

[www.fmpro.me](http://www.fmpro.me)



A member of EFS Group

A Leading Integrated Facilities  
Management Solution



## Contents

<b>1</b>	<b>Company Profile.....</b>	<b>2</b>
<b>2</b>	<b>Overview .....</b>	<b>4</b>
	2.1 Modular-based Solution: .....	5
	2.2 Support for Multiple Concurrent Users: .....	6
	2.3 Compatibility with PC and Mobile Devices: .....	7
	2.4 Comprehensive Solution Features: .....	7
<b>3</b>	<b>FMPPro Capabilities .....</b>	<b>13</b>
	3.1 FMPPro at a Glance.....	14
	3.1.1Introduction .....	14
	3.1.2Key Features.....	15
	3.1.3CAFM System Capability.....	17
	3.1.4Mobility Solution.....	35
	3.2 Implementation Methodology.....	42
	3.2.1Needs Assessment and Planning (Data Collection).....	43
	3.2.2Set Up, Automation and Data Entry.....	43

# 1 Company Profile

## EFS Group Global Overview

Delivering over

**75 Service Lines** within

**5 SECTORS**

- Integrated Facilities Management
- Infrastructure
- Staffing Solutions
- Security Services
- Leisure & Hospitality

Across **15 Business Verticals**

### FOOTPRINT

#### Head Office

Dubai, UAE

#### Middle East

Bahrain  
Egypt  
Jordan  
Kingdom of Saudi Arabia

Kuwait  
Lebanon  
Oman  
Qatar  
United Arab Emirates  
Turkey

#### Africa

Ethiopia  
Kenya  
Morocco  
Nigeria  
Sudan  
Tunisia  
Mauritius

#### Asia

Bangladesh  
India  
Pakistan  
Sri Lanka

**1.7+**  
Billion USD  
Backlog

**33** Operating  
Companies

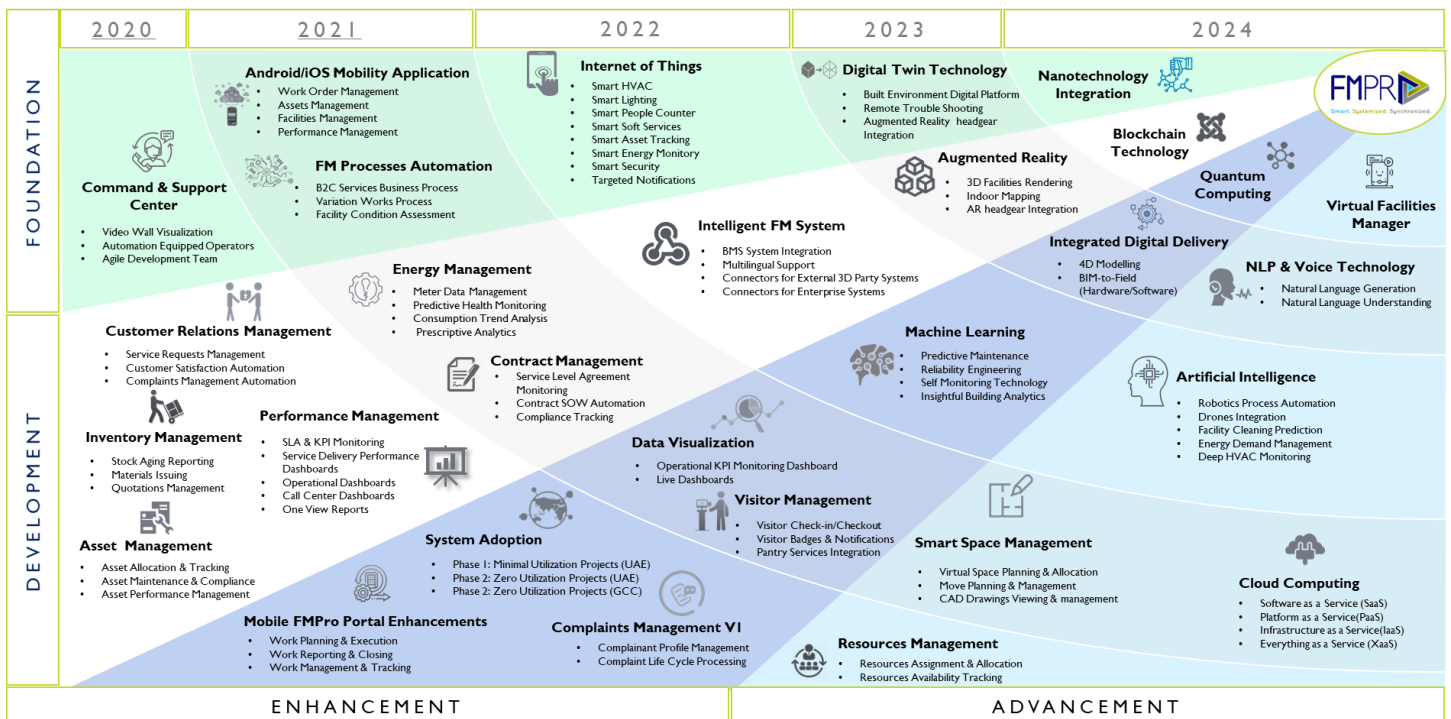
**21** Countries across  
Middle East, Africa,  
South Asia and Turkey

**52+**  
Million Sq. M.  
Managed  
Space

- 22 years in the region
- Managing **22,000** Workforce
- 600+ years of combined core management experience & expertise
- Employing over **35** Nationalities

Prestigious Clientele consisting of  
**500+**  
Government & Multinational  
Corporations

**96%**  
Client Retention Rate





## 2 Overview

## 2.1 Modular-based Solution:

FMPPro is designed as a modular-based system, allowing you to purchase and implement specific modules based on your requirements. This modular approach ensures that you have the flexibility to select and deploy the functionalities that are most relevant to your facilities management operations. Whether you need modules for asset management, maintenance scheduling, space planning, or any other specific functionality, FMPPro can accommodate your needs by enabling you to customize and scale the solution as required.

- **Flexible Module Selection:** FMPPro offers a wide range of modules that can be selected and implemented based on your specific needs. These modules include but are not limited to:
  - **Asset Management:** Track and manage your organization's assets, including equipment, furniture, and infrastructure.
  - **Maintenance Management:** Effectively plan and schedule preventive and corrective maintenance tasks, ensuring optimal equipment performance and reliability.
  - **Space Management:** Efficiently manage and optimize your facility's space allocation, including floor plans, room bookings, and space utilization analysis.
  - **Work Order Management:** Streamline and track work requests, assign tasks, and monitor progress to ensure timely completion of work orders.
  - **Lease Management:** Simplify lease administration, automate rent calculations, and manage lease contracts and agreements.
  - **Energy Management:** Monitor and analyze energy consumption, identify inefficiencies, and implement energy-saving initiatives.
  - **Compliance Management:** Stay compliant with regulations and standards through features such as inspections, audits, and documentation management.
  - **Scalability:** FMPPro's modular architecture allows for easy scalability. You can start with the essential modules that address your immediate needs and add additional modules over time as your requirements evolve. This scalability ensures that FMPPro grows with your organization, providing long-term value and adaptability.
- **Seamless Integration:** Each module in FMPPro is designed to seamlessly integrate with one another, creating a cohesive and unified system. This integration ensures smooth data flow between different modules, eliminating data silos and enabling comprehensive reporting and analytics across your facilities management processes.
- **Customization Options:** FMPPro offers customization options to tailor the solution to your organization's specific requirements. You can configure workflows, data fields, and user interfaces to match your unique business processes, ensuring a personalized and efficient user experience.
- **Easy Upgrades:** As FMPPro is modular-based, upgrading the system is straightforward. When new modules or enhancements are released, you can easily integrate them into your existing FMPPro environment, taking advantage of the latest features and functionality without disrupting your operations.
- **Cost-Effectiveness:** With FMPPro's modular approach, you have control over your investment. You can select and purchase only the modules that are essential to your operations, minimizing unnecessary costs. Additionally, as your organization's needs change, you can expand the system incrementally, aligning expenses with your budget and priorities.

The modular-based nature of FMPPro empowers you to build a tailored solution that meets your specific facilities management requirements. It provides flexibility, scalability, and customization options, ensuring that you can optimize your operations and achieve your desired outcomes effectively.

## 2.2 Support for Multiple Concurrent Users:

FMPro is capable of supporting multiple concurrent users, enabling your team to collaborate effectively and efficiently. Whether you have a small team or a large workforce, FMPro can handle the user load, ensuring smooth and seamless access for all authorized users. The system provides role-based access controls, allowing you to define user roles and permissions, ensuring data security and maintaining appropriate access levels for different individuals within your organization.

- **User Access Control:** FMPro provides robust user access control features that allow you to define user roles and permissions. You can assign different access levels to individuals or groups within your organization, ensuring that users can only access the information and perform actions relevant to their roles and responsibilities.
- **Concurrent User Capacity:** FMPro has the capability to handle multiple users accessing the system simultaneously. Whether you have a small team or a large workforce spread across different departments or locations, FMPro can accommodate the user load and ensure smooth and uninterrupted access for all authorized users.
- **Collaboration and Communication:** FMPro fosters collaboration among users by facilitating seamless communication and information sharing. Users can collaborate on work orders, share notes, attach documents, and communicate within the system, promoting teamwork and efficient workflows.
- **Real-Time Data Updates:** FMPro ensures that all users have access to up-to-date and real-time data. When multiple users are working concurrently, any changes made by one user are reflected instantly for others, enabling a synchronized and consistent view of data across the system.
- **Audit Trails and Version Control:** FMPro maintains audit trails and version control for changes made by different users. This feature allows you to track modifications, identify who made specific changes, and revert to previous versions if necessary. It helps ensure accountability, traceability, and data integrity within the system.
- **Performance and Scalability:** FMPro is designed to handle the demands of multiple concurrent users without compromising system performance. The solution is optimized to provide a responsive and efficient user experience, even during peak usage periods or when dealing with large amounts of data.
- **Remote Access and Mobility:** FMPro supports remote access, allowing users to connect to the system from different locations. Whether users are in the office, on-site, or working remotely, they can securely access FMPro using their preferred devices, such as desktop computers, laptops, tablets, or smartphones.
- **Training and Support:** FMPro provides comprehensive training and support resources to help users understand the system and its functionalities. This ensures that all users can effectively utilize FMPro and maximize its benefits, regardless of their level of technical expertise or prior experience with the system.

The support for multiple concurrent users in FMPro enables collaboration, efficient workflows, and effective communication within your organization. It ensures that all authorized users can access the system simultaneously, work together seamlessly, and have real-time access to relevant data.

## 2.3 Compatibility with PC and Mobile Devices:

FMPPro is designed to be versatile and compatible with various operating systems, including Windows 7, 8, Vista, 10, as well as mobile devices such as iPad, iPhone, and other Android devices. This cross-platform compatibility ensures that you can access and utilize FMPPro on your preferred devices, whether it's a PC in your office or a mobile device while on the go. The solution is optimized for different screen sizes and resolutions, providing a user-friendly experience across devices.

- **Web-Based Application:** FMPPro is a web-based application, accessible through popular web browsers such as Google Chrome, Mozilla Firefox, Microsoft Edge, and Safari. This means that users can access FMPPro from any device with a compatible web browser, including PCs, laptops, and mobile devices.
- **Cross-Platform Compatibility:** FMPPro's web-based architecture ensures cross-platform compatibility, allowing it to function seamlessly on different operating systems. It is compatible with Windows 7, 8, Vista, 10, as well as other operating systems that support web browsing, such as macOS and Linux.
- **Responsive Design:** FMPPro is designed with a responsive user interface, adapting to different screen sizes and resolutions. Whether accessed on a large desktop monitor or a small mobile device screen, the interface adjusts dynamically, ensuring a consistent and user-friendly experience.
- **Mobile Device Support:** FMPPro is optimized for mobile devices, including tablets and smartphones. It is compatible with mobile operating systems such as iOS (iPad, iPhone) and Android. Users can access FMPPro on their mobile devices, allowing them to perform tasks, view data, and manage facilities on the go.
- **Touch-Friendly Interface:** FMPPro's user interface is designed to be touch-friendly, providing an intuitive and seamless experience on touch-enabled devices. This allows users to interact with FMPPro using gestures and taps, making it convenient to navigate, update information, and perform actions using touch controls.
- **Microsoft .NET Core:** FMPPro is built using Microsoft .NET Core technologies, which provide a robust and scalable foundation for web applications. This technology stack ensures high performance, security, and compatibility across different platforms and devices.
- **Secure Access:** FMPPro incorporates industry-standard security measures to protect user data and ensure secure access. It utilizes encryption protocols, user authentication mechanisms, and secure connections (HTTPS) to safeguard information during transit and storage.
- **Continuous Updates and Improvements:** As a web-based application, FMPPro can receive continuous updates and improvements without requiring manual installations on users' devices. New features, enhancements, and bug fixes can be deployed seamlessly, ensuring that users always have access to the latest version of FMPPro.

FMPPro's compatibility with PCs and mobile devices, as a web-based application built using Microsoft .NET Core technologies, ensures that users can access the system from various devices and operating systems. Whether in the office, on the field, or working remotely, FMPPro provides a consistent and accessible experience.

## 2.4 Comprehensive Solution Features:

FMPPro includes a comprehensive set of features to meet your facilities management needs. While some features may be optional based on your specific requirements, the core offering of FMPPro includes:



## 1. Contract Management:

- Business to Business Contracts: Manage and track contracts between organizations, including contract terms, renewal dates, and associated documents.
- Business to Consumer Contracts: Handle contracts between your organization and individual consumers, such as service agreements or lease contracts.

## 2. Asset Management:

- Asset Tracking: Capture detailed information about each asset, including location, maintenance history, and warranty details.
- Maintenance Scheduling: Schedule and track maintenance tasks to ensure optimal asset performance and longevity.
- Depreciation and Financial Reporting: Monitor asset depreciation, calculate asset value, and generate financial reports.

## 3. Properties & Portfolio Management:

- Lease Management: Handle lease administration, rent calculations, and contract management for owned or leased properties.
- Space Utilization: Optimize space allocation, track occupancy rates, and analyze space utilization to maximize efficiency.
- Tenant Management: Manage tenant information, rental agreements, and service requests for properties.

## 4. Workforce Management:

- Employee Database: Maintain an organized database of employee information, including contact details, job roles, and certifications.
- Shift Planning: Plan and schedule employee shifts, taking into account availability, skills, and workload requirements.
- Attendance Tracking: Monitor employee attendance, track absences, and manage leave requests.

## 5. Resources Management:

- Resource Tracking: Monitor the availability, usage, and maintenance of resources such as equipment, tools, and consumables.
- Replenishment Management: Track inventory levels, generate purchase orders, and manage stock replenishment processes.

## 6. Facility Operations:

- Visitor Management: Register and track visitors, issue visitor badges, and enhance security protocols.

- Key Control: Manage access to keys, track key assignments, and monitor key usage.
- Help Desk: Receive and manage facility-related requests, assign tasks, and track their progress.

## 7. Work Order Management:

- Reactive Work Orders: Handle unplanned maintenance requests or repairs that arise from unexpected incidents or issues.
- Planned Preventive Maintenance: Schedule and manage preventive maintenance tasks based on predefined schedules or triggers.
- Scheduled Work Orders: Plan and assign maintenance tasks on a regular basis to ensure proactive upkeep of assets.
- Corrective Work Orders: Address issues identified through inspections, audits, or other maintenance activities.

## 8. Customer Relations & Service Management:

- Customer Case/Service Requests: Receive, track, and manage customer service requests or inquiries.
- Complaints Management: Capture and address customer complaints promptly, ensuring effective resolution and customer satisfaction.
- Appointments Management: Schedule and manage appointments with customers or clients.
- Customer Satisfaction Management: Gather feedback, measure customer satisfaction levels, and track improvement initiatives.

## 9. Project Management:

- Project Planning: Create project plans, define tasks, and establish timelines and dependencies.
- Resource Allocation: Assign resources, including labor, equipment, and materials, to project tasks.
- Progress Tracking: Monitor project progress, track milestones, and analyze performance against planned schedules and budgets.

## 10. Energy Management:

- Energy Monitoring: Track energy usage, identify inefficiencies, and monitor consumption patterns.
- Energy Efficiency Measures: Implement initiatives to reduce energy waste and improve sustainability.
- Cost Analysis: Analyze energy costs, identify areas for savings, and generate reports for financial evaluation.

## 11. Soft Services Management:

- Service Provider Management: Maintain information about service providers, contracts, and service level agreements.
- Task Scheduling: Plan and schedule recurring soft services tasks, ensuring timely completion.
- Performance Monitoring: Evaluate service provider performance, track compliance, and manage service quality.

## 12.HSE Management:

- Incident Management: Capture, track, and investigate incidents or accidents within your facilities.
- Inspections & Observations: Conduct safety inspections, record observations, and manage corrective actions.
- Work Permits: Manage permits required for hazardous work activities, ensuring compliance and safety protocols.
- Toolbox Talks: Facilitate safety training sessions, document meeting records, and track attendance.

## 13.Quality & Service Assurance:

- Quality Non-Conformity Management: Capture and address quality non-conformities, track corrective actions, and monitor their effectiveness.
- Quality Inspections & Observations: Conduct quality inspections, record observations, and manage improvement initiatives.

## 14.Inventory Management:

- Stock Tracking: Monitor inventory levels, track stock movements, and generate reports on stock usage.
- Reorder Point Management: Set reorder points for items, automatically generate purchase orders when stock levels reach a defined threshold.

## 15.Reports Management:

- Report Generation: Generate comprehensive reports and analytics to gain insights into facilities management operations, performance, and trends.
- Customizable Reports: Customize reports based on specific requirements and criteria.
- Data Visualization: Present data in visually appealing formats such as charts, graphs, and dashboards.

## 16.Performance Management:

- KPI Monitoring: Track key performance indicators related to facilities management processes and objectives.
- Performance Evaluation: Evaluate performance against set targets and benchmarks.
- Performance Dashboards: Visualize performance metrics through interactive dashboards.

## 17.Document Management:

- Document Storage: Store, organize, and manage documents related to facilities management.
- Document Versioning: Maintain version control of documents, enabling revision tracking and retrieval of previous versions.
- Document Sharing: Facilitate collaboration by securely sharing documents with authorized users.

## 18.Space Management:

- Space Allocation: Optimize the allocation of space within facilities based on usage patterns and requirements.
- Floor Plan Management: Create, update, and manage floor plans, including room assignments and configurations.
- Occupancy Tracking: Monitor and track space occupancy, utilization, and vacancy rates.

## 19.Facilities Management:

- Maintenance Management: Plan and execute maintenance activities, ensuring optimal asset performance and longevity.
- Compliance Management: Monitor compliance with regulatory requirements, conduct audits, and manage documentation.
- Service Request Management: Receive, track, and address service requests from occupants or users of the facilities.

## 20.Security Management:

- Access Control: Manage access to facilities, control entry permissions, and track security incidents.
- CCTV Surveillance: Monitor facilities using closed-circuit television systems for enhanced security and incident response.
- Security Incident Management: Capture and manage security incidents, conduct investigations, and track resolutions.

## 21.Integration with Business Systems:

- Finance: Seamlessly integrate with financial systems for accurate cost tracking, budgeting, and financial reporting.
- Human Resources: Share employee data, streamline onboarding, and align workforce management processes.
- Procurement & Supply Chain: Integrate with procurement systems to streamline purchasing, inventory management, and supplier management.

## 22.Integration with Intelligent Building Systems:



- **Data Integration:** Connect with intelligent building systems to gather data from sensors, automation systems, and IoT devices.
- **Data Analysis:** Analyze integrated data for insights on energy usage, facility performance, and predictive maintenance.
- **Automation and Control:** Seamlessly control and manage building systems based on integrated data and insights.

### 23.Mobility Solution:

- **Mobile Application:** Provide a mobile application or solution that enables users to access FMPro features and functionality on the go.
- **Real-Time Updates:** Receive real-time updates and notifications on work orders, service requests, and important facility information.
- **Offline Capabilities:** Access and update data even when offline, with synchronization once an internet connection is restored.

FMPro's comprehensive solution features encompass a wide range of functionalities to support efficient facilities management operations, enhance service quality, optimize resource allocation, and enable data-driven decision-making.

## **3 FMPro Capabilities**

## 3.1 FMPro at a Glance

### 3.1.1 Introduction



EFS uses FMPro, an organic Computer Aided Facilities Management software & Integrated Workplace Management system. completely web-based with full functionality for comprehensive maintenance and asset life cycle management activities

The system is developed, maintained, managed and enhanced by EFS's Software development subsidiary FM Technology Solutions LLC; the product is constantly enhanced, upgraded to meet the changing business and industry needs.

All the core business processes (Finance, HR, Procurement, Stores & Inventory, Asset Management, Helpdesk, etc.) are customized to meet the business requirements of Facilities Management departments providing an Integrated Work Management System (IWMS)



From Homes, office blocks to hospitals and educational facilities, FMPro supports those responsible for maintaining facility operations with the tools to deliver effectively and efficiently.

FMPro is used by a wide range of companies in multiple private and public sectors, FMPro is a trusted solution to industry challenges.

Offering extended and integrated functionality for real estate, project management, and environmental sustainability. In many cases, traditional CAFM systems are operated from multiple technology platforms whereas FMPro is based on a

single platform and database repository.



FMPPro provides the functionality necessary to manage contracts, sub contracts, procurement, inventory with multiple store concept, budgeting, accounts along with facilities, assets, checklists, preventive maintenance schedules, helpdesk, breakdown maintenance, daily inspection, Incidents, inventory, workforce, service complaints, customer satisfaction surveying, document management, reports and admin controls.

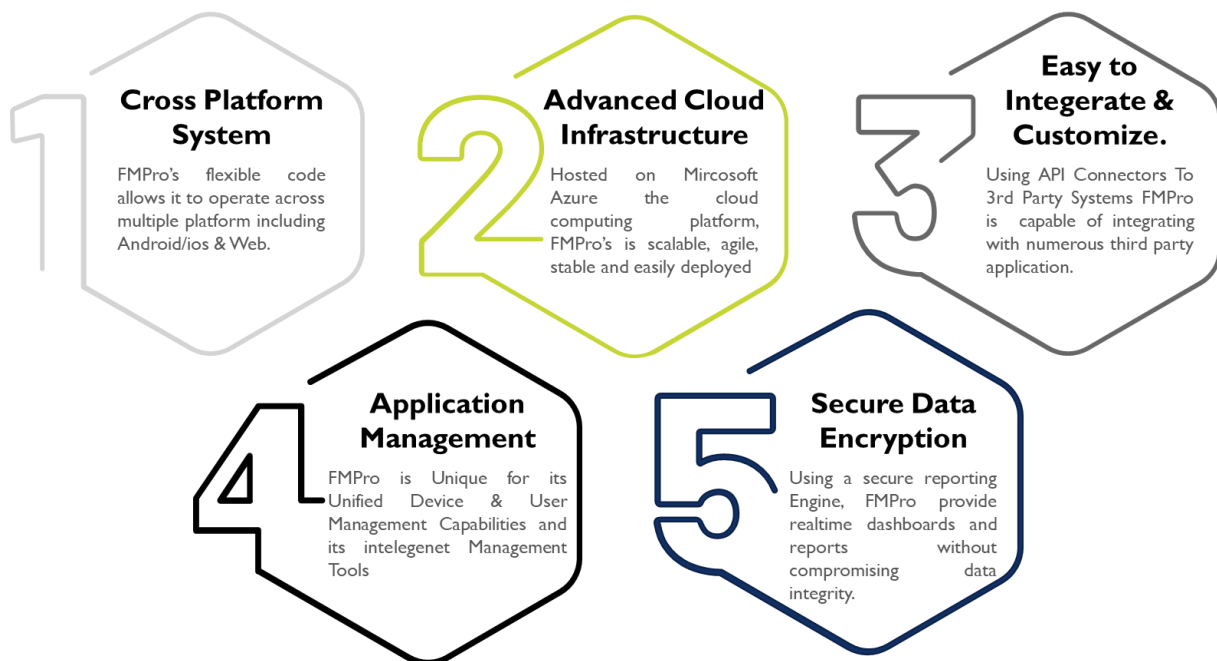
All modules are designed and customized to suit the day to day business requirements of an Integrated Facilities Management organization. All modules are tightly coupled and information flows seamlessly between the various business function providing transparency with ease of informed decision making creating a truly Integrated Workplace Management System.

The system comes with a Smart Workflow Engine by which online approvals are simplified. All approvals related to maintenance activities and business process can be achieved with advanced flow.

Powered with executive dashboard FMPPro provides access to valuable business in-sights on real-time. This solution can slice the data and generate reports on the click of a mouse. In addition to a dashboard view of the business in a clear pictorial representation, such as pie diagrams and other graphs. All of these help you make timely and informed decisions.

From facility directors to site technicians, from property owners to tenants, from contractors to suppliers all are on-board with FMPPro.

### 3.1.2 Key Features



#### 3.1.2.1 Non-functional Features

- ▶ High Availability Cluster setup with Business Continuity & Disaster Recovery Setup
- ▶ Scalable (Scale up or Scale out)
- ▶ Secure (Authentication & Authorization)
- ▶ Concurrent Users support
- ▶ Well defined Information Architecture
- ▶ Business Process Engine for customization & Setup



- ▶ Ease of use
- ▶ Efficient with quick response time

### 3.1.2.2 Functional Benefits

- ▶ Accessibility and Availability
- ▶ Preventive Maintenance Management, Breakdown Management, Control Audits & Inspection Management
- ▶ Performance Management
- ▶ Data Security
- ▶ Collaboration and Integrated Approach
- ▶ Big Data & Data Warehouse
- ▶ Risk Management Framework

### 3.1.2.3 Business Benefits

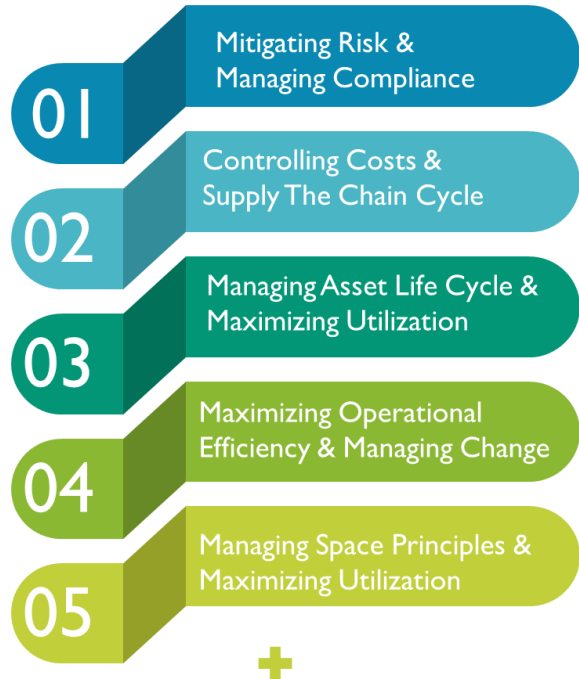
- ▶ Transparency across all processes & Department
- ▶ Asset Performance & Benchmarking
- ▶ KPI Reporting & Scorecards
- ▶ Improved & Informed Collaborative Decision making amongst all stakeholders
- ▶ Operational Efficiencies through Resource Optimization
- ▶ Real time transaction-based reporting
- ▶ Statistical Reporting on historical data

### 3.1.2.4 General Functionalities

- ▶ Integration with Client Systems via Push or Pull technology
- ▶ Customized Oracle database
- ▶ Export reports to MS Word, MS Excel, and PDF
- ▶ Dashboard views including charts and tables
- ▶ Concurrent user licenses via SaaS option
- ▶ Compatible with any internet browser, 100% web enable
- ▶ Upload data from Excel Files
- ▶ Create users, assign permissions by profile, structure or project
- ▶ Create queries, reports, charts, dashboards, selectors
- ▶ Client organization structure and nomenclature
- ▶ Configurable workflow and communication setups including integration with email and reporting systems
- ▶ Complete access management systems to provide role-based access based on client requirements
- ▶ Scalable systems which can be integrated with client systems
- ▶ Mobile enabled application, accessible via browser from multiple devices and operating systems
- ▶ State of the art application, built on ISO 27001 standards, that can meet the clients' needs

### 3.1.3 CAFM System Capability

FMPPro addresses FM challenges by combining a comprehensive database to store asset and operating data with powerful tools to track, retrieve, analyze and report on all aspects of working life within a facility or portfolio of facilities.



#### **Mitigating risk and managing compliance**

Accurate recording and easy access to key data means that operators can keep all matters impacting health, safety, environmental and statutory compliance under control. This is enhanced by automated alerts to aid monitoring and response.

#### **Maximizing operational efficiency**

Increased automated functionality streamlines processes and increases the efficiency of operators to manage tasks. Having a single end-to-end support system reduces duplication of effort, resulting in time savings and reduced potential for error. High levels of visibility of asset and contractor data also leads to improved issue resolutions through optimizing resource allocation.

#### **Controlling costs and the supply chain**

Comprehensive reporting means that decision makers are in a strong position to understand costs associated with each budget, project and asset; this can aid better budget planning to support property and asset maintenance strategies. Service Level Agreements and contracts can be monitored and managed more effectively; this can have a substantial financial impact across a facility through optimizing asset expenditure, resource allocation and supply chain performance. At a higher level, financial reporting can support management decisions for cost reduction initiatives and investment cases.

#### **Maximizing asset utilization**

Detailed asset information enables operators and management to make informed decisions on repair or replacement, technology upgrade or obsolescence and sustainable maintenance strategies. This can result in better management of key areas of facilities – total lifecycle costs for assets, energy consumption and waste management, and management of technology changes.

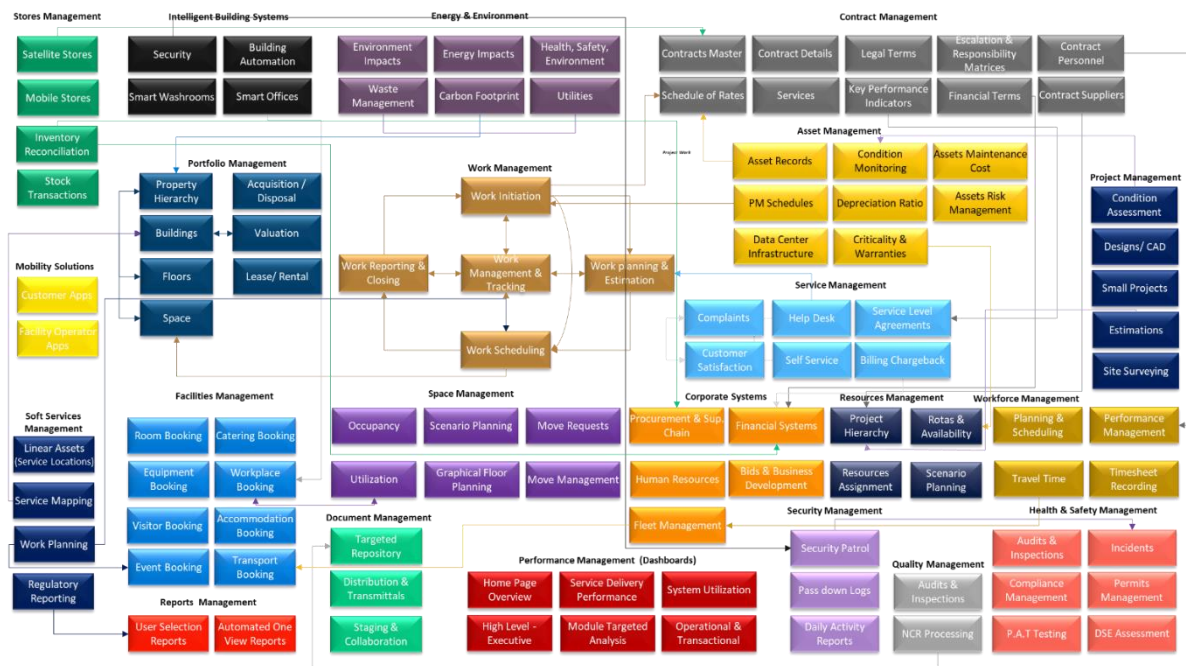
#### **Maximizing space utilization**

Space management functionality provides clear and detailed views of how space is used and the corresponding costs. This ensures the utilization of physical space is maximized in line with costs. Management reports also enhance space planning strategies and maximize revenue potential.

#### **Managing change**

Data is at the heart of FMPro meaning there are multiple applications able to contribute to controlling change within a facility base. Space management enables spaces to be updated easily to reflect changes in use and/or ownership; property management scales up as portfolios increase and boundaries move; the asset register contains an accurate account of all assets to aid everything from technology migration to legislation updates impacting operations. Access to this information and clear reporting can have a direct role in managing changes with knowledge and control.

### 3.1.3.1 Modules & Functionalities



### 3.1.3.2 Contract Management Module



The contract management module consolidates the management of all service contracts, allowing the FM managers to monitor service delivery levels in real-time, to improve performance, optimize service quality and increase cost efficiency.

The module centers on these macro capabilities:

- Ability to store, track and search for contracts based on specific criteria.
- Ability to understand and report on information contained within or implicated by the contract.

#### 3.1.3.2.1 Module Key Features

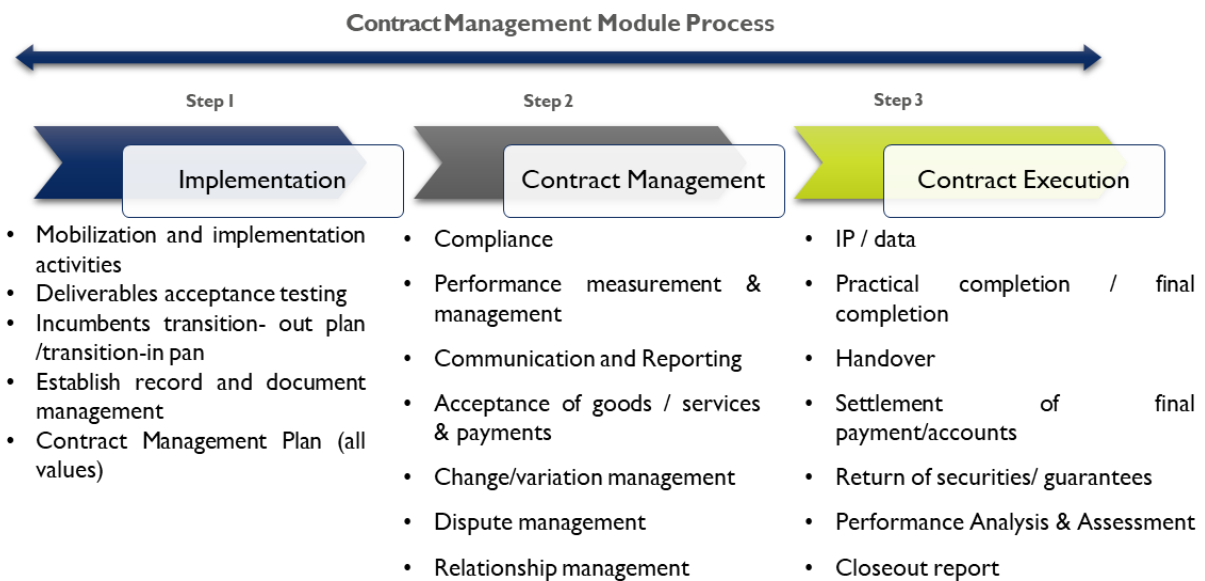
- Central and searchable repository for contracts.
- Visual KPI and process board for key suppliers.
- All key suppliers and major contracts have a contract management plan.
- Defined accountability and responsibility for contract performance.
- Governance and relationship process.
- Risk management process for contracts.

- Compliance to contract report as part of the contract management process.

### 3.1.3.2.2 Module Functionality

The main aim of the contract management module is to ensure that goods or services are delivered on time, at the agreed cost and to the specified requirements. The module provided the following business requirements:

- **Managing service delivery:** ensures that a contract is being delivered as agreed, to the required levels of performance and quality.
- **Managing relationships:** keeps the relationship between the two parties open and constructive, aiming to resolve problems early and focus on continual improvement.
- **Managing contract management:** provides governance, performance management and accountability through tracking and recording delivery.



### 3.1.3.3 Asset Management Module



The asset management module enables facility managers to keep track of assets and the related maintenance and preventative jobs. The tool is used to keep a catalog of the assets or client assets such as computers, printers, and other office equipment (Space Management). The asset management software module offers a clear record of the asset portfolio with the location, the prevailing condition of the asset as well as the written down value of the asset. Importantly, this model ensures the optimal use of assets within an organization while at the same guiding managers in future asset planning. The asset management module enables users to import asset data from an excel spreadsheet, thus saving time.

#### 3.1.3.3.1 Module Key Features

- Provides a centralized location for uploading all documents related to the asset such as manuals, guides, Images, troubleshooting and contractor documents. This centralized



repository ensures all asset information is accessible and easily shared with authorized personnel.

- ▶ Provides a plethora of fields to capture vital asset information including make, model, serial number and location, warranty, DLP status, etc.
- ▶ Allows to generate and print barcodes for rapid and unique identification of the asset.
- ▶ Maintains the spare parts inventory for deployed assets and keeps track of consumed parts linking them to the specific work order. Alerts can be configured once the spare parts stock reaches a critically low threshold to trigger restocking.

### 3.1.3.3.2 Module Functionality

#### ▶ The Asset Register

The Asset Register will contain details of the Assets that will be managed, maintained and/or valued within the system. The Asset may be an HVAC component, an electrical system, a Building component such as a room, or a linear asset such as a pipe or road section. All of these are recorded as Assets, together with details of their measurements, their condition, their value, and any other details such as a manufacturer or species. Dates can be held against Assets to indicate when they were installed or when they might need replacing. Assets are placed on Sites, and inherit from the Site the parameters applied to Site for Cost Code, Classification, Customer, Contract Area, Area and Ward. Any defaulting parameter that does not apply can be changed for that particular Asset.

Every Asset is exposed to a unique environment once it has been installed. These local conditions affect each Asset in a unique way, so we believe that an auditable, standards-based process is as important as technology for a successful, robust Asset inspection program, information collected during the asset inspection exercise is captured in the asset register itself and recorded in the asset management system as reference or historical data against every asset, based on the condition assessment performed, the appropriate action is then generated automatically.

#### Step 1:

- Asset register creation & inspection of all assets

#### Step 2:

- Assets tagging based on carried out inspections.

#### Step 3:

- Asset prioritization & identification of the highest risk assets for further screening

#### Step 4:

- Asset life cycle Management

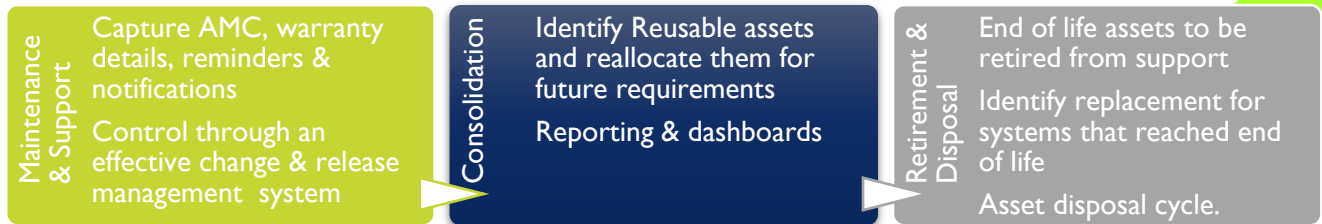
#### ▶ Assets Tagging

All assets will be tagged using adhesive labels that can be put on equipment for quicker processing and easy identification. The asset tags will contain asset codes or identification numbers. Details about location, group or any other relevant association. The labels will be scannable to produce additional dynamic information about the asset.

#### ▶ Asset Prioritization:

A Prioritization Matrix will be the technique used to identify which assets are the most critical to work on maintain/renovating or replacing first. The Matrix will be used to rank Assets through issues generated by brainstorming

#### ▶ Asset Life Cycle management:



Strategic Asset Management requires a focus on the complete life cycle of physical assets, from a multidisciplinary perspective. Therefore, EFS reverts to the standards of ISO 55000 as a baseline when providing assets management.

The technology used to support the enforcement of asset life cycle management is represented in a comprehensive, smart yet standard asset management solution. Relying on the standards of ISO 55000, 55001 & 45001 allows for utilization of any CAFM/CMMS system to deliver a comprehensive ALCM.

### 3.1.3.4 Service Management Module



The module has been created to simplify and enhance the quality of service to the end user (Internal & External customers) through quick response times and better communication. This advanced tool is available online accessible through standard web browsers. Through this module end users can communicate directly with the Helpdesk Operators. At any time, they can submit a complaint, raise a service request, upload images and documents. Subsequently, the maintenance team will operate in most efficient and professional way possible. Users can easily track the status of their complaints through the system from the time it is submitted to its completion.

#### 3.1.3.4.1 Module Key Features

- Multi-Channel Communication
- Business Units
- Email Response Management
- Customer Portal
- Knowledge Base & Solutions
- Account & Contact Management
- Contracts & SLA Management
- Computer Telephony Integration
- Reports, Dashboards & KPIs
- Mobile Access
- Multi Language Support
- API Integration

#### 3.1.3.4.2 Module Key Functionality

- Allow emails to be converted to requests automatically or import them as csv files.
- Organize requests into categories and groups, and route them to the right technician using business rules.
- View details and history of requests, and stay up to date on their status.

- ▶ Customize your request templates with additional fields and get the required information from customers.
- ▶ Meet SLAs with automatic SLA status notifications.
- ▶ Access remote assistance from within a request.
- ▶ View the time spent on a request by each technician for easy and accurate billing.
- ▶ Route requests to specific business units using "mail configuration."
- ▶ Be alerted about the statuses of requests, new emails from customers, or SLA violation statuses.
- ▶ Add canned responses for easy email replies.
- ▶ Insert solutions from the knowledge base in email responses for faster request closure.

### 3.1.3.5 Command & Support (Helpdesk) Module



The module facilitates the efficient capture, allocation and response management for all types of Reactive & Corrective Maintenance/Helpdesk works. Easy-to-use but with depth to record all critical information, priorities and track jobs.

Intelligent filtering through clients, locations, assets, work types, service levels and workforce/contractors will allow you to offer a high level of customer support and service to the

end users.

SLA/KPI priorities can be assigned to each Task/Work Order to enable efficient task management (color coding) ensuring that all tasks are completed within their allotted time frame. Maintenance/Helpdesk reports can easily be produced using the vast array of reports included as standard, helping the decision makers to analysis performance, trends and identify areas of weakness or strength.

#### 3.1.3.5.1 Module Key Features

- ▶ System generated references for each task.
- ▶ Copy / link call for tracking multiple trades against a single call request.
- ▶ Automatic duplicate Work Order checker (with definable criteria).
- ▶ Qualified / available resource display and quick select.
- ▶ Comprehensive search facility including historical job review.
- ▶ User defined information display area.

#### 3.1.3.5.2 Module Key Functionality

- ▶ Raise Petty Cash request Material and purchase Requests.
- ▶ Review Materials, Consumables & Spare Parts used/allocated to a specific work order
- ▶ Review and complete time records against work orders
- ▶ Review the audit trail of a work order completion
- ▶ Associate and open documents against workorders
- ▶ Fast timesheet assignment and completion.
- ▶ Asset association with work orders for capture of lifecycle history.
- ▶ Automatic overview of similar works, by building, contract or linked asset.

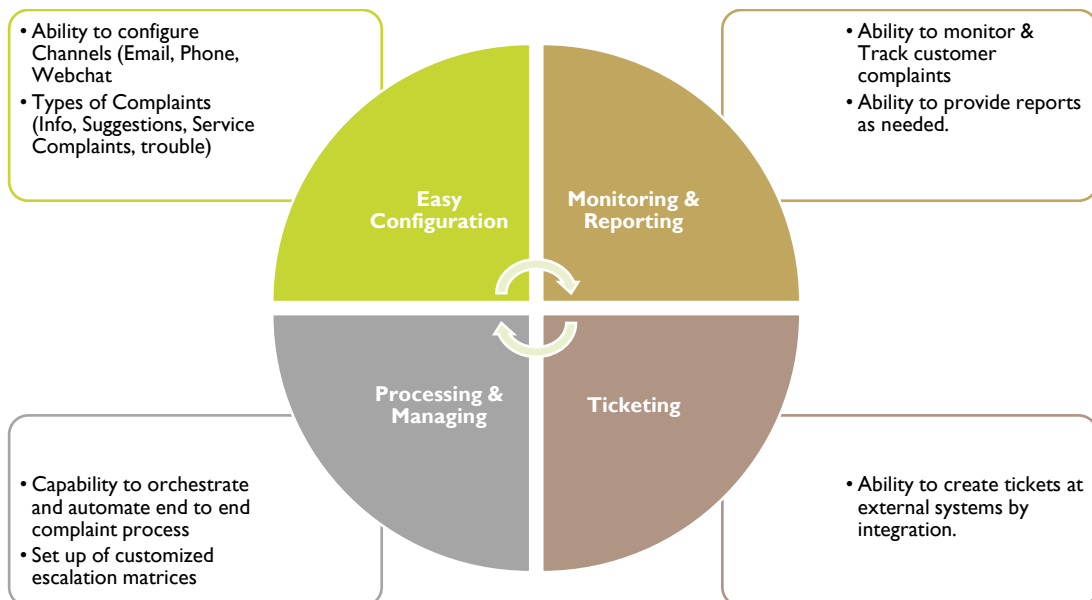
### 3.1.3.6 Complaints Management Module

The Complaint Management Module enables customer service representatives to record a service complaint coming in from multiple sources such as phone, email, Customer Satisfaction Survey, or the web. All critical and pertinent details about the Service as well as the incident are captured using a user-friendly input form. Depending on the complaint data captured, the complaint record is automatically routed for further triaging based on the company's policies.



Additionally, the module ensures thorough root cause investigation and effective corrective actions are completed preventing recurrence of the issue and further customer complaints. And builds customer loyalty, identifies Gaps in the provided services, increases efficiency and prevents mistakes from reoccurring.

#### 3.1.3.6.1 Module Key Features



- Complainant Profile Management
- Location Management & Synchronization
- Complaint Analysis, Reporting and Live dashboard

#### 3.1.3.6.2 Module Functionality

- Users can lodge any complaint either by mobile apps or web.
- Users shall have to provide all information for first time complaint or service request.
- Users need not to provide all information for each request.
- Faster and easier interface for processing complaint or service request.
- There shall have a stock inflow and outflow management system.
- SMS and Email notification system.
- Advance Search options.
- Log management system



### 3.1.3.7 Work Order Management

Work order management module is used to carry out both planned and reactive maintenance. The module employs screen alerts, filters, and search tools to group customers based on specific requirements. The tool is used to ease the work order cycle through the use of automated communications that improve service delivery. The planned preventive maintenance feature in the module is used in the full lifecycle of the maintenance. Accordingly, the module ensures the timely completion of tasks ahead of the planned time. The help desk has appealing features such as easy user interface portals, and use of live alerts that enable monitoring of customers. The management of the planned maintenance and automation of workflows ensures customer requests are supported by the required processes.



#### 3.1.3.7.1 Module Key Features

- ▶ Efficiently manage work orders
- ▶ Compile reports and view interactive dashboards
- ▶ SFG20 Standard Work Order Checklists for both planned and reactive work orders processing and completion

#### 3.1.3.7.2 Module Key Functionality

- ▶ Preventive (scheduled) Maintenance Work Orders scheduled by calendar or usage frequency
- ▶ Corrective (breakdown) Maintenance templates for fast response to common tasks
- ▶ Calendar functions view for displaying Work Orders
- ▶ Enhanced scheduled maintenance frequency with provision to raise Work Orders on a specific hour in a week
- ▶ Configurable Work Order verification process for closure
- ▶ View upcoming Work Orders / Closing Work Orders
- ▶ Streamline work order submission.
- ▶ View work order status and improve technician accountability

### 3.1.3.8 Workforce Management



Workforce & Resource Management module is a unique tool designed as a solution to aid the efficient management of human resources for live Reactive Maintenance and Planned Preventative Maintenance (PPM) jobs.

This module enables users to quickly filter and adjust the interface to display a series of live tasks. Options are then provided to select and view available worker schedules, enabling you to easily re-allocate and adjust resources to meet the demands of your operations/ clients.

#### 3.1.3.8.1 Module Key Features

- ▶ Perfect Tool to Easily Manage Tasks and Resources

- ▶ Filters Available to Locate Maintenance Tasks
- ▶ Easily Understand and Identify Staff Workloads
- ▶ Reallocate or Move Maintenance Jobs with Ease
- ▶ Logically Laid Out Interface Design
- ▶ Color Coded for Easy Maintenance Task Type Identification
- ▶ Fast and Accurate Data Review
- ▶ Automatically Updates Maintenance SLA Details
- ▶ Restrictions Imposed to Support True Data Accuracy

### 3.1.3.8.2 Module Key Functionality

- ▶ Allocation of multiple disciplines to resources.
- ▶ Configurable planner, by start of working week, hours per day, etc.
- ▶ Configurable diary entry colors for sickness, breakdowns, PPM's, etc.
- ▶ Estimated travel times displayed as separate entities, but still connected to the diary entries.
- ▶ Standard cancellation reasons for work orders, to promote data consistency.
- ▶ Contract statutory holidays, for accurate engineer availability.
- ▶ Mouse-over information, including site name and building code, against diary entries.
- ▶ Skills Expiry Report, detailing expiring skills against resources.

### 3.1.3.9 Space Management

This system add on allows to efficiently track & manage department/cost center/project wise space allocation, seat assignment and helps in implementing hot-desking/on-demand seat booking of shared workspaces in this increased work-from-home era. Usage of floor plans for visual representation for planning, assignment & booking, integration with IoT seat sensors for real-time occupancy data, QR codes for users to scan & book seats, kiosk & mobile based space booking and occupancy trend analysis dashboards makes it very user-friendly to implement. The seamless shared spaces implementation and improved space automation helps organizations to save huge infrastructure costs.



#### 3.1.3.9.1 Module Key Features

- ▶ Allows the making of informed space utilization decisions with real-time reports, customized to the end user needs.
- ▶ Enables Leveraging the power of scenarios and plan complex moves ahead in detail
- ▶ Maintain the quality of the facility's seating data with editable management reports
- ▶ Providing Insight into space cost, usage and capital programs.
- ▶ Fostering accountability through a complete space data record
- ▶ Promoting transparency via instant reporting and access to data.
- ▶ Spurring optimization and generating profit through efficient data usage.
- ▶ Plan, allocate and release space to individual employees, departments or projects

#### 3.1.3.9.2 Module Key Functionality

- ▶ Space assignment and allocation based on departments / Cost Centres / Projects
- ▶ Cross utilization billing between departments / Cost Centres / Projects
- ▶ Configurable space allocation that is specific to defined time-slots and shifts
- ▶ Visual occupancy dashboards for space utilization analysis and optimization
- ▶ Scheduling of cleaning/housekeeping activity against each booking for improved hygiene
- ▶ Instant booking by simply scanning the QR code displayed at any shared workspace
- ▶ Auto assign workspace based on clock-in by user with access control system / time & attendance system integration and also record check-out using the same
- ▶ Automatic space allocation by in a hot-desking environment. The system can intelligently fill spaces area wise/floor wise based on the duration/timing in a more optimal way. This helps in switching on/off lighting, HVAC etc. as and when required automatically which results in significant energy savings and also equipment maintenance and replacement costs.
- ▶ My QR Code: Dynamic, color coded QR codes displayed on user's mobile app for validation by security at the entry gates to allow only users with valid space booking
- ▶ Managing of attached facilities while booking each space. Ex: Book a space with an IP phone or additional chair or standing desk provision
- ▶ Occupancy analysis reports for space planners to optimize the available space across multiple sites

### 3.1.3.10 Inventory Management

The Inventory Management module allows the efficient management of all stock items, avoiding potential issues caused by over/under stocking, insufficient storage space or to identify potential redundant items which are consuming vital racking space. A controlled system ensures you have the correct amount of stock, when you need it, aiding efficiency and cash flow.

Inventory control can apply to every item you, whether a product, service or a material. It is essential to track the lifecycle of each item, from an initial requirement to replenish stock, through ordering and goods receipt, to the final dispatch of the goods. FMPPro will facilitate the tracking items through each stage of this process, through single or multiple stores locations.



#### 3.1.3.10.1 Module Key Features

- ▶ Extendable across mobile interface
- ▶ Real-time, detailed visibility into key inventory control and supply chain management measures, including inventory trends, stock on order and supplier on-time performance.
- ▶ Complete Procure-to-Pay Purchasing
- ▶ Barcode scanning: Easily identify and track your products; inventory management software integrates with barcode scanners for instant product identification and labelling.
- ▶ Maintain just the right amount of inventory for each product, without over- or under-stocking any item. It's especially useful if you deal in products that experience a seasonal rise and fall in demand.

- ▶ Receive alerts and notifications when there's over- or under-stocking beyond a defined threshold. This helps you to place orders or offer promotional discounts to clear out extra stock.

### 3.1.3.10.2 Module Key Functionality

- ▶ Intelligent stock item grouping & search facilities
- ▶ Assign suppliers & scheduled pricing
- ▶ Analyse stock levels & value by location
- ▶ Accurate overview of items
- ▶ Review goods in & out usage
- ▶ Generate, print, email and export reports
- ▶ Automatically raise orders to replenish stock
- ▶ Integration with maintenance modules

### 3.1.3.11 Performance Management



Bringing together data that is stored across different modules and database tables into a live feed of graphical representation aiming towards transparency in terms of:

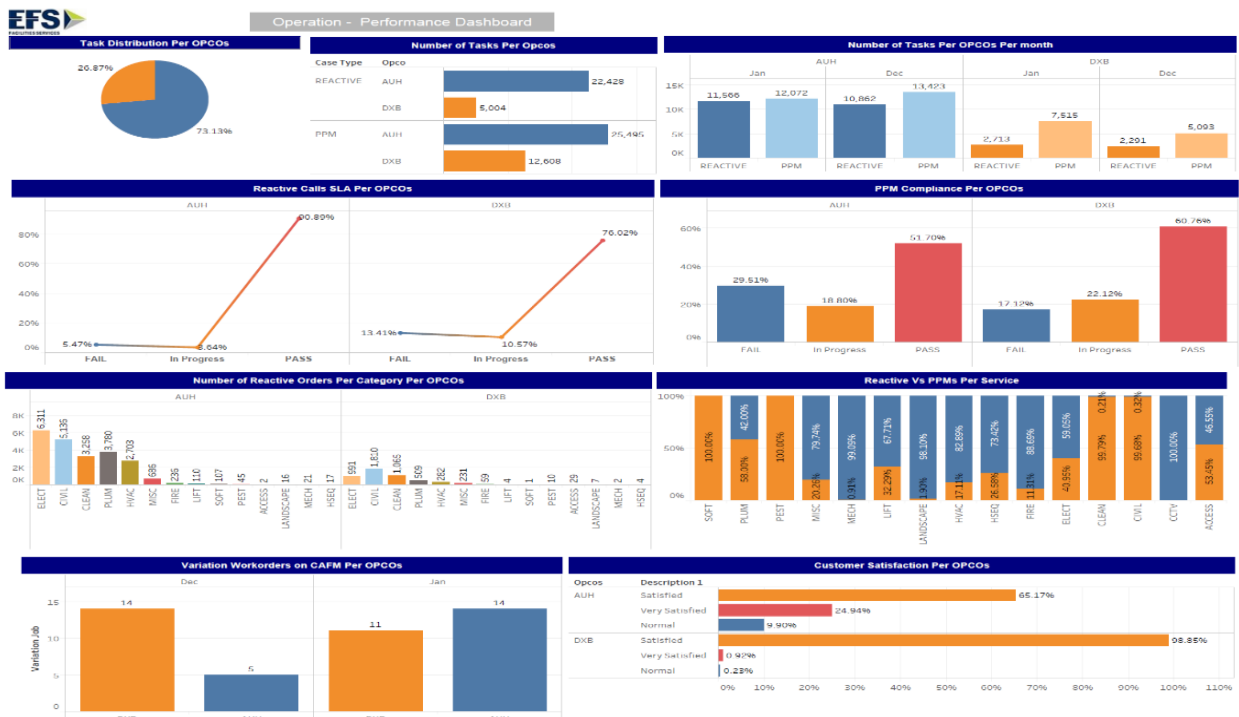
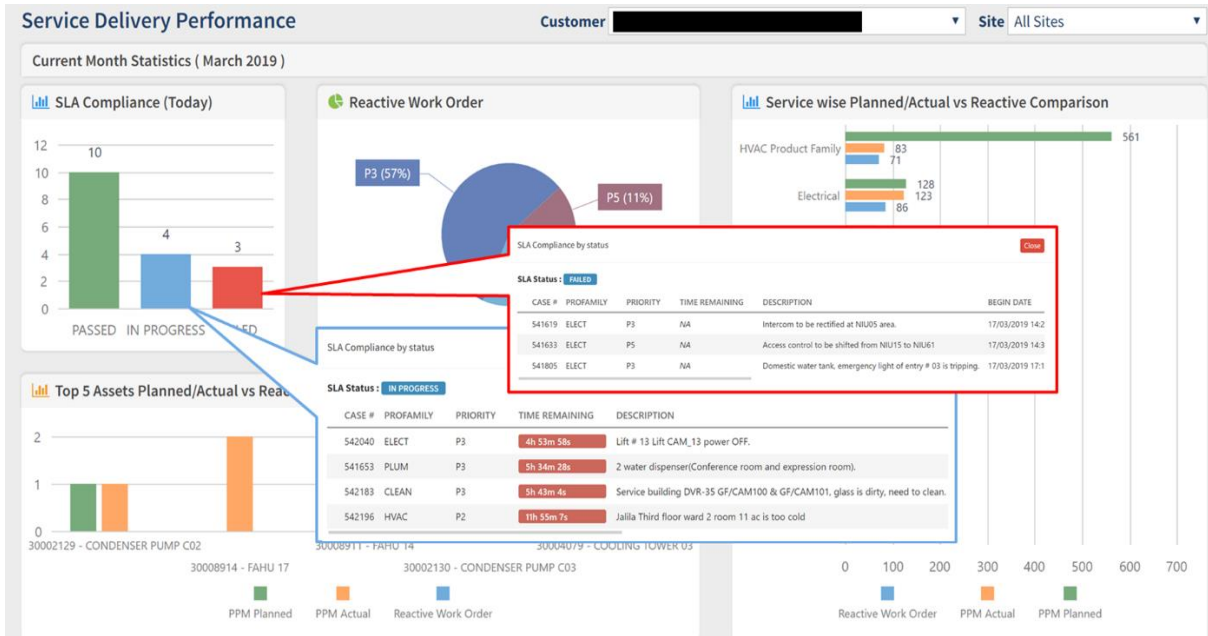
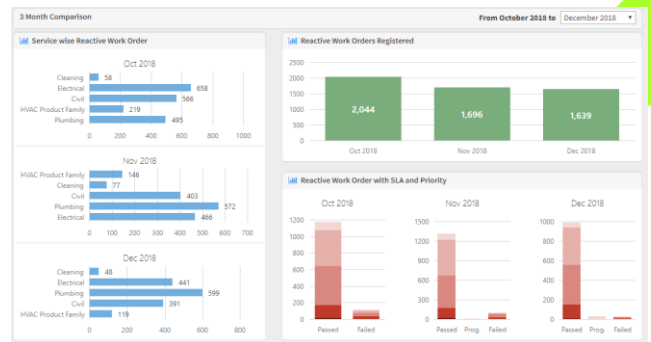
- ▶ Service Delivery Performance Dashboards
- ▶ Critical Assets Life Cycle Management Dashboards
- ▶ Manpower Utilization Dashboards
- ▶ Energy Management Dashboards
- ▶ Inventory Consumption Dashboards
- ▶ Operational Key Performance Indicators Compliance Dashboards
- ▶ Customer Satisfaction Dashboards

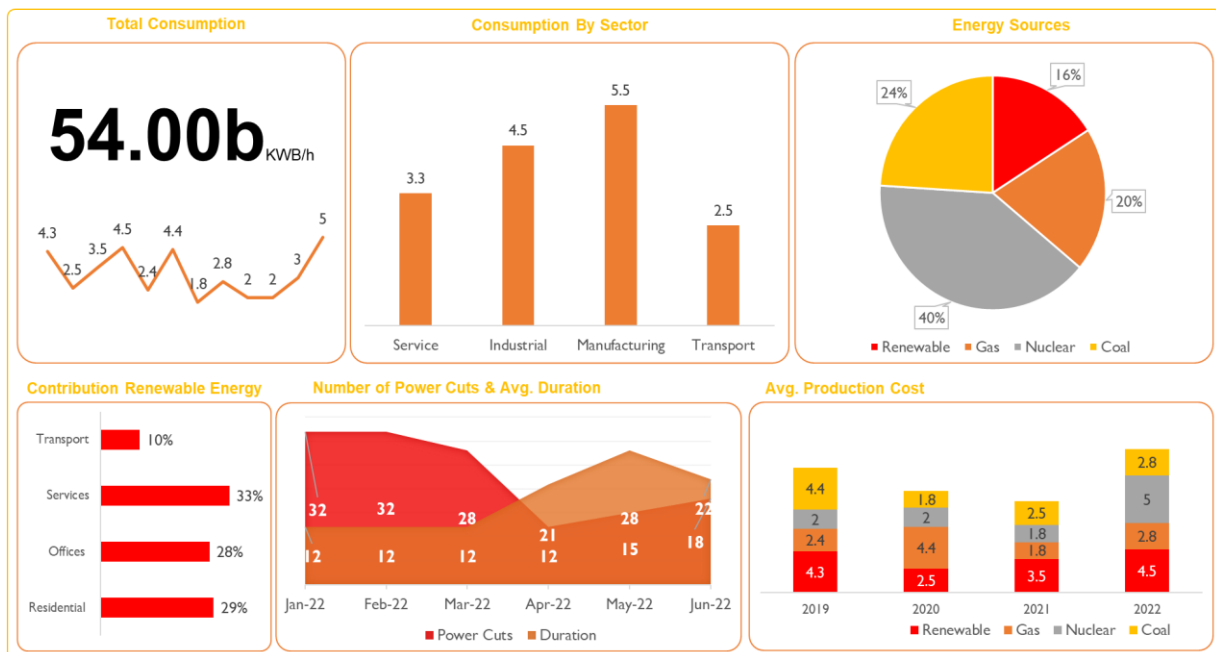
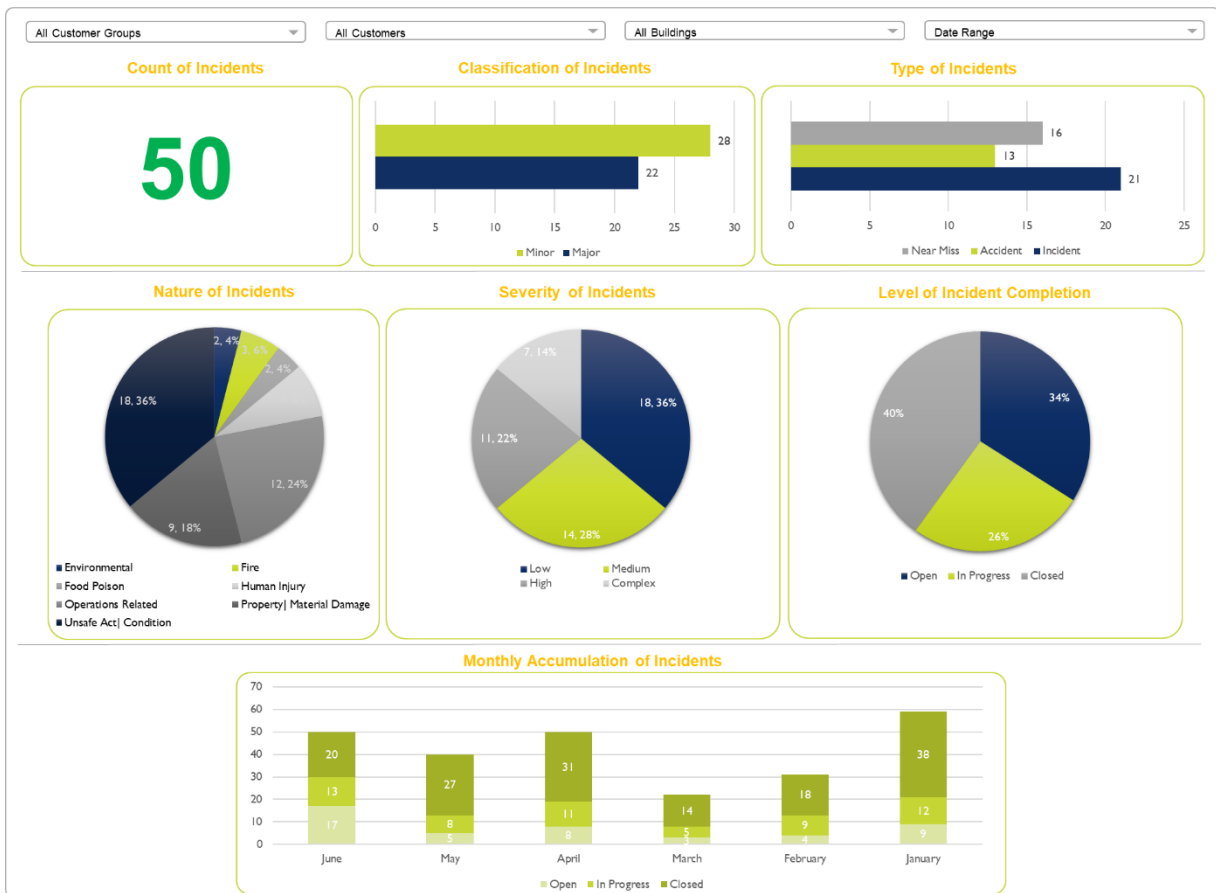
The performance management portal provides KPI's for business operations, manages all devices and users in the FMPro Platform eco system as well as generates needed reports with the ability of being extended to 3rd party systems. FM Managers and administrators will take advantage of this powerful application to configure the system and monitor the operations in real-time.

Operational reports are generated automatically from our system. Work Order management is conducted through FMPro monthly reporting, task allocation, auditing, response time and job completion are through the same tool where EFS will deploy an FM Coordinator to handle these on a daily basis.

All information can be updated in real-time, monthly, weekly or as required. Below is a sample of a dashboard report that we had developed for some of our Clients and is used as a quick visual reference through color codes such as green for meeting expectations, blue for nearing threshold and red for not meeting specifications.







### 3.1.3.12 Energy Management



The module Provides a comprehensive suite of services to buildings, to meet the growing demand for operational productivity and smarter energy solutions.

In a move towards a reliable, affordable and carbon-free energy network, FMPro helps high energy consumers and grid operators to achieve a reliable, cost-efficient energy mix through smart energy management systems.

#### 3.1.3.12.1 Module Key Features

- ▶ Meter Data Management
- ▶ Predictive Health Monitoring
- ▶ Consumption Trend Analysis
- ▶ Prescriptive Analytics
- ▶ Resource wise consumption trends

#### 3.1.3.12.2 Module Key Functionality

- ▶ Alerts on consumption beyond pre-set limits, excess utilization
- ▶ Bar / Trend / Pie charts for easy data analysis
- ▶ Detailed bill with consumption split-up, consumption and sustainability trend for comparison
- ▶ Comparison of various consumption data on water consumption, solar power generation, air quality levels, occupancy levels etc.
- ▶ Concise and credible details on carbon footprint for Enterprise Carbon Accounting
- ▶ Green building certification related reports and monetary savings reports
- ▶ Records history for increase or decrease in consumption for future analysis and understand the consumption pattern
- ▶ Integration with IoT based sensors / devices to display the air quality – VOC, CO<sub>2</sub>, PM 10 etc.
- ▶ Integration with building automation and control systems (BMS / BAS)
- ▶ Custom integration with meters / devices that support popular protocols (BACnet, Modbus etc.

### 3.1.3.13 Document Management and Control



The Document Manager provides a central location for uploading and reviewing documents attached (or to be attached) to entities within FMPPro Application, this includes, SOPs, User Manuals, Operating Manuals as well as drawings, evidence and project based operational minutes of meeting documents Utilizing the document manager functionality in CAFM, a document repository will be created to which all documents will be uploaded using the following process

#### Repository

- An archiving repository has been created to hold Documents of Different Calsses.

#### Classifying

- Documents classes have been created to classify types of documents

#### Event

- For each document archived in CAFM an event is created to track down the document.

#### Referencing

- Once an event is created, a reference numbe is generated and used to register the document

#### Assigning

- once a document is classified, and referenced it is assigned to either a resource or a contract

#### 3.1.3.13.1 Module Key Features

- Unlimted document storage capacity due to the flexible cloud storage features
- Intelligent organization following the hierarchy of classification and categorization of document as well as the smart document tagging, criticality rating and the robust search options
- Universal format support, as the module is constantly updated to keep up with the evolving technologies it allows for all types of formats to be stored and viewed within the module. Including pdf. Xls. Docx. PPT. JPEG. GIF. MP4. MP3. Dwg. Dwt.

#### 3.1.3.13.2 Module Key Functionalities.

- Inputting files trough the following sources: Scanner, Email, Manual Upload, Bulk Upload, Automated Process for Mass Uploading, Mobile Applications and Web Services
- Documents version control and visibility control through the international CREADA permission management function.

### 3.1.3.14 Reporting & Reports Management



- ▶ Reports templates will be customized and developed in coherence with the Customer's specifications (depending on the system provided by the employer) which can be generated at the employer's convenience, reports parameters will be set up to display the activities carried out shift wise and full day wise (24/7)
- ▶ Real Time Reports will be generated automatically at a predefined time and the system will be set up to directly deposit the reports in the employer's representative email address once the services are automated as detailed above

- ▶ Comprehensive Periodic Reports

#### 3.1.3.14.1 Planned Services Summary reports (Daily, Weekly & Monthly)

The report will display planned services carried out in a specified period and the following parameters will be included:

- |  |                                      |
|--|--------------------------------------|
| ▶ Service Carried out Date & Time  | ▶ Service Building                   |
| ▶ Service Due by Date  | ▶ Service Location                   |
| ▶ Service Completed Date   | ▶ Service Description                |
| ▶ Service LOC (Level of Completion)  | ▶ Service SLA Compliance (Pass/Fail) |
| ▶ Service Frequency  | ▶ Service Category                   |
| ▶ Analytical Graphs showing Service Compliance to Master PPM Plan                                      |                                      |
| ▶ Approved List and Quantity of consumables issued location wise throughout a specified period of time |                                      |
| ▶ Machinery distribution list location wise/activity wise.   |                                      |

#### 3.1.3.14.2 Reactive Service Summary Reports (Daily, Weekly & Monthly)

The Report will display reactive services logged through the call centre agents in a specified period and the following parameters will be included:

- |  |  |
|--|--|
| ▶ Date & time call is received (reported date& time)               | ▶ Reporter                               |
| ▶ Date & time call is logged in the system                         | ▶ Type of Call (Request/Complaint)       |
| ▶ Date and time call is due by                                     | ▶ Method of Receiving (Phone/Email)      |
| ▶ Call completion date & time                                      | ▶ Call Category                          |
| ▶ Call LOC (Level of Completion)                                   | ▶ Call Short Description                 |
| ▶ Call Priority  | ▶ System Generated Call Reference Number |
| ▶ Analytical Graphs showing the above Statistics on Monthly Basis. |  |
| ▶ Call SLA Compliance Response & Resolution (Pass/Fail)            |  |
| ▶ Machines, Consumables used to Complete service requests.         |  |



### 3.1.3.14.3 Activities Report for each service (Weekly, Monthly)

On weekly & monthly basis, an executive report of service activity highlights and major activities carried out will be generated with the following parameters:

- ▶ Major Planned activities carried out
- ▶ Consumables & machinery utilized
- ▶ Before & After Pictures of Activities carried out
- ▶ Selling price generated from utilized manpower, machinery, consumables.
- ▶ Average Manpower utilized location wise, service wise
- ▶ Analytical Graphs showing the above Statistics on Monthly Basis.
- ▶ Call SLA Compliance Response & Resolution (Pass/Fail)
- ▶ Machines, Consumables used to Complete service requests.

### 3.1.3.14.4 Service Report (Monthly)

A high-level executive summary report of statistics only report will be generated from the system at the client's convenience with the following parameters:

- ▶ Average Manpower Summary & average manhours worked
- ▶ Totals of consumables, materials, tools & equipment
- ▶ Document tracker summary (submissions, approvals, NCNs ...etc)
- ▶ Staff Training statistics & evaluation summary with recommendations and actions
- ▶ Quality assurance analysis report and statistics
- ▶ Health & safety statistics report & incidents/ accidents / near miss summary.
- ▶ Hazardous Activities summary report.

### 3.1.3.14.5 Annual Reports

Utilizing parameters set out in the service monthly report, a summarized annual report will be developed to display service trends, service achievements, analytical graphs displaying LOC & SLA Compliance trends, consumables consumption trends and manpower utilization throughout the year.

### 3.1.3.15 Supplier Management Portal

SupplierPro is a complete supplier management portal that ensures governance, system integration and product/service delivery through:

- ▶ **360-degree view of supplier information and activity**

A view into all supplier activity across source-to-pay and ensure all processes are informed with accurate supplier, risk and performance data

- ▶ **Supplier and operational risk assessment and action**

Retrieve information from stakeholders and suppliers, measure transactional and contractual activity and incorporate 3rd party data to get an accurate risk assessment.

- ▶ **Single source of truth for supplier data**

Maintaining clean, accurate supplier master data across the board.



### 3.1.3.16 Fleet Management



FMPPro Fleet Management Module is an add on application that can provide 360 monitoring features including engine run time, ignition on/off, speed data and even the rate of rapid acceleration and hard braking of a specific vehicle. All of this gives users insight into the progress of a specific journey as well as hard data regarding the habits and behavior of individual fleet drivers.

#### 3.1.3.16.1 Module Key Features

- ▶ Real time monitoring of speed, routes and location tracking
- ▶ Monitoring of parking or stopping points and routes history
- ▶ Comfortable interface for tracking with smartphones or pc
- ▶ SMS or e-mail alerts when the vehicles leave a certain area, exceeds permitted speed or other alerts, based on parameters you set in advance
- ▶ Idle times of vehicles, control of bad habits of drivers
- ▶ Monitoring of petrol parameters and fuel consumption
- ▶ Monitoring of accelerator pedal position

#### 3.1.3.16.2 Module Key Functionalities

##### ▶ Fleet Inventory Tracking

Organize fleet assets and track all the data you need to effectively manage your fleet. Enter an UNLIMITED number of assets ranging from cars, trucks and trailers to heavy construction equipment, machinery, tools and more.

##### ▶ Repair Maintenance

Keep on top of unexpected repairs by logging and tracking repair requests from start to finish. Monitoring the frequency and cost of repairs can also help you decide whether to keep or retire a fleet asset.

##### ▶ History Recording

A detailed history of maintenance performed is automatically logged so you can analyze costs. Monitor trends in wear, neglect, and abuse. A thorough maintenance history helps you make effective decisions

##### ▶ Online Tracking

secure your fleet, monitor and visualize the exact location of your vehicle on different types of maps from your smart phone any time and any place.

### 3.1.4 Mobility Solution

EFS's mobile application is one of the configurations that complements FMPPro. It enables the manager to locate and control the activities involved in the site. The field workers complete work orders and report activities involved in the field via the mobile portal, including any need for attention from the manager and the engineers. It is possible to record, plan, and execute activities using a mobile app that shows relevant information of the project, including service actions and inspections, carried out

on the ground. As a result, the staffs involved in fieldwork can effectively communicate with the management for efficiency and guidance purpose. Such an arrangement allows the reduction of movement and cost involved in managing facilities.

The mobile portal is a third-party layer that connects with the back end CAFM software using business service Integration BSSV:

### 3.1.4.1 Mobile App Modules & Functionalities



#### 3.1.4.1.1 Customer Service Management Module

##### 3.1.4.1.1.1 Service Request Function;

The Customer Requests includes the following key features:

- Browse services catalog
- Register service requests
- Register a contact me request
- Cancel a request
- Review Service Request/Work order status
- Provide a work completion satisfaction feedback
- Other features as deemed necessary during the requirements gathering sessions.

Features listed above and within the referenced processes can be consumed by different users specified dynamically through privileges and permissions management

##### 3.1.4.1.1.2 Customer Complaints Function;

The Customer Complaints includes the following key features:

- Register a complaint
- Register a contact me request
- Review complaint status
- Approve complaint resolution
- Cancel appointment
- Provide complaint resolution feedback
- Other features as deemed necessary during the requirements gathering sessions.

Features listed above and within the referenced processes can be consumed by different users specified dynamically through privileges and permissions management.

#### **3.1.4.1.1.3 Appointment Scheduling & Approval Function;**

The Appointments Scheduling and Approval function includes the following key features:

- ▶ Register an appointment
- ▶ Select appointment availability from calendar
- ▶ View available slots
- ▶ Approve appointments
- ▶ Cancel appointments
- ▶ Assign & reassign Appointments for execution
- ▶ Other features as deemed necessary during the requirements gathering sessions.

Features listed above and within the referenced processes shall be consumed by different users specified dynamically through privileges and permissions management.

#### **3.1.4.1.1.4 Lost & Found Items Claim Function;**

The lost & found item claim function includes the following key features:

- ▶ View list of lost items
- ▶ Raise a claim request
- ▶ Cancel a claim request
- ▶ Other features as deemed necessary during the requirements gathering sessions.

Features listed above and within the referenced processes shall be consumed by different users specified dynamically through privileges and permissions management.

### **3.1.4.1.2 Work Order Management Module:**

#### **3.1.4.1.2.1 Reactive Work Order Processing;**

The reactive work order processing function includes the following key features:

- ▶ Convert a service request into a work order
- ▶ Assign & reassign work order to workers
- ▶ Escalate work orders
- ▶ Complete work orders
- ▶ Cancel work orders
- ▶ Carry out customer satisfaction survey
- ▶ Other features as deemed necessary during the requirements gathering sessions.

Features listed above and within the referenced processes shall be consumed by different users specified dynamically through privileges and permissions management

#### **3.1.4.1.2.2 Planned Work Order Processing (PPM);**



The Planned work order processing function includes the following key features:

- ▶ Plan PPM work order
- ▶ Assign/reassign a PPM work order.
- ▶ Completed a PPM work order.
- ▶ Cancel PPM Work Order
- ▶ Carryout customer satisfaction survey
- ▶ Other features as deemed necessary during the requirements gathering sessions.

Features listed above and within the referenced processes shall be consumed by different users specified dynamically through privileges and permissions management

#### **3.1.4.1.2.2.1 Corrective Work Orders registration & processing function;**

The Planned work order processing function includes the following key features:

- ▶ Raise a corrective work order request
- ▶ Assign/reassign a corrective work order.
- ▶ Completed a corrective work order.
- ▶ Reassign PPM work order
- ▶ Cancel a corrective work order.
- ▶ Other features as deemed necessary during the requirements gathering sessions.

Features listed above and within the referenced processes shall be consumed by different users specified dynamically through privileges and permissions management.

#### **3.1.4.1.2.3 Work Orders Approvals Function;**

The work order approval processing function includes the following key features:

- ▶ Approve/reject corrective work order requests
- ▶ Approve work order material requests
- ▶ Approve work order cancelation requests
- ▶ Other features as deemed necessary during the requirements gathering sessions.

Features listed above and within the referenced processes shall be consumed by different users specified dynamically through privileges and permissions management.

#### **3.1.4.1.2.4 Work Orders SLA & Due Date Escalation Function;**

The workorders SLA & Due Date Escalation function includes the following key features:

- ▶ Escalate reactive work order SLA Breaches
- ▶ Escalate planned work order due date breaches
- ▶ Reassign planned & reactive work orders

- ▶ Other features as deemed necessary during the requirements gathering sessions.

Features listed above and within the referenced processes shall be consumed by different users specified dynamically through privileges and permissions management.

#### **3.1.4.1.2.5 Work Order Completion Inspection Function**

The work order completion inspection function includes the following key features:

- ▶ Create a schedule
- ▶ Plan inspections
- ▶ Process inspections
- ▶ Raise & Assign corrective requests
- ▶ Raise training request
- ▶ Register a note against a technician profile
- ▶ Other features as deemed necessary during the requirements gathering sessions.

Features listed above and within the referenced processes shall be consumed by different users specified dynamically through privileges and permissions management

#### **3.1.4.1.2.6 Variation Work Orders Processing & Approval (Quotations);**

The Variation work order function includes the following key features:

- ▶ Approve variation works
- ▶ Create a quotation
- ▶ Attain approvals (internally & externally)
- ▶ Cancel variation requests
- ▶ Other features as deemed necessary during the requirements gathering sessions.

Features listed above and within the referenced processes shall be consumed by different users specified dynamically through privileges and permissions management.

#### **3.1.4.1.2.7 Work Orders Planner View (Calendar);**

The work order Planner function includes the following key features:

- ▶ View reactive workorders
- ▶ View planned work orders
- ▶ View work order appointments
- ▶ View corrective work orders
- ▶ Other features as deemed necessary during the requirements gathering sessions.

Features listed above and within the referenced processes shall be consumed by different users specified dynamically through privileges and permissions management.

### 3.1.4.1.3 Asset Management Module

#### 3.1.4.1.3.1 Asset Condition Inspection Function;

The asset condition inspection function includes the following key features:

- ▶ Plan inspections
- ▶ Process inspections via predefined checklists
- ▶ Create corrective work orders
- ▶ Request worker training
- ▶ Other features as deemed necessary during the requirements gathering sessions.

Features listed above and within the referenced processes shall be consumed by different users specified dynamically through privileges and permissions management.

#### 3.1.4.1.3.2 Asset Verification & Initial Condition Assessment;

The asset verification and initial condition assessment function includes the following key features:

- ▶ Carry out asset condition surveying
- ▶ Carry out asset details collection and verification
- ▶ Carryout asset tag printing
- ▶ Other features as deemed necessary during the requirements gathering sessions.

Features listed above and within the referenced processes shall be consumed by different users specified dynamically through privileges and permissions management.

#### 3.1.4.1.3.3 Repeatedly failing assets inspections

The repeatedly failing assets inspection function includes the following key features

- ▶ Generate assets inspection program based on repeated breakdowns/repeated reactive/corrective calls within a defined period of time
- ▶ Carry out Root cause Analysis Checklist:
- ▶ Review Asset Maintenance History
- ▶ Review Workers' attendance History
- ▶ Review Asset Age & life expectancy

Features included in the referenced processes shall be consumed by different users specified dynamically through privileges and permissions management

### 3.1.4.1.4 Facility Management Module

#### 3.1.4.1.4.1 Quality Health, Safety & Environment Function;

The QHSE Function includes the following key features

- ▶ Quality Inspections & Observations

- ▶ Environment, Health & Safety Inspection & Observations
- ▶ Health Safety & Environmental
- ▶ Quality Assurance Escalations
- ▶ Incident Management (Reporting, investigation and remedial action)

### 3.1.4.1.5 Inventory Management Function;

#### 3.1.4.1.5.1 Material Requests & Purchase Requests Processing & Approval Sub- function;

The MR & PR Processing function includes the following key features:

- ▶ Raising material and purchase request
- ▶ Attaining internal approvals material and purchase request
- ▶ Create Goods Received Notes.
- ▶ Other features as deemed necessary during the requirements gathering sessions.

Features listed above and within the referenced processes shall be consumed by different users specified dynamically through privileges and permissions management.

### 3.1.4.1.6 Energy Management Function;

The Energy Management Function includes the following key features

- ▶ Utility Meter Readings
- ▶ Energy Efficiency Monitoring

### 3.1.4.1.7 Performance Management Module;

#### 3.1.4.1.7.1 Service Delivery Performance Dashboards;

The SDP dashboard includes the following key features

- Planned Vs. Actual Vs. Reactive Works Comparison Service Category Wise
- Reactive Work Orders Level of Completion Priority Wise
- Reactive Work Orders Service Level Agreement Compliance Status Wise

#### 3.1.4.1.7.2 SLAs & Due Date Escalations Dashboards;

The SLAs & Due Date Escalations Dashboard includes the following key features

- Reactive Work Orders Approaching Breach of SLAs and yet to be actioned
- Reactive Work Orders Breached SLA
- Planned Work Orders Approaching Breach of Due Completion Date and yet to be actioned
- Planned Work Orders Failed Due Completion Date

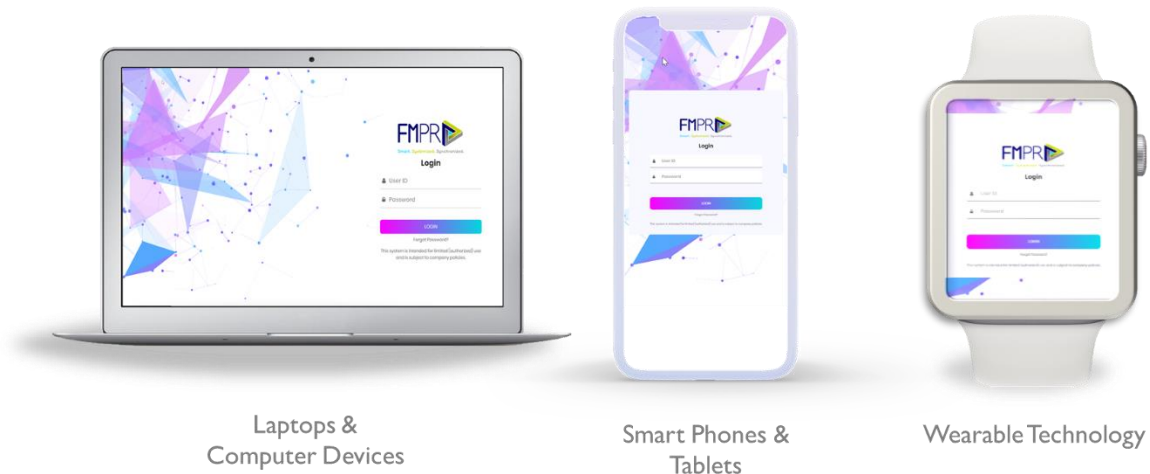
#### 3.1.4.1.7.3 Resources Planner View;

The resources planner function includes the following key features

- View of All on Site Resources assigned to work orders (segregated as Planned, Reactive, Corrective)
- View of Idle Resources

### 3.1.4.2 Proposed Hardware

EFS proposes the following hardware options:



#### 3.1.4.2.1 Supervisory Level PDAs:

- ▶ Lenovo Tab 2 A 10 – 30 L (10.1-inch Screen)
- ▶ Samsung S2 (10.1-inch Screen)
- ▶ iPad Mini (8 inch)

#### 3.1.4.2.2 Worker Level Wearable Technology:

- ▶ Samsung Gear Fit 2 Pro Large
- ▶ Spigen Apple Watch 44mm Series 4
- ▶ Xiaomi Amazfit 1.28" Barro IP68 Waterproof GPS for Android & iOS

## 3.2 Implementation Methodology

- ✓ Needs Assessment, Planning, data collection.
  - Requirements Gathering
  - Establishing implementation strategy
  - Data Collection
  - Data Purging, Analysis & Verification
- ✓ **Stage 2** – Set Up, Automation and Data Entry.
  - System Setup & Data Entry
  - Assets Tagging
  - System Rollout & Training
  - Success Monitoring, Enhancements & Supports

A full Review of the portfolio will be conducted along with verification of existing locations/areas within.



All Buildings will be mapped into operational zones in line with the activities and services provided to each area in line with the scope of work stated in the Tender and will be submitted for the approval of the employer.

Upon the employer's approval, zones shall be set up as work areas/linear assets depending on the Employer's system implementation methodology.

Below is the detailed staged Implementation Plan:

### 3.2.1 Needs Assessment and Planning (Data Collection)

#### 3.2.1.1.1 Stockholder Engagement

- ▶ Stakeholder – 1 (Client Representative) Requirements
  1. Provide detailed space inventory building wise/level wise for each room/space including areas in SQM – format (sitemaps/drawings).
  2. Occupancy details for each space/room/office under scope (except common areas) including contact person, contact number and email address (for communication and escalation purpose).

- ▶ Stakeholder – 2 (Emirates School Establishment Internal functions/EFS)

Along with all service divisions leaders, develop the following requirements

- a) Detailed zoning plan
- b) Resource allocation for each zone including
  - Manpower allocation
  - Machinery allocation
  - Consumables allocation
  - Supervision function
  - Management function
- c) Utilize point I) & ii) above to determine:
  - Communication protocols.
  - Escalation matrix.
  - Reporting requirements
  - Inventory plan
  - Budget/cost control parameters

### 3.2.2 Set Up, Automation and Data Entry

#### 3.2.2.1.1 Contracts setup

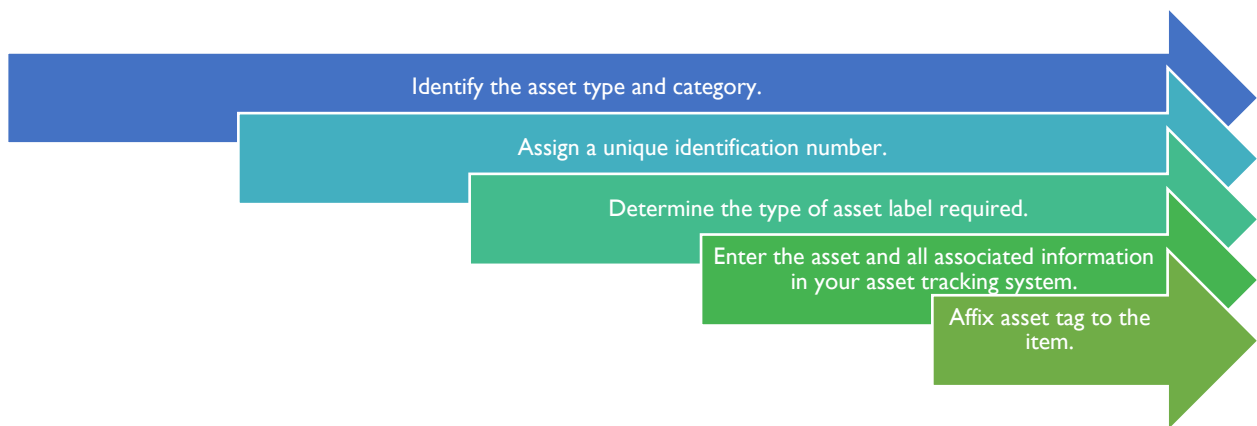
- Set up/Review the Setup of the buildings covered in the Scope
- Initial set up/verification of existing locations/areas set up in within the system
- Development of location coding for each area/room/location

- Conduct workshop briefing with the Employer representative for approval of location coding methodology

### 3.2.2.1.2 Tagging/Verification of existing Tags

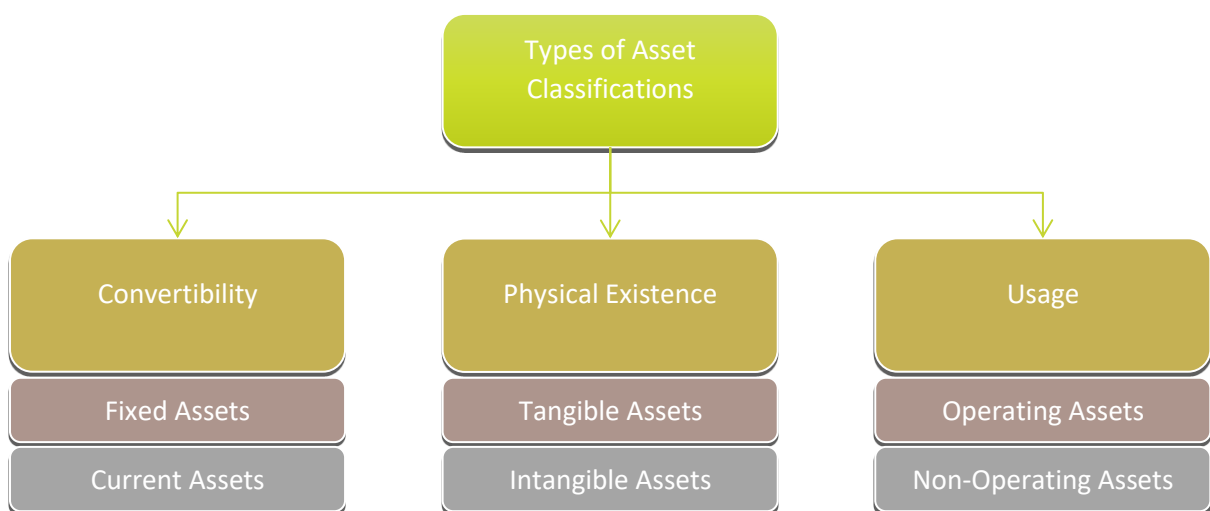
- Conduct a meeting/workshop with the Employer's representative Preferred barcoding/tagging company to agree on a tagging project
- Generate Location Codes for all buildings and locations/areas in the scope of work
- initiate Tagging/Barcoding
- Setting up tags/barcodes into CAFM and linking it to location codes for all buildings and locations/areas in the scope of work.

#### 3.2.2.1.2.1 Tagging Steps



- **Identify the asset type and category:** Creating this categorization system is an essential step to ensure consistent categorization over time. Assets may be grouped by department, cost, use, or any number of other variables.






#### Asset Categorization Method



- **Assign a unique identification number:** Beyond categorizing assets and classifying them by type, each asset will have a unique identification number for accurate tracking. This unique ID distinguishes individual assets from other assets of the same category and type, making it easier to manage processes such as reordering, maintenance, and accounting.

- Determine the Type of Asset Label Required:** Asset labels and tags are not a one-size-fits-all solution. There are a variety of asset labels and tags designed to suit specific applications, such as durable asset tags for assets that may be exposed to harsh conditions or security asset tags for high-value assets that may be subject to theft, unauthorized transfer, or tampering. Permanent equipment labels are ideal for automating data collection for the life of an asset.

### 3.2.2.1.2.2 Asset Tag Types

Type	Description	Asset Type	Image	Life	Pros / Cons
Paper labels (with or without lamination) (50mm X 25mm)	<ul style="list-style-type: none"> <li>Thick over laminate with high quality gumming( over laminate piece size 60mm X 40mm)</li> <li>Permanent ink(resign printing)</li> <li>Good scan able quality</li> <li>Long life span</li> </ul>	<ul style="list-style-type: none"> <li>Office Equipment</li> <li>Furniture</li> <li>IT Assets</li> </ul>		2-3 Years	May be tampered
Vinyl label (with or without lamination) (50mm X 25mm)	<ul style="list-style-type: none"> <li>Thick over laminate with high quality gumming( over laminate piece size 60mm X 40mm)</li> <li>Permanent ink(resign printing)</li> <li>Good scan able quality</li> <li>Long life span</li> </ul>	<ul style="list-style-type: none"> <li>Office Equipment</li> <li>Furniture</li> <li>IT Assets</li> <li>Plant and Machinery</li> </ul>		8-9 Years	Could not tampered
Heat Sensitive labels	<ul style="list-style-type: none"> <li>Metallic label for high temperature equipment up to 2000 degree</li> </ul>	<ul style="list-style-type: none"> <li>Plant and Machinery</li> </ul>		8-9 Years	Could not tampered
Stainless steel labels		<ul style="list-style-type: none"> <li>Plant and Machinery</li> </ul>		15 Years	Could not tampered
RFID (Radio Frequency Identification)		<ul style="list-style-type: none"> <li>All categories of highly volatile assets</li> </ul>		10 Years	May be tampered Water infected

- Enter the Asset and Associated Information into the Asset Tracking System** Assets should be entered into the system immediately after they're received. To streamline this process, it's helpful to have written process documentation outlining when assets should be tagged, how they're categorized, what types of asset labels to request for certain asset types, and procedures for data entry. In general, data entered into an asset tracking system includes:
  - Asset identification number
  - Serial or model numbers
  - Manufacturer or vendor information
  - Date of acquisition
  - Location or department of ownership
  - Status
  - Asset value
- Affix the Asset Tag to the Item:** depending on the selection of Asset Tag Type, the methodology of Affixing assets will be selected, for majority of the asset tag types listed above, adhesive stickering will be the most suitable methodology.
- Implement Data Verification Processes:** Verifying assets from a minimum of two data points, such as the barcode and the item's serial number. When disposing of assets, this step is crucial to ensure an "accurate and verifiable chain of custody," which can help to mitigate data breaches (particularly for the disposal of IT assets) and also help to maintain compliance with regulations.

Implementing a consistent asset tagging process flow ensures that all assets received consistently classified and tracked, making it easy to locate assets throughout the portfolio, implement regular maintenance schedules, and maintain accurate record-keeping for auditing and accounting purposes. Developing clear policies and procedures and training your team

members on approved asset tagging procedures streamlines processes and can ultimately have a positive impact on the bottom line, allowing thus to improve resource utilization, reduce unnecessary duplication of assets, and get more usable life out of the investments.

#### 3.2.2.1.3 Set up of contracts Functions (Reports/ SOPs)

- Set up of all contract support functions within CAFM (stores and inventory, payroll and timesheet, finance and accounts)
- Automation of all approved contracts operations, quality and safety SOPs
- Automation of daily, weekly and monthly reports

#### 3.2.2.1.4 Automation of Support Functions (Quality Assurance and Health, Safety and environment)

- Development of Planned/Scheduled work
- Development of Priorities and Categories
- Creating schedules, priorities and frequencies in CAFM

#### 3.2.2.1.5 Automation of KPIs Evaluation Mechanism in CAFM

- Develop Workflow for KPIs Measurement Process
- Import and configure supporting data for the KPIs and inspections
- Development of KPIs Reports Documentation

#### 3.2.2.1.6 Document Management

- Collection of Documents, Sorting and Filtering
- Setup of Document classes, documents repository, document types, document classes & sub classes in CAFM Document Manager Functionality
- Document Uploading

#### 3.2.2.1.7 Machines and Equipment inventory, maintenance, management and tracking

- Creating Machines as assets in CAFM
- Creating Maintenance plan and checkup Schedules in CAFM

#### 3.2.2.1.8 Initial System Launch

- Provide licenses and access to all concerned parties
- Deployment of PDAs on site

#### 3.2.2.1.9 Training

- Training of supervisors on the use of deployed tags and PDAs

- Training of supervisors, duty officers and operations managers and admin team on the relevant functions within CAFM

#### 3.2.2.1.10 Evaluation and Support

- Conduct an overall assessment of the project's success and recommended next steps
- Implement required System enhancement



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