



**II. FISCAL IMPACT ANALYSIS**

**A. Five Year Summary of Fiscal Impact**

Fiscal Years	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
<b>Capital Expenditures</b>					
Operating Costs	175,980	85,680	85,680	85,680	85,680
External Revenues	(175,980)	(85,680)	(85,680)	(85,680)	(85,680)
Program Income (County)					
In-Kind Match (County)					
<b>Net Fiscal Impact</b>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

# ADDITIONAL FTE  
POSITIONS (Cumulative)

Is Item Included In Current Budget? Yes X No \_\_\_\_\_

Budget Account Exp No: Fund see below Department Unit Object  
Rev No: Fund Department Unit Object

**B. Recommended Sources of Funds/Summary of Fiscal Impact:**

Fund: E-911 Carry Forward  
Unit: E-911 County

AT&T Contract	1434-660-9250-Var	\$90,300
	1434-660-9250-4101	<u>\$428,400</u>
		<u>\$518,700</u>

Departmental Fiscal Review: Stephanie Sepicha

**III. REVIEW COMMENTS**

**A. OFMB Fiscal and/or Contract Dev. and Control Comments:**

<u>[Signature]</u> OFMB	<u>[Signature]</u> Contract Administration
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*Handwritten notes: 11/15/12, 11/14/12, 11/21/12*

**B. Legal Sufficiency:**

[Signature]  
Assistant County Attorney

**C. Other Department Review:**

\_\_\_\_\_  
Department Director

This summary is not to be used as a basis for payment.



Pricing Schedule

Case Number FL12-0530-04

AT&T MA Reference No. 133405UA

20121112-0504

<b>CUSTOMER ("Customer")</b> <b>Palm Beach County Department of Public Safety</b> Street Address: 20 S. Military Trail City: West Palm Beach State: FL Zip Code: 33415-  <u><b>Billing Address</b></u> Street Address: 20 S. Military Trail City: West Palm Beach State: FL Zip Code: 33415-	<b>AT&amp;T ("AT&amp;T") ("Company")</b> For purposes of this Pricing Schedule, AT&T means the Service Provider specifically identified herein.
<b>CUSTOMER Contact (for Contract Notices)</b>  Name: Steve Booth Title: Emergency Program Coordinator Telephone: 561-629-3897 Fax: - - Email: sbooth@pbcgov.org Street Address: 20 S. Military Trail City: West Palm Beach State: FL Zip Code: 33415-  With a copy to: Palm Beach County Attorney's Office 301 N. Olive Ave, Suite 601 West Palm Beach, FL 33401	<b>AT&amp;T Sales Contact Information and for Contract Notices</b>  Name: Bill Daniel Title: Account Manager Telephone: 561-640-6630 Fax: - - Email: bd2488@att.com Attention: Assistant Vice President Street Address: 2180 Lake Blvd., 7 <sup>th</sup> Floor City: Atlanta State: GA Zip Code: 30319  <u>With a copy to:</u> AT&T Corp. One AT&T Way, Bedminster, NJ 07921-0752 ATTN: Master Agreement Support Team Email: mast@att.com
<b>AT&amp;T Authorized Agent or Representative Information (if applicable)</b> Name:            Company Name: Agent Street Address:    City:    State:    Zip Code:    - Telephone:    - -    Fax:    - -    Email:    Agent Code:	

Customer agrees to purchase the Service according to the prices and terms and conditions set forth in this Pricing Schedule and in the applicable Service Publication. In jurisdictions that require the Service to be provided pursuant to tariff, the relevant Service Publication is the applicable Tariff; in jurisdictions that do not require the Service to be tariffed and in which AT&T has no tariff for the Service, the relevant Service Publication is the applicable Service Description(s), Price List(s) or Guidebook(s) (for ease of reference, the Service Descriptions, Price Lists and Guidebooks are referred to herein as the "Guidebook"). Tariffs and Guidebooks can be found at [www.att.com/servicepublications](http://www.att.com/servicepublications). Service is provided by the AT&T Incumbent Local Exchange Carrier (ILEC) Affiliate(s) identified below as the Service Provider(s).



ATTEST:  
SHARON R. BOCK, Clerk & Comptroller

**PALM BEACH COUNTY, FLORIDA, a  
Political Subdivision of the State of Florida**

By: \_\_\_\_\_  
Deputy Clerk

**BOARD OF COUNTY COMMISSIONERS**

By: \_\_\_\_\_  
Chair

**APPROVED AS TO FORM AND LEGAL  
SUFFICIENCY**

**APPROVED AS TO TERMS AND CONDITIONS**

\_\_\_\_\_  
Assistant County Attorney

*V. Bonvento*  
\_\_\_\_\_  
Director, Public Safety

**CONTRACTOR**

By: **AT&T** (Corporate Name)  
a Delaware corporation

**APPROVED AS TO TERMS  
AND CONDITIONS**

*Stephanie Lepore*  
\_\_\_\_\_  
**Signature**

By: *Donna Bryant-Johnson*  
\_\_\_\_\_  
*Donna Bryant-Johnson*  
\_\_\_\_\_  
(print signatory's name)  
*Customer Contracts Specialist*  
\_\_\_\_\_  
(print title)

*11/12*, 20*12*  
(date of execution)



## Pricing Schedule

Case Number FL12-0530-04  
Option 1 of 1

1. The Effective Date of this Pricing Schedule is the later of the signature dates above. The Pricing Schedule Term begins ("Term Start Date") (1) if this Pricing Schedule is only for new Service, on the date when the Service is installed and available for use by Customer pursuant to this Pricing Schedule, or (2) if this Pricing Schedule is for existing Service, on the Effective Date of this Pricing Schedule, and the Pricing Schedule terminates automatically at the end of the Pricing Schedule Term based on the number of months selected below.
2. If Customer terminates the Service, in whole or in part, for any reason other than default by AT&T, or AT&T terminates for Customer's default, on or after the Term Start Date, but before the scheduled completion of the Minimum Payment Period, then Customer shall become liable for Termination Charges. Unless otherwise specified in the Notes of this Pricing Schedule, Termination Charges are defined as fifty percent (50%) of the monthly rate for the terminated Service or Service Component as set forth in this Pricing Schedule, multiplied by the number of months remaining in the Minimum Payment Period at the point of termination plus any nonrecurring charges that were not applied upon installation as set forth in this Pricing Schedule.

**Service Provider:** AT&T Florida

**Offer Expiration:** This offer shall expire on: 12/31/2012.

**Service Interval:** Estimated service interval following acceptance date: Negotiable weeks.

**Description:** This Pricing Schedule provides a one-time charge for purchase and installation of ECaTs E911 Public Safety Answering Position (PSAP) equipment and software.

**Term:** The service period for this Pricing Schedule is sixty (60) months.

**ECaTS Minimum Service Period (Customer "Opt Out" Provision):** Should the State of Florida procure a state-wide 911 MIS solution, and Customer elects to migrate to that solution, Customer may end the ECaTS service (only) without penalty, provided that a paid two (2) year Minimum Service Period is completed and at least 90 days written notice is given to Company.

The service interval will be negotiated.

**Auto Renewal:** This Pricing Schedule shall be extended for additional one-year terms under the same terms and conditions herein unless either party provides written notice of its intent not to renew the Pricing Schedule at least sixty (60) days prior to the expiration of the initial term or each additional one-year term.



Pricing Schedule

Case Number FL12-0530-04  
Option 1 of 1

RATES AND CHARGES

	<u>Rate Elements</u>	<u>Non-Recurring</u>	<u>Monthly Rate</u>	<u>USOC</u>
1	ECaTS Monthly Service Fee-for all PSAPS at Palm Beach County	\$ .00	\$7,140.00	
2	ECaTS Installation Fee-for all PSAPS at Palm Beach County	\$90,300.00	\$ .00	
3	ECaTS Professional Services-per Unit	\$100.00	\$ .00	



## Pricing Schedule

Case Number FL12-0530-04  
Option 1 of 1

### RATES AND CHARGES

#### NOTES:

1. A termination liability charge will be applicable if the Customer terminates all or any part of the service provided in this Agreement prior to the end of the sixty-one (61) month service period, unless such termination is pursuant to ECATS Minimum Service Period (Customer "Opt Out" Provision). The termination charge, if applicable, is equal to the number of months remaining in the Agreement term multiplied by sixty percent (60%) of the monthly rates.
2. Rates and charges herein are in addition to any applicable tariff rates and charges. Rules and regulations of the General Subscriber Services Tariff apply.
3. This Agreement does not cover the following:
  - damages caused by disasters such as fire, flood, wind, or earthquake.
  - damages caused by unauthorized disconnects or de-powering of the equipment.
  - damages caused by power surges, under voltage, over voltage, brownouts, or ground faults caused by commercial AC power and/or Customer provided generators.
  - damages caused by modifications to the equipment, unauthorized attachments, alterations, modification or relocation of the equipment by an unauthorized person.
  - damage during shipment other than original shipment to the Customer.
  - damage caused by consumables or spilled liquids, impact with other objects.
  - damage caused by any other abuse, misuse, mishandling, misapplication.
  - damage caused by software viruses, however introduced. This Agreement does not include hardware or software replacement that may be required by the introduction of software viruses or lost data regardless of the cause. Company or its supporting vendors may assist in the repair or recovery efforts at current time and materials rates.

Except as provided in Note 4 below, in the case of damage, loss, theft or destruction of the equipment or software not due to ordinary wear and tear, the Customer shall be required to pay the expense incurred by the Company in connection with the replacement of the equipment damaged, lost, stolen or destroyed or the expense incurred in restoring it to its original condition.

4. Company will repair or replace equipment that is damaged by lightning strikes only if the Customer provides and maintains proper grounding and bonding of the equipment as specified in the E9-1-1-- PSAP Site Requirements (a document separate from this Agreement). Where improper grounding is found Company will repair or replace the damaged equipment on a time and materials basis at the Customer's expense.
5. Hardware not provided by the Company will not be repaired, replaced or maintained by the Company even though interconnected or integral to the Service. All Customer-provided equipment, if any, must be clearly marked and listed on a separate worksheet. The Customer also agrees to obtain prior written approval from the Company before additional software is added to the Service and agrees to pay current time and material charges for problems attributable to non-approved software.
6. Customer acknowledges that software installation is limited to the applications sold under this or other AT&T agreements.
7. Customer acknowledges that it has reviewed the proposed configuration and represents storage sizing is adequate for the current site operations. Future operational changes or additional storage requirements may necessitate additional equipment which will be billable to the Customer.



**Pricing Schedule**

Case Number FL12-0530-04  
Option 1 of 1

8. In the event that all or any part of this Agreement is terminated at the Customer's request prior to the expiration of the Agreement term, the Customer will be required to pay the applicable termination charge as stated in this Agreement. The Agreement provisions concerning termination liability shall be inapplicable to any state, county, or municipal governmental entity when there is in effect, as a result of action by such entity and through a duly constituted legislative, administrative, or executive body:

1. a statute;
2. an ordinance;
3. a policy directive; or
4. a constitutional provision

which restricts or prohibits an additional contractual payment for early termination of a contract by any such entity, or agency thereof, due to an unavailability of funding. When service is being provided and funding to the governmental entity for such service becomes unavailable, the governmental entity may cancel the service without additional payment obligation. Absent any official statute, ordinance, policy directive, or constitutional provision, the Customer shall be responsible for the termination charge.

9. Nondiscrimination Provision: The Company warrants and represents that all of its employees are treated equally during employment without regard to race, color, religion, disability, sex, age, national origin, ancestry, marital status, familial status, sexual orientation, gender identity and expression.

10. Palm Beach County Office of Inspector General:

Pursuant to Chapter 2, Article XII of the Palm Beach County Code (Office of Inspector General, Palm Beach County Florida Governance), Palm Beach County has established the Office of the Inspector General, which is authorized and empowered to review past, present and proposed County contracts, transactions, accounts and records. All contractors and parties doing business with the County and receiving County funds shall fully cooperate with the Inspector General. The Inspector General has the power to subpoena witnesses, administer oaths, require the production of records, and to audit, investigate, monitor, and inspect the activities of the contractor, its officers, agents, employees, and lobbyists in order to ensure compliance with contract specifications and to detect waste, corruption and fraud.

Failure to cooperate with the Inspector General or interference or impeding any investigation shall be in violation of the Palm Beach County Code as previously referenced herein, and punished pursuant to Section 125.69, Florida Statutes, in the same manner as a second degree misdemeanor.

All trademarks or service marks contained herein are the property of the respective owners.

**END OF ARRANGEMENT AGREEMENT OPTION 1**





Talent / Solutions / Success



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## ECaTS – Emergency Call Tracking System

# Palm Beach County

## Solution Proposal

8/23/2011

*Direct Technology (Formerly DirectApps, Inc.)*

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(888) 725-8099 | [www.DirectTechnology.com](http://www.DirectTechnology.com)

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## **1 About This Document**

AT&T has teamed with Direct Technology (subcontractor) to bring Palm Beach County the best and only cross-platform 9-1-1 MIS system available.

This document describes Direct Technology's (DT's) proposal to provide ECaTS (Emergency Call Tracking System) - an enterprise level distributed management information system (MIS) application that facilitates a countywide view of 9-1-1 call statistics as well as management tools for individual public safety answering points (PSAPs) and regional directors. This proposal specifically addresses Palm Beach County's requirements to monitor the 9-1-1 call statistics from all PSAPs distributed throughout Palm Beach County. DirectTechnology is a service provider under contract to AT&T, who is the primary contractor.

## **2 ECaTS Rolls and Responsibilities**

Direct Technology will assign a certified Project Manager that will take the lead role in the implementation, transition and ongoing maintenance of this project. DT's Project Manager will work directly with the Palm Beach County's-appointed Project Manager and will coordinate regular weekly communication rhythms to review progress, identify and solve issues, identify and mitigate risks and prioritize deployment efforts.

ECaTS will coordinate with the network service providers (ILEC) and CPE vendors for the installation of the remote data distribution module ("RDDM" or "buffer boxes") at each Viper Host. The required level of involvement from the ILEC and CPE vendors will be determined during the analysis phase of implementation. In some cases, ECaTS will work directly with CPE Support Vendors to obtain circuit information and perform the onsite installation.

## **3 ECaTS – An Enterprise Level 9-1-1 Distributed MIS System**

ECaTS is a universal 9-1-1 reporting product that is truly CPE platform independent. Direct Technology captures the call detail record (CDR) generated by the CPE at each PSAP in an on-site storage device (remote data distribution module – or "RDDM") and generates numerous reports that provide the tools necessary for 9-1-1 industry management. With ECaTS, data capture is accomplished through the on-site RDDM boxes. Data is downloaded to the database that is maintained at Direct Technology's data center and the reporting application is provided through any internet connection. This means that all modifications, enhancements and hot fixes are applied to the ECaTS application at one time rather than downloading a revision to each PSAP. This configuration provides for minimum interruption at the PSAPs and allows Direct Technology to quickly deploy modifications for all users at the same time.

## 4 ECaTS Reporting Capability

ECaTS reporting capability includes a variety of standard reports and the ability to generate fully customizable reports for network deployment, CPE efficiency, PSAP operations, and agent activity. It is important to note that each of the reports provided with this proposal will be reviewed with Palm Beach County and modified to accommodate their specific needs.

Each of the Preconfigured Reports in ECaTS includes a unique set of comparative data that is not provided by any other 9-1-1 MIS product. Comparative data includes the same measurement of each report as an average against other PSAPs of a similar size and for all PSAPs in the same county. This feature provides a means of identifying relativity on every report. Direct Technology will review the comparative data methodology with Palm Beach County during the Joint Application Design sessions (discussed below) to identify any required modifications.

Another unique feature provided on every ECaTS report is a declaration of the level of accuracy of the report in terms of percentage of uptime included in the report. Users know immediately on each report if data is excluded due to a non-reporting issue.

### 4.1 Raw Data

ECaTS utilizes the basic CDR file generated from the CPE controller and parses the fields into a standard format that can be used for reports and comparison with other CDR data from other CPE controller types. Users have the ability to view the raw data in its native format or in the ECaTS parsed format.

### 4.2 Preconfigured Reports

Preconfigured reports can be generated for an individual PSAP, group of PSAPs or the entire county. When a report is requested for multiple PSAPs, data can be generated for individual PSAPs in the group or in an aggregate summary for all PSAPs in the group.

ECaTS includes the following preconfigured reports:

- **Call Summary Report**  
A listing of all of the calls answered and abandoned by call type (e.g. "9-1-1" or "10 digit emergency") for each day of the selected time frame.
- **Calls Per Hour Report**  
A listing of the number of calls delivered to the CPE controller each hour of each day for the selected time frame.
- **Top 20 Busiest Hours Report**  
A listing of the top 20 busiest hours for each month during the past 18 months (default) or any other selected timeframe that includes the call count and average call duration.

- **Average Call Duration Report**  
A listing of the number of calls each hour during the selected time frame with the queue time (average duration from trunk seizure at the PSAP to ring start), ring time (average duration from ring start to answer time), hold time (average duration calls are on hold during that hour), and talk time (average duration from answer time to disconnect time).
- **Calls by Circuit Report**  
A listing of the number of calls received on each circuit each day during the selected timeframe.
- **Circuit Utilization Report**  
A statement of the percentage of time that a given number of incoming trunks were engaged at the same time within each trunk group. Provides statistics on trunk groups with more than two trunks allowing management to identify trunk groups that are over or under trunked.
- **PSAP Answer Time Report**  
A statement of the number of calls that were answered in 10 seconds or less, 20 seconds or less, and other answer times for each hour of the selected timeframe. The summary information includes the number of calls in each answer time category and the percentage for each category. Specific rules for the answer time measurement will be established during the Analysis Phase of implementation as discussed below.
- **Last 12 Months Answer Time Report**  
Provides summary information for each month within a 12 month period including the number (and corresponding percentage) of calls answered in 10 seconds or less.
- **Class of Service Report**  
A listing of the number of calls for the selected timeframe broken down by the various classes of service from the ALI data string such as business, residential, Centrex, PBX, pay phone, VoIP, or wireless phase 1 or phase 2.
- **Call Trace Report**  
Provides details regarding every call that was transferred to or from the PSAP during the selected timeframe. Details include ANI information, trunk seizure time of call(s) at each PSAP and other relevant call information.
- **Initial Station Total Calls Report**  
A listing of the number of calls received each hour at each answering position during the selected timeframe.

### 4.3 Management Reports

Management reports are available to selected authorization levels that provide tools necessary to identify areas and issues that require management attention.

- **Trunk Group Utilization Report**  
Provides a list of the trunk groups with more than two trunks where not all trunks were engaged at the same time during the selected month. The intent of this report is to identify trunk groups that may be over trunked.
- **Answer Time Exception Report**  
A listing of all the PSAPs that failed to meet the answer time standard during the month (default) or other selected timeframe.
- **Monthly Outage Report**  
A listing of the trouble tickets logged during the selected month for the PSAP or group of PSAPs selected.
- **Wireless Call Sector Report**  
A listing of the wireless cell sectors where an unusual percentage of calls were transferred from the initial answering PSAP to another specific PSAP during the selected timeframe.
- **10-digit Emergency Call Report**  
A listing of the 10-digit emergency circuits that exceed a predetermined level of utilization as a percentage of total 9-1-1 and 10-digit emergency calls.
- **Funky Call Report**  
A listing of the raw data for each call that failed to meet predetermined business rules for their specific CPE manufacturer (i.e., raw data reflects disconnecting the call multiple times even though it is only answered once).
- **Class of Service Summary Report**  
A listing of the number of calls per class (business, residential, wireless, etc.) for each PSAP in the selected group during the selected month.

#### 4.4 Scheduled Reports

Various reports are available to specific authorization levels on a regular or scheduled basis. In the case of Management reports, authorized users are advised via e-mail notification that monthly reports are available one or two days following the end of each month.

One scheduled report that has become quite popular with PSAP managers is the "Day In Review" report. This report provides a snapshot of PSAP activity and is delivered to users via e-mail at the end of each day. The Day in Review report includes the following information for the day:

- Number of 9-1-1 calls received
- Number of 9-1-1 calls answered
- Number of 9-1-1 calls abandoned
- Average duration of the 9-1-1 calls
- Statistics on answer time performance
- Listing of the five busiest hours of the day and the number of calls each of those hours

#### 4.5 Ad Hoc Reporting Capability

ECaTS provides a broad range of ad hoc reporting capability through an intuitive user friendly interface. Reports can be extracted on every field from the PSAP profiles or the CDR data. Users have the option of having any ad hoc results delivered via e-mail if the query involves searching a great deal of data. . They are also given the ability to save and share all custom ad-hoc reports with their peers within the ECaTS portal with the click of a button.

### 5 Ongoing Support

Direct Technology will provide remote monitoring and on-site support for the ECaTS system components including software upgrades and enhancements, remote monitoring of the ECaTS support network and RDDMs, on-site remedial maintenance, and full trouble ticket management services.

#### 5.1 Software Upgrades and Enhancements

Direct Technology will provide software design support required to modify the existing ECaTS standard suite of reports for Palm Beach County's needs as identified in the JAD sessions. This support will be provided at no additional cost. Additionally, Direct Technology commits to provide parsers for new CDR formats from new or existing CPE platforms at no additional cost. Following acceptance of the Software Customization Phase and throughout the remainder of the ECaTS contract, Direct Technology will provide up to 200 hours of development time per calendar year for modifications and enhancements to the ECaTS system and reports as requested by Palm Beach County at no additional cost. Additional software development time (over 200 hours in a contract year or for changes deemed new additions ex: requesting a brand new 'standard' report) is available at the rate provided in the Pricing Format section of this proposal.

#### 5.2 Remote Monitoring

Direct Technology continuously monitors the health of the RDDM boxes deployed at each PSAP. The status of the full ECaTS deployment is also available to authorized users through the on-line portal that provides the state of each PSAP including satisfactory status (green), low call volume or no call activity – trouble ticket issued (yellow), low call volume or no call activity – trouble ticket has not been issued (red). The ECaTS application includes automatic notification of low or no data conditions. Direct Technology takes a proactive approach to these conditions and



contacts the affected PSAP to ensure the management there is aware of any potential emergency services network or CPE outage. Direct Technology also manages a trouble reporting system as described below.

### **5.3 Trouble Ticket Management**

Direct Technology maintains a trouble ticket log of all incidences that are identified through monitoring or that are reported by users. ECaTS was built to provide management with a truly transparent look into their PSAPs. The trouble ticket management application is available to authorized users through the ECaTS portal so that the status of all incidences can be researched at any time from one source. The trouble ticket management module provides information on who worked on the issue, status changes with associated dates and relevant notes.

As part of the trouble ticket management responsibility, Direct Technology contacts the affected PSAP(s) any time a problem is detected. Trouble tickets are initiated and trouble reports are made to the appropriate third party (ILEC and/or CPE vendor). Direct Technology monitors the status of trouble resolution with the third party and updates the trouble ticket log until the problem is resolved.

## **6 Implementation**

Direct Technology will take the lead role in the implementation, transition and ongoing maintenance of this project. A detailed Implementation Plan is attached to this proposal as Attachment A.

Direct Technology will assign a dedicated team to the implementation effort. DT's Project Manager will be responsible for coordinating all implementation activities with Palm Beach County, the telecommunications service provider(s), the CPE support vendor(s), the PSAP managers and Direct Technology's internal staff.

### **6.1 Phased Approach to Implementation**

Direct Technology proposes using a phased approach to ECaTS implementation as described below. This approach has been refined from experience gained with other ECaTS implementations and will be subject to confirmation and approval from Palm Beach County. The final implementation plan will be developed through a collaborative effort with Palm Beach County, AT&T and the Project Manager.

The implementation plan will, at a minimum, contain the following phases (not necessarily in this order):

- Analysis
- Software Customization
- Software Acceptance

- Training Preparation
- Network Preparation
- Network Deployment
- Acceptance
- Training

### 6.1.1 Analysis Phase

The first phase of the implementation effort will focus on both the ECaTS portal design analysis and the network design analysis. Direct Technology will refine the roles, responsibilities and commitments detailed in this implementation plan based on the findings of the Analysis Phase of the project.

- **Joint Application Design (JAD) Sessions (portal design analysis)**  
Direct Technology's Project Manager will coordinate with Palm Beach County's appointed Project Manager to schedule a Joint Application Design (JAD) session. The objective of the JAD session is to understand the Palm Beach County's 9-1-1 specific functional requirements and develop a portal Customization Design Document.

The JAD sessions will result in a high-level design document known as a Business Requirements Document (BRD) that will be provided to the State for approval. Upon approval from the County, Direct Technology will move into the Software Customization phase of the project (see section 3.3, Software Customization Phase).

- **Network Design Analysis**  
In parallel with the JAD sessions, DT will conduct in-depth network and RDDM integration studies with AT&T. DT will coordinate the collection of key data elements required for the successful field deployment of the RDDM boxes.

### 6.1.2 Legacy Data Importing Phase

Palm Beach County has requested the importing of legacy data from each of its PSAPs. AT&T engineering will provide Direct Technology a copy of as much legacy data as is available in one of the following formats:

1. Original CDR record format from the original OEM in a text based file that can be imported into ECaTS by Direct Technology.
2. A comma delimited or tab delimited report containing all of the fields in the CDR record for both call statistics, call handling and user login/logout activities.
3. A copy of the SQL database containing all the legacy call records. If this option is chosen, Direct Technology will require a copy of the database schema so that information may be extracted from the SQL tables and imported into the ECaTS application.

### **6.1.3 Software Customization Phase**

Direct Technology will coordinate the resources necessary to complete the modifications identified in the BRD including development, quality assurance, and integration testing.

### **6.1.4 Software Acceptance Phase**

Direct Technology will work with Palm Beach County to review the software to ensure each functional requirement meets the requirements of the BRD.

### **6.1.5 Training Preparation Phase**

Following software acceptance, customized training materials and a curriculum for online and face-to-face training will be developed. A full tutorial of how to use the ECaTS Reporting System will also be available to all users through the ECaTS portal.

### **6.1.6 Network Preparation Phase**

Following the Network Design Analysis described above for the initial implementation phase, Direct Technology tests each RDDM buffer box and configures each RDDM unit specific for each Viper host. Each RDDM unit and configuration is tested in the lab before deployment in the field.

### **6.1.7 Network Deployment Phase**

Direct Technology will coordinate with AT&T and CPE vendor, Palm Beach County and the PSAPs in order to insure appropriate support is provided for the network deployment phase. The number of sites to be installed in the same day by Direct Technology's Field Engineers will be determined in collaboration with AT&T and Palm Beach County.

Field Engineers will arrive at each site on the pre-determined date and will perform, at a minimum the following tasks:

- Install the RDDM buffer box in brackets for either rack or wall mounts including the power cord to the RDDM
- Validate circuit, CPE inventory, trunk grouping information and configuration of circuits
- Install connection to the RDDM buffer box from the CPE equipment
- Begin CDR capturing test:
  - Analyze incoming data stream for validity (baud rate, parity bit, etc.)
  - Validate expected parsing format
  - Validate circuit display information
  - Validate compression utility
  - Validate encryption utility
- Install network connection or dial-up line to the RDDM buffer box
- Validate data delivery from RDDM box to the ECaTS data center

### 6.1.8 Acceptance Phase

Direct Technology will work with the Palm Beach County's Project Manager to coordinate system acceptance and acceptance of each PSAP.

- **System Testing**  
Login and user navigation through the ECaTS portal will be validated as each of the preconfigured, management and ad hoc reporting capability is tested. The Trouble Ticket Management system (described below) will be demonstrated from an internal and client perspective.
- **Network Testing**  
Once the RDDMs have been deployed and are collecting data from each Viper host, Direct Technology will remotely access multiple production RDDM boxes and demonstrate how data is captured, stored and transmitted.
- **Parser Validation**  
Direct Technology will demonstrate how data is parsed by the system and how report values are calculated utilizing a predetermined test script.
- **Data Validation**  
Selected CDR record sets will be tested to validate that the ECaTS system is collecting, parsing and injecting the data appropriately into the enterprise data warehouse.

### 6.1.9 Training Phase

Direct Technology will provide one live training session for the County's 9-1-1 Office personnel. Live PSAP training will be provided at a frequency of one (1) session for each region/county with a minimum of ten (10) PSAPs and up to twenty students in each class. The final training strategy will be established in collaboration with the Palm Beach County's Project Manager. Since a set of materials will also be posted on the ECaTS portal's main home page, users will have the flexibility to view online materials first or in place of attending face-to-face training events.

## 6.2 Preliminary Schedule

Direct Technology has compiled an aggressive schedule to deploy ECaTS within a five (5) month timeframe based on high-level milestones for each of the implementation phases described above. Dependencies include availability of the Palm Beach County's Project Manager, PSAP managers, and ILEC and CPE vendor cooperation.

The schedule includes a software customization track that will run concurrently with a provisioning track followed by 30 days of training. This schedule will be refined during the analysis phase of this project.

### Track 1: Software Customization

**Milestone 1 – Analysis Phase**

*Duration: 5 days*

**Milestone 2 – Software Customization Phase**

*Duration: 15 Days*

**Milestone 3 – Software Acceptance Phase**

*Duration: 15 Days*

**Milestone 4 – Training Preparation Phase**

*Duration: 15 Days*

**Track 2: Provisioning**

**Milestone 5 – Network Preparation Phase**

*Duration: 10 days (concurrent with Milestone 6)*

**Milestone 6 – Network Deployment Phase**

*Duration: 30 Days (concurrent with Milestone 5)*

**Milestone 7 – Acceptance**

*Duration: 30 Days*

**Track 3:**

**Milestone 8 – Training Phase**

*Duration: 10 Days*

# ATTACHMENT A - Product Description

## 1 Executive Summary

This document provides a high-level functional and business driver discussion for Direct Technology's unique ECaTS Product. The purpose of this document is to provide the reader with a background on the functionality, architecture and business benefits that can be derived from the implementation of the ECaTS 911 Reporting Platform.

### 1.1 Product Overview

ECaTS is an acronym for Emergency Call Tracking System. ECaTS is the first universal 911 Call Reporting System that leverages the ubiquitous nature of the Internet to provide secure, real-time reporting to the 911 industry.

### 1.2 Product History

ECaTS was originally developed by Direct Technology, a custom software development and hosting company back in 1997. Originally, the product was developed to solve a critical business need for the 911 Program Office in the State of California. The Program Office was seeking for a product that could provide universal 911 Call Statistics Analysis across the entire State regardless of the type of Customer Premise Equipment (CPE) installed at each Public Safety Answering Point (PSAP).

Direct Technology decided to accept the challenge, and developed and deployed the first version of the product in late 1997. ECaTS was an overwhelming success, and it was the first product to abstract the complexity of collecting, reporting and managing 911 Call Statistics using a web browser and some creative technology.

The product has since then been successfully deployed in a myriad of States and Counties. Its new version of the product embraces solid Business Intelligence and Collaboration features that are increasing the demand for the product across the industry.

## 2 ECaTS Features

This section of the document provides the readers with a high-level description of the product's key features. In essence, ECaTS provides the first universal 911 Call Statistics Product that can transparently report all intelligence related to 911 call handling and volume across multiple PSAPs.

### 2.1 Intuitive Reporting Module

The system was built on the concept of simplicity. Its reporting module, the heart of the application, provides the user with simple, three click reporting options. Authorized users are able to generate real-time (or near real-time depending on the implementation) by simply selecting the report, selecting the timeframe and PSAP (or collection of PSAPs) to be used in the report. The system then accesses the high-speed Microsoft SQL Enterprise Servers to render the report directly over the Internet using nothing more than their Internet browser.

The beauty of the application is that authorized users may pull information from one PSAP, one County or the entire State with the same level of simplicity. The drastic complexity of pulling information from different types of CPE manufacturers, installations or software versions located at each PSAP is completely eliminated by ECaTS.

### 2.2 Pre-Configured Reports

Obviously many of the reports usually generated by State-level analyst and PSAP Managers tend to seek the same level of statistical data.

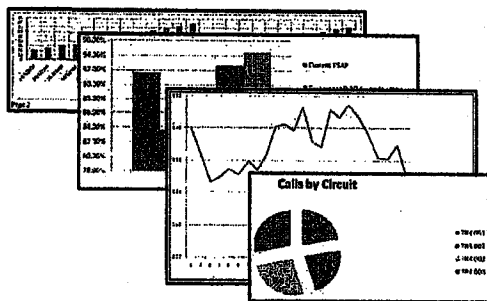
Information such as Call Summary Reports, Number of Calls per Hour, Top 20 Busiest Hours, Call Duration and other popular

The image shows three overlapping screenshots of reports from the ECaTS system. The top report is titled 'Call Summary Report'. The middle report is titled 'Calls Per Hour Report' and includes a table with columns for Date, Hour, Number of Calls, and Duration (secs). The bottom report is titled 'Top 20 Busiest Hours Report' and includes a table with columns for Date, Hour, Number of Calls, and Duration (secs). The data in the tables is as follows:

Date	Hour	Number of Calls	Duration (secs)
10/1/2008	2PM	11	30
10/5/2008	3PM	30	112
10/8/2008	8PM	8	85
10/8/2008	12PM	9	89
10/9/2008	6PM	9	112
10/6/2008	3PM	9	140
10/7/2008	2PM	11	155

reports are easily available to the users upon log-in into the system. If the report contains data for multiple PSAPs, the information can all be aggregated into one individual report. Historical trending takes a whole new meaning when a user can generate 911 Call Statistics for the entire State during an entire year in less than five seconds with just four clicks.

## 2.3 Graphical Capabilities



The product supports a wide range of graphical representations of the data being showcased in each report. Although the system will dynamically select the most appropriate graph type based on the data being reported, each user has the ability to change the graph type before the report is generated. Currently ECaTS supports line bars, pie charts, life graphs and stackable bars. Additional graphical support is currently being added to the application for the next version of the product.

## 2.4 Management Reports

In addition to the Call Statistics Report usually found in 911 MIS packages, ECATS brings a wide range of Management Reports. These types of reports specifically address the analytical requirements of PSAP, County and State Managers across the industry. Some management reports include:

- **Trunk Group Utilization Report** – This report provides an in-depth analysis of call volume per trunk and trunk group. PSAP Managers and State/County coordinators can review and determine if PSAP trunks are being utilized at appropriate rates (for example: are they hunting correctly, are they reaching capacity resulting in possible busy signals, etc.)
- **Speed of Answer Report** – This report provides a clear scorecard of PSAP answering performance while clearly isolating those PSAPs that meet the NENA 90/10 rule – 90% of the calls should be answered by each PSAP in 10 seconds or less.
- **Daily and Monthly Outage** – These reports provide information regarding up-time and availability for data collection and ALI. Do you know how often ALI is down? Do you know if the PSAP is up/down or what the status of the CPE equipment is? This tool provides immediate escalation for PSAP/CPE down condition including escalation to the Telco if required.
- **Redirected Wireless Calls** – This report provides a statistical analysis on all wireless tower faces whereas more than 75% of calls picked up by a particular wireless face are consistently being transferred to another PSAP. This information is typically symptomatic of misrouted wireless calls. Getting these issues corrected can greatly improve PSAP efficiency and call taking results.

## 2.5 Ad-Hoc Reports

Probably the most powerful aspect of the system is its ability to empower authorized users with the ability to generate any report, on the fly, with minimal computer skills. The Ad-hoc reporting module provides an intuitive interface with check boxes and drop-down lists for



generation of analytical reports directly out of the high-speed SQL databases. For example, a PSAP County Manager may want to analyze the impact of VOIP calls within their County. This report can simply be generated by selecting those fields that need to be included in the report, then selecting a date range and finally setting the ALI Class type to VOIP. The reader should note that all fields are drop downs populated only by valid choices existing in the database. If there were no calls of type "VOIP" for the selected county, this choice would simply not exist in the drop down list. This ensures that users are not confused by typical values, but are only presented with valid information that is pertinent to the specific data set they are working on.

Another example could be an in-depth analysis of Wireless Phase 2 calls. For instance, a State Analyst could ask the system to provide a listing of all Wireless Phase 2 calls that were abandoned for the entire State during the last 12 months. If the subset of data in the report was too large, the user may want to narrow down the list to those abandoned calls that were put on hold for a time greater than 5 seconds. Continuing the same analogy, the user could then narrow the report further for those calls that came in from Verizon Wireless or a Pre-paid Card Service Provider.

The reader should note that all this flexibility is provided against all PSAPs in the County or State regardless of the type of CPE installed at each PSAP. Abstracting this layer of hardware complexity with the flexibility of a powerful module such as the ad-hoc reporting tool provides the user with the first and only open and universal system to retrieve 911 call statistic data available in the marketplace today.

## **2.6 Trouble Ticket Management Database**

The system includes a fully functional trouble ticket management database for the State and Counties to track any outstanding issues with any PSAP. Tickets are automatically generated and escalated to management staff and Telcos when something wrong is detected by the application or can be manually generated by authorized personnel. Regular status reports can then be extracted to provide statistical data and SLA compliance by Telecommunication Providers, CPE Manufacturers and other service providers.

## **2.7 System Health**

The system provides a County or Statewide view of all the PSAPs in the region using a map interface. Each location is dynamically colored Green, Yellow or Red. Yellow PSAPs are locations where call detail record information is being collected, but the system believes there may be a problem with either the data stream or the volume of calls does not match previous volume trends collected since the PSAP was first brought into the application. PSAPs with a red color indicate that data is not being reported; the CPE or ALI is down and requires immediate escalation.

## **2.8 Scheduled Reports**

Direct Technology provides a module for scheduling a variety of standard or ad-hoc reports. This way the system automatically can run reports on a pre-determine schedule and e-mail the results of those reports directly to the user's personal e-mail box. This way, key reports are always available to be viewed by authorized personnel on a regular basis.

## **2.9 Sharing reports**

ECaTS also allows authorized users to share reports generated in the ad-hoc reporting tool with other users of the application. For instance, a user may develop an ad-hoc report that yields specific or interesting analytics regarding 911 call volumes in their county or state. They can then share said report with other authorized users so they may discuss the contents of the report or to provide additional insight into discussion topics for upcoming meetings.

## 3 How does ECaTS Work?

### 3.1 On-site Data Collection

ECaTS collects Call Detail Record (CDR) information at each PSAP by connecting the CPE equipment to a custom built buffer box. This buffer box, called the Remote Data Distribution Module (RDDM) has specifically been built and uses customized software for the collection, compression and security of CDR data. For Palm Beach County, the RDDM will be deployed at each Viper host.

As 911 calls are completed, the local CPE equipment generates a CDR record and outputs this information using a serial or parallel port. Direct Technology's customized RDDM box connects to this output port and dynamically stores each and every CDR port entry and compresses it into a secure database running within the device. On a predetermined time frequency (anywhere from five to thirty minutes) the database is encrypted by the RDDM and the data is delivered to Direct Technology's Data Center for processing.

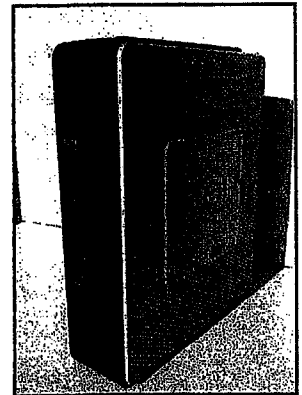
### 3.2 Remote Data Distribution Module Details

The RDDM is the heart of the data collection architecture of ECaTS. Indeed, this portion of the application ensures that the data is collected the moment it becomes available, ensuring that all statistics are collected and stored immediately opens up the possibility for real-time reporting and business intelligence behind all 911 traffic for a State, County or PSAP.

Once the RDDM has secured the data in its internal storage module, it can deliver the data to Direct Technology's Data Center in many ways:

- Directly via private network (if available at the PSAP)
- Directly to the Internet (if available at the PSAP)
- Using dial-up

Although Dial-up is not the preferred method, it can be used effectively by the RDDM as its proprietary compression algorithm can compress the data by a factor of 90%. This provides a very cost effective method of delivering the data; however, if other networked-based forms of communication are available, Direct Technology will work with the customer to ensure appropriate installation and connection of each device.



### **3.3 Universal Parsers**

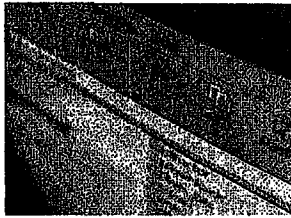
Direct Technology developed a unique approach for processing CDR records from 90% of the 911 industry CPE providers. Once the data is delivered by the field's RDDMs to the Data Center, our unique universal parsers analyze each data stream and convert the information from their native CPE language to a standardize Call Detail Statistic Record. Once the information has been validated and standardize, it is then injected into our Microsoft SQL Enterprise Servers.

Should any errors be detected during the parsing of a CDR record they are automatically flagged as an unprocessed (rejected) record. Unprocessed records are immediately escalated to the monitoring group for analysis and processing. If modifications to the parsers are required, Direct Technology makes those modifications as part of its service and at no additional cost to the clients. More importantly, all those rejected records are then re-injected into the system for processing.

### **3.4 Zero Data Loss Model**

Direct Technology has developed a Zero Data Loss Model, a critical factor when providing any type of statistical and business intelligence services. All data center components of the solution are redundant and the intelligent RDDM boxes automatically perform diagnostic checks on a regular basis and send their health status back to the Data Center. The accuracy of our reports has helped PSAPs identify issues with other reporting and analysis tools, while validating and supporting their management needs.

## 4 ECaTS Service Approach



ECaTS has been, since its conception, provided to our clients as a full turnkey service. The technology piece, albeit extremely important, is but a piece of the overall structure. ECaTS is delivered to PSAPs, Counties and States as a service with Direct Technology provided managed services, hosting and support for all pieces of the solution.

### 4.1 Hosting Facility

ECaTS is hosted in our Tier-4, state-of-the-art, Data Center located in West Sacramento, California. The hosting facility is currently being used by clients such as Microsoft, Google, State of California, Banking Institutions and major Fortune 500 clients. As a Tier-4 Data Center, our customers enjoy many features that ensure the reliability and availability of customer data. Direct Technology currently hosts a large number of public and private sector customers and the hosted solutions manage millions of transactional data each month. Some of the key attributes of our data Center have been included in Appendix A – Data Center Description.

### 4.2 24X7 Monitoring

As part of its service, Direct Technology monitors all aspects of the application including data collection and transfer points, the health of our PSAP buffer boxes, the health of our databases, web services, etc. If any errors are detected at any level of the application, a Trouble Ticket is placed in the database and appropriate resources are immediately allocated to the correction of the issue. If external escalation is required (for instance: a telecommunication provider must be contacted), Direct Technology will open up a ticket with the appropriate Telco to begin the correction measures while informing the customer (PSAP, County or State) of the situation via automatic e-mail notification.

### 4.3 Buffer Boxes Maintenance

Direct Technology utilizes intelligent Buffer Boxes to collect and store Call Detail Record (CDR) information at each participating PSAP. These boxes have been customized for long-life and low probability of failure. However, should a failure occur, Direct Technology will replace the buffer box directly from its regional inventories within 24-48 hours of failure.

## 5 ECaTS Business Drivers

There are a wide variety of reasons as to why customers are implementing ECaTS as part of their overall 911 strategy. Direct Technology interviewed some of its clients and the top business drivers have been included in this section for consideration.

### 5.1 Key Business Drivers for States

ECaTS provides the only universal reporting system for statewide implementations. Being that Direct Technology is not part of a Telecommunication Company or a CPE Manufacturer offers a unique and objective way to provide accurate 911 reporting system. Direct Technology's goal is to provide accuracy, not make one vendor look better than another one.

As such, ECaTS provides accurate statewide reporting regardless of CPE equipment yielding the following benefits/business drivers for the implementation of such service:

- Ability to generate simple and complex reports with a click of a button directly over a Web browser with no specialized software installed at any machine.
- Ability to generate those reports from anywhere with an Internet connection.
- Ability to obtain 911 call statistics information at all levels – from the call itself, to the PSAP, to the County or the entire State in a matter of seconds.
- Analyze State's overall 911 answer time performance to determine if PSAPs are performing at acceptable levels (are calls being answered appropriately? are calls being placed on hold excessively? are they being transferred inefficiently?) – The reader should note that this information is available immediately and objectively.
- Analyze a PSAP's call taking volume and trunk statistics to determine:
  - Hardware/station requirements – Do they need more positions to answer the call volume?
  - Trunking requirements – Are all lines being utilized appropriately? Do they need additional trunks? Are calls hunting appropriately?
- New Call Type Impacts – ECaTS provides a true understanding of call routing and call handling challenges being faced by all the PSAPs in a State. With ECaTS a State Analyst or Board can quickly retrieve call statistics for a particular type of call such as VoIP or Pre-paid Wireless Card and within seconds understand the type of impact that is having on the PSAPs within their jurisdictions.
- Legislative Inquiries – With the ECaTS ad-hoc reporting tool, State and Management boards can easily and expeditiously answer legislative inquiries regarding 911 call volumes, call statistics or funding requests. Information can be extracted within seconds and does not require manual collating of information from multiple counties or PSAPs.
- Truly Understanding 911 Landscape – Finally, ECaTS provides the unique view of call volume and handling across the entire State with a simple interface. All the data is always available by simply log-in into the portal with the appropriate credentials.

The combination of the business drivers above, empower the State and 911 boards to make funding decisions supported by clear and objective data, manage their 911 business with certainty and support legislative inquiries quickly.

## **5.2 Key Business Drivers for Counties**

Many of the same business drivers that apply for the State apply at the county level. Indeed, many of the business challenges are the same, albeit at a smaller geographical scale. In addition to those benefits indicated above, the Counties are also reporting the following benefits:

- Providing a clear understanding of call volume across the entire county
- Availability of call handling loads at different time intervals allow for better decisions when modifying call routing across the County
- Comparative analysis allows the County managers to see their best PSAPs and work with those PSAPs that require more coaching/help
- Validation of funding/position requests are now supported by actual call volume and call handling statistics
- Simplicity of data reporting for complex handling and call type analysis is greatly simplified by a centralized web-based repository

## 6 Appendix B – Data Center Description

Direct Technology, Inc. utilizes their facility in West Sacramento for all ASP hosting engagements. This facility has been carefully selected by Direct Technology due to its security, redundancy and past performance. By engaging Direct Technology, our customers leverage the power of a large data center without the associated costs. Under this hosting agreement, Direct Technology will provide customer with the following:

### 6.1 Data Center Electrical Infrastructure

- ❑ Dedicated electrical substation with a grounding infrastructure located throughout the facility and Zero Single Point of Failure (ZSPF) electrical distribution system
- ❑ True diverse-path and redundant power feeds for both dual and single-corded equipment
- ❑ Power is supplied and filtered at all times through redundant Liebert and Powerware Uninterrupted Power Supplies (UPS)
- ❑ State of the art Caterpillar diesel power generators with dual starters, dual batteries, heater blocks and onsite fuel storage
- ❑ Dense high capacity circuit distribution wherein system controls are fully integrated with the Building Management System (BMS) located in the Central Command Operations Center

### 6.2 Data Center Cooling Infrastructure

- ❑ Data Grade HVAC environmental conditions with 24/7 environmental monitoring system controls that are fully integrated with our Building Management System (BMS) located in the Central Command Operations Room
- ❑ Industrial chilled water plant for optimal cooling with redundant (N+1), chillers and pumps
- ❑ Liebert Computer Room Air Cooling Units (CRAC) redundancy
- ❑ Computer controlled humidification system for managing electrostatic discharge and humidity with leak detection throughout raised floor area



### 6.3 Data Center Security Infrastructure

- ❑ On-site professional security personnel 24/7 with biometric scanning technology, physical monitoring systems, tracking and recording of access throughout the facility and an intrusion detection system
- ❑ Event driven, fixed mount digital Closed Circuit TV (CCTV) cameras with digital archive
- ❑ High-resolution Pan-Tilt Zoom cameras
- ❑ Anti-pass back and tail gating systems in the reinforced mantrap walls with controlled check -point access and mandatory pre-approved Client lists
- ❑ Mandatory sign in/sign out procedures
- ❑ Security breach alarms and multi-level security zones, PIN code keypads and biometric scanners.
- ❑ No Public access to building
- ❑ 90-minute riot glass protection

### 6.4 Data Center Network Specifications

- ❑ Dual-entry, diverse-path fiber directly on SONET rings
- ❑ On-demand Internet bandwidth
- ❑ HP Open View for Network and System monitoring
- ❑ LAN
  - CAT -6 copper, single or multiple-mode fiber infrastructure
  - Universal network port or interface support
  - High-performance, non-blocking switch technology
  - Interface options including 10/100/Gigabit
- ❑ WAN
  - Transit/peer arrangements for Internet services from multiple providers
  - Tier-1 global Internet backbone providers
  - Multiple Internet Services Providers in place for maximum redundancy
  - Fully redundant II-Tier network design

By combining these hosting facilities attributes, Direct Technology provides its customers with maximum reliability and redundancy.



Talent / Solutions / Success



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## **ECaTS – Emergency Call Tracking System**

# **Palm Beach County**

## **Statement of Work (SOW)**

**8/23/2011**

**Updated 10/24/2011**

*Direct Technology (Formerly DirectApps, Inc.)*



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## 1 About This Document

AT&T has teamed with Direct Technology (subcontractor) to bring Palm Beach County the best and only cross-platform 9-1-1 MIS system available. This document describes Direct Technology's (DT's) Statement of Work (SOW) to provide ECaTS (Emergency Call Tracking System) - an enterprise level distributed management information system (MIS) application that facilitates a countywide view of 9-1-1 call statistics as well as management tools for individual public safety answering points (PSAPs) and regional directors. This proposal specifically addresses Palm Beach County's requirements to install and monitor the 9-1-1 call statistics for 21 PSAPs distributed throughout Palm Beach County.

Direct Technology is a service provider under contract to AT&T, who is the primary contractor. This SOW is governed by the Master Agreement Contract between AT&T and Direct Technology.

## 2 Project Roles and Responsibilities

Direct Technology will assign the following individuals to the Palm Beach ECaTS Project:

- **Project Manager** – The Project Manager will be responsible for coordinating the different aspects of the deployment, testing, user acceptance and change management. The individual will be responsible for developing timelines, assigning DT resources and coordinating with AT&T for the allocation of engineering resources to complete this project.
- **Logistical Coordinator** – This individual will be responsible for coordinating the deployment effort, collaborating with AT&T on the development of Line Profiles and establishing the appropriate monitoring methodologies for testing, user acceptance and production readiness.
- **Trainer and User Advocacy** – This individual will be responsible for coordinating PSAP management training, County Coordinator Training and developing a relationship with the end users for technical questions and as a direct escalation point as required during and after the installation.
- **Software Engineering** – One or many software engineers may be allocated to this project in order to implement customizations required by the client either during or after implementation.
- **Quality Assurance** – Direct Technology's Quality Assurance Group will be utilized during the data testing, validation and acceptance period to ensure the reliability of the data collection, parsing and reporting modules of ECaTS.

AT&T will provide support and resources for the following activities:

- Collaborate with the client to obtain a direct technical link from Intrado, as the vendor responsible for the implementation of the new Viper Systems to be deployed throughout Palm Beach County. Once that contact is identified, Direct Technology will work directly with the

contact to schedule the installation of the data collection boxes (RDDMs) at each of the host sites.

- AT&T will provide SSIM field technician support to collect legacy data, on a time and materials basis (billed separately).
- If required, AT&T will work with legacy CPE manufacturers to support the legacy capturing, extraction and delivery as required by Direct Technology to import the legacy data into ECaTS.
- AT&T will provide on-site maintenance support if RDDM replacement is required..

### 3 Implementation

Direct Technology will take the lead role in the implementation, transition and ongoing maintenance of this project.

Direct Technology will assign the resources defined in section 2 during the implementation effort. Direct Technology will be responsible for coordinating all implementation activities with AT&T, Intrado, the PSAP managers and County personnel. From time to time, Direct Technology may require AT&T to provide support, act as a liaison or an escalation point in the scheduling of customer events such as training, user acceptance, etc. It is expected that the main points of contact will be the Project managers for AT&T and Intrado, and the County's 911 Planning Coordinator.

#### 3.1 Phased Approach to Implementation

Direct Technology will use a phased approach to ECaTS implementation as described below. This approach has been refined from experience gained with other ECaTS implementations and will be subject to confirmation and approval from AT&T and the County. The final implementation plan will be developed through a collaborative effort with Palm Beach County, AT&T and the Project Managers.

The implementation phases are described below.

##### 3.1.1 Analysis Phase

The first phase of the implementation effort will focus on both the ECaTS portal design analysis and the network design analysis. Direct Technology will refine the roles, responsibilities and commitments detailed in this implementation plan based on the findings of the Analysis Phase of the project.

- **Network Design Analysis**

Direct Technology will work closely with AT&T in the development of a Network Analysis and Design for the installation of RDDMs at the two Viper Host locations. Specifically, Direct Technology will work with AT&T and Intrado in the following areas:

1. Intrado – Identify the serial cable characteristics required to connect two RDDMs to each Viper host site. Define cabling configuration, speed, parity bit, etc. as required to successfully connect the devices.

2. AT&T – Identify the appropriate network transport for the delivery of CDR data from each RDDM box via the Internet to Direct Technology's Data Center located in Sacramento, California.
  3. Intrado and AT&T – Ensure that all necessary software patches and configuration settings will be available for activation of the CDR port before the RDDM boxes are installed by Direct Technology's Field Engineers.
  4. Develop a preliminary schedule of RDDM deployments in collaboration with AT&T and Intrado.
- **Joint Application Design (JAD) Sessions (portal design analysis)**  
Direct Technology's Project Manager will coordinate with Palm Beach County's appointed Project Manager to schedule a Joint Application Design (JAD) session. The objective of the JAD session is to understand the Palm Beach County's 9-1-1 specific functional requirements and develop a portal Customization Design Document.

The JAD sessions will result in a high-level design document known as a Business Requirements Document (BRD) that will be provided to the County for approval. Upon approval from the County, Direct Technology will move into the Software Customization phase of the project (see section 3.3, Software Customization Phase).

### 3.1.2 Legacy Data Importing Phase

Palm Beach County has requested the importing of legacy data from each of its PSAPs (as much data as can be successfully collected by AT&T). AT&T SSIM will provide Direct Technology a copy of such legacy data in one of the following formats:

1. Original CDR record format from the original OEM in a text based file that can be imported into ECaTS by Direct Technology.
2. A comma delimited or tab delimited report containing all of the fields in the CDR record for both call statistics, call handling and user login/logout activities.
3. In the unlikely event that legacy data for a PSAP is unrecoverable or not parsable, the County will make alternate arrangements with AT&T SSIM for legacy data storage and retrieval, and ECaTS will commence data collection from Viper installation forward.

### 3.1.3 Software Customization Phase

Direct Technology will coordinate the resources necessary to complete the modifications identified in the BRD including development, quality assurance, and integration testing required to develop the legacy data parsers as previously in the design phase.

### 3.1.4 Software Acceptance Phase

Direct Technology will work with Palm Beach County and/or AT&T to review the software to ensure each functional requirement meets the requirements of the BRD.

### 3.1.5 Training Preparation Phase

Following software acceptance, customized training materials and a curriculum for online and face-to-face training will be developed. A full tutorial of how to use the ECaTS Reporting System will also be available to all users through the ECaTS portal.

### 3.1.6 Network Deployment Phase

Palm Beach County is currently undergoing a major hardware transition from Cassidian and Zetron equipment to a hosted Viper environment. This deployment is being led by Intrado. In order to begin data collection before the first site is transitioned August 25<sup>th</sup>, Direct Technology will work with AT&T and Intrado to install the RDDM boxes at each hosting location before the first site is deployed.

Once scheduled, Field Engineers will arrive at each site on the pre-determined date and will perform, at a minimum the following tasks:

- Install the RDDM buffer box in brackets for either rack or wall mounts including the power cord to the RDDM. The two Viper Host sites are located in the EOC in Palm beach County and the IDC in Orlando, Florida.
  - Direct Technology will install two redundant RDDMs directly connected to each Viper for a total of four RDDMs per location. Therefore, Direct Technology will install eight RDDMs (2 x 2 Viper Hosts x 2 Sites) by coordinating with AT&T and Intrado to ensure the appropriate activation of the CDR ports. It is assumed that the client has already purchased Power MIS and that CDR activation is a configurable item with no additional cost to the end client.
- Validate circuit, CPE inventory, trunk grouping information and configuration of circuits. AT&T and Intrado will be responsible for providing Line Profile information for each Viper including:
  - Trunk Name (as it will appear in the CDR record)
  - Trunk Purpose (example: 911, 10 digit admin, wireless, etc.)
  - Trunk Group Configuration
  - Other data as provided in the Direct Technology Line Profile Sheet provided in Appendix A.
- Install the serial cable that connects each RDDM buffer box to the CPE equipment. In the case of this implementation, there will be two RDDM boxes connected to each Viper Host. The RDDMs will be connected in a redundant configuration to allow for fail over. Both RDDMs will be collecting data simultaneously so that if one fails, the other can continue to collect data until the faulty unit is replaced.
- Begin CDR capturing test:
  - Analyze incoming data stream for validity (baud rate, parity bit, etc.)
  - Validate expected parsing format
  - Validate circuit display information
  - Validate compression utility
  - Validate encryption utility



- Install network connection to the RDDM buffer box. Network transport to be provided by AT&T or the client. The RDDM uses Internet access to deliver encrypted CDR information from each RDDM to Direct Technology's Data Center for processing.
- Validate data delivery from RDDM box to the ECaTS data center
- Validate time clock synchronicity among all Viper Hosts and clients. It is critically important that all sites maintain synchronized time clocks (by using a Network Time Protocol, NTP, or similar service) in order to ensure the validity of certain reports. Direct Technology will work with AT&T and/or Intrado to ensure this is done correctly.

### 3.1.7 Acceptance Phase

Direct Technology will work with the Palm Beach County's Project Manager to coordinate system acceptance.

- **System Testing**  
Login and user navigation through the ECaTS portal will be validated as each of the preconfigured, management and ad hoc reporting capability is tested. The Trouble Ticket Management system (described below) will be demonstrated from an internal and client perspective.
- **Network Testing**  
Once the RDDMs have been deployed and are collecting data from each Viper host, Direct Technology will remotely access multiple production RDDM boxes and demonstrate how data is captured, stored and transmitted.
- **Parser Validation**  
Direct Technology will demonstrate how data is parsed by the system and how report values are calculated utilizing a predetermined test script.
- **Data Validation**  
Selected CDR record sets will be tested to validate that the ECaTS system is collecting, parsing and injecting the data appropriately into the enterprise data warehouse.

### 3.1.8 Training Phase

Direct Technology will provide one live training session for the County's 9-1-1 Office personnel. Live PSAP training will be provided at a frequency of one (1) session for each region/county with a minimum of ten (10) PSAPs and up to twenty students in each class. The final training strategy will be established in collaboration with the Palm Beach County's Project Manager. Since a set of materials will also be posted on the ECaTS portal's main home page, users will have the flexibility to view online materials first or in place of attending face-to-face training events.

## 3.2 Preliminary Schedule

A Project Schedule will be created in collaboration with AT&T and Intrado after completion of the Project Kickoff meeting. However, the following will serve as a high-level template:

- Network Design – In progress, to be completed two weeks After Receipt of Order (ARO).
- Legacy Data Preliminary Design – In progress, to be completed as data becomes available from AT&T.
- Legacy Data Import – Dependent on Design, completion no later than 60 days ARO.
- RDDM Implementation (Network Implementation) – RDDMs will be installed at the IDC within two weeks ARO and will also be installed at the EOC one week after power and Internet connection becomes available at the site..
- Portal Setup and Configuration – To be completed by end of September 2011 or 30 days ARO.
- Direct Technology Quality Assurance – To start in September 2011 and to be completed one week after the migration of the last Viper migration by Intrado. Palm Beach County Final System Acceptance – To be scheduled in coordination with Palm Beach County and AT&T upon completion of Direct Technology's Quality Assurance.
- County and PSAP Training – To be scheduled in coordination with AT&T upon completion of Palm Beach County System Acceptance.

## 4 Ongoing Support

Direct Technology will provide remote monitoring and on-site support for the ECaTS system components including software upgrades and enhancements, remote monitoring of the ECaTS support network and RDDMs, on-site remedial maintenance, and full trouble ticket management services.

### 4.1 Software Upgrades and Enhancements

Direct Technology will provide software design support required to modify the existing ECaTS standard suite of reports for Palm Beach County's needs as identified in the JAD sessions. This support will be provided at no additional cost. Additionally, Direct Technology commits to provide parsers for new CDR formats from new or existing CPE platforms at no additional cost. Following acceptance of the Software Customization Phase and throughout the remainder of the ECaTS contract, Direct Technology will provide up to 200 hours of development time per calendar year for modifications and enhancements to the ECaTS system and reports as requested by Palm Beach County at no additional cost. Additional software development time (over 200 hours in a contract year or for changes deemed new additions ex: requesting a brand new 'standard' report) is available at the rate provided in the Pricing Format section of this proposal.

### 4.2 Remote Monitoring

Direct Technology continuously monitors the health of the RDDM boxes deployed at each PSAP. The status of the full ECaTS deployment is also available to authorized users through the on-line portal that provides the state of each PSAP including satisfactory status (green), low call volume

or no call activity – trouble ticket issued (yellow), low call volume or no call activity – trouble ticket has not been issued (red). The ECaTS application includes automatic notification of low or no data conditions. Direct Technology takes a proactive approach to these conditions and contacts the affected PSAP to ensure the management there is aware of any potential emergency services network or CPE outage.

RDDM Replacement – Should an RDDM replacement be required, Direct Technology will, upon detection of the trouble, open up a ticket by calling the AT&T 911 Resolution Center South at 800-553-2811. This trouble ticket will request the installation of a new RDDM in the affected location. The trouble ticket will contain information regarding the type of trouble detected, any required configuration parameters and an in-depth description of any required resolution steps. Direct Technology will provide a replacement inventory (of two RDDMs) to local AT&T technicians for replacement purposes. If a swap is required, Direct Technology will work with AT&T on the remote configuration of the RDDM and will walk the technician through the replacement process (if required). Upon completion of the replacement, the AT&T technician will work with Direct Technology's Logistical coordinator in the validation of the data stream before leaving customer premises.

### 4.3 Trouble Ticket Management

Direct Technology maintains a trouble ticket log of all incidences that are identified through monitoring or that are reported by users. ECaTS was built to provide management with a truly transparent look into their PSAPs. The trouble ticket management application is available to authorized users through the ECaTS portal so that the status of all incidences can be researched at any time from one source. The trouble ticket management module provides information on who worked on the issue, status changes with associated dates and relevant notes.

As part of the trouble ticket management responsibility, Direct Technology contacts the affected PSAP(s) any time a problem is detected. Trouble tickets are initiated and trouble reports are made to the appropriate third party (ILEC and/or CPE vendor). Direct Technology monitors the status of trouble resolution with the third party and updates the trouble ticket log until the problem is resolved.

### 4.4 10-digit Admin Call Reporting

Palm Beach County has requested that ECaTS provide 10-digit Admin Call Statistics as well as 911 data. Direct Technology is currently working with Intrado on the development of this capability. The concept has already been proven in our tests, and will be completed within four weeks from approval of this proposal.

Palm Beach County will be responsible for procuring an Intrado provided appliance in order to facilitate the collection and reporting of 10-digit admin calls. This appliance description will be provided by Intrado upon completion of the development of this feature.

## 5 Pricing

### 5.1 Pricing Breakdown - 6 year contract

Item	Description	NRC	MRC	Year 1	Year 2	Contract
1	Installation fee for system	\$90,300		\$90,300		
2	Monthly Service Fee for system		\$7,140	\$85,680	\$85,680	
3	Professional Services (per unit)	\$100.00				
				\$175,980	\$85,680	\$604,380

**Notes:**

1. Included in the onetime fee; hardware, installation, configuration, deployment and training.
2. Included in the monthly fee; maintenance, hosting, management, hardware replacement and help desk.
3. Professional Services are quoted and ordered per Statement of Work, as required by County.

### 5.2 Invoicing

Direct Technology will invoice AT&T as follows:

- Installation Fee – to be invoice half up front and the remaining upon system acceptance
- Monthly Fee – to be invoiced at the end of every month. The first invoice will be sent at the end of the first month in which system is accepted by client (Palm Beach County) and AT&T. The amount of the first invoice will be an entire month (since Direct Technology will not be doing partial bills for data collected prior to system acceptance).
- Travel Cost – to be invoiced on an actual cost basis for all project related travel NTE \$8,000

PALM BEACH COUNTY

# DEPARTMENT OF PUBLIC SAFETY

INTEROFFICE MEMO

TO: Kathy Scarlett, Director  
Purchasing Department

FROM: *for* Vince Bonvento, Director  
Public Safety Department

*Stephane Leproche*

DATE: March 27, 2012

RE **SOLE SOURCE JUSTIFICATION**

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The Public Safety Department's Division of Emergency Management requests a onetime hardware, software purchase and installation of the Emergency Call Tracking System (ECaTS) and a six (6) year term contract for an annual software license upon the following sole source justification.

Based upon our expertise and a comprehensive search of the market place, ECaTS is the only product which provides the unique characteristics that we require and, to the best of our knowledge, no other products can duplicate.

1. ECaTS is the only universal reporting system that is vendor independent.
2. Independent research to identify a product that can import data regardless of hardware manufacturer netted negative results (documentation is attached).
3. AT&T has exclusive representation for the sale, installation and service of ECaTS in Palm Beach County. AT&T will be subcontracting to Direct Technology for the installation and service of the ECaTS software.

For the above documented reasons (and the attached supporting documentation), I request that the product be considered for approval as sole source.

Should you have any questions, please contact Steven D. Booth 712-6386.

Thank you for your time and consideration.

Attachment # 3

INTER-OFFICE COMMUNICATION  
PALM BEACH COUNTY

Form B

DATE: March 27, 2012  
TO: Kathleen M. Scarlett, Director  
Purchasing Department  
FROM: MaryAnn McGee *MM*  
Purchasing Manager  
RE: SOLE SOURCE JUSTIFICATION (EXTENDED TERM)

The using department has stated that Emergency Call Tracking Systems (ECaTS) is the ONLY product/source of service that will meet the county's need for universal reporting system for Emergency Call Tracking Systems software, hardware and installation. Based on staff's knowledge of the marketplace, we believe this to be an accurate assessment.

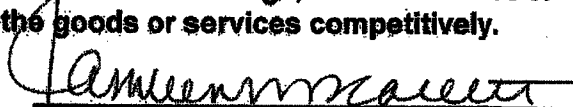
It has also been determined and attested to by Fred J. Michanie of Direct Technology that AT&T has exclusive representation for the above referenced product/service (see attached).

We anticipate that the circumstances justified by this sole source request will not change over the next 60 months (maximum 60 mos).

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**PURCHASING APPROVAL:**

Based on the information provided to me, including the vendor's certification that they are the sole provider of this good or service, the user's certification that this is the only good or service which will suffice their needs, and a justifiable expectation that these conditions will not change in the foreseeable future, I am hereby approving sole source acquisition of the subject good or service for a period not to exceed sixty months. The user department is charged with monitoring the market place and, if the above described sole-source conditions change, discontinue use of this sole source justification and procure the goods or services competitively.



Kathleen M. Scarlett, Director  
Purchasing Department

Date: 3/27/12

c: Steve Booth, Public Safety

STATE OF UTAH  
Division of Purchasing

**SOLE SOURCE REQUEST**

**NOTE:** When submitted by email, type requestors' name on the signature line. The email will constitute the electronic signature.

**R33-3-401 Conditions For Use of Sole Source Procurement.**

Sole source procurement shall be used only if a requirement is reasonably available from a single supplier. A requirement for a particular proprietary item does not justify a sole source procurement if there is more than one potential bidder or offeror for that item.

Examples of circumstances which could necessitate sole source procurement are:

- (1) where the compatibility of equipment, accessories, replacement parts, or service is the paramount consideration;
- (2) where a sole supplier's item is needed for trial use or testing;
- (3) procurement of items for resale;
- (4) procurement of public utility services.

The determination as to whether a procurement shall be made as a sole source shall be made by the procurement officer. Each request shall be submitted in writing by the using agency. The officer may specify the application of the determination and its duration. In cases of reasonable doubt, competition should be solicited. Any request by a using agency that a procurement be restricted to one potential contractor shall be accompanied by an explanation as to why no other will be suitable or acceptable to meet the need.

**R33-3-402 Negotiation in Sole Source Procurement.**

The procurement officer shall conduct negotiations, as appropriate, as to price, delivery, and terms.