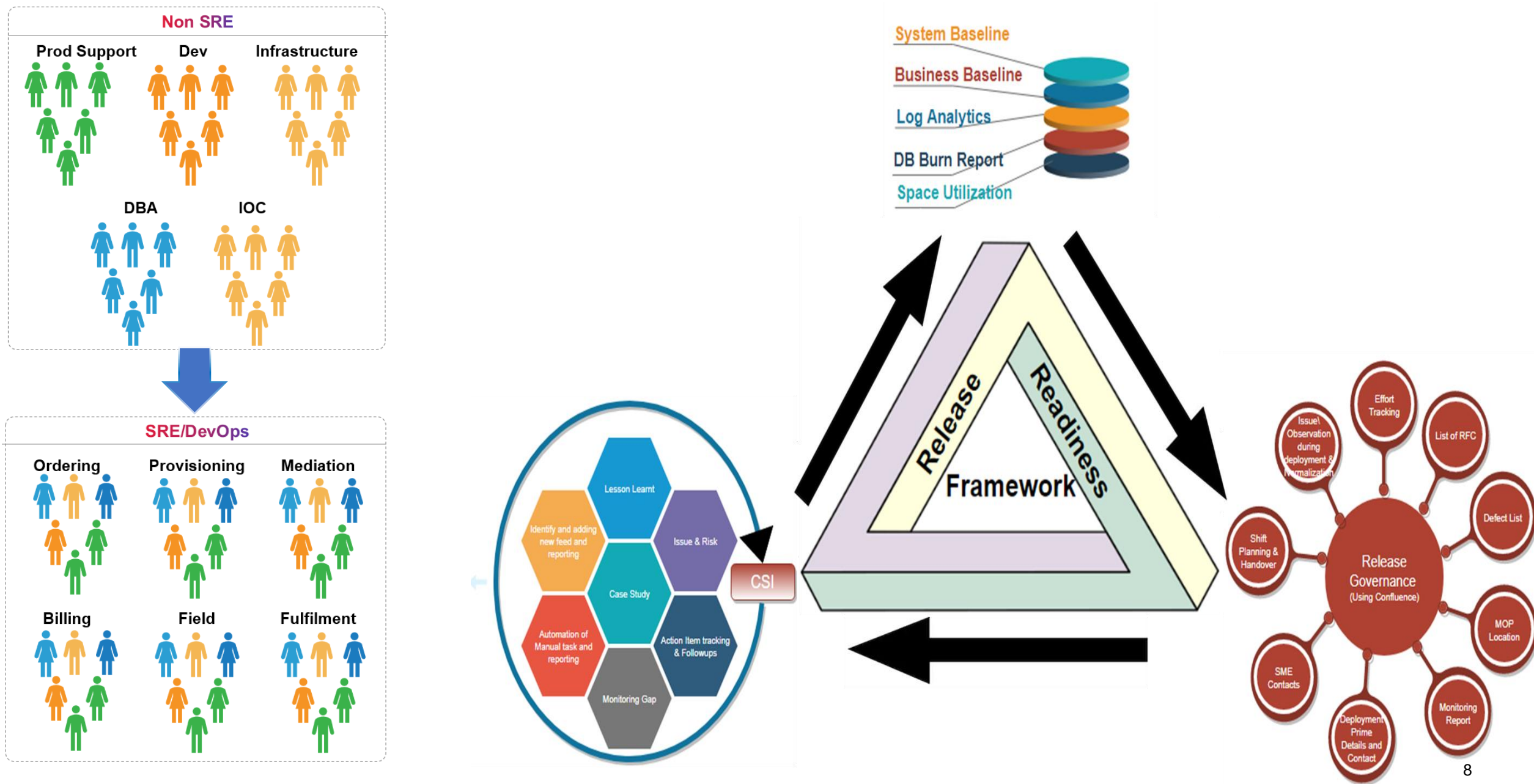
Missing transactions	SOURCE_ORDER_ID	BUSINESS KEY	SUBMISSION_TIMESTAMP	DUE_DATE	NAME	DISPATCH_TYPE	PROVINCE	TN	SOURCE_SYSTEM	IS DISCREP	DISCREP CATEGORY
	I73XXX10	MAXIMO.Field.I73XXX10	2/16/2023 8:08:05 AM	2/16/2023 8:08:06 AM	Paula	2023-02-16 08:08:05.0=UPDATE;	ON	UNKNOWN	MAXIMO	TRUE	RealAppt Start
	E27XXX-XXX94	OSB-CSM.E27XXX-XXX94	2/16/2023 11:22:03 AM	2/24/2023 5:00:00 PM	WILLIAM S COURTNEY	2023-02-16 11:22:03.0=CREATE;	NF	XXX6355XX	OSB-CSM	TRUE	Not Found in Click

CPU usage

View results as: Timeseries Pie Top list Single value



# Solution Snippet: SRE & Release Readiness Framework





# Benefits and Results Achieved



## Improved Application Reliability

- Per year, Outages due to bad data reduced **from 15 to Zero**
- From 300+ to **Zero missed commitments** for the client.
- MTTR improved **from > 6 hours to < 1 hour**



## Reduced Manual Efforts

- Quick problem isolation and resolution leads to significant **manual savings of over 12000 person hours/year.**
- Enhanced productivity due to reduced wastage. **Revenue per member increased by 11%**



## Enhanced Work Quality

- SRE practices and Release Readiness Framework resulted in over **20% Defects reduction.**
- Enhanced Observability by adopting BAM dashboards. **Better alignment with business.**
- Release Readiness Framework **adopted by all programs**

## Happy Client, Satisfied Members

- No missed customer commitments, enhanced reputation. CSAT increased **from 9.53 to 9.84**
- Member spend efforts on important tasks than mundane operations. Satisfaction improved **from 9.03 to 9.67**

## Cost of One Incident

- ~200 person hours for CGI
- Wasted time and rework efforts for Client

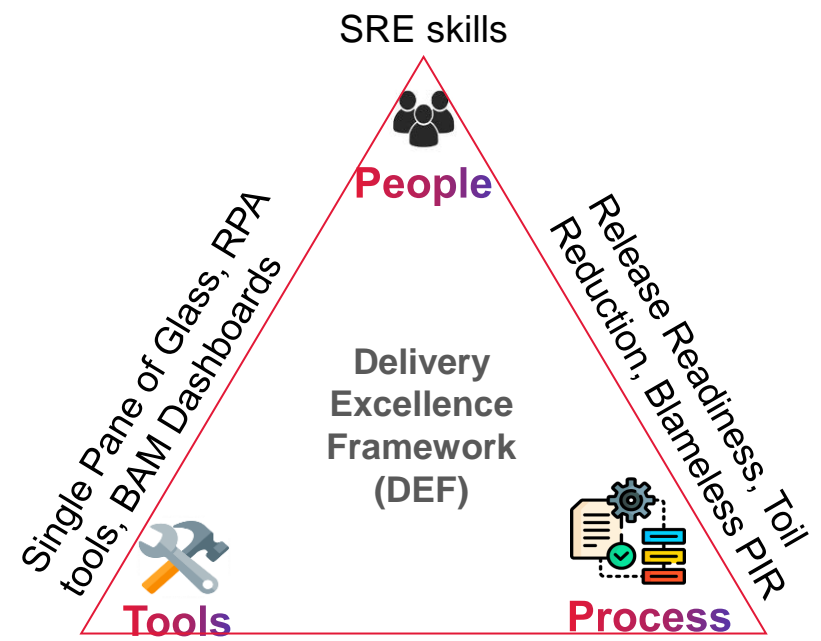
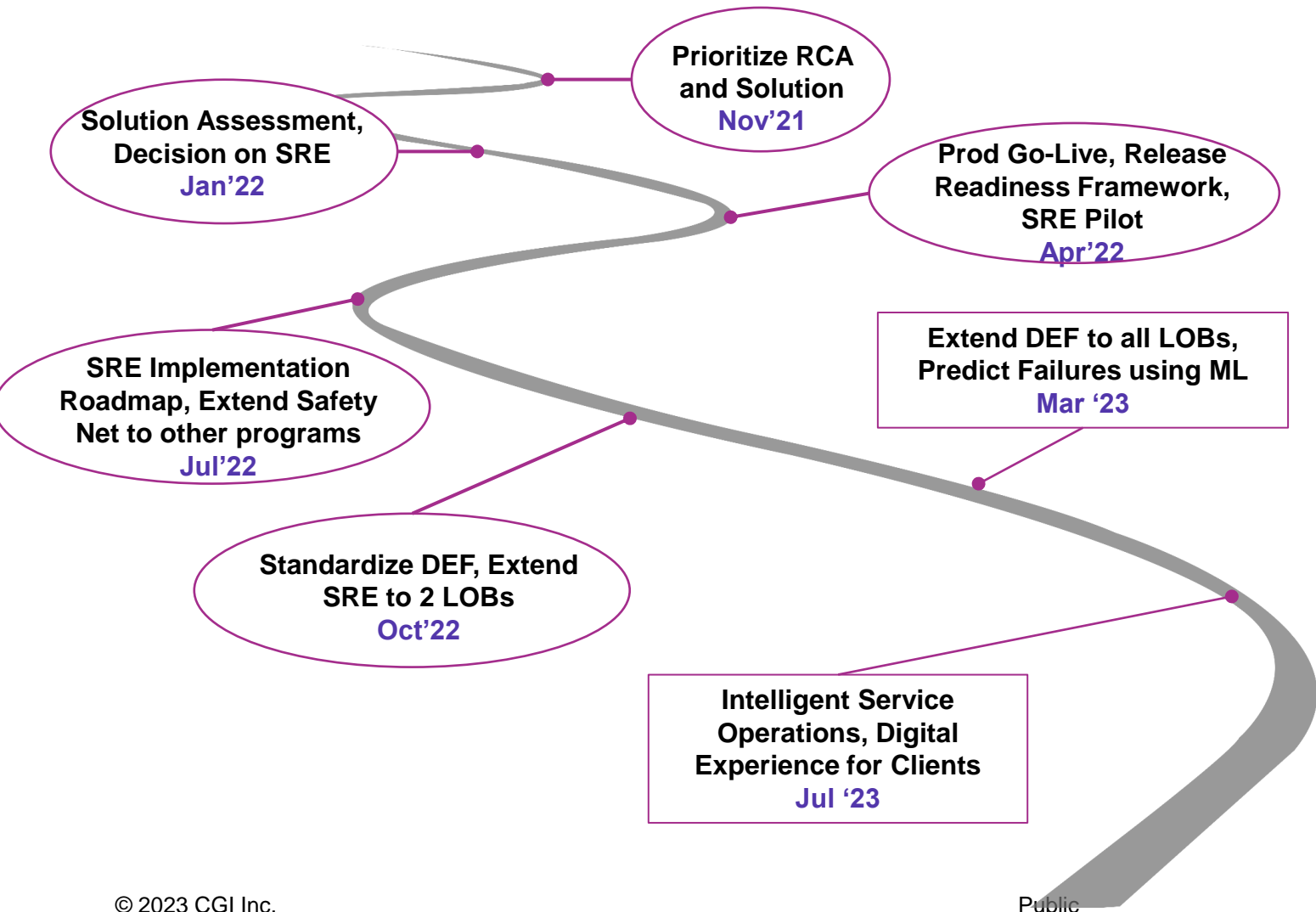
## Cost of Developing Automation

- 1 FTE for 2 months for Safety Net solution
- Investment on CSI: SRE trainings, BAM dashboards, Release Readiness

## Return on Investment

- >12000 person hours of efforts savings per annum
- Better efforts utilization for client
- Service Quality Transformation

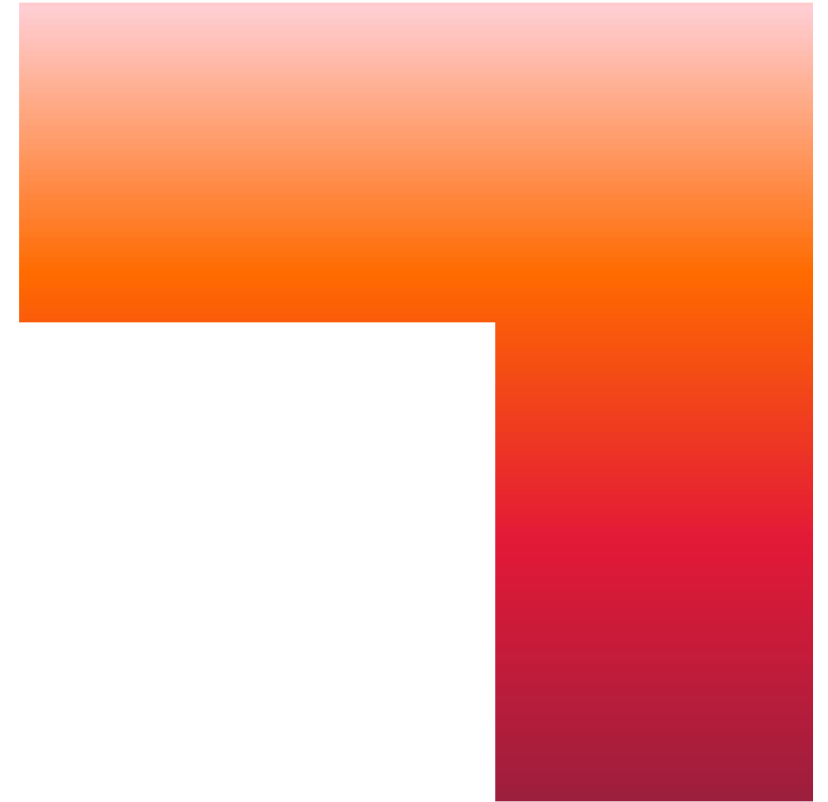
# Way Forward (Horizontal Scaling)



## 2023 Objective for all LOBs (2022 Baseline)

- Augment Client's Digital Experience; Increase CSAT **from 9.62 to 9.85**
- Enhance Member Job Satisfaction; Improve MSAT **from 9.01 to 9.60**
- Reduce manual efforts and Toil; Improve **Revenue per member by 16%**

# Thank You !!!



# CGI

[cgi.com](https://cgi.com)