



# Mobile GIS Based Document Management



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#### **SECTION 1: SOLVING YOUR PROBLEMS**

### Issue: Human Based Knowledge

- The biggest problem with humans is that we have two different types of memories short term and long term. The bad news is that we do not remember where we have kept a document after a while, specially if we do not access that document or location on a daily basis; it doesn't matter whether it's a file/ folder structure, a SAN or NAS, cloud storage, or even with enterprise application like SharePoint pages or project pages. The document management system must address this basic foundational human requirement, not just an user requirement.
- > Your past or current resources may have certain unique operational and institutional knowledge from the past numerous years in the organization, and extensive history on how and where the documents are kept by project or client etc.
- During a crisis, you may rely on human based or paper based knowledge; but during such emergencies, it's sometimes difficult to find the right human resource with appropriate knowledge or the right document, or even where the document is stored. No scenarios can be readily analyzed to support prompt decision making for the emergency response due to lack of systematic access to documents. This often results in lost time and poor unprepared response that may lead to other issues and more costs as ripple effect.

## Solutions:

- The good news is that humans do remember what the document is about. We have leveraged this intuitive human capability and revolutionized the document management interface. The first thing normally comes to mind when talking about a document management interface is a tabular structure or webpage driven by metadata and keywords. But the first thing we provide you is an intuitive spatial interface, not a dumb tabular interface. If you can remember whether the document is about a client or site or project and can browse to that location on a map interface, you will find all the relevant documents there.
- ❖ All human based knowledgebase will be stored in our system. You will never again chase someone over email or phone calls, not worry about who is not available or on vacation.
- Our system will allow you to move away from "gut" based search to "location" based search to find documents faster.
- Our system allows you to access any document instantly and make effective and timely decisions to handle emergencies.
- Documents will be available to both office and field staff instantaneously. This allows for faster follow-up and reduced risk of lost paperwork.

#### Issue: Customer Service

- ➤ Looking up information for customers and developers is very time consuming and sometimes inaccurate. You may use base maps, third party maps and programs, Google Earth maps, other viewers, other business systems, Excel files etc. to get information to provide appropriate answers on a project or question. You may not have a web or mobile based or GIS based integrated system that can be accessed over internet or mobile devices e.g. smart phone, tablets to answer questions.
- Customer account related documents e.g. leases, agreements, permits etc. may not also be accessible instantly on your fingertips to answer customer questions.
- Currently, your customers may have no other way to find information or documents other than contacting you. You may be overburdened with customer queries and questions that may very well be dealt in some other way without getting into your routine daily work schedule.

### **Solutions:**

- ❖ You or your customers can look up documents directly on website or mobile apps. You can direct customers to the app or website, and slowly your burden will be eliminated as customers start to get self serviced.
- No more waiting time for customers to get answers from you or the agency. This will drive up the customer satisfaction.
- Our system would provide instant information or documents at your fingertips with quicker response and better information than can currently be provided with paper based systems or traditional document management systems.

### Issue: Integrated System

- You may be forced to enter or upload the same document in multiple systems now as there is no integration between the business systems you use. Each system work separately and behave like an information silo, also vulnerable to multiple points of failure.
- Paper recordkeeping is a massive problem in any agency. It's cumbersome, prone to memory lapse, takes up too much physical space, cannot be depended on for physical deterioration of paper over time, and cannot be easily retrieved when needed.

### **Solutions:**

All documents will be in one system accessed by you, other agency staff and your customers via web or mobile apps. There is no redundancy of documents in different systems. Documents will be stored electronically, mapped and archived instantly. Documents will be accessed following user roles and rights i.e. functionality and access will vary depending on which user is signing in with what role and rights.

#### Issue: Limited Resources

- You may be resource constrained or existing resources have limited bandwidth or knowledge on your infrastructure.
- ➤ Knowledge transfer may not occur properly during resource changeover or attrition. Moreover, human-to-human knowledge transfer will lead to multiple issues as mentioned above.
- Your productivity may be negatively affected as you may hunt for documents in paper files, spreadsheets, pdfs, CAD drawings, and multiple other systems. Your existing system may not provide for intelligent search, retrieval or management of relevant documents and your staff productivity is lost in the process. This may also lead to staff frustrations, bad customer service, and loss of vital resources.

### **Solutions:**

Documents will be stored in our system where it will not be lost, forgotten, translated, misunderstood, or misinterpreted. These documents will be there for future users to build on it by adding, editing and modifying. No ramp up time, no information lost, no paper trail, no rigorous human-human knowledge transfer required.

### Issue: Meeting Preparation

- You may spend a lot of unproductive looking for documents and taking printouts as you prepare for meetings.
- You may also depend on other human resources to get you the correct documents for any meeting or making decisions. If the supporting resources are not available, you may spend much unproductive time chasing or finding/ retrieving appropriate documents. Your productivity and performance as a decision maker may hurt due to lack of access to correct document on time.

### **Solutions:**

- All documents will be stored in our system that you can access 24 hours instantly on your mobile device or laptop/ computer from anywhere. No preparation time or taking loads of printouts before going to a meeting. You will not pay multiple times to get access to your own documents and will not have to request anyone to find any document and deliver it to you. All your email and phone follow ups and unproductive waiting time for getting access to documents are history.
- Role based authenticated access is provided to users; based on user roles in the organization, user will have access to certain functions.

### Issue: Document Update Cycle

- You may experience lag for document updates from your engineers to you to your customers.
- You may not have a web or mobile based GIS system that can be accessed over internet or mobile devices e.g. smart phone, tablets to cut down the cycle time to get documents to market.

### **Solutions:**

- ❖ You and your customers will have instant access to your most recent versions of your documents in our system through internet or mobile devices. You and your customers will never experience the "lag" again.
- ❖ You will be using our web and mobile based GIS for your document management needs. If you do not have web GIS, you do not need to invest in web GIS but use our web GIS that comes bundled with the solution. You will save infrastructure and resource costs.

### Issue: Legal Issues and Risks

- You may not be able to trace, audit, find, or provide correct documents in your system at the right time to support litigations and lawsuits. There may not be any automatic capture of user id and date/ time stamp on documents being stored in your current system. You may be depending on paper files, human knowledge etc.
- Compliance to IT standards, security standards and industry best practices are becoming norms now. Your system may not be currently ready to comply with the industry requirements.

### **Solutions:**

- Every action, input etc. in our system is traceable, auditable, detectable, and reportable by user id, date and time. This is immensely helpful to report required information and also support legal processes. Audit trails can be traced and information on who did what and when can be unfolded. History and archival options can also be configured.
- We comply with industry best practices and standards so that you are inherently secure in your operations and services.

#### **SECTION 2: MAJOR FEATURES BY MODULE**

Our product is mobile based, and hosted out of the cloud. You can also have it installed on premises on your infrastructure, or just subscribe to it as a service (SaaS). Purchase of modules and pricing can be customized to fit your needs. Contact us for trials and modular pricing options.

#### **Our Unique Propositions**

- Authenticated Role Based Access
- Features and Functions exposed based on user role
- Only pay for the modules you need never ever pay for software features and functions that you never use or need.
- Use both ESRI or Open Source GIS both can be integrated with our product for GIS based asset management
- Mobile architecture our product has been developed using mobile architecture as the core, thus leveraging and optimizing mobile hardware and features for performance and usability. We are radically different from any other asset management product in the market; while other products started with the desktop, expanded to web, and now trying to go mobile we started with mobile as the heart of the architecture, and extending it to the desktop as needed. We observed many products and their weaknesses, started late, and have the blessings of hindsight. We decided to build around mobile architecture core as the app will be mostly used in the field on mobile devices. Desktop interface is provided for in-office usage.
- Multiple mobile OS versions available- we can deploy on Android, iOS, or Windows mobile based on your standards and needs.

#### Module: User Management

- User Authentication
- AD integration
- Self service for password changes
- Find User by Name
- Find User by ID
- Select User and change User level General, Power User, Admin; Admin can only change levels. Note that users get modules by their user level.
- Assign access to modules by user role
- Add/ Modify/ Archive users
- ..

#### **Module: Manage Sites and Documents**

Create or Add new sites (locations,, clients, offices etc) on map

- Move existing sites to new location drag and drop
- Name new sites
- Rename existing sites
- Delete existing sites
- Create or Add new folders
- Rename existing folders
- Delete existing folders
- "n" level of folder and subfolder structure supported
- Upload files pdfs, png, jpegs etc.
- Delete files
- Browse to sites and pull up folders and files to view on mobile device or on laptops
- ..

