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MOBILE**EPIPHANY**

White Paper

2015

Deploying Mobile Applications – Buy, Develop, or Configure?

As organizations face the demands to deploy meaningful mobile applications, there are critical decision points around the methodology and technology for the creation and the deployment of the applications.

The historical options:

1. **Buy** an off-the-shelf application which may be a close approximation to what is needed. Adopt the processes of the application as is, or modify the software to meet the organization's specific requirements or;

2. **Develop** an application from scratch (or with tools) with a team of highly technical developers. This is done with internal IT resources or by hiring a team of consultants to develop the application.

A Better Way!

A new breed of technology is now available in the marketplace that allows rapid creation of enterprise class mobile applications which are configured to meet the precise processes of an organization. Applications can be simply **configured** by snap-together building block components by non-technical resources. The concept is known as **Rapid Application Configuration (RAC).** RAC is used to create applications in a fraction of the time and cost of buying or developing an application. Applications are created in days or weeks, not months or years; and with almost none of the risk. And when modifications are needed, changes can be rapidly completed and deployed.

Review and Analysis of the Mobile Epiphany Platform

Mobile Epiphany has developed a software platform for rapidly creating mobile applications. It is a programming-free platform which can be used to rapidly **configure** (not develop) enterprise class business applications in a fraction of the time, cost, and risk of alternatives. The platform incorporates a Mobile Epiphany invention called "Rapid Application **Configuration**" (RAC). This allows non-technical programmers to configure and deploy custom applications faster than "Rapid Application **Development**" platforms, and even faster when compared to raw code.

Applications for asset tracking, business process, forms, and workflows are configured and deployed via a highly graphical and easily understood interface — no programming is required. Additionally, any updates or changes to the applications can be rapidly and automatically updated (literally within minutes) on all network connected mobile devices.

Applications that are created with the RAC platform range from very simple forms to detailed and complex multi-user sequential processes which utilize enterprise workflow. Multiple applications can run independently of one another or can be intertwined to support multiple simultaneous business processes.

Regardless of the type or complexity of the application, all applications are configured and deployed with the same common and unified RAC platform. An organization may start with a simple form and the platform provides the ability to later modify and/or add applications to align with the organization's needs for additional features, process, and workflow when timing becomes appropriate. As a result, the RAC platform can make an organization's barrier of entry into the world of mobilized applications for asset tracking, processes, and automation incredibly low - yet provide room to scale to accommodate any future requirements.

Unique Attributes of Mobile Epiphany's RAC Platform

- A complete suite of tools to rapidly create enterprise mobile applications and automated reporting – no coding required

- The ability to look up assets by barcode, RFID, asset attribute, or GPS location

- Built-in parent child relationships

- The system works when not connected to the network, data automatically syncs when connected

- Run as a standalone system or connect to other systems

- Full reporting system

- Ability to sort, filter, query and export data

- Full workflow and automation capabilities

True Process and Workflow

In addition to the two historical options to deploy applications review above, over the past few years, a vast multitude of simple forms based applications have come in to the marketplace. Simple forms based applications have no concept of true multi-user process (or the ability to look things up, look up history, and do not have the concept of parent child asset relationships). In order to execute true multi-user sequential, parallel or mixed processes, systems must include the ability to not only configure end user form flow and step flow on a device, but also server side business logic and workflow. Without this ability, a person can only send information one-way - from a device to a server. It cannot send information back and forth or from one person to the next person to execute a multi-user process.

Mobile Epiphany's technology was designed to correlate directly to industry best practices for implementing multi user process. Namely, it is designed to map to a specific type of process flow diagram called a "swim lane diagram" (also known as a cross-functional diagram) which shows the flow of information among multiple end user roles.

Although the Server Workflow configuration tool can execute a multitude of server side business logic, three main categories can be identified as high level concepts:

1. The server can be configured to see asset and process data sent in from the field and automatically generate emails to required personnel based on the data received.

2. The server can be configured to see asset and process data sent in from the field and automatically generate custom reports from the Report Manager Tool, attach those reports automatically to emails, and send those reports to required personnel based on the data received.

3. The server can be configured to see asset and process data sent in from the field and automatically generate additional objects in the system, such as follow up work orders or required tasks for workers in the field.

For example, a worker might look up a generator and complete an inspection. The data collected on the end user's mobile device might indicate that someone else needs to follow up.

The data collected about the generator might indicate that a certain number of hours have run on the engine, thus necessitating a required maintenance procedure. When the hours of use are read and entered into the mobile device, the Server Workflow Engine can automatically generate a maintenance work order to the maintenance department, with no further action required on the part of the original inspector of the generator.

ASSET TRACKING USING

DIRECT PART MARKING

&

Automator

Your Global Marking Partner since 1940

MOBILE SOFTWARE SUITE

THE PROCESS
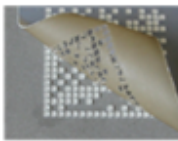
Mark *(with Data Matrix, 1D/2D Codes , labels, barcodes, RFID, etc)*
- Unique ID's customizable by size, format and type
- Enables complete lifecycle traceability of all assets in our software
- High Velocity Oxygen Fuel, Plasma, Thermal Spray, Combustion Spray, Cold Spray And more


Scan *(with using* *& Today's Android Smart Mobile Device)*
- **Instantly lookup** marked assets on any Android device using only the camera!
- **Instantly Review** inspection data, maintenance history, production, procurement, shipping, delivery, testing and more
- **Add assets** on-the-fly or simply import them from data you already have

Track *(with Touch Mobile Software)*
- Parts can be checked in/out, sent for repairs, tracked in storage, inspections logged and more
- Powerful reporting provides extensive business information and analytical capabilities
- Integration-ready with existing backend systems

DIRECT PART MARKING (DPM) DEPLOYMENT OPTIONS
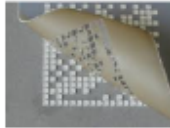
- **Ordering of Pre-numbered Stencils**
  Paint or Epoxy applied onsite after training
  - For piping, flanges, and material in caustic environments

- **Ordering of Specialty Tags (pre-numbered)**
  Applied using proper technique as trained onsite
  - For assets that can be transferred from site to site, long lasting laser etched marking. Good for OEM equipment tracking

- **Thermo-welding on site**
  Requires specialized equipment & training
  - Requires bare steel and pre-ordered stencils

MORE DIRECT PART MARKS

Stencil with Rugged Paint

Stencil with Rugged Paint

Rugged, Heat resistant decal

Stencilled HVOF direct to Metal part

A TYPICAL WORKFLOW ECO-SYSTEM

Reporting Options
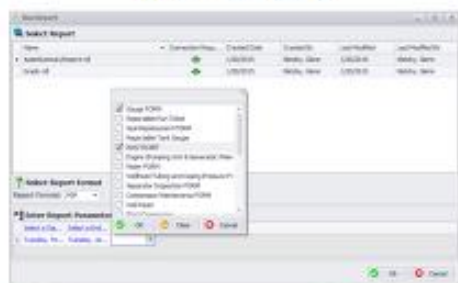
How is this Accomplished?

First, review your specific requirements and processes pertaining to:

- Asset and inventory tracking
- Assets inspections, forms and field based data collection
- Work orders
- Looking up data by asset attribute, scanning a barcode, RFID, etc.
- Sending and receiving updated data
- Process optimization
- Reporting and ad hoc data query
- Data sharing with other systems

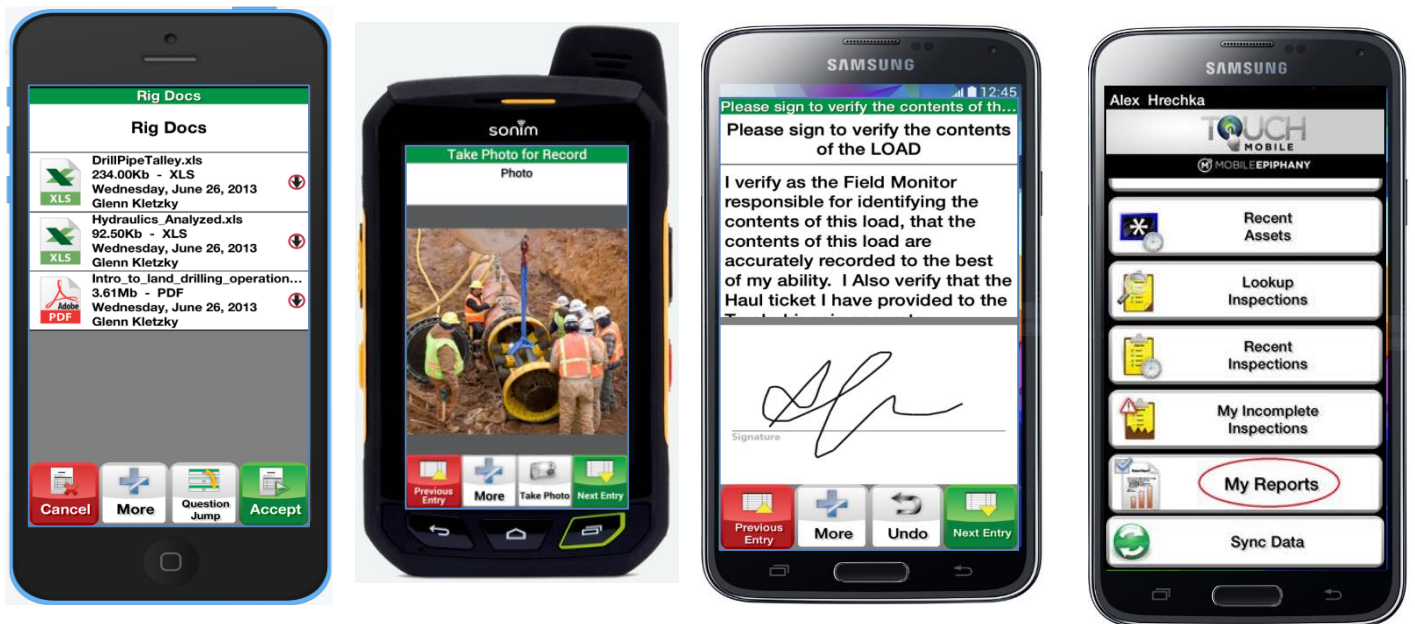Then, review you forms that might look something like this,

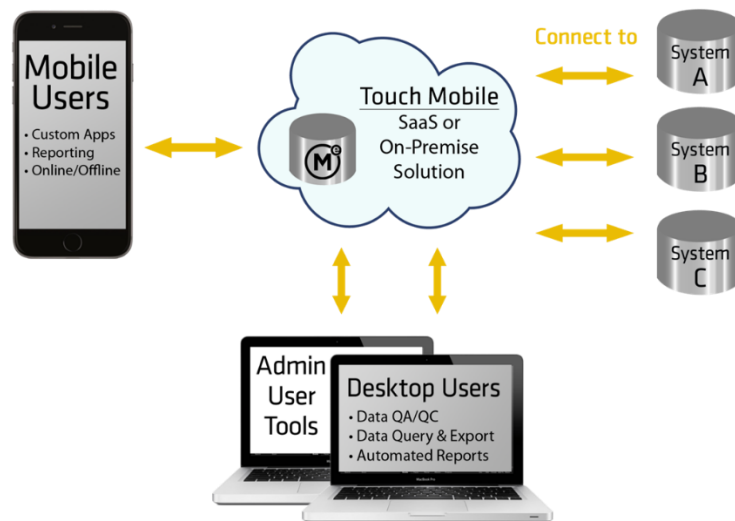and processes that might look like this.
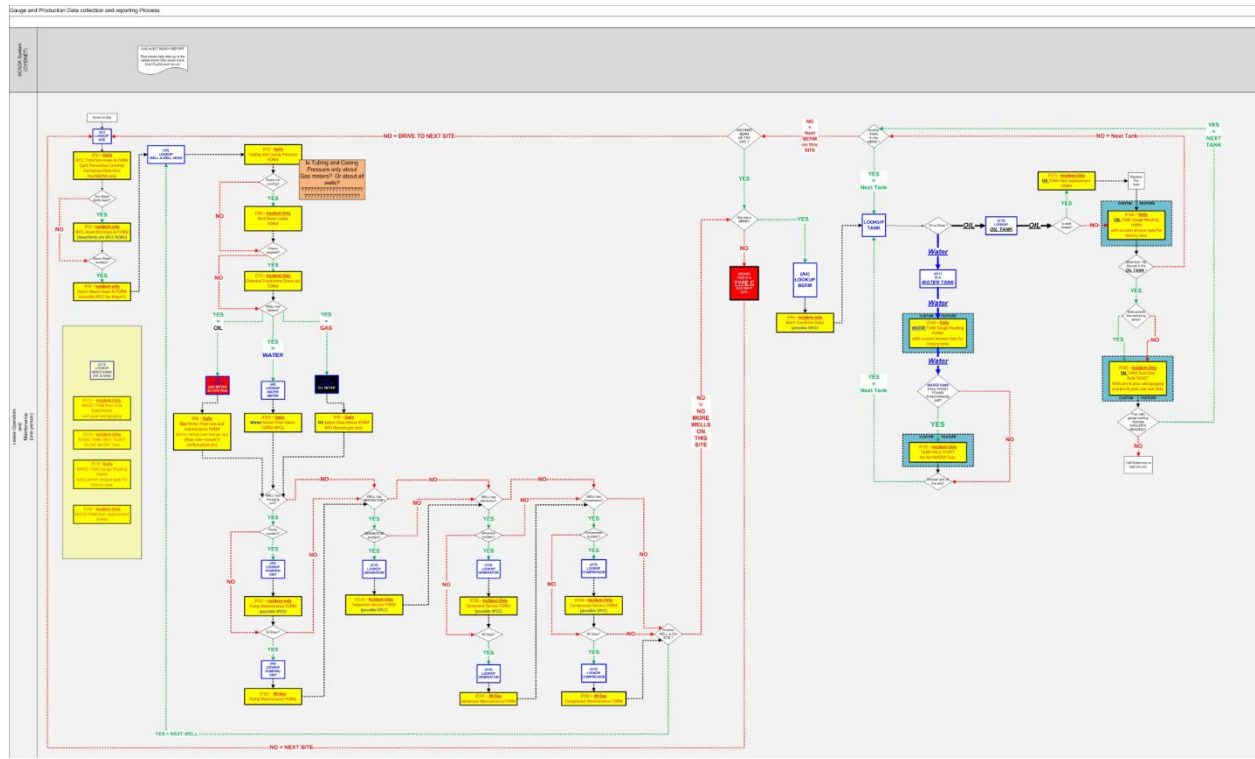
Then Mobile Epiphany, or your organization, uses the Rapid Application Configuration platform to rapidly create applications specific to your processes in days, not months - that might look like this:
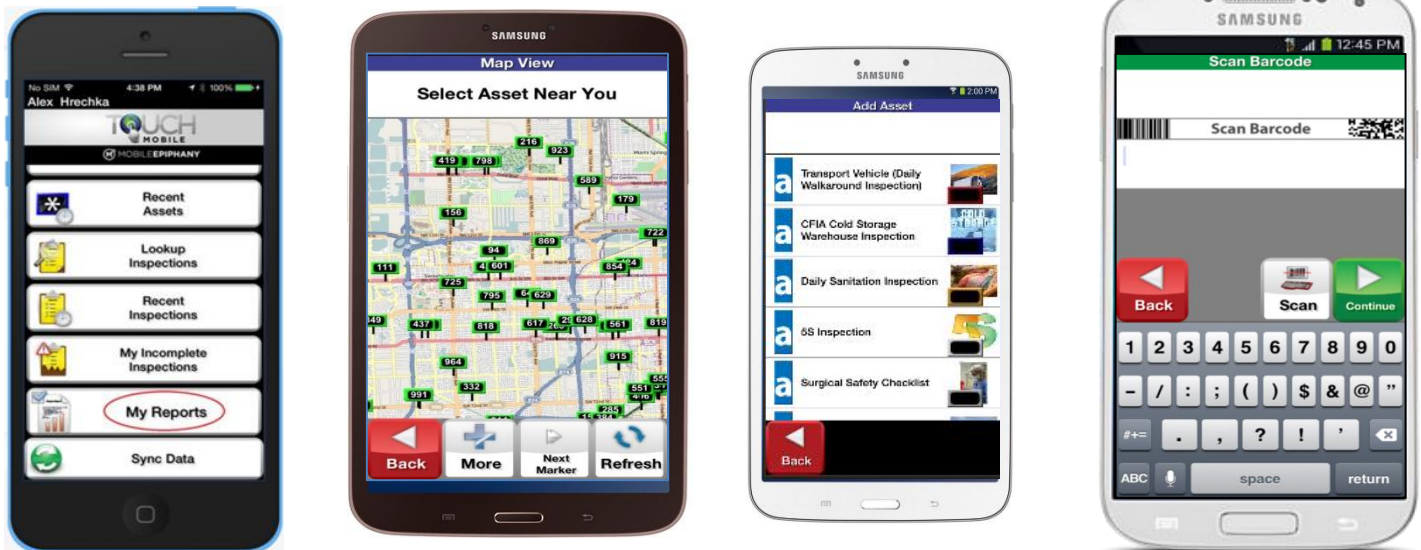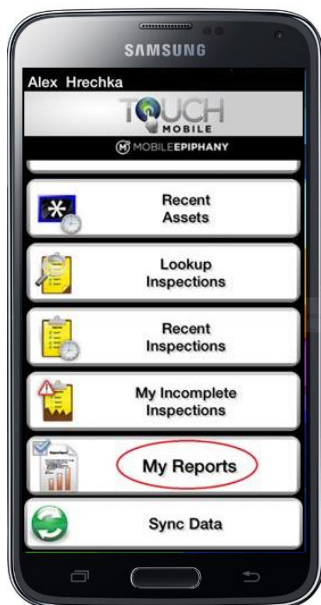

and this…

Data can be shared with other systems.

And, reports can be run from a mobile phone/tablet, a PC, or from a web browser.

So these people can get their work done -


and these people can get their work done too.

Integration into Existing Corporate Systems

The software is architecturally designed from the ground up to support integration to existing systems such as:

- Oracle
- SQL Server
- SAP
- ESRI
- Etc

The system can integrate with existing databases and applications, helping to extend and mobilize business processes throughout the organization. The platform's servers have a complete set of Web Services and APIs (application programming interfaces) so the data stored in legacy systems can now be mobilized through integration with the Mobile Epiphany servers. Additionally, for older systems that cannot function via web service and API's, Mobile Epiphany's "intelligent middleware" can also integrate via XML file import and export as well as CSV file import and export.
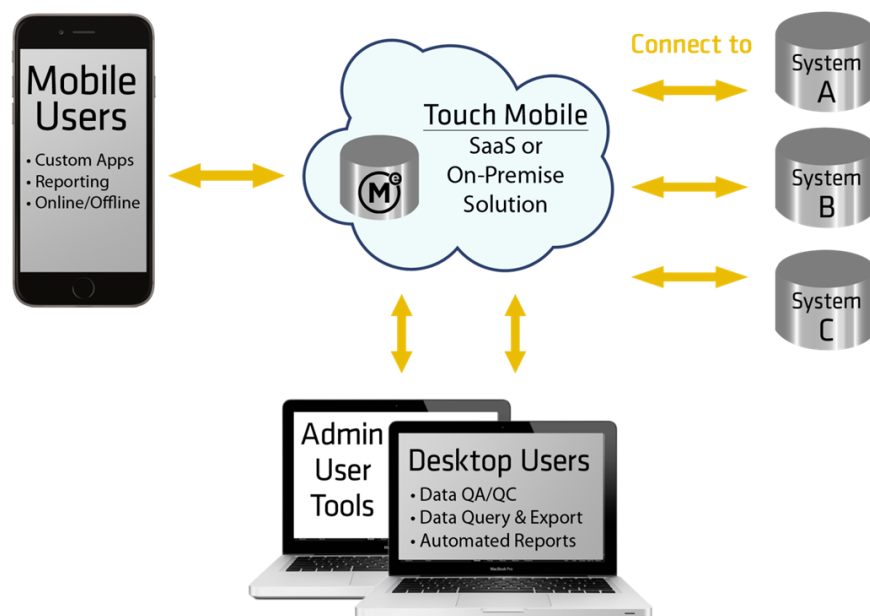
Multiple OS Platform Support

The ME Process platform ensures that all applications can be deployed instantly across all major operating systems and the multitude of devices types (handhelds, tablets and notebooks) that run the following operating systems.

1. Windows (XP, Vista, W7, W8 on Intel and AMD Processors)
2. iOS (iPhone, iPad mini, iPad)
3. Android (all versions since 2.3)

Configure once – deploy on:

Nearly every Windows PC, iOS and Android OS device, including smartphones, tablets, and handhelds are fully supported. The Touch Mobile application is highly consistent across all of these devices, minimizing training and support costs in multi-device environments.

Easy on the User

Unlike other applications that can take significant time to learn, Touch Mobile applications are understandable in minutes by typical blue collar and white collar users.

The finger-touch interface was inspired by the best design practices applied in the video game industry; namely highly visual, highly redundant and intuitive with no instruction manual needed. Large, easy-to-read text, color-coded buttons, easy-to-understand icons, and logical screen animations make navigation easily learned for even the most non-technical users. These features create a better overall user experience and ultimately lead to improved data accuracy, higher user adoption, and increased work efficiency.

Conclusion

Mobile Epiphany offers a set of tools and protocols that govern the formatting, presentation, visualization, mapping, and control of information - seamlessly, across multiple devices, both wired and wireless, regardless of the operating system, in a highly intuitive manner. This enables users to perform tasks with an unprecedented degree of control and accuracy.

The Mobile Epiphany tool kit is especially suited to enterprises who wish to rapidly deploy mobile applications to their workers so they can easily and accurately do their jobs. Touch Mobile is designed to minimize the time to deploy, while maximizing flexibility and integration reliability to third party products.

Contact Mobile Epiphany for a detailed demonstration of how Touch Mobile can benefit your organization.

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