

## Work Force Automation - Case study



### The Business Need

Effective communication and coordination of work is crucial in efficient utilization of mobile workforce and realization of business goals. Organizations must extend information beyond the walls of their organization and seamlessly interact with employees in real time. Enterprises need a collaborative platform to provide end-to-end mobile solutions to their employees and speed up the process and provide good customer service. The main objective of this project is to provide the required services to the customers who experiences telephone problems such as line interrupts, no dial tones, broken jacks and cross lines. A representative stores the complete details of the customer's complaints, address, and work order etc. in the Sprint server. Each technician could connect his tablet PC with the server in order to synchronize the data between the servers and tablet PC. Whenever technician takes in charge of the complaint and will move to the customer address and update the complaint status in tablet PC. When tablet PC is synchronized to the server again the complaint details in the server will get updated. Client required a versatile solution to automate this process, by automating this process will eliminate the unnecessary and data's will get updated automatically into server.

### Advantages

- Our workforce automation solution provides the complete labour management solution to improve bottomline profits.
- Prioritizes customer's complaints automatically based on availability of technician for easy assignment.
- Greatly reduces need of staff for data processing operation
- Web-based model offers truly paperless operation
- Enables workforce's to wirelessly maintain work order notifications, status updates etc.,
- It significantly reduces costs by avoiding missed appointments, minimizing travel time and improving overall efficiency.

## The Evaluation Process

Client evaluated many software solution providers. While each solution had some advantages, but client's requirement was not met. Cost of installation and ongoing monthly fees proved prohibitive with other solution. Client was presented with a solution that met its needs. Among other companies, client found that ZSL was a perfect match for their requirements. ZSL's advantages of delivering high availability solutions made client to recognise our solution and believed that would provide a thorough assessment of their environment and give them peace-of-mind about its long-term reliability – which other solutions couldn't provide.

## The Solution

Work force automation is designed and developed to provide a complete solution for client operations. It optimizes and automates many of the difficult tasks associated with client operations, greatly reducing the amount of time. This application is been developed using .NET compact framework technology and BSQUARE'S Secure Digital Input Output Technology.

Web application is done in ASP.Net and backend is SQL Server. Whenever a customer calls and registers his complaints, a new ticket is raised with the details of

- *Nature of complaint*
- *Customer address*
- *Telephone number*
- *Email Id*
- *Available Date & Time*

Once the customer raised his complaint, customer care representative allocates the ticket to a technician according to the location of the customer. Technician will be provided with Tablet PC, in order to synchronize the customer's information from server. Sprint Filed power V1.4 application will be installed and configured with appropriate username and password. Whenever the technician connects his tablet pc to the server, he can retrieve all the details about the ticket which assigned to him, in order to provide a right solution to the customer. Once technician completes the assignment, he can update the information into server automatically.

Our approach to mobile workforce automation addresses the key issues and provided a convenient means of data capture and real-time communication medium.

## Workflow

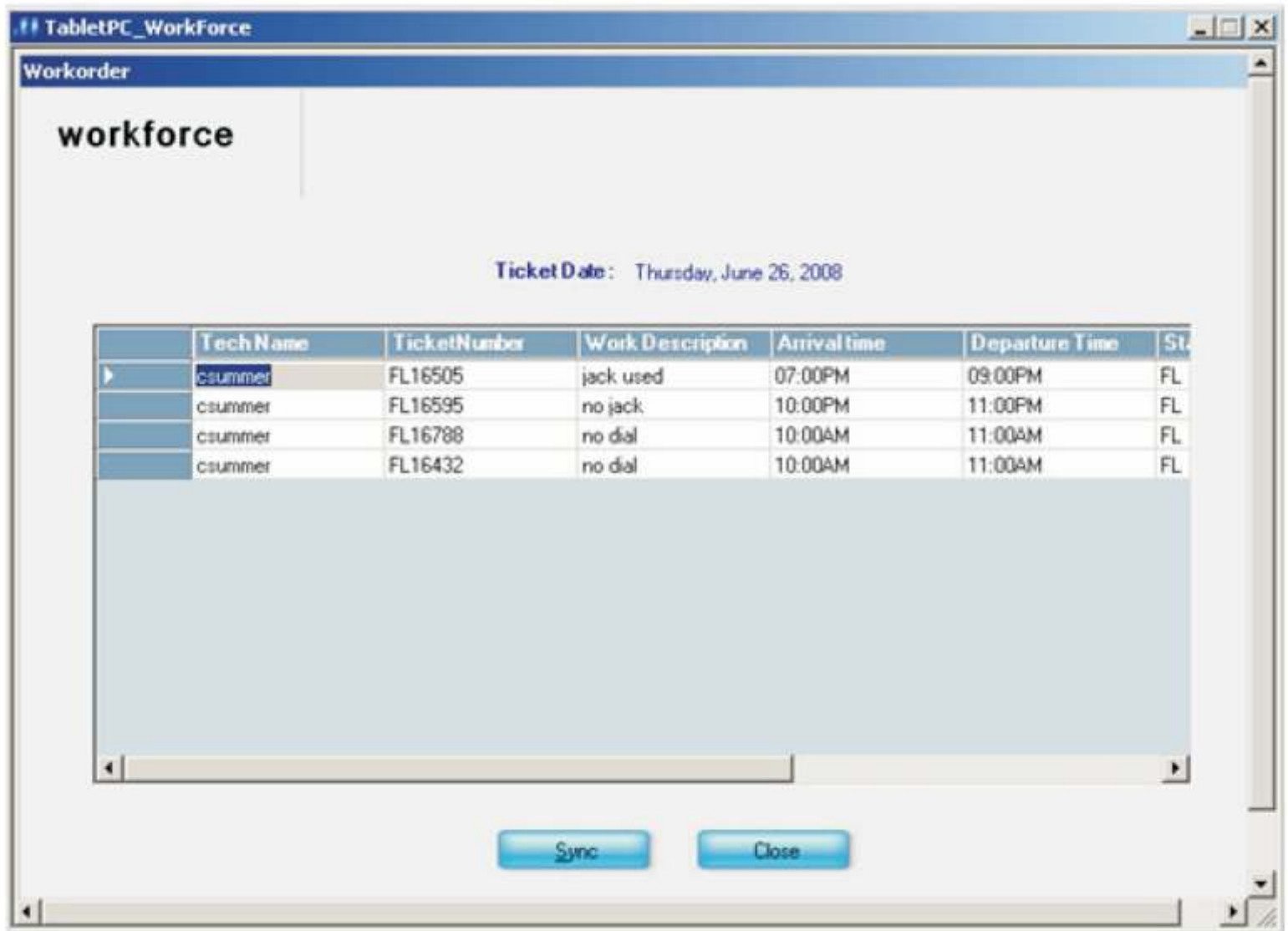
### Screen1 (Initial screen):

Screen 1 represents the login screen of the customer.

The screenshot shows a web application window titled "TabletPC\_WorkForce". The page layout includes a blue header with the word "Login" and a "workforce" logo. Below the header is a navigation bar with a "LOGIN" button. The main content area is split into two sections: an orange sidebar on the left with the word "LOGIN" and an apple icon, and a grey form area on the right. The form contains two input fields: "Username:" with the value "csummer" and "Password:" with masked characters "xxxxxxx". Below the input fields are three buttons: "Login", "Cancel", and "Change User".

## Screen 2:

Once when the correct username and password is given, the below screen appears with the ticket details for the current date.



The screenshot shows a software window titled "TabletPC\_WorkForce" with a sub-header "Workorder". The main content area displays the word "workforce" and the date "Ticket Date : Thursday, June 26, 2008". Below this is a table with the following data:

	Tech Name	TicketNumber	Work Description	Arrival time	Departure Time	St.
▶	csummer	FL16505	jack used	07:00PM	09:00PM	FL
	csummer	FL16595	no jack	10:00PM	11:00PM	FL
	csummer	FL16788	no dial	10:00AM	11:00AM	FL
	csummer	FL16432	no dial	10:00AM	11:00AM	FL

At the bottom of the window, there are two buttons: "Sync" and "Close".

### Screen 3:

By selecting any one ticket from the ticket details list, the following screen will appear representing some basic information about the ticket such as Ticket No., Work order description, work order notes and schedule dates.

The screenshot shows a software window titled "TabletPC\_WorkForce" with a sub-header "TicketDetails". On the left is a "workforce" sidebar. The main area displays the following information:

- Ticket Number:** FL16505
- Work Order Description:** jack used
- Work Order Notes:** jack used
- Appointment Date:** 6/26/2008
- Preferred appt time:** 8-10
- Wire Solutions:** Yes

At the bottom, there are six buttons: "Customermissed", "Technissed", "Unresolved", "Cancel", "Close", and "Back".

The following functions can be performed in the above screen

- Closing the ticket
- Customer Missed
- Technician Missed
- Unresolved
- Canceling the ticket

## Screen 4:

If we select "Customer Missed" option the below screen will appear

The screenshot shows a web application window titled "TabletPC\_WorkForce" with a sub-header "Customermissed". The main content area is titled "workforce" and "Customer Missed". It contains the following fields:

- Ticket Number: FL16505
- Tech Name: csummer
- Arrival Time: 07:00 PM
- Departure Time: 09:00 PM
- Notes: jack used

At the bottom, there are two buttons: "Save" and "Back".

Click on Save → Status will be changed to Customer Missed

The screenshot shows a web application window titled "TabletPC\_WorkForce" with a sub-header "Workorder". The main content area is titled "workforce" and "Ticket Date: Thursday, June 26, 2008". It contains a table with the following data:

n	Arrival time	Departure Time	State	Customer Name	Status
▶	07:00PM	09:00PM	FL	john	CustomerMissed
	10:00PM	11:00PM	FL	peter	Scheduled
	10:00AM	11:00AM	FL	artha	Scheduled
	10:00AM	11:00AM	FL	rao	Scheduled

At the bottom, there are two buttons: "Sync" and "Close".

## Screen 5:

If we select "Tech Missed" option, the following screen appears

The screenshot shows a web application window titled "TabletPC\_WorkForce" with a sub-header "Techmissed". The main content area is titled "workforce" and "Tech Missed". It contains the following fields:

- Ticket Number: FL16595
- Tech Name: csummer
- Notes: jack used

At the bottom, there are two buttons: "Save" and "Back".

## Screen 6:

If the user selects "Unresolved Ticket" option, the below screen appears.

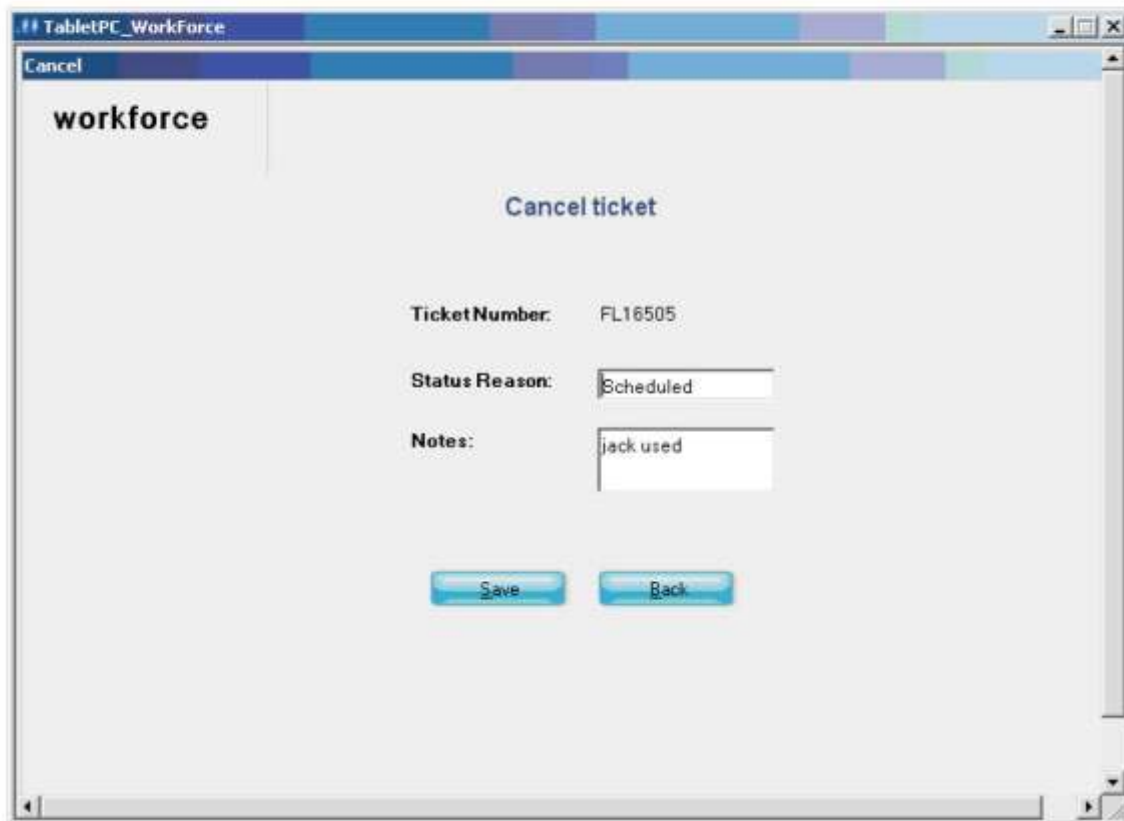
The screenshot shows a web application window titled "TabletPC\_WorkForce" with a sub-header "unresolvedticket". The main content area is titled "workforce" and "Unresolved ticket". It contains the following fields:

- Ticket Number: FL16595
- Tech Name: csummer
- Arrival Time: 11:00 AM
- Departure Time: 11:00 AM
- Status Reason: Scheduled
- Notes: dial checking2

At the bottom, there are two buttons: "Save" and "Back".

## Screen 7:

If the user selects "Cancel Ticket" option, the below screen appears. After providing the proper inputs, "Sync" is clicked to store these data to the pc database.



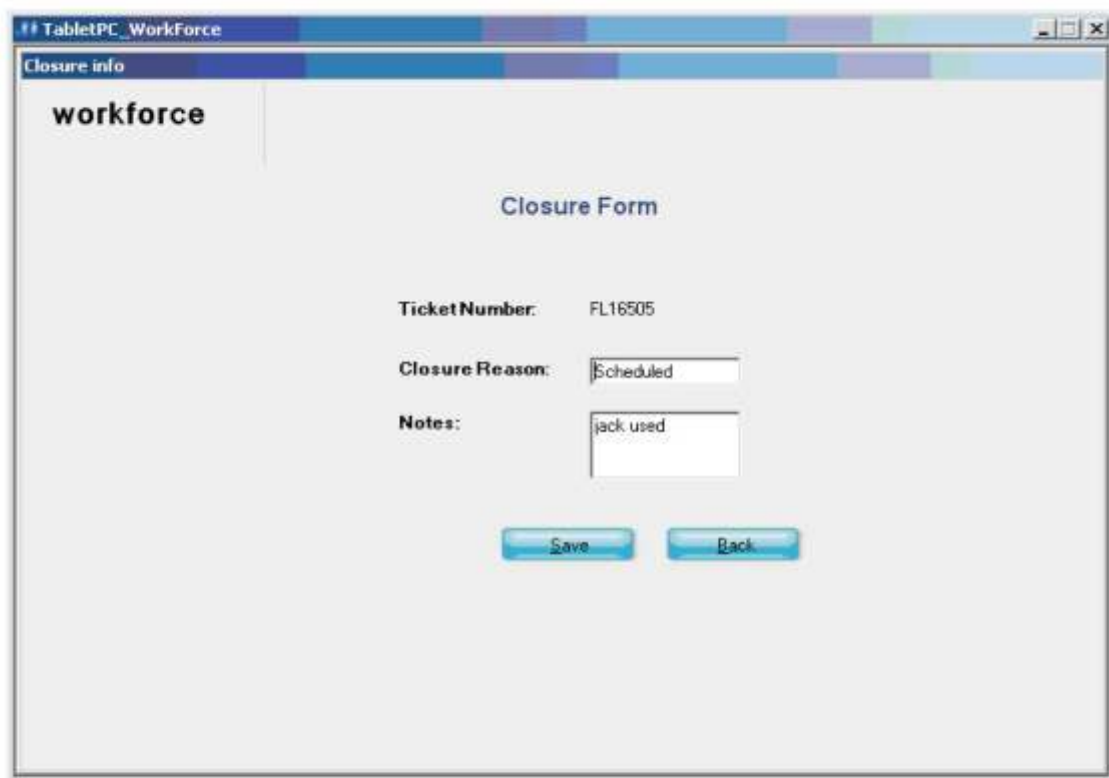
The screenshot shows a web application window titled "TabletPC\_WorkForce" with a sub-header "Cancel". The main content area is titled "workforce" and "Cancel ticket". It contains the following fields:

- Ticket Number:** FL16505
- Status Reason:** Scheduled
- Notes:** jack used

At the bottom, there are two buttons: "Save" and "Back".

## Screen 8:

If the user selects "Close" option, the below screen appears.



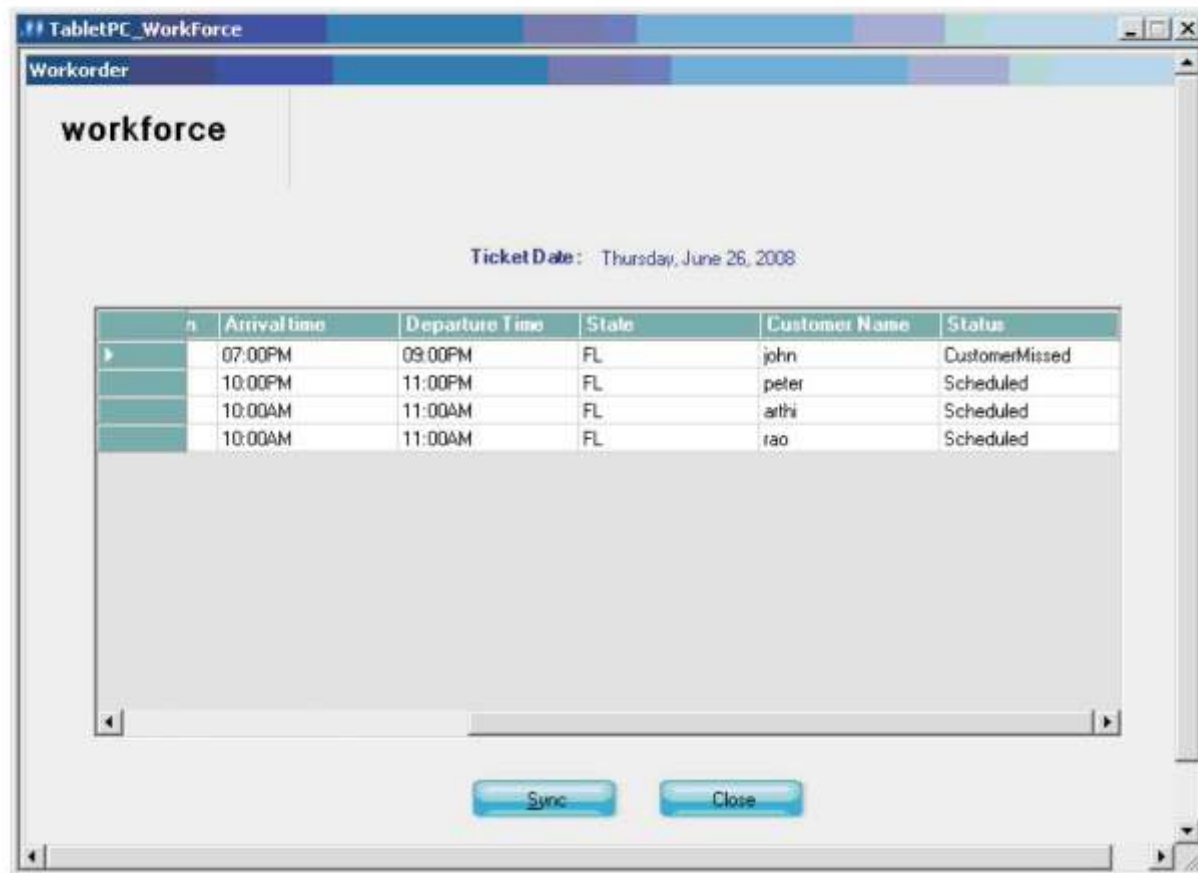
The screenshot shows a web application window titled "TabletPC\_WorkForce" with a sub-header "Closure info". The main content area is titled "workforce" and "Closure Form". It contains the following fields:

- Ticket Number:** FL16505
- Closure Reason:** Scheduled
- Notes:** jack used

At the bottom, there are two buttons: "Save" and "Back".

## Screen 9:

After performing any of the above actions → click on Sync and the data's will get synchronized with the server.



## Actions Taken on Tickets

- Closing the ticket
- Customer Missed
- Technician Missed
- Unresolved
- Cancelling the ticket
- Reschedule visits
- New complaint/job request

## *The Benefits*

- *Our workforce automation solution provides the complete labour management solution to improve bottom-line profits.*
- *Prioritizes customer's complaints automatically based on availability of technician for easy assignment.*
- *Greatly reduces need of staff for data processing operation.*
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