

2014

JEA's Path to

**Workforce
Mobilization**

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2004



2004



2014

Prior to 2004

- All Service Orders were printed at Field Services
- Manually reviewed for organization and assignment
- **Stacked into piles** of like work for a Field Technician
- Radioed to various Field Techs
- Repeated throughout the day



Prior to 2004

- Field Techs would
 - Drive to FS office and pick up paper orders
 - Determine their own travel routes and schedules
 - Radio in for directions to some locations
 - Perform the necessary field work at location
 - Hand write comments on the paper orders
 - Drive back to FS office to drop off completed orders/pick up any new orders

Prior to 2004

- Field Service Dispatchers would
 - Process the returned paper orders
 - Interpret comments / radio tech for explanation
 - Close orders in system, File paper orders
 - Review the day's orders for non-returned paper
- Process was:
 - Inefficient, prone to errors, time consuming, dependent on verbal communications

2004

JEA Investigates Mobilization

- Unbudgeted Project
 - Just need IT to write a little interface
- Vendors engaged
 - GE
 - Viryanet
 - Data Radio
- Joint project with City
 - Two radio towers were to be used for connectivity

2005

JEA Implements Viryanet Service Hub

– Hardware/Software/DB

- 4 servers, truck mounted laptops, wired radio connectors for GPS locations of trucks
- Oracle, DB400, Websphere, JAVA, RPG
- Map quest server & subscription

– Integrations

- Field Service orders – utilities and telecom
- Receiving orders into Service Hub
- Closing orders for billing and non-billing types

2005-2006 Challenges

– Managing the CHANGE in Field Service

- Average age of Field Technician was 47
- Why do we have to use these laptops?
- Are you tracking me?
- Laptop won't turn on
- Application won't come up
- Can't find my orders
- Where is the Enter key?
- Can't see the screen



2005-2006 Challenges

– Field Techs were Novice Computer Users



2005-2006 Challenges

– Training

- Learning curve for field personnel was HIGH
- Train the trainer did not work very well
- One on One training was required
- Repeat training was required

– IT Support for field personnel was HIGH

- The architecture for the solution was complex and had more than a few touch points

– O & M Cost

- Laptops were expensive to replace
- Data radio did not work, switched to mobile air cards
- Software licenses, Oracle DB licenses, map quest subscription

2007 Acceptance

- FS had transitioned from
 - not wanting this system



– **how did we operate without it?**

JEA demo'ed the solution

Spring, 2009 for UTA



2007 – 2012 Benefits/Ownership

- Benefits Included:
 - Efficiency, less errors, prioritization of work, measurable KPIs, serviceman productivity and accountability, pride in becoming an accomplished user, improved customer service
- Cost of Ownership:
 - Pretty high O & M cost, complex architecture, a lot of hardware, hardware/software upgrades, support resources

2012 Upgrade or Replace?

- CIS replacement/migration underway
 - All integrated systems were under review
- Mobile Workforce Management System
 - Upgrade or Replace?
- RFP prepared Sept, 2012
 - Sent to 10 potential vendors
 - 5 declined response
 - 5 accepted response

2012 -2013 RFP Evaluations

- JEA MWMS **evaluation team** formed Oct, 2012:
 - Customer service, Field service, Telecom Field service, Operations, Distribution, IT
 - **Checklist** of items to evaluate and rate during demos
- RFP responses review **Shortlisted Vendors** Nov, 2012:
 - Euclides Technologies, Inc Cambridge, MA
 - Clevest Solutions, Inc Richmond, BC
 - Viryanet, Inc Westborough, MA
- Sent checklist to vendors ahead of time
- Hosted **Q&A sessions** with all vendors Dec, 2012
- Hosted **Onsite Demos** with all vendors Jan, 2013

2013 MWMS Replacement Selected

- Evaluation Team Feb – Mar, 2013
 - Reviewed and totaled Evaluations from demos
 - Performed cost comparison of each proposal
 - Made vendor customer reference calls
- RFP process/recommendation presented to JEA management and board Apr, 2013
- Euclides Technologies, Inc representing ClickSoftware solution was selected May, 2013
 - Best cost, most features/functionality, best demonstration of knowledge and expertise of ClickSoft and Utility industry

Key Points of Euclides

Expert integrator of field service management & mobility solutions

- Established in 2006
- 70+ years of combined experience in developing and implementing Service Optimization solutions
- Proven track-record based on ClickSoftware suite of products

ClickSoftware Product Solution



Work Order Management

Stand-alone, centralized source system for all your field service management needs



Mobility

Real-Time mobility



Customer Interaction

Reduce overheads and increase customer satisfaction



Scheduling

Automated & optimized scheduling for your field workforce



Location Based Services

Real-Time location



Dispatch

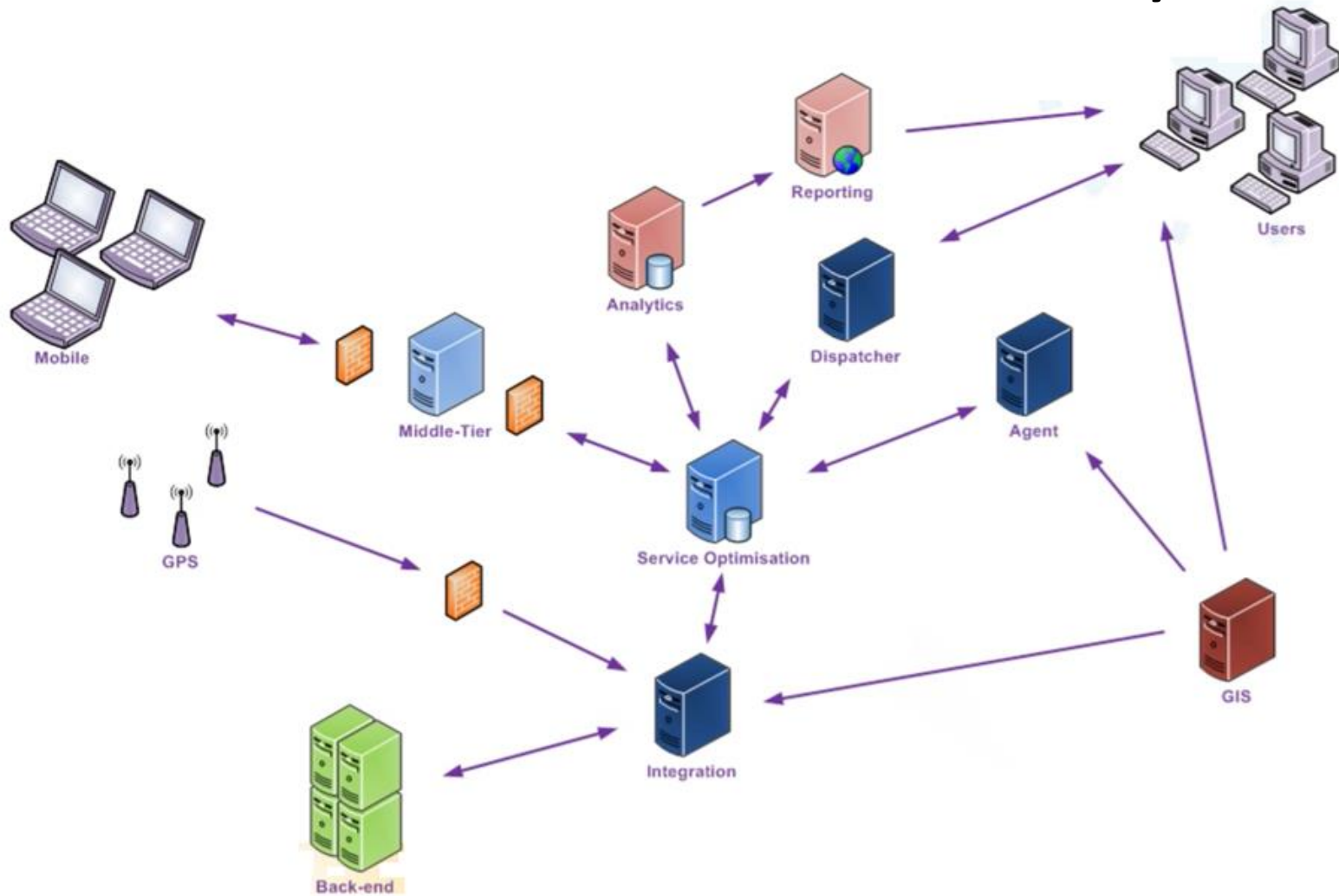
Maximized efficiency and optimized utilization



Reports and Analysis

Real-Time operational reports and data analysis

ClickSoftware Functionality

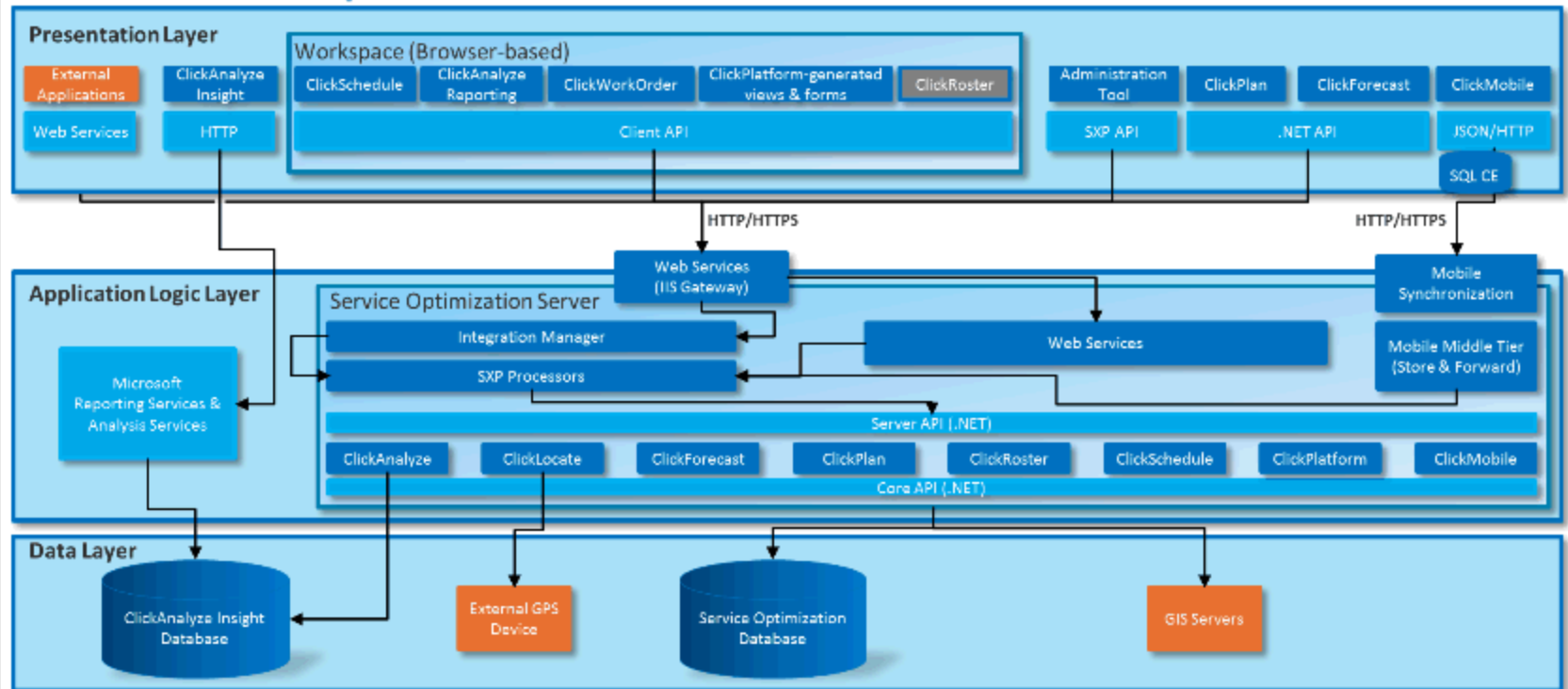


API Integration

- The Service Optimization Integration Manager exposes two APIs:
- The web-service API.- The web-service API is an object-oriented, cross-platform interface. It is SOAP-compliant and recommended for use in any Service Oriented Architecture (SOA).
- The SXP API - The SXP API is an XML-based messaging protocol. External applications exchange XML messages with the Service Optimization server via HTTP.

Architecture

Service Optimization Architecture



Additional Technologies Utilized

- Verizon VPN
 - Ordered all iPads with built in Verizon air cards eliminating the need for MiFi's
 - Constantly connected to corporate network provided within Verizon coverage area
 - Allows JEA to authorize which users can send and receive traffic
 - Isolating data helps avoid the inherent risks of unsolicited traffic from the public Internet
 - Complete control over device access to the Internet and applications

Additional Technologies Cont.

- AirWatch – Mobile Device Management
 - Allowed JEA to address challenges associated with mobility by providing a simplified, efficient way to view and manage all devices from a central admin console
 - Automatically push corporate defined applications and policies via the AirWatch profile when a device is enrolled
 - Send on-demand commands such as device query, clear passcode, send message, lock device, find device, and perform an enterprise or device wipe

Testing Process

- Each FS technician was given an entire day of live orders
 - Dispatcher would replicate orders in test system and dispatch throughout the day
- This allowed both dispatcher and tech to gain a comfort level with the solution
 - Comfort level with the previous solution also played a role
- Original plan called for a staged deployment with telecom going first and utilities second
 - However, users saw the ease of the solution and quickly adapted
- As a result, the go-live date was improved by a whole month



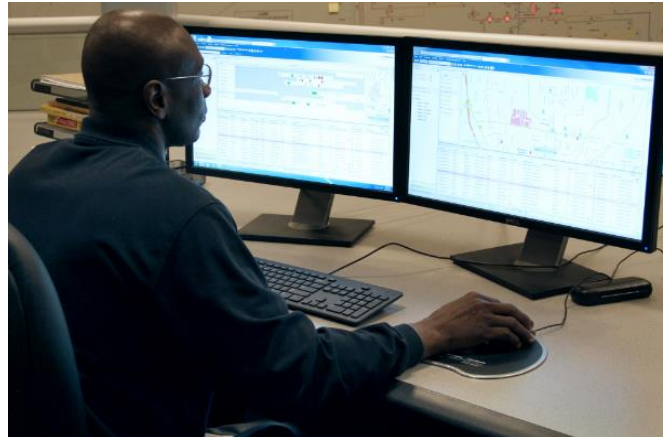
Benefits since Rollout

- Ease of use for the Field Technician
 - With the emergence of mobile devices over the last 5 – 10 years, techs were very receptive of moving to the new devices
 - UI design and flow very intuitive



Benefits Cont.

- Ease of use for the Dispatcher
 - IM capabilities
 - Real-Time updates to the tech
 - Calendar Management
 - Allows dispatcher to manage work instead of a system



Benefits Cont.

- Allows JEA to look at transitioning our long-duration workload to a mobile solution
- Drastically reduced IT Operations support time
 - Support ticket numbers have reduced 99%
- Capital Cost reduced by 72%
- O & M reduced by 77%



Demo setup

- Demo to whole group - Oren & Dale 15/20 min
- Items to bring up in the demo:
- Integration, Emergency work,
- Dispatch board/mobile devices (iPad)
- Accounts to use, SO types to use - Dale will pick a few and plan the demo scenarios.
- Oren and Dale to plan a Dry run on Tuesday afternoon at the Training Center