

# Infrastructure and Service Assurance System (INSERA)

Implementation Partner: PT Itasof Pelagus Global (ITAsoft) | Customer: Telkom Indonesia

## ABOUT PARTNER

PT Itasof Pelagus Global (ITAsoft) is an IT solution company specializing in software and web development as well as training consultancy.

Established in 2012, ITAsoft handles various business sectors with IT as their main focus, covering industries like banking, financial services, manufacturing, oil & gas, telco and more.

## CUSTOMER AT A GLANCE

PT Telkom Indonesia (Persero) Tbk (Telkom) is a state-owned information and communications technology enterprise and a telecommunications network in Indonesia. As it transforms to become a digital telecommunications company, Telkom implements a customer-oriented business and operational strategy.

The transformation aims to streamline Telkom's organization to be leaner and more agile in adapting to the fast-changing nature of the telecommunications industry. The new organization is expected to improve efficiency and be more effective in producing a quality customer experience.



**Industry:**  
Telecommunication



**Firm Size:**  
10,001+ employees



**Country:**  
Indonesia



**1MM**  
Monthly tickets handling



**50+ MM**  
Workflow transactions per month



**30%**  
Cost saving and reduction in TTR

## CHALLENGES

Telkom faced challenges with its existing ticketing system and had numerous features that were not relevant to their needs. The objective was to optimize their workflows by transitioning to a customized ticketing solution using a microservices architecture, enabling greater flexibility and customization, especially in forms and workflows. This initiative aimed to tackle immediate inefficiencies and lay the groundwork for potential future enhancements.

## SOLUTION

ITAsoft and Sigma (Telkom's IT arms) co-developed **INSERA**, an enterprise system built on Joget that integrates Ticket Incident Service via API, consisting of 5 major modules including the Asset Management Application, Incident Management Application, Workforce Management Application, Work Order Application, and Scheduling Application.

This solution was developed using the Joget platform along with a combination of other software and technologies, including Red Hat OpenShift container platform, Oracle database, and Keycloak for Single Sign-On (SSO) access. It was custom-designed to efficiently manage issue tickets from all Telkom subsidiaries and clients, serving both corporate and private entities. Tickets raised by clients would initially be directed to INSERA, which oversees the distribution of work orders and schedules technicians for issue resolution.

- Incident Management: Serves as the primary helpdesk portal, managing tickets submitted by end users through various channels via API. It is the central hub for the support team to access and monitor tickets. The application captures submissions, triggers new tickets based on issue identification, and updates end users through various channels, including mobile applications, upon ticket completion.
- Workforce Management: Enables user management and permissions configuration.
- Work Order: When end users create service incident tickets, corresponding work orders are generated for technicians, whether Telkom employees or vendors, to conduct inspections and repairs. This module handles tasks assigned to technicians, including addressing internet disruptions at customer locations. Tickets created by end users through channels like mobile applications are termed 'passive,' while 'proactive' tickets are triggered by monitoring tools identifying issues.
- Scheduling: Facilitates the scheduling of technicians for fieldwork.

The solution has been implemented in various regions of Indonesia, spanning nationally including Bandung, Bogor, Bekasi, Papua, Maluku, Gorontalo, Makassar, and more. Also, the solution has replaced the legacy system that was in existence for more than 15 years, leading to modern and highly flexible architecture.

## RESULTS

- ✓ Successfully handled more than 16,300 corporate and private customers during its initial launch in February 2023 (during pilot phase, which then went live nationally for several regions)
- ✓ Successfully handling 1MM tickets per month with a reduction in time-to-resolve (TTR), amounting to 50MM+ workflows monthly
- ✓ An enterprise solution that went live with modern architecture, with deployment across 150+ pods (containers) and microservices architecture
- ✓ Transitioning to Joget resulted in over 30% cost savings on development, a 60% improvement in development downtime, and the ability to cater to large number of users on a daily basis
- ✓ The success of the INSERA project has catalyzed Telkom's and propelled the development of additional solutions such as Workforce Management (WFM) and the Change Request Activities Application (CRA)