

# Request for proposal

CONFIDENTIEL

**TATOL**  
Ticket Management Application

Specification

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## Destinataire(s)

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## Historique

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# Abstract

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This document is the main source of information regarding the RFP for the creation of a Ticket Management Application for our group TATOL.

Applicant must take consideration of all requirements it contains and provide an answer explaining how they will successfully built in a strict application of given delay. A complete quotation is expected in the answer.

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## 1. Introduction

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TATOL is a leading company in the energy industry. We provide services to many customers, including government, major company and individual. Year 2023 will be challenging and include a restructuration of IT service: currently, every country get its own ISD without centralization including a variety of different tools. We seek to create a global ISD with harmonized practice and tools.

In this context, we must use a common application that centralize all users request. This project has four main targets:

- Create a unique service in charge of request processing
- Produce a global dashboard to identify recurrent troubles
- Reduce global cost of ISD
- Reduce carbon footprint of the whole company

To accomplish this, you'll have to develop a smart ticket management application that follow the requirements described in this document.

It includes:

- Identify all needs of the ISD member and made functional and technical specification
- Develop and test the application with a shared test plan
- Package and deliver the application to production environment
- Monitor the production platform on a 24/7 basis
- Coordinate subcontractors (at least the hosting company)

If the first version of the success if successful, the contract might be extended for a next one including at least:

- Asset management of the company
- Blogging component for ISD message
- Video and live-chat support
- Text-to-speech to make it easier for low visual acuity user

The build application has to be implemented to integrate these new services.

## 2. Glossary

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Acronym	Definition
ISD	Information System Department
ALM	Application Lifecycle Management
SSO	Single Sign-On
AD	Active Directory
GDPR	General Data Protection Regulation
RGAA	Référentiel Général d'Amélioration et d'Accessibilité
RGESN	Référentiel Général d'Eco-conception de Service Numérique
PO	Product Owner
PM	Project Manager

## 3. Functional requirements

The following part describes everything that applicant has to take into account regarding functional aspects of the applications. It is not an exhaustive list and it has to be completed during the initialization phase.

### 3.1. Requirements management

TATOL is attached to an exact traceability of requirement, according to our quality process. It implies the production of a dashboard matching following criteria:

- Easy to access and use for every team in TATOL organization
- Complete right management to insure confidentiality
- Live update of the data an any time
- For a given requirement, user will be able to get associated documents, code and test plan

Applicant has to explain the solution he will implement to produce this tools. Some country in the group is used to work with HP ALM but it is not mandatory.

### 3.2. Main features

Application must, at least, answer the following requirements:

#### 3.2.1. General requirements

REF	Requirements	Constraints
RG-01	The application has to be accessible in any kind of device (i.e. mobile or desktop) without quality loss	
RG-02	The application must implement a right management system including at least role in hierarchy and geographical entity	TATOL already has a SSO system linked to its AD that must be used
RG-03	The application should be accessible 24/7 with live data update	
RG-04	The response time of the application should be less than 1 second	
RG-05	An accessible user-guide must be implement in the application	A reference to an external documentation is prohibited since it makes maintainability harder for admin

RG-06	Application must be accessible to any kind of users	The compliance will be checked using the RGAA provide by French government
RG-07	Application must respect all Green IT practice	The compliant will be checked using the RGEN provide by French government

### 3.2.2. Feature requirements

REF	Requirements	Constraints
RF-01	The application must show a list of all users that has once interact with the application with at least : name, surname, birthdate, email	
RF-02	Admin must have the right to remove or edit an existing user in the application after they first sign-in	
RF-03	The application must show a list of all requests with the following information : subject, description, category, priority, status, answer, creation date, last update date	
RF-04	User should be able to create a request with the following information : subject, description, category, priority	
RF-05	User might be able to add file to their request to provide any information needed	Application must support PNG, JPG, PDF, DOCX and XLSX format
RF-06	ISD member should be able to answer a request updating the following information : answer, status	
RF-07	Admin must have the right to remove or edit an existing request	
RF-08	Admin must have the right to edit the user-guide to add question and answer in order to reduce amount of basic requests	
RF-09	Application must implement a dashboard showing important statistics : total requests and repartition, total users and repartition, average response time	
RF-10	Application should show a state of the service that admin can update to inform user of current activity	
RF-11	User can export a PDF file summing up every request linked to their account	The export should be a PDF file

RF-12	Application must implement social media widget linking to the public page of TATOL	
RF-13	To ensure reliability, application must implement a registration process (after first sign-in) where users has to provide : their corporate ID, reference of their devices (Ex : serial number of their computer), a signed scan of the application CGU	The scan has to be sign by hand and application must refuse draw one

### 3.3. Testing practice

As mentioned earlier, application has to build a test plan that cover every functionality and keep it update every time a new version is provided.

#### 3.3.1. Functional test

The functional test plan of each version might include:

- A dedicated test plan for each functionality and related acceptance criteria
- A global non-regression test plan and related acceptance criteria
- A link of each test to the related requirement

Applicant has to present the solution he will use to accomplish that. Our initial study concludes that the Jira plugin XRay answers the needs but it is not mandatory.

#### 3.3.2. Load test

A load test campaign is mandatory for each new version. The outcome of this campaign is a report that mention:

- Size hypothesis of the tested platform and linked projection for production platform
- Test data used (must be representative of the production data)
- Test scenario (must include all basic user journey like create a request)
- Tools used
- Every metrics produced during the test and their explanation (CPU, RAM, Number of requests, Disk usage ... etc)
- If needed, an action plan to guarantee that production platform fit to requirements

TATOL ISD has some experience with the JMeter tool but the choice is given to applicant.



### 3.3.3. Security testing

TATOL is considered as a vital operator in many country due to the nature of its operation. In consequence, no vulnerability is allowed to reach the production platform.

TATOL is awaiting the applicant to explain:

- How they will monitor the quality debt and aim to maintain it to 0 default
- How they will keep the application safe from every vulnerability
- How they will monitor the application in production platform on guarantee that no flaw is actively used
- How they will fully be GDPR-compliant

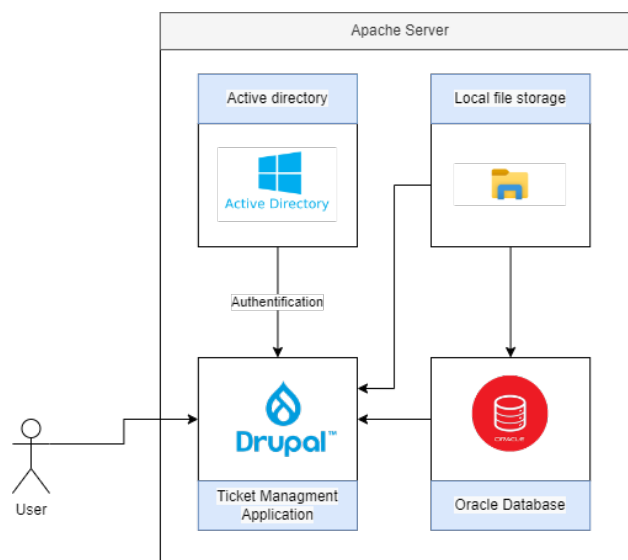
TATOL (or any mandated subcontractor chose by TATOL) will regularly conduct security audit based on the OWASP 10 database and live pentest of the production platform.

## 4. Technical requirements

The following part describes everything that applicant has to take into account regarding technical aspects of the applications. It is not an exhaustive list and it has to be completed during the initialization phase.

### 4.1. Technological stack

TATOL has conduct studies to determine the solution that fit the best to the needs. The target software architecture is the following:



The application must use the following component:

- The CMS Drupal as the core of the application : this choice has been made to reduce cost and take profit for the large open-source community that provide plugin to the core
- Oracle Database: The database should be based on the Oracle Database. This choice has been made since the group already has a license for this tool
- Every file eventually added by the user must be stored on the local file system of the server
- Application server must be Apache to match with the current skills of TATOL ISD member

Applicant can give recommendations about these choices.

## 4.2. Development practice

Applicant must follow the guidelines summed up here:

REF	Requirements	Constraints
RT-01	Media file used by the application should be retrieved from the protected company dedicated server	An authentication is required to access media
RT-02	All field should implement autocomplete functionality when it makes sense (Example : all field linked to an address must have an autocomplete field linked to an API providing official address list)	The API might be a public and free one
RT-03	Dynamic behavior of the interface should use a pre-existing library to insure maintainability over time.	Flash player is highly recommended
RT-04	For security reason, caching should be avoided at every level of the solution (server, application server, browser ... etc)	It includes all server outside the application.
RT-05	About graphical interface, applicant should use TATOL corporate Drupal theme or develop a similar version for the solution	The TATOL theme is forked from WOSH theme
RT-06	Database should only be used for data storage and has to be efficient. Business logic should be included in the application	
RT-07	Algorithm complexity must be controlled and every complexity superior to $O(n^2)$ must be justified	
RT-08	A CI/CD development is expected to insure a delivery time inferior to 1 hour	
RT-09	A code repository with source management must be used and accessible to TATOL ISD team	We strongly recommend GIT to insure a simple compatibility with internal tools

### 4.3. Hosting

Applicant must hire the hosting company as a subcontractor of the project and manage him. However, TATOL is used to work with “China SuperHosting” and can provide a standard contract. Headquarters and datacenters are located in Beijing. The main criteria is the ability to deliver high quality service at a low price.

Whatever choices are made, following criteria must be followed:

REF	Requirements	Constraints
RA-01	Servers used to host the application must be dedicated to the project.	
RA-02	An high-availability logic must be used in the construction	24/7 availability, no data loss permitted
RA-03	Virtualization is prohibited to ensure a more direct service delivery to the user and, easier maintainability and increased security.	
RA-04	Server’s OS may be based on a windows distribution to match with company standard	License isn’t provided and has to be included in quotation
RA-05	For security reason, data backup has to be stored on hard-drive. This hard-drive will be duplicate and retrieved monthly by TATOL in a dedicated strongbox.	The retrieval process isn’t a part of this RFP.

Applicant can give recommendations about these choices.

## 5. Steering

### 5.1. Team

Applicant must join the CV of every member that will be involved in the project. TATOL keep the right to refuse any candidate if it doesn’t match company standard.

A project manager is mandatory and will be responsible of the whole contract.

### 5.2. Steering committee

TATOL requires the following committee:

Titke	Description & Actors	Frequency
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Operational Committee	Committee dedicated to operational monitoring of the project. An accurate status of every phase of the project is awaited.  Actors : Applicant's PM, TATOL's PO, Experts (optional)	Weekly
Management Committee	Committee dedicated to global monitoring of the project. The global status of the project is awaited. Human resources and risk management is awaited.  Actors : Applicant's PM, TATOL's PO, Experts (optional)	Monthly
Contractual Committee	Committee dedicated to contractual monitoring of the project. Cost and delay management is awaited. Application of eventual penalties will be discuss here.  Actors : Applicant's PM, Applicant's Director, TATOL PO, TATOL ISD Board, TATOL Legal department expert	Trimestral
Version Review	At the end of every release, a demonstration of implemented feature is expected. TATOL's PO will validate the good understanding of needs.  Actords : Applicant's PM, Applicant's Dev Team, TATOL's PO, End users (optional)	At each version

Every agenda must be send 2 days before the committee.

Every report must be send 1 day after the committee.

Agenda, and report should be a word document sent by mail to every participant internal (@tatol.com) and external (@tatol-field.com) email address.

### 5.3. Economic management

Applicant must provide an estimated cost for each item of the project. If accepted, a command will be emitted for each phase of the project with the following ratio of the global quotation:

- Initialization : 5%
- Specification : 25%
- Development : 50%
- End-user testing : 15%
- Management : 10% with 2,5% at the beginning of each phase

Payment are expected at the end of each phase with a 30 days delay only if every anomaly detected has been corrected. TATOL keep the right to totally stop the project, payment will be due at the ratio of the current phase.

## 6. Service Level Agreements

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In case of default, applicant is exposed to the following penalties:

Penalty	Criteria	Amount
Availability rate < 100%	Every outage that has not been notified to TOTAL start a timer that ends at full service recovery	Each hour is charged by a 0,1% penalty of the global quotation in the limit of 20% of the amount
Algorithm complexity > $O(n^2)$ without reason	A default : a refused code review made by TATOL expert	Each default is charged by a 1% penalty of the development quotation in the limit of 50% of the amount
Low quality production	A default : Number of anomaly detected during end-user test / 10	Each default is charged by a 0,5% penalty of the end-user testing phase without limit
Agenda and report send off-delay	Number of days after initial date	Each day will be charged by a 1 000€ penalty