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July 14, 2014

Mr. Jeffrey L. Bertacchi Pretreatment Program Manager City of Columbus, DPU 910 Dublin Road Columbus, OH 43215

#### Subject: Cost Proposal to Implement FAST for the City of Columbus

The City of Columbus has expressed interest in implementing the Field Assistant Service Tracking (FAST) module to be able to review and enter iPACS data remotely in the field. FAST works on either a Tablet PC or Laptop running Windows 7 or Windows 8 Professional. FAST uses one-click deployment, negating the need for Information Technology involvement in installing the application or performing upgrades on the client Tablet PCs. Any upgrades on the server side will be automatically detected when a network connection is available. FAST works both in a connected mode during which data can be synchronized with the iPACS server and in the disconnected mode in the field for data gathering. In response to the City's request, we have provided a proposal below to implement FAST with associated implementation services for the City of Columbus below.

#### (A) Scope of Work Overview

- FAST is a commercial-off-the-shelf (COTS) product and its functionalities are standardized across all
  - o For more details on FAST features and functionalities, please see Appendix 4 at the end of this document.
  - FAST also supports "Dynamic Forms" which are configurable data templates that the City is able to add to and modify on their own to track City specific data in the following iPACS modules: Facility Details, Equipment, Fixtures, Control Plans, Chemical Inventory, Inspection Results, Sample Event, Inquiry, Permit Details, and Sample Location.
  - All existing City of Columbus Facility, Inspection, and Inquiry dynamic templates within the iPACS system will be able to be utilized in the field directly out of the box with FAST.
  - The existing iPACS business process documentation will be updated for training to identify how the applicable Sampling and Inspection business processes may be conducted with FAST now available.
- In addition, the City has requested two new Inspection Dynamic forms: (1) "PRET Inspection Form 6-2011.PDF", and (2) "STORMWATER INSPECTION FORM March 2012.pdf".
  - enfoTech intends to create an initial Dynamic Form template in the Inspection module to support the City's Stormwater inspection template.
  - o In addition, we will create a Crystal Report template to allow the results of the Stormwater Inspection to be printable to a paper format very similar to the existing template.
  - Once we create the initial version, we will work with the City to get feedback on any business logic or field updates to make to streamline the inspection form as an electronic version.

- For example, a question such as "If answer is No, please describe:" makes sense on a paper form, but in the electronic form, the system will know if the answer is "No" and can show/hide require/not require the "Description" field as applicable based on the Yes/No answer.
- Please Note: The dynamic form and report for the "PRET Inspection Form 6-2011.PDF" form are already available in the iPACS system for the City. The existing dynamic form and report will be able to be used directly in FAST at no additional cost to the City.

#### (B) Deliverables and Cost Summary

Description	Cost	
Field Assistant Service Tracking (FAST) Application		
FAST Core Software License (up to 7 Users)	\$ 27,500	
<ul> <li>General FAST configuration services (Work Task Template Mapping, Report Mapping, Reference Data Setup)</li> </ul>	\$ 800	
2. Stormwater Inspection Dynamic Form Configuration with Crystal Report Template (based on "STORMWATER INSPECTION FORM March 2012.pdf")	\$ 3,600	
3. Industrial Pretreatment Inspection Form (PRET Inspection Form 6-2011.PDF)		
4. WebEx Installation Support for up to 7 Devices	\$ 1,200	
5. A 1-Day WebEx User Training Session (8 Hours) with updated Training Guides	\$ 1,800	
TOTAL	\$ 34,900	

#### Note:

- The above proposed cost does not include hardware costs. We assume that City will purchase the hardware directly from the hardware vendors.
- enfoTech estimates that the total project duration could be completed within 1 month. Please see Appendix 1 for a more detailed schedule breakdown.

#### (C) Payment Schedule

enfoTech proposes a deliverable-based payment schedule and will invoice the City of Columbus monthly for the amount listed in the "Cost" column under Section (B) above. enfoTech's standard payment terms are 30 days net from the invoice date.

If the proposal is acceptable, please issue a purchase order to allow enfoTech to begin the work.

The proposed cost is valid for 60 days from the date of this letter. Thank you very much for the opportunity to submit the cost proposal to the City of Columbus for consideration. We are excited to continue to work with the City of Columbus on this project.

Should you have any questions, please contact Deric Long at (732) 839-1688, extension 147.

Sincerely,

Tony Jeng

**Executive Vice President** 

Attachment

cc: File - City of Columbus, Deric Long

# **Appendix 1: Draft Implementation Schedule**

<u>ID</u>	<u>Task</u>	Estimated Delivery Date
1	Install FAST WebServices, with FAST Application install package and General configurations on City of Columbus iPACS Web Server. Install to be conducted remotely with City of Columbus IT support.	5 days after a Purchase Order is received
2	Stormwater Inspection Dynamic Form Configuration with Crystal Report Template (based on "STORMWATER INSPECTION FORM March 2012.pdf")	10 – 15 days after a Purchase Order is received
3	WebEx Installation Support of FAST Application for up to 7 Devices.	Immediately following Task 1 at City's convenience or as soon as the City procures the hardware devices, whichever is later.
4	A 1-Day WebEx User Training Session (8 Hours) with updated training guides.	Immediately following Tasks 1, 2, and 3 at City's convenience.

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### **Appendix 2: FAST Overview**

The FAST system is a mobile device software application that supports fieldwork including inspections, sampling events, permit, and compliance activities. When installed on a field device such as Tablet PC, the field assistant works bi-directionally with the main iPACS database where tasks scheduled in iPACS system can be downloaded from iPACS and then uploaded back into the system with field-collected data. Field Assistant supports the existing iPACS customized inspection and sampling dynamic form templates to provide field access to necessary data entry forms thereby replacing paper investigation forms commonly used by the wastewater authority.

Through dynamic forms FAST (and iPACS) offer system administrators to configure inspection forms to respond to changing business requirements. Inspection form configuration settings only need to be performed once, and then are used by both iPACS and FAST to provide a consistent look-and-feel of inspection forms both in the field or office.

An overview of the typical Field Assistant integration with the main iPACS system is displayed in the diagram below:

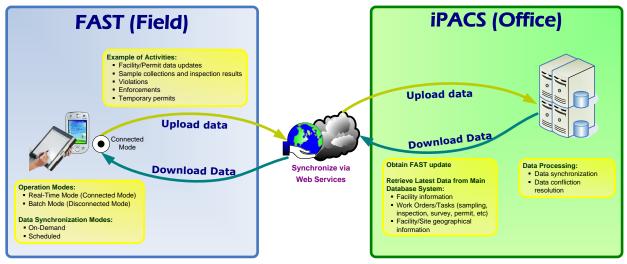


Figure: FAST Integration with iPACS

## **Appendix 3: FAST Hardware/Software Specifications**

#### **Hardware Specifications**

- FAST can only run on Windows based tablet computers (Windows 7 Pro or Windows 8 Pro)
- Below is a list of example tablets to illustrate the optimal specifications and associated cost from retailers. The brand names are for illustration purpose only and we do not make any endorsement of any name brands. As long as the machine can run Windows 7 Pro or Windows 8 Pro, and meet the City's project needs (i.e., light-weight, visible under the sun, reliable, has a keyboard, etc.), they can run FAST.
- The cost data is obtained directly from Internet and may fluctuate. We assume that City will purchase the hardware directly from the hardware vendors.

	12" LED Tablet PC -	12.1" LED Tablet PC -	12.1" - Intel Core i7 i7-
	Core i5, i5-2520M,	Core i7 i7-2620M	2620M 2.70 GHz - 8GB
	2.5GHz, 4GB DDR3, HD	2.8GHz, 4GB 1333 MHz	RAM - 320 GB HDD -
	320GB, Screen	DDR3, 160 GB SSD,	Windows 7 Pro -
	Resolution: 1280 x 800,	1280 x 800, WXGA,	Convertible - 1280 x 800
	WXGA, Windows 7 Pro	Windows 7 Pro	Multi-touch Screen
			Display, Bluetooth
The HP EliteBook 2760p	~ \$1,649 (plus tax and	Refurbished from ~	~\$2781.80 (plus tax and
	shipping)	\$950 (plus tax and	shipping)
		shipping)	

	13" LED, Core i5-	12.5" LED, Core i7 i7-	12.5", Convertible 2 in 1
	3320M, 2.6GHz, 4GB	3520M 2.9GHz –	Touchscreen
	DDR3, 500GB HDD,	4GB DDR3 1600Mhz /	Core i7-3520M, 4GB
	Windows 7 Pro	HD: 500GB 7200rpm	DDR3 / HD: 500GB,
		HDD, Windows 7 Pro	Windows 7 Pro
The Lenovo® ThinkPad®	~ \$979 (plus tax and	~ \$1,389 (plus tax and	~ \$1,629.99 (plus tax
X230 Tablet	shipping)	shipping)	and shipping)

#### **Software Specifications:**

- Operating System: Windows 7 Pro or Windows 8 Pro
- Required Software:
  - FAST Application
  - Windows Installer 3.1 (free, provided with FAST install package, available for download from Microsoft)
  - Crystal Reports 10.5 Runtime (free, provided with FAST install package)
  - .NET Framework 3.5 (free, provided with FAST install package, available for download from Microsoft)
  - SQL Express 2008 (free, provided with FAST install package, available for download from Microsoft)

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# **Appendix 4: FAST Software Functionalities**

Please see the FAST product information brochure on the following pages for more details on the functionalities of FAST.

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# enfoTech



### Field Assistant Service Tracking (FAST)

eield Assistant Service Tracking (FAST) is designed to assist field personnel to improve data access and collection processes and to become more efficient in performing field work. The FAST software can be used with Tablet PCs, Pocket PCs, or desktops to enable inspectors and sampling crews to electronically capture inspection results and field readings, and even to issue citations or temporary permits in the field. FAST is also able to integrate with existing agency data systems acting as an add-on to support electronic field data collection. As a software tool, FAST improves productivity, saves resources, reduces costs, and ensures data quality.

# Major Features

### Potential Applications

- > Sample collection recording
- > Field inspection
- Survey data gathering
- > Temporary permit issuance in the field
- ➤ Compliance & enforcement activity support
- Complaints investigation
- > Facility compliance history viewing

#### **Data Collection Features**

- Configurable and personalized system profile to determine data update frequency, work order types, and personal schedule including alerts of pending tasks
- Three supported data capturing modes: hand-writing, input panel, and keyboard
- Data conflict alerts and solutions provided to protect database integrity
- Ability to download, view and update to-do lists either by task type or by work schedule
- Pre-fill latest facility, permit, inspection and sample with each work order

#### **Security and Architecture**

- ➤ Electronic signature option
- Secure user authentication
- > Data encryption and cryptography
- > Data audit trail
- > System exception log
- Open data exchange protocol (webservices and XML) for ease of data exchange with existing agency systems
- One-click deployment for easy installation and distribution

#### **Data Server Synchronization**

- Personalized tasks status tracking and follow-up
- Configurable data synchronization and system operations
- > Two data synchronization options: ondemand and scheduled
- Electronic attachments generated in the field are able to be uploaded to the central database server
- Smart server detection upon network connection
- Two operational modes: offline work mode and online real-time mode

#### **System Integration**

- Digital camera integration for recording digital pictures
- GIS integration for upstream and downstream sewer analysis
- ➤ Bar-code reader, portable printer support
- Wireless connection support to access agency data while in the field

#### **Form Customization**

- Dynamic questionnaire form generation, including embedded business process skip logic
- Configurable form data entry controls, including radio buttons, pick lists, checkboxes, free text entries, etc.
- Customizable data collection form layouts

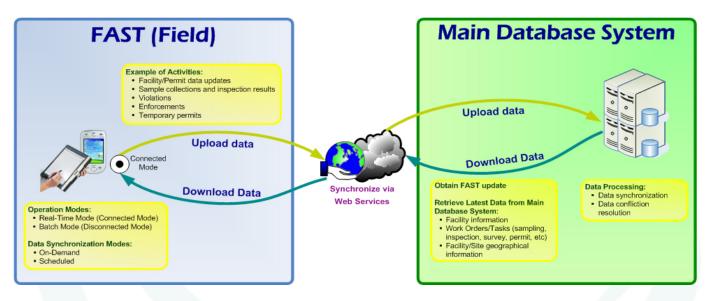
# A Field Data Collection and Management Tool that features:

- One-click smart installation
- Intelligent data exchange with preexisting agency systems
- Electronic data collection and field document printing
- GIS integration
- Potential applications include permit issuance, inspection, sampling, compliance and enforcement
- Secured transactions

### The Big Picture

#### **An Enterprise Solution**

Field Assistant Service Tracking (FAST) is a software application to help inspectors and field technicians to improve data quality and to improve efficiency in data collection and daily work management. It eliminates the need to print paper worksheets, reduces data entry effort, and minimizes data errors commonly introduced by manual data entry. The application can be downloaded via the web using a one-click smart installation process. After the initial FAST software configuration, data stored on the local machine (i.e., Tablet PC with FAST software) will be automatically synchronized with the central database. Once deployed at a client site, field crews typically could begin using FAST in less than an hour.



FAST is used to facilitate field data collection, compliance and inspection activities

### Features and Benefits

#### **Features**

- Compliance and enforcement support
- GIS integration
- > GPS and digital camera support
- Built-in business logic
- Personalized user task/schedule management
- Wireless connection support
- > Offline or online working mode
- Configurable dynamic data collection forms
- Integration with existing agency subsystems
- One-click deployment for consistency, ease of maintenance and support

#### **Benefits**

- Increases work efficiency
- Improves customer service

#### **Benefits (continued)**

- Eliminates duplicate data entry
- Fosters a paperless environment
- Motivates staff
- > High return on investment
- Improves data quality



# Permitting, Sampling and Inspection

#### **Temporary Permit Issuance**

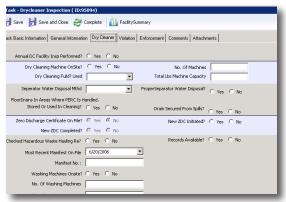
FAST streamlines the data collection process required for permit application and assist field crew to issue temporary permits in the field. If the PC is connected to a portable printer, the temporary permit can be generated provided immediately to the facility.

#### Sampling & Inspection

Sampling and Inspections can be completed electronically in the field and the data be uploaded to the main database once the user has access to an Internet/network connection. Related facility information can be downloaded to FAST and be updated in the field as well. Forms are customizable.

#### **Violation & Enforcement**

Compliance can be assessed and the appropriate enforcement actions be completed in the field.



Field Assistant supports multiple form types, including Temporary Permit Forms, Sample Data Collection Forms, and Inspection Forms.

## Data Synchronization & Conflict Resolution

#### **Personalized Task Download**

Configurable personal profile to determine data update frequency, work order types, and system operation options. Tasks can be organized either by facilities, by work order type, or by task status. Data update and system maintenance upgrades will be performed automatically when FAST is connected to Internet or network.

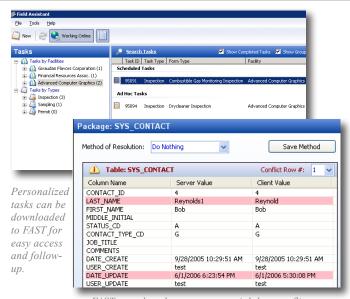
#### **Operation and Synchronization Mode**

FAST operates in two modes:

- Real-Time mode: direct live connection
- ➤ Batch mode: connect to database when network is available. Data sychronization can either be on-demand or scheduled

**Data Conflict Resolution** 

When data is synchronizing with the main database, the system will detect potential data conflicts if any and provide options to assist users to resolve data conflict.



FAST can alert the user to potential data conflicts while the user is performing data synchronization.

# Data Entry Form Customization and Data Integration

#### **Data Entry Form Configuration**

FAST supports multiple data entry form types at a single time, all configurable by a system administrator. FAST allows administrators to easily modify and maintain each data entry form question set. Agency administrators are able to customize each form layout, add/remove data fields, change field labels, reposition data fields, and enable/disable business process skip logic for questions within each form.

#### **Data Integration with Preexisting Agency Data Systems**

Regulatory agencies can integrate FAST with their preexisting systems as an add-on to support electronic field data collection. FAST is able to download the latest available facility, permit, inspection, and sample data information from existing agency databases to pre-fill electronic inspection forms, allowing inspectors to reference data in the field. Once inspection tasks are completed in FAST, inspection data and as well as updates to pre-filled data is able to be uploaded back to the existing agency database. The download/upload processes are configurable allowing agencies to pick and choose the data to be exchanged, as well as to define data validation logic and to allow administrator review and approval before the process executes.



## Company Profile

Founded in 1994, enfoTech & Consulting, Inc. is a software company dedicated to the development and support of computer systems for environmental applications. We provide environmental software solutions and consulting services to help our customers manage compliance, increase productivity, and save costs. Our turnkey system solutions have proven central to effective and informed environmental decision-making. Highlights of our core technical competence are:

- > Design, development, and implementation of enterprise-wide environmental compliance information management systems
- e-Environmental portal for monitoring, reporting, permitting, and certification
- Development of XML schema standards, Core Reference Model, environmental data standards, and Nodes to promote data sharing and re-usable components for Environmental Information Exchange Network
- > A staff of engineers who keep abreast of environmental regulations and are familiar with environmental operations. They provide key contributions to the successful implementation of system projects.
- Technical expertise in web applications, Web services, middle-ware solutions, XML schema, system development in Windows and Unix environments, and relational database (ORACLE, SQL Server) implementations. IT technology innovation is an integral part of our operation.

## Approach to the Project

A comprehensive project plan will be developed to ensure a successful system implementation that meets your needs and is within the budgeted time frame and cost. Our common project approach will include four major phases:

#### Phase 1: Startup & Gap Analysis

- Develop a Project Charter Document to layout an implementation approach, milestone dates, and deliverables
- Perform Business Requirement Analysis using the FAST core system to identify functionalities and user requirements
- Develop detailed functional specifications of any required customization

# Phase 2: Customization & Data Migration

- Develop customized modules
- Migrate existing data and perform data cleansing
- Configure document templates and standard work templates to work with your business operations
- Configure the system and customize reference data to suit your needs

# Phase 3: Testing & Implementation Planning

- Develop a test plan, perform unit testing, user application workflow testing, and stress testing
- Provide implementation planning including a final "go-live" plan and final user training plan
- Server and client installation
- Provide documentation such as user and administrator guides, contextsensitive help, system documentation, and backup and recovery procedures

#### Phase 4: Implementation

- General end user training and system administrator training
- System Go-Live
- Begin Technical Support Program including a secure, high-speed VPN internet connection and a 90-day post implementation review meeting

#### **System Requirements**

#### Servei

- Intel® Pentium® III processor
- Microsoft® Windows 2003 Server with Service Pack 1 (Unix server option is also supported for data base server only, Web server must be Windows based)
- Oracle® 9i Server (9i or higher) or MS SQL Server 2005
- 1 GB of available RAM
- 27 GB of available hard-disk space

#### Client

- Tablet PC or Laptop
- Intel® Pentium® M or III processor (or higher, also supports Centrino processor)
- Microsoft® Windows XP (Optional: Tablet PC 2005 edition)
- 64 MB of available RAM (512 MB or more recommended)
- 512 MB of available hard-disk space (1 GB or more recommended)



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