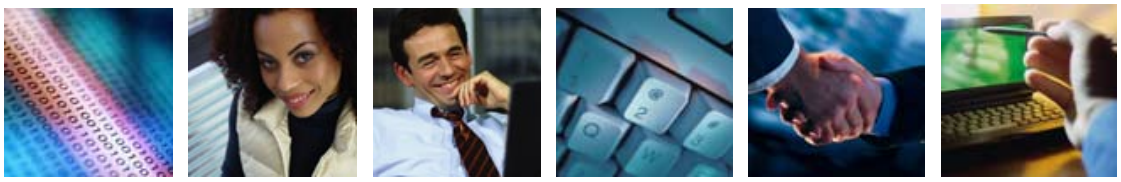
Information Control Corporation

Battelle
The Business of Innovation

Ohio Department of Commerce:

Elevator Inspection Proof of Concept
Functional Requirements Specification 1.0

June 22nd, 2004



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Change History

Date	Personnel	Description	Version
6/7/2004	Stephen J. Webb (ICC)	Initial Version	0.1
6/21/2004	Stephen J. Webb (ICC)	Added Screenshots	0.2
6/22/2004	Stephen J. Webb (ICC)	Final Version	1.0

1. High Level Overview:

1.1 General Description:

The Ohio Department of Administrative Services Information Technology Service Delivery Service Division recognized the need to provide an information transfer network to enable a diverse set of communication devices to be tied together to allow emergency first responders to communicate. As a first step in realizing this goal, Battelle and Information Control Corporation have been engaged to develop a set of requirements, perform an analysis and define a solution together with plans and estimated cost of implementation.

As part of that effort ICC has been engaged to perform a Proof of Concept that demonstrates the ability to execute wireless communication between tablet PC computers in the field to a remote server at the Department of Commerce. The Proof of Concept will be demonstrated using the Division of Industrial Compliance Elevator Inspection form wherein scheduled inspections will be received by inspectors on their demo tablet PC, inspection data will be collected on a form displayed on the tablet and the results will be transmitted back to the DOC server.

1.2 Objectives

The main objectives of this project are as follows:

- Working with the Department of Commerce Information Technology Group and Department of Industrial Compliance select an existing application and augment it with a wireless connection to a tablet PC computer.
- Develop an application on the tablet PC to enable DIC staff to perform some part of their job on the tablet PC, receiving and returning work data to the DOC server legacy application.
- Develop a program on the DOC server that will bridge the wireless application and the legacy server application. The interface between the ICC ‘adaptor’ on the server to the legacy application will be a flat file.
- Demonstrate the ability to transfer a scheduled inspection form to an inspector in the field and return inspection data back to the DOC server.

1.3 Refined Project Scope

This document applies to Ohio Department of Commerce' Elevator Inspection Proof of Concept project, for which Information Control Corporation (ICC) has been contracted to assist in the design and implementation processes.

1.3.1 Key Deliverables

- Tablet PC client application that pulls data wirelessly from the DOC server and displays an inspection form. The application will allow the inspector to complete some portion or most of their inspection process. The application will transmit the data back to the DOC server.
- Application on the DOC server that reads a flat file provided by DOC and converts the contents to data that can be pulled from the tablet client.
- Application (adaptor) on the DOC server that receives data sent wirelessly from the tablet PC and turns it into flat file format on the server.
- Final live demo.
- User documentation for the proof-of-concept.

1.3.2 High-Level Design Assumptions

The following outlines the major high-level design assumptions:

This is proof of concept application, and will not include functionality such as:

- Software that sends data directly into the DOC server legacy application. A flat file will be the data format between the DOC server and the Proof of Concept server adaptor.
- Any display on the DOC server.
- Any printing capability on either the DOC server or the tablet PC
- Any functionality on the tablet PC other than the ability to display the inspection form, record input data, receives and transmits to the DOC server.
- The inspection checklist. Note: While ICC does not commit to implementing the checklist as it is a separate application, time permitting, ICC will implement the checklist or port the existing spreadsheet to the tablet.
- Annual, Semi-Annual, or Re-inspection only. This application will not support first visits to new elevators.

2. Process Flows

Business process flows are used to diagrammatically describe the system under investigation. Process interaction diagrams describe the expected workflow including the interaction between the various systems and people involved in accomplishing the tasks described. Each of the following interaction diagrams describes a specific function which fulfills a portion of the system requirements.

2.1 Elevator Inspection Proof of Concept Process Flow

The following interaction diagram describes the workflow for the inspection job tickets.

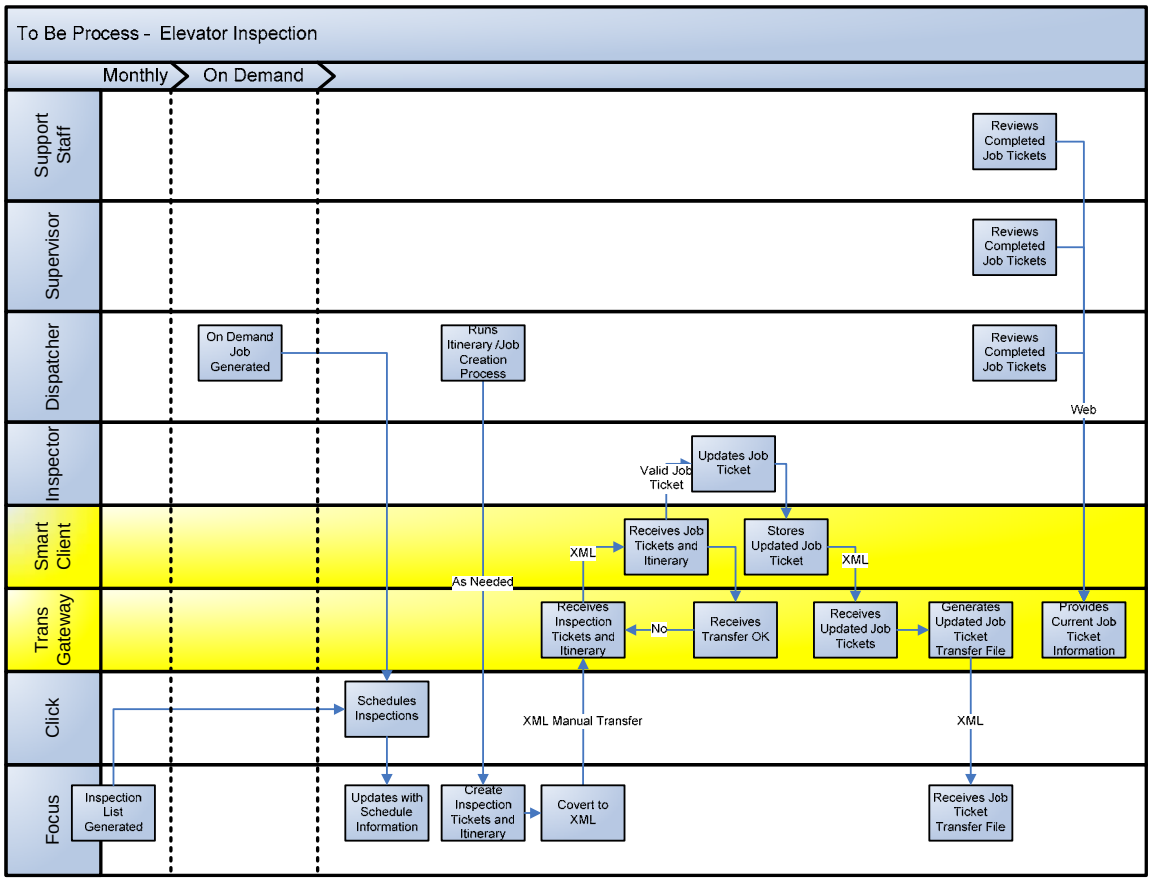


Figure 1

3. Use Cases

The following set of Use Cases describes the functionality that the envisioned *Ohio Department of Commerce Elevator Inspection Proof of Concept project* will provide. Developing Use Cases is an iterative process that involves more and more detail as new scenarios are discovered and described. Early iterations of Use Cases may contain a very high-level, low-detail view of how an Actor interacts with the system. In some cases, early Use Cases may only contain a Summary and a preliminary list of Actors involved. As more information is gathered, and a better understanding is established, Use Cases begin to mature and details are added to accurately reflect the processes involved.

3.1 Actors

Actors are considered to be any person or system that interacts with the system being documented, in this case, *Elevator Inspection Proof of Concept for Ohio Department of Commerce.*

Name	Description
Supervisor	Manages Inspectors
Support Staff	Supports Supervisors and Inspectors
Dispatcher	Schedules and dispatches Inspectors
Inspector	Performs field inspections and files out job tickets
Smart Client	The device and application carried by the Inspector
Transaction Gateway	The server side application
Click	The current scheduling application
Focus	The current job ticket application

3.2 Use Case Descriptions

Use Case Descriptions contain a written account of the way that Actors interact with the system. Use cases are split into three logical segments, the use case description, the expected work flow description, and the alternate work flow description(s).

3.2.1 Use case description

For the purposes of this document each topic in a Use Case Description is defined below:

Topic	Description
Summary	The Summary contains a very short description of the Use Case
Business Events	Business Events are triggers that stimulate activity within the business. Business Events must be atomic and observable
Actors	At least one or more of the Actors defined in the system is involved in every Use Case. This topic tells which ones apply.
Assumptions	Any assumptions made in the creation of the Use Case. As details of the Use Case are refined, assumptions begin to disappear. When assumptions are removed or are not present, this topic will contain a simple "N/A" for Not Applicable.
Preconditions	Preconditions identify what must be in place before the Use Case carries out its duties.
Description	The description contains an account of the details in a Use Case. It contains more information than the Summary and describes the aspects of the process not covered by other topics in the Use Case.
Associations	A list of other use cases that is use case is extended by or is used by
Inputs Summary	Summary level listing of data input by the actor(s).
Outputs Summary	Summary level listing of data output by the system.
Alternatives Paths and Exceptions	An alternative path is a sequence of actions in a Use Case that only happens in special circumstances. An exception occurs when the system forces an Actor through an alternative path rather than the Actor choosing the path voluntarily.
Post conditions	Post conditions identify what must be in place after the Use Case carries out its duties.
Termination Outcomes	The conditions and results for successful, unsuccessful, and alternate completion of the use case.
Notes	Information that is not directly part of the use case, but arises while working on the use case.

3.2.2 Events

This section describes the events that occur as part of the fulfillment of the use case detailed in the Use Case Description. The following format is used to describe both the flow of events and any alternate flow(s) that may exist.

Flow Name	Description

The "Flow Name" column is used to group the flow or portions of the flow being described. In the case where a use case has several segmented flows that make up the main work flow, each segment would be named in this column for clarity. The "Description" column contains a description of what will happen at the prescribed point in the workflow

3.3 Use Case Association Diagram

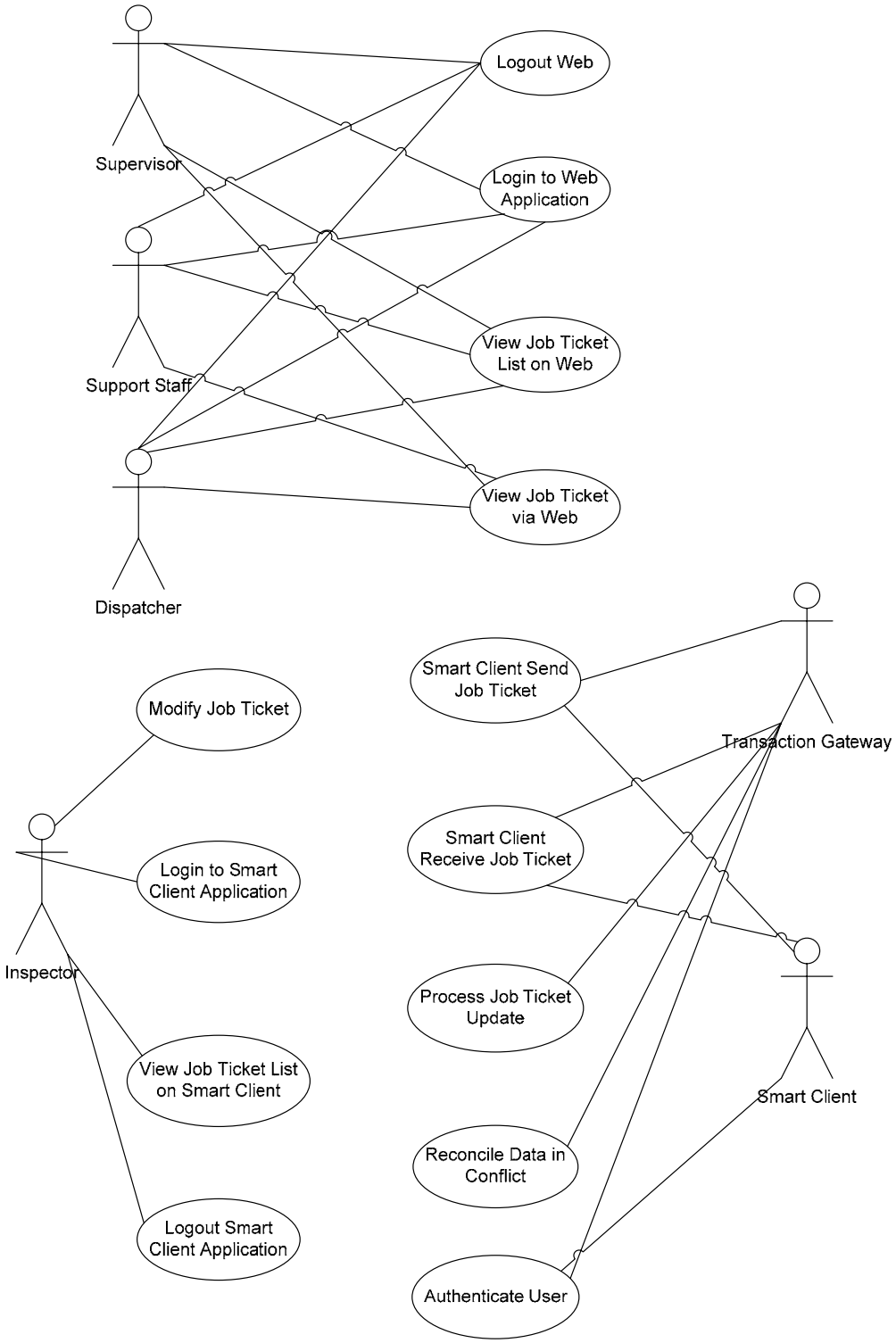


Figure 2

3.4 Use Cases

3.4.1 Use Case Authenticate User

Summary	Every user that wishes to access the Elevator Inspection Proof of Concept application must first be authenticated
Business Event(s)	
Actor(s)	Smart Client, Transaction Gateway
Assumptions	
Preconditions	Credentials for verification have been submitted to the system through an approved channel
Description	The system authenticates the user submitted in one of two ways, either directly online, or through the use of cached data (in a disconnected smart client).
Associations	Login to Web Application, Login in to Smart Client Application
Inputs Summary	<table><tr><th>Field</th><th>Data Type</th><th>Length</th></tr><tr><td>*LoginId</td><td>string</td><td>100</td></tr><tr><td>*Password</td><td>string</td><td>12</td></tr><tr><td>UserId</td><td>Int</td><td>4</td></tr></table>
Outputs Summary	Security Token
Alternative Paths and Exceptions	Invalid Password or User ID Unable to Authenticate User (data unavailable)
Post-conditions	A security Token is returned to the calling routine
Termination Outcomes	Unable to Authenticate User
Notes	There are no limits currently set on login attempts and no authentication timeout has been defined. All data will be encrypted for transfer.

3.4.1.1 Flow of Events

Flow Name	Description
Authentication	An authentication request is received

request	
	The system checks the user credentials
Authentication successful	Credentials are valid
	A security token, containing authorization information is generated
	The security token is returned to the calling routine

3.4.1.2 Alternate Flow of Events: Invalid Password or UserID

Flow Name	Description
Authentication fails	The authentication request fails either due to an invalid UserID or invalid Password
	System logs the failed login attempt
	System returns a login error to the calling routine

3.4.1.3 Alternate Flow of Events: Unable to Authenticate User

Flow Name	Description
Authentication fails	The authentication request fails because the login authority is unavailable
	The system logs the failed call to the login authority
	The system returns a login error to the calling routine

3.4.2 Use Case Login to Web Application

Summary	A user provides credentials to log into the web application
Business Event(s)	
Actor(s)	Supervisor Dispatcher Support Staff
Assumptions	The user has access to a workstation with a working internet browser
Preconditions	The user has a valid login and password.
Description	A user must first log into the system before any of the functionality may be accessed. To log into the web application a user provides a login id (a valid email address) and password
Associations	Authenticate User
Inputs Summary	<table><tr><th>Field</th><th>Data Type</th><th>Length</th></tr><tr><td>*LoginId</td><td>string</td><td>100</td></tr><tr><td>*Password</td><td>string</td><td>12</td></tr></table>
Outputs Summary	Success code Security Token
Alternative Paths and Exceptions	Invalid UserID or Password Unable to Authenticate User
Post-conditions	User is authenticated against the system and “moved” to their default workspace
Termination Outcomes	Invalid UserID or Password/Unable to Authenticate User – The user is returned to the login page
Notes	

3.4.2.1 Flow of Events

Flow Name	Description
Login	User navigates to application entry point
	User is prompted to enter login credentials
	User enters credentials
	Credentials are submitted to the system for approval
	Application receives success code and security token
	Application displays user’s default workspace

3.4.2.2 Alternate Flow of Events:

Flow Name	Description
Authentication failed	Failure displayed to user
	Returned to Login Screen

3.4.3 Use Case Login to Smart Client Application

Summary	A user provides credentials to log into the smart client application
Business Event(s)	
Actor(s)	Inspector Supervisor Support Staff
Assumptions	The user has the appropriate access to a functioning smart client and access to the device
Preconditions	The user has a valid login and password and has been assigned The appropriate role within the system.
Description	When a user first starts the Tablet smart client program they are prompted to provide credentials to log into the system. The smart client application authenticates the user against the system.
Associations	
Inputs Summary	<table><tr><th>Field</th><th>Data Type</th><th>Length</th></tr><tr><td>*LoginId</td><td>String</td><td>100</td></tr><tr><td>*Password</td><td>string</td><td>12</td></tr></table>
Outputs Summary	Success code Security Token
Alternative Paths and Exceptions	Invalid UserID or Password Unable to Authenticate User
Post-conditions	The user is authenticated against the system data and can access the smart client application
Termination Outcomes	Unable to Authenticate User
Notes	In the case of the smart client, Authentication and Authorization are executed in the same step. Any user who has access to the smart client application will be authorized to use all the functionality on the smart client.

3.4.3.1 Flow of Events

Flow Name	Description
Login	User starts Smart Client Application
	User is prompted to enter login credentials

	User enters credentials
	Credentials are submitted to Smart Client data cache for approval
	Smart Client approves user
	Smart Client displays users cached tasks in process

3.4.3.2 Alternate Flow of Events:

Flow Name	Description
Authentication failed	User is denied access to Smart Client functionality
	Returned to login screen

3.4.4 Use Case Logout Smart Client Application

Summary	User logs out of the system. The user may logout at any time
Business Event(s)	
Actor(s)	Inspector Supervisor
Assumptions	The user is logged into the system.
Preconditions	
Description	The user may elect to logout at any point in the user session and the state will be transmitted to the server. The application will ask the user to save any unsaved work
Associations	
Inputs Summary	
Outputs Summary	
Alternative Paths and Exceptions	
Post-conditions	The user is logged out of the system and unable to do any work until logged back in.
Termination Outcomes	
Notes	

3.4.4.1 Flow of Events

Flow Name	Description
Logout	User chooses the Logout button to initiate.
	Application prompts use to save unsaved work
	Application submits completed job tickets to message processing subsystem

3.4.4.2 Alternate Flow of Events: Connectivity Unavailable

Flow Name	Description
	User signs out but server is unreachable

	Work is queued by message delivery subsystem until connectivity returns

3.4.5 Use Case Logout Web

Summary	User logs out of the system or is automatically logged out after a period of inactivity. The user may log out at any time
Business Event(s)	
Actor(s)	Supervisor Dispatcher Support Staff
Assumptions	The user is logged into the system.
Preconditions	
Description	The system will log users out after a certain period of inactivity or the user may elect to logout at any point.
Associations	
Inputs Summary	
Outputs Summary	
Alternative Paths and Exceptions	
Post-conditions	The user is logged out of the system and unable to do any work until logged back in.
Termination Outcomes	
Notes	

3.4.5.1 Flow of Events

Flow Name	Description
Logout	User clicks logout button to initiate user logout.
	System notes period of inactivity and initiates user logout.
	System saves the state of the user.
	User is logged out.

3.4.5.2 Alternate Flow of Events:

Flow Name	Description

3.4.6 Use Case Modify Job Ticket

Summary	The inspector is able to complete a job ticket on the Smart Client
Business Event(s)	
Actor(s)	Inspector
Assumptions	A user is logged into the system.
Preconditions	
Description	The user is presented with a list of available job tickets, ordered by scheduled start time. The user may select any job ticket; edit any allowed fields on the job ticket. They may choose to mark a job as complete. It will then be transferred via the transaction gateway via the Smart Client Route Message use case.
Associations	Smart Client Route Message, Smart Client Receive Job Tickets
Inputs Summary	Job Ticket
Outputs Summary	Job Ticket
Alternative Paths and Exceptions	Edit Canceled Save Failed
Post-conditions	Changes to the job ticket are saved by the system
Termination Outcomes	
Notes	

3.4.6.1 Flow of Events

Flow Name	Description
Complete Job Ticket	Application generates Job Ticket list
	User selects Job Ticket from list
	User edits Job Ticket
	The user saves the Job Ticket
	If marked completed, The Job Ticket is queued for transfer by the system.

3.4.6.2 Alternate Flow of Events: Server Unavailable

Flow Name	Description
Edit Canceled	User is returned to main screen, all edits from last save are lost
Save Failed	The application notifies user that the save has failed, and displays any error messages.

3.4.7 Use Case Smart Client Send Job Ticket

Summary	Smart Client will send job tickets to the Transaction Gateway system to update Job Ticket data.
Business Event(s)	
Actor(s)	Smart Client System Transaction Gateway System
Assumptions	Smart Client is powered and can connect to Transaction Gateway system
Preconditions	Smart Client has queued job tickets for routing and they are ready to be processed. User must be logged into the system, and the application must be running
Description	The Transaction Gateway system will accept Job Tickets from the Smart Client, then route and process the them accordingly, returning a result job ticket
Associations	
Inputs Summary	Job Ticket
Outputs Summary	Job Ticket
Alternative Paths and Exceptions	System disconnects Job ticket cannot be processed by Transaction Gateway system
Post-conditions	
Termination Outcomes	System disconnects
Notes	

3.4.7.1 Flow of Events

Flow Name	Description
Connect	Smart Client waits for connection to be established
	Smart Client will notify Smart Client of connectivity change
	Smart Client reads send queue
Process	Smart Client sends job ticket
	Transaction Gateway system receives job ticket
	Transaction Gateway routes job ticket to file system

	Transaction Gateway builds acknowledgement
	Transaction Gateway returns acknowledgement
	Smart Client receives acknowledgement
	Smart Client marks Job Ticket as Transfered
	Loop Process

3.4.7.2 Alternate Flow of Events:

Flow Name	Description
System Disconnects	Smart Client holds job ticket in queue
Job Ticket Cannot be processed	Transaction Gateway writes error message to event log

3.4.8 Use Case Smart Client Receive Job Tickets

Summary	Smart Client will receive job ticket messages from the Transaction Gateway system.
Business Event(s)	
Actor(s)	Smart Client System Transaction Gateway System
Assumptions	Smart Client is powered and can connect to Transaction Gateway system
Preconditions	
Description	The Transaction Gateway system will send Job Tickets to the Smart Client, which will then route and process them accordingly, returning an acknowledgement.
Associations	
Inputs Summary	Job Ticket
Outputs Summary	Job Ticket,
Alternative Paths and Exceptions	System disconnects Job ticket cannot be processed by Smart Client system
Post-conditions	
Termination Outcomes	System disconnects
Notes	

3.4.8.1 Flow of Events

Flow Name	Description
Connect	Smart Client waits for connection to be established
	Smart Client will notify Smart Client of connectivity change
Process	Smart Client sends job ticket request
	Transaction Gateway system receives incoming request
	Transaction Gateway processes request
	Transaction Gateway returns result job ticket
	Smart Client receives result job ticket
	Smart Client routes job ticket to file system

	Smart Client builds acknowledgement
	Smart Client returns acknowledgement
	Transaction Gateway receives acknowledgement
	Transaction Gateway marks Job Ticket as transferred
	Loop Process

3.4.8.2 Alternate Flow of Events:

Flow Name	Description
System Disconnects	Smart Client holds request in queue
Job Ticket Cannot be processed	Smart Client Writes error to event log

3.4.9 Use Case Process Job Ticket Update

Summary	Smart Client job tickets are sent to Transaction Gateway system for updating
Business Event(s)	
Actor(s)	Transaction Gateway System
Assumptions	Smart Client has online connectivity
Preconditions	
Description	The Transaction Gateway system accepts job tickets and processes the data contained therein. Any concurrency conflicts are stored and the event log is updated.
Associations	Route Message
Inputs Summary	Update Data
Outputs Summary	Conflict Record
Alternative Paths and Exceptions	Connectivity Loss
Post-conditions	
Termination Outcomes	System disconnects
Notes	

3.4.9.1 Flow of Events

Flow Name	Description
Initiate	Inspector initiates update data
Process	Smart Client sends update
	Smart Client initiates Route Message
	Transaction Gateway system deserializes request
	Transaction Gateway queries current data
	Transaction Gateway compares current data to request **starting** data
	Transaction Gateway generates conflict record if data changes on server
	Transaction Gateway updates and saves data if no changes on

	server
	Inspector updates data, if wanted and resends LOOP
	Inspector ends if updates not wanted

3.4.9.2 Alternate Flow of Events:

Flow Name	Description
System Disconnects	Smart Client holds job ticket in queue
Queue Fails	Smart Client holds job ticket in queue

3.4.10 Use Case Reconcile Data in Conflict

Summary	The offline functionality offered by the smart client may result data conflicts between the server and the local (smart client) data sets.
Business Event(s)	
Actor(s)	
Assumptions	
Preconditions	
Description	If a remote user collects data and there is no connectivity to the server that data is stored locally until connectivity is restored. If the data that the remote user is updating is updated by another user before the remote user regains connectivity, there will be a conflict. When data is found to be in conflict, the system will create an event in the system event log
Associations	
Inputs Summary	Server Record Local Record
Outputs Summary	Reconciled Record
Alternative Paths and Exceptions	
Post-conditions	The data in the system has been accepted as accurate and either left as is or updated
Termination Outcomes	
Notes	

3.4.10.1 Flow of Events

Flow Name	Description
	System checks Job Ticket number
	If Ticket has already been received, message is sent to event log

3.4.10.2 Alternate Flow of Events:

Flow Name	Description

3.4.11 Use Case View Job Ticket List on Smart Client

Summary	Job Tickets are presented in list form, ordered by scheduled start time
Business Event(s)	
Actor(s)	Inspector
Assumptions	
Preconditions	
Description	The list is generated from all Job Tickets on the system. Summary data is displayed, in list form, ordered by scheduled start time. The user may select a job ticket to modify it. A button to synchronize data with the Transaction gateway is also displayed.
Associations	View Job Ticket
Inputs Summary	Job Tickets
Outputs Summary	Job Ticket.
Alternative Paths and Exceptions	Synchronize button pressed
Post-conditions	The Job Ticket List is displayed
Termination Outcomes	
Notes	

3.4.11.1 Flow of Events

Flow Name	Description
	System Display Job Ticket summary information in list form, ordered by agent, scheduled start time

3.4.11.2 Alternate Flow of Events:

Flow Name	Description
Synchronize button pressed	Smart Client send any Completed Job Tickets to Transaction Gateway
	Transaction Gateway sends any new Job Tickets to Smart Client

3.4.12 Use Case View Job Ticket List via Web

Summary	Job Tickets are presented in list form, ordered by inspector and scheduled start time
Business Event(s)	
Actor(s)	Supervisor Support Staff Dispatcher
Assumptions	
Preconditions	
Description	The list is generated from all Job Tickets on the system. Summary data is displayed, in list form, ordered by inspector and scheduled start time. The user may select a job ticket to display it.
Associations	View Job Ticket
Inputs Summary	Job Tickets
Outputs Summary	Job Ticket.
Alternative Paths and Exceptions	
Post-conditions	The Job Ticket List is displayed
Termination Outcomes	
Notes	

3.4.12.1 Flow of Events

Flow Name	Description
	System Display Job Ticket summary information in list form, ordered by agent, scheduled start time

3.4.12.2 Alternate Flow of Events:

Flow Name	Description

3.4.13 Use Case View Job Ticket via Web

Summary	A Job Ticket is displayed
Business Event(s)	
Actor(s)	Supervisor Dispatcher Support Staff
Assumptions	
Preconditions	
Description	All Job Ticket data is displayed via a web page. The job ticket is selected via use case View Job Ticket List via Web
Associations	View Job Ticket List
Inputs Summary	Job Ticket
Outputs Summary	
Alternative Paths and Exceptions	
Post-conditions	
Termination Outcomes	
Notes	

3.4.13.1 Flow of Events

Flow Name	Description
	System checks Job Ticket number
	System displays Job Ticket via web page

3.4.13.2 Alternate Flow of Events:

Flow Name	Description

4. High Level Application Architecture

The application is designed as a smart client application. It communicates wirelessly via encrypted web services. Job tickets are pushed and pulled via the Smart Client. The Transaction Gateway tracks job tickets sent and received, and displays job tickets on a web page.

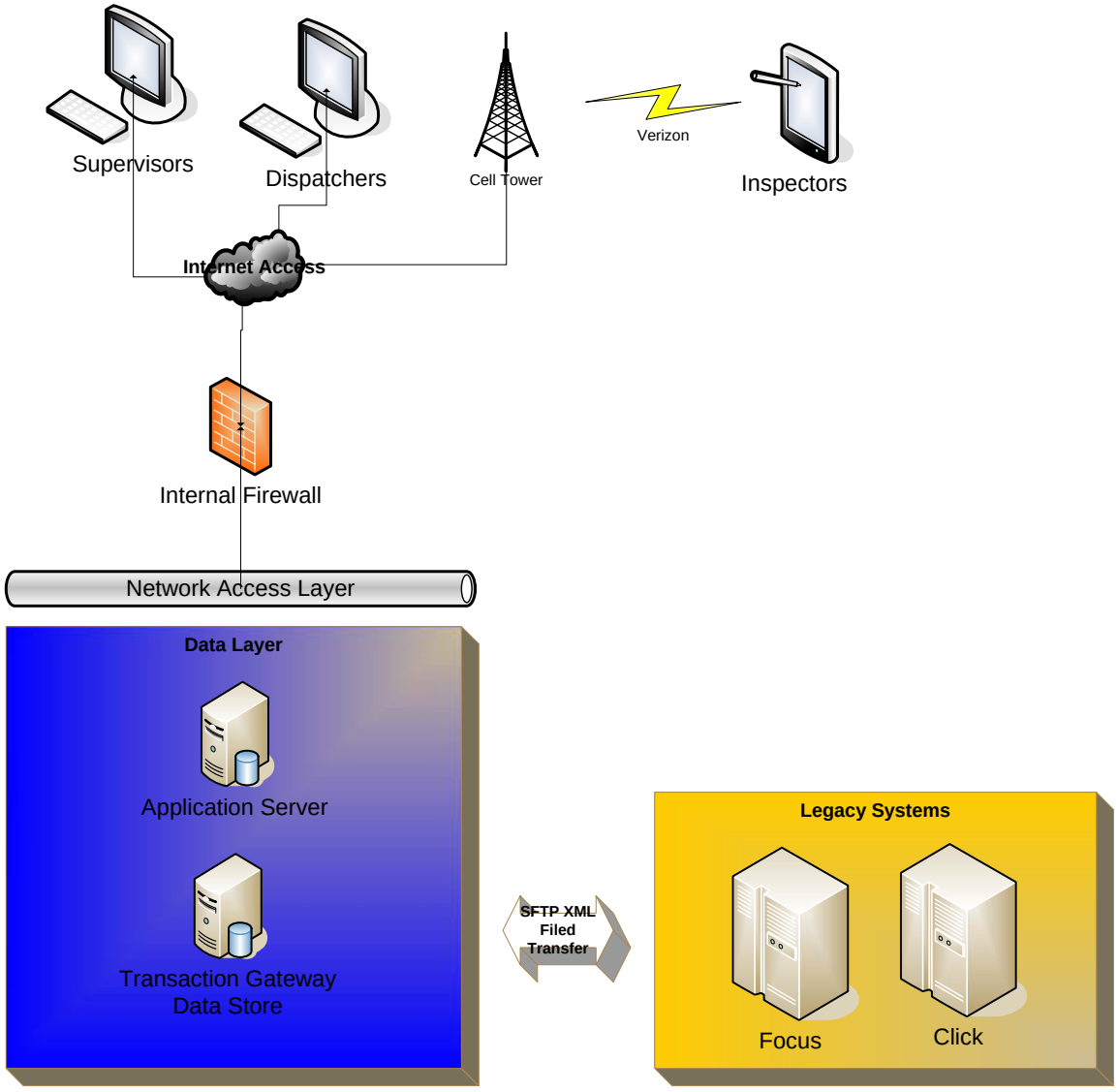


Figure 3

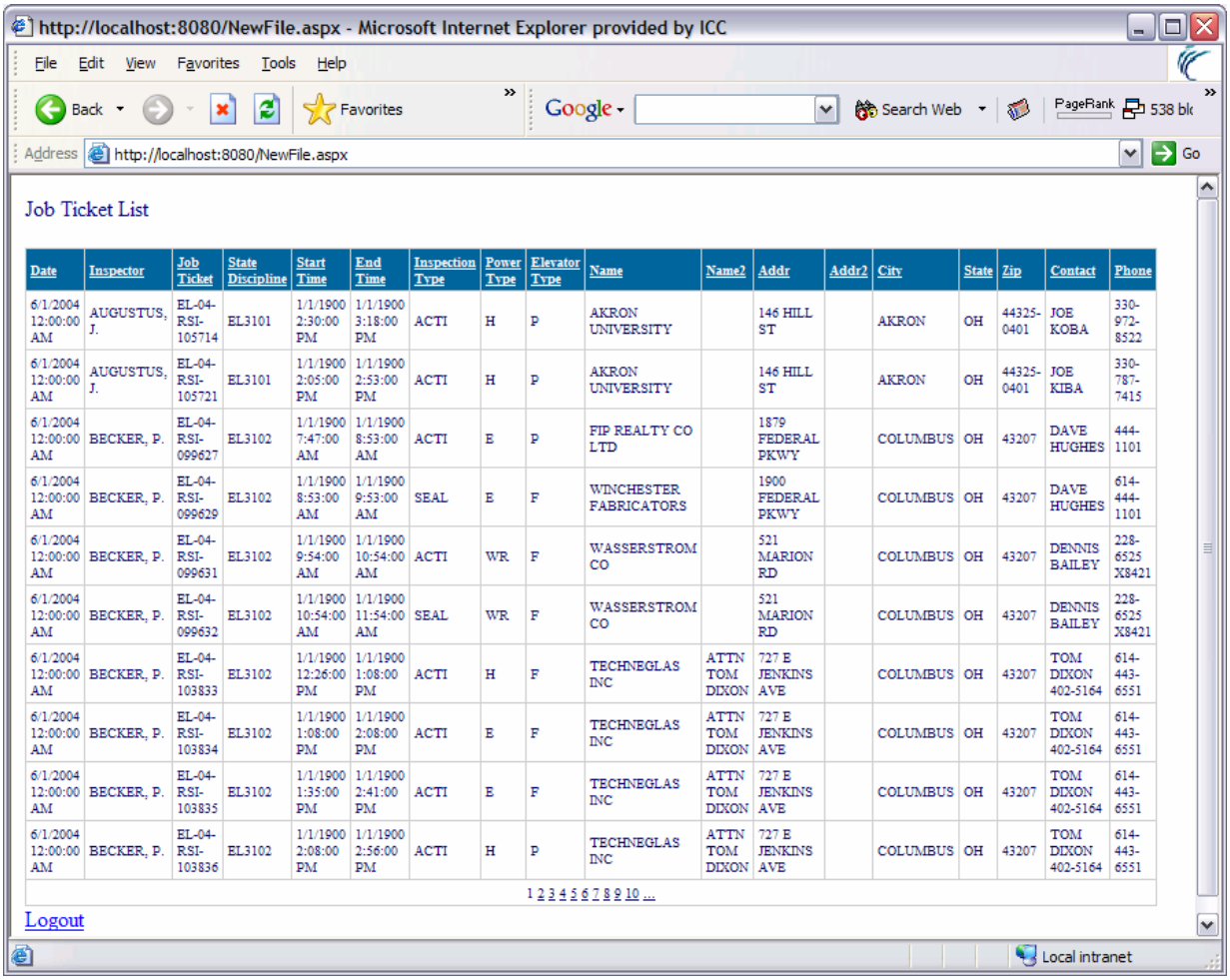
5. User Interfaces

This section offers mock-ups of application screens. The mock-ups are not final screen designs, but are to help visualize the data being displayed. Login and Logout screens mock-ups are not included, as they change little from application to application.

5.1.1 Web Screens

These screens are displayed by the Transaction Gateway. They allow users to review job tickets that pending transfer and those that have been returned from the smart client.

5.1.1.1 Job Ticket List Screen



Date	Inspector	Job Ticket	State Discipline	Start Time	End Time	Inspection Type	Power Type	Elevator Type	Name	Name2	Addr	Addr2	City	State	Zip	Contact	Phone
6/1/2004 12:00:00 AM	AUGUSTUS, J.	EL-04-RSI-105714	EL3101	1/1/1900 2:30:00 PM	1/1/1900 3:18:00 PM	ACTI	H	P	AKRON UNIVERSITY		146 HILL ST		AKRON	OH	44325-0401	JOE KOBA	330-972-8522
6/1/2004 12:00:00 AM	AUGUSTUS, J.	EL-04-RSI-105721	EL3101	1/1/1900 2:05:00 PM	1/1/1900 2:53:00 PM	ACTI	H	P	AKRON UNIVERSITY		146 HILL ST		AKRON	OH	44325-0401	JOE KIBA	330-787-7415
6/1/2004 12:00:00 AM	BECKER, P.	EL-04-RSI-099627	EL3102	1/1/1900 7:47:00 AM	1/1/1900 8:53:00 AM	ACTI	E	P	FIP REALTY CO LTD		1879 FEDERAL PKWY		COLUMBUS	OH	43207	DAVE HUGHES	444-1101
6/1/2004 12:00:00 AM	BECKER, P.	EL-04-RSI-099629	EL3102	1/1/1900 8:53:00 AM	1/1/1900 9:53:00 AM	SEAL	E	F	WINCHESTER FABRICATORS		1900 FEDERAL PKWY		COLUMBUS	OH	43207	DAVE HUGHES	614-444-1101
6/1/2004 12:00:00 AM	BECKER, P.	EL-04-RSI-099631	EL3102	1/1/1900 9:54:00 AM	1/1/1900 10:54:00 AM	ACTI	WR	F	WASSERSTROM CO		521 MARION RD		COLUMBUS	OH	43207	DENNIS BAILEY	228-6525 X8421
6/1/2004 12:00:00 AM	BECKER, P.	EL-04-RSI-099632	EL3102	1/1/1900 10:54:00 AM	1/1/1900 11:54:00 AM	SEAL	WR	F	WASSERSTROM CO		521 MARION RD		COLUMBUS	OH	43207	DENNIS BAILEY	228-6525 X8421
6/1/2004 12:00:00 AM	BECKER, P.	EL-04-RSI-103833	EL3102	1/1/1900 12:26:00 PM	1/1/1900 1:08:00 PM	ACTI	H	F	TECHNEGLAS INC	ATTN TOM DIXON	727 E JENKINS AVE		COLUMBUS	OH	43207	TOM DIXON 402-5164	614-443-6551
6/1/2004 12:00:00 AM	BECKER, P.	EL-04-RSI-103834	EL3102	1/1/1900 1:08:00 PM	1/1/1900 2:08:00 PM	ACTI	E	F	TECHNEGLAS INC	ATTN TOM DIXON	727 E JENKINS AVE		COLUMBUS	OH	43207	TOM DIXON 402-5164	614-443-6551
6/1/2004 12:00:00 AM	BECKER, P.	EL-04-RSI-103835	EL3102	1/1/1900 1:35:00 PM	1/1/1900 2:41:00 PM	ACTI	E	F	TECHNEGLAS INC	ATTN TOM DIXON	727 E JENKINS AVE		COLUMBUS	OH	43207	TOM DIXON 402-5164	614-443-6551
6/1/2004 12:00:00 AM	BECKER, P.	EL-04-RSI-103836	EL3102	1/1/1900 2:08:00 PM	1/1/1900 2:56:00 PM	ACTI	H	P	TECHNEGLAS INC	ATTN TOM DIXON	727 E JENKINS AVE		COLUMBUS	OH	43207	TOM DIXON 402-5164	614-443-6551

1 2 3 4 5 6 7 8 9 10 ...

This screen displays a list of job tickets, ordered by inspector, start date, and start time. Clicking on a line will display the Job Ticket.

5.1.1.2 Web Job Ticket Screen

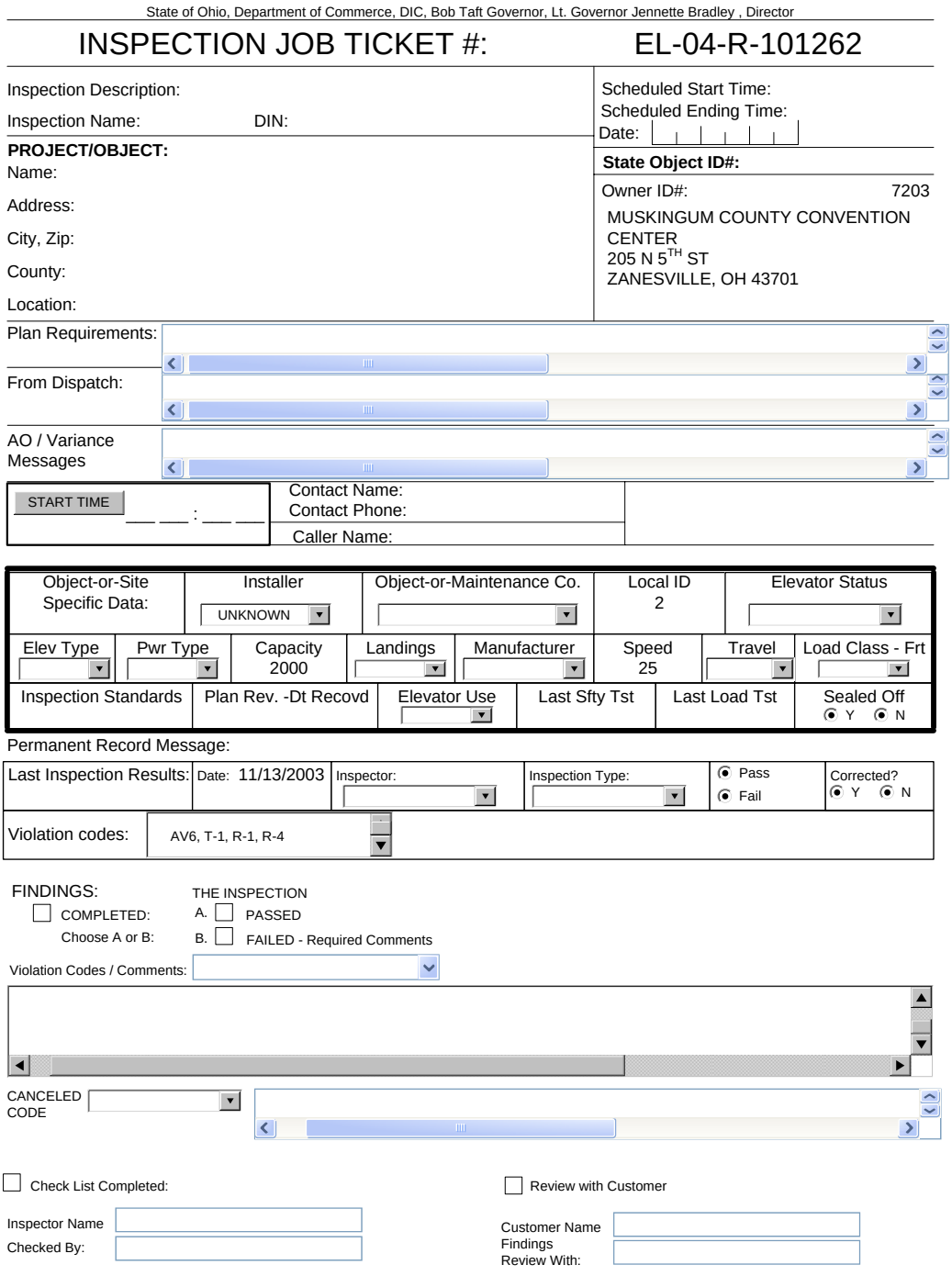


Figure 4

Each Job Ticket is displayed read only. All data contained on the ticket is displayed, including any information entered by the inspector on the smart client.

5.1.2 Smart Client Screens

5.1.2.1 Welcome (Main Workspace)

The main workspace is where the user is directed after login, most application functions are initiated from this screen.

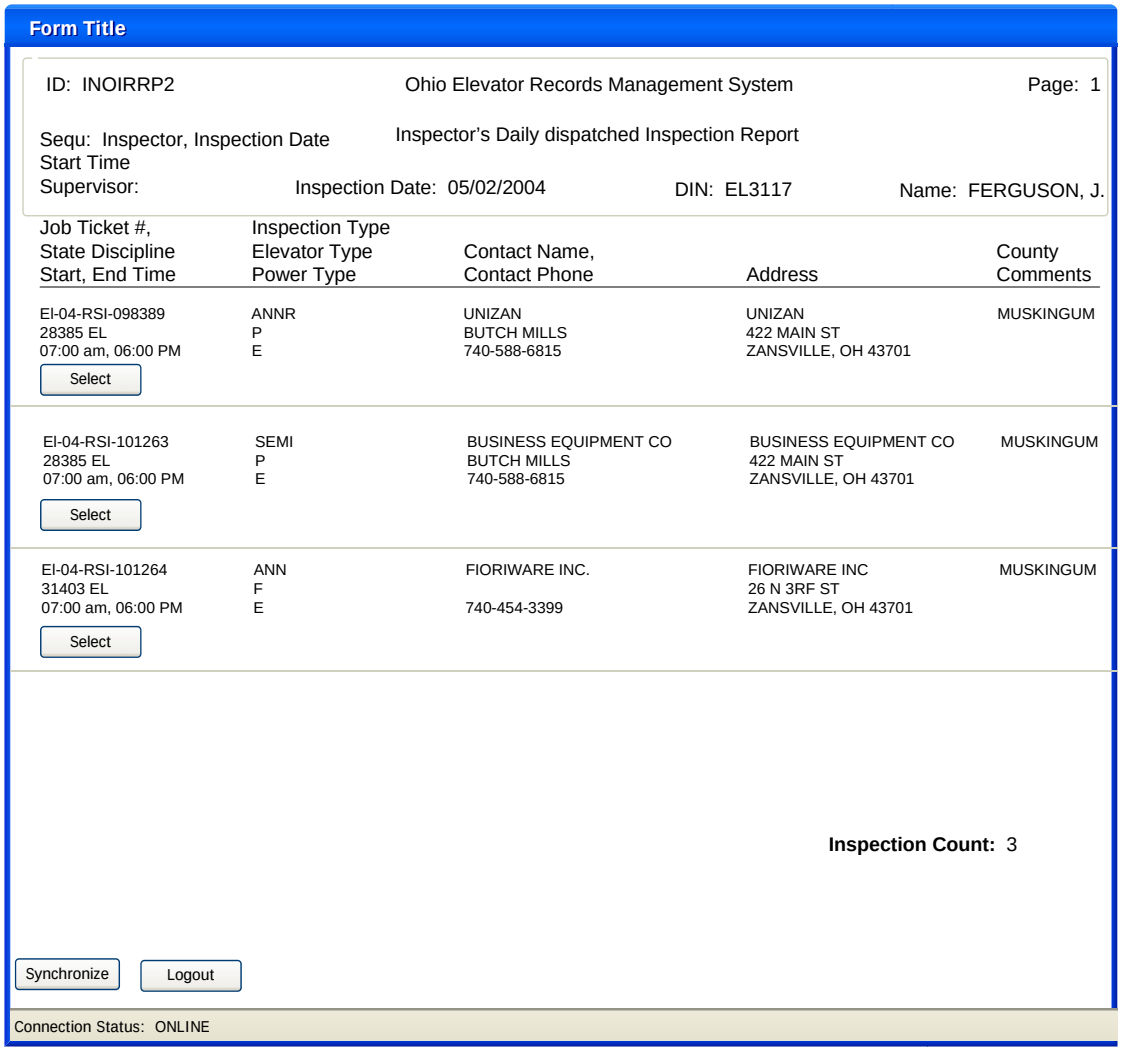


Figure 5

All uncompleted job tickets are displayed, in order of start time. Clicking on the select button will display the Job Ticket Screen. The Synchronize button causes the application to check for pending tickets and transfer any completed tickets. The logout button returns the application to the login screen.

5.1.2.2 Job Ticket Screen

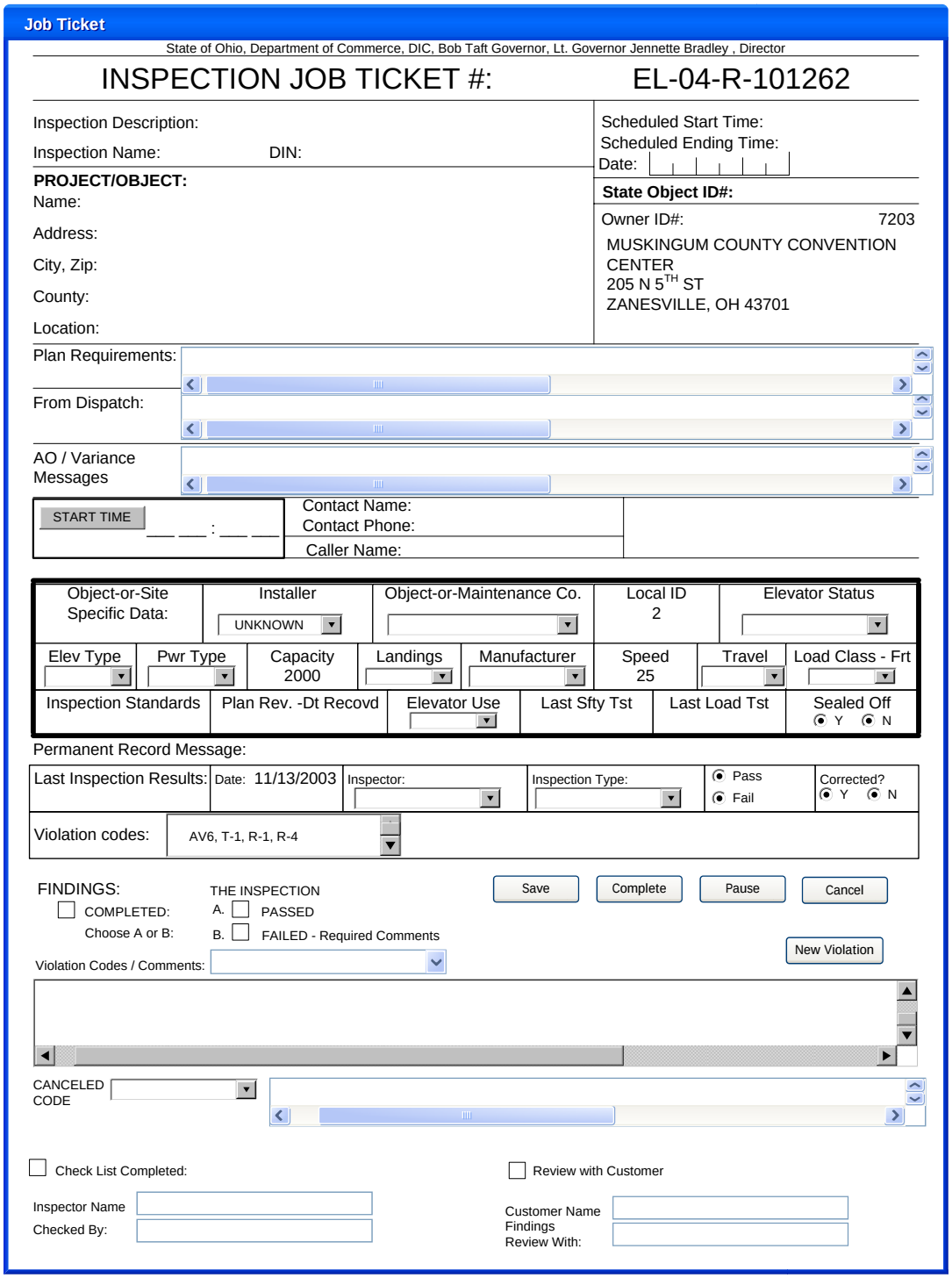


Figure 6

The form allows the inspector to modify the same fields they do today. The Pause button saves any changes, and stops the job timer. Cancel returns to the previous screen. Complete saves the ticket, and marks it for transfer. Save saves the current Job Ticket.

6. Environment

6.1.1 Hardware:

6.1.1.1 Servers

Intel CPU 1 GHZ or greater
256 MB Memory or greater
2 GB free disk space

6.1.2 Server Software:

SQL Server 2000
Windows Server 2000 or 2003
.NET Framework 1.1
ASP.NET

6.1.3 Development Software

Browser: IE 5.0 or later
Visual Studio 2003

6.1.4 Client

Browser: IE 5.0 or later
Windows XP Tablet Edition
Tablet PC with 5 GB of free disk space and 256 MB or greater of memory

6.1.5 Special

Verizon Wireless network cards

Appendix A: Sign-off

The signature of this document provides the approval of the Elevator Inspection Proof of Concept project to the overall functionality and design of the application represented in this document. This also provides the approval to proceed forward with the design into the development phase:

*W. Thomas Hart*_____ *Date:* _____

Chief Information Officer, Ohio Department of Commerce

Bruce Reed _____ *Date:* _____

Project Manager, Managed Solutions Group - Information Control Corporation