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**Office of Public Health**

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**Office of Public Health  
Software Design Specification  
For Bio Terrorism Incident Tracking System**

**Version <1.1>**

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Department Manager

Date

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Project Manager / CIO

Date

Office of Public Health	Version: 1.0
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## Revision History

Date	Version	Description	Author
02/03/2003	1.0	Original Version	Rajesh Joish, DCC Services
04/17/2003	1.1	Revised Version	Rajesh Joish, DCC Services

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# Software Design Specification Document

## 1. Introduction

### 1.1 Goals and Objectives

The goal of this system is to enable easy entry of B.T Incident data for LA Department of Public Safety and Office of Public Health personnel.

### 1.2 Major Constraints

### 1.3 Assumptions

- The users of this system will have access to Internet Explorer 5.5 and be able to get to the application server, which would host this application.
- Each B.T Incident would be owned by an organization. As of now, two organizations may not share the B.T Incident.
- Each B.T Incident would have one and only one Safety Officer in charge of the case.
- Each B.T Incident would have one and only one complainant/recipient.
- Each B.T Incident would have one and only one LSP CIR number (Number generated by LA Department of Public Safety)
- Each B.T Incident would have one and only one Lab Number associated with it.
- Each B.T Incident would have one and only one Specimen associated with it.
- Bt\_Users (definition provided in the next section) would not be restricted from viewing/editing any record in this system.
- This system has been designed with the assumption that the host application server would support EJB 2.0 specification
- LSP\_CIR\_NO: LA Department of Public Safety will not reuse the same LSP\_CIR\_No for multiple B.T Incidents.
- It is acceptable for all the users to see all the Local Law Enforcement/safety Officers (Confirmed from Stacy Hall on 03/10/2003)
- Complaint, Lab\_results, inside\_description, outside\_description, Epi Comments would not exceed 4000 characters in length.
- Every user of the B.T Incident tracking system would have his/her own userid and password
- When the local law enforcement user tries to access the OPH Portal system for the first time, to modify a Bt Incident assigned to him/her, he/she would have to go through a user registration process. The user registration process would authenticate the user based on the combination of user's first name, last name and LspCIR number and Email Id. The user registration process and the corresponding screens do not fall with in the scope of our project plan
- As of now, the Safety Officer information is stored in the Safety\_Officer table. Eventually this table is to be synchronized with the entries in LDAP. This design and specific mechanics of this synchronization process have not been finalized and beyond the scope of this project.

### 1.4 Restrictions

- LA Dept of Public Safety personnel may view records entered by their department in the same parish.
- Users should first acquire a portal user id and password before gaining access to B.T Incident tracking system.
- Cookies should be enabled on user machines to access this system.

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- B.T Incident tracking system would only track the last person who has modified the B.T Incident record. For example: If 10 users modified the record, BT Incident Tracking system captures only the last person who has modified the record.

## 1.5 User Roles accessing Bt Incident Tracking System

Bt\_User – Epi Central Site Users, Epi Regional Users. These users would be able to pull up any Bt Record in the database and be able to modify LSPCIR Info, Safety Officer Info, Delivery Info, Epi Comments.

Bt\_Lab\_user – These users would be able to pull up any record and be able to update the Lab Info Section of Bt Incident.

Bt\_state\_police\_user – These users receive the calls from either local law enforcement agencies and insert a new LSPCIR Number into the database.

Bt\_public\_safety\_user- These users pull up a Bt Incident record based on the LSP Cir number they receive from State Police (Bt\_State\_Police\_user) and populate Info and Delivery Information. Both Deliverers and Safety Officers fall in this category.

Note: During the requirements meeting held on 03/27/2003 (attended by Dr. Ratard, Stacy Hall, Dielda Roberston, Gary Balsamo, Terri Wong, Karl Bosch and Rajesh Joish), it was decided that BT Incident Tracking System would restrict access to a B.T Record based on the User Id. This is in contrast to the previous requirement where users within the same organization would gain access to all records owned by the Organization. The above restriction applies only to Bt\_public\_safety\_user.

Note: On 04/04/2003, BT Team decided to come up with a list of Local law enforcement agencies in the state. If this list is procured, then it would become feasible restrict the visibility of BT incident record to the all the safety officers working in the same organization. This is a requirements deviation from what was decided on 03/27/2003.

## 1.6 Data Structures

### 1.6.1 BT\_Delivery\_Mode

BT\_Delivery\_Mode stores the different delivery modes by which a specimen could be delivered to a recipient. Example: USPS, UPS, Fedex etc. Description of the data structure is as follows:

Name	Null?	Type
DELIVERY_MODE_UID		NOT NULL NUMBER(10)
DESCRIPTION		NOT NULL VARCHAR2(50)
CRT_USER		NOT NULL VARCHAR2(256)
CRT_DATE		NOT NULL DATE
UPD_USER		VARCHAR2(256)
UPD_DATE		DATE

### 1.6.2 BT\_Delivery\_Location

BT\_Delivery\_location stores various locations where the specimen could be delivered at the recipient address. Example: In front of the door, By the stair way etc. Table description is as follows:

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Name	Null?	Type
DELIVERY_LOCATION_UID		NOT NULL NUMBER(10)
DESCRIPTION		NOT NULL VARCHAR2(50)
CRT_USER		NOT NULL VARCHAR2(256)
CRT_DATE		NOT NULL DATE
UPD_USER		VARCHAR2(256)
UPD_DATE		DATE

### 1.6.3 BT\_Safety\_Officer

This table stores information about all the Safety Officers from the Local Law enforcement agencies who have reported B.T Incidents till date. Each BT\_Safety\_Officer may report one or more BT\_Incidents. Table description is as follows:

Safety_Officer_UID	NOT NULL NUMBER
FIRST_NAME	NOT NULL VARCHAR2(50)
LAST_NAME	NOT NULL VARCHAR2(50)
ORGANIZATION	VARCHAR2(256)
ADDRESS	VARCHAR2(256)
CITY	VARCHAR2(50)
STATE	VARCHAR2(2)
TELEPHONE	VARCHAR2(12)
FAX	VARCHAR2(12)
EMAIL	VARCHAR2(50)
CRT_USER	NOT NULL VARCHAR2(256)
CRT_DATE	NOT NULL DATE
UPD_USER	VARCHAR2(256)
UPD_DATE	DATE
ZIP	NUMBER(5)

### 1.6.4 BT\_Incident

This is the main table that stores the information about each occurrence of a B.T Incident. Each B.T Incident will correspond to one and only LSP\_Cir\_No issued by LA Department of Public Safety. This table also stores BT\_Delivery\_info and Lab information. Description of the table:

BT_INCIDENT_UID	NOT NULL NUMBER(10)
LSP_CIR_NO	NOT NULL VARCHAR2(25)
LOCATION	VARCHAR2(256)
REPORT_AREA_UID	NUMBER(10)
SCREENED_FLAG	NOT NULL VARCHAR2(1)
SAFETY_OFFICER_FIRST_NAME	NOT NULL VARCHAR2(50)
SAFETY_OFFICER_LAST_NAME	NOT NULL VARCHAR2(50)
SAFETY_OFFICER_ORGANIZATION	VARCHAR2(256)
SAFETY_OFFICER_ADDRESS	VARCHAR2(256)
SAFETY_OFFICER_CITY	VARCHAR2(50)
SAFETY_OFFICER_STATE	VARCHAR2(2)
SAFETY_OFFICER_TELEPHONE	VARCHAR2(12)

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SAFETY_OFFICER_FAX	VARCHAR2(12)
SAFETY_OFFICER_EMAIL	VARCHAR2(50)
COMPLAINT_TIME	VARCHAR2(5)
COMPLAINT_DATE	DATE
OFFESE_TIME	VARCHAR2(5)
OFFESE_DATE	DATE
COMPLAINT	VARCHAR2(4000)
DELIVERY_MODE_UID	NOT NULL NUMBER(10)
OTHER_DELIVERY_MODE	VARCHAR2(100)
DELIVERY_TIME	VARCHAR2(5)
DELIVERY_DATE	DATE
DELIVERY_LOCATION_UID	NUMBER(10)
OTHER_DELIVERY_LOCATION	VARCHAR2(100)
DELIVERY_POSTAGE_AMT	NUMBER(4,2)
PACKAGE_DESCRIPTION	VARCHAR2(1000)
POSTMARK_ORIGIN	VARCHAR2(100)
TRACKING_NO	VARCHAR2(20)
RETURN_ADDRESS_NAME	VARCHAR2(256)
RETURN_ADDRESS	VARCHAR2(256)
RETURN_CITY	VARCHAR2(50)
RETURN_STATE	VARCHAR2(2)
RETURN_ADDRESS_ZIP	NUMBER(5)
RECIPIENT_NAME	VARCHAR2(256)
RECIPIENT_ADDRESS	VARCHAR2(256)
RECIPIENT_CITY	VARCHAR2(50)
RECIPIENT_STATE	VARCHAR2(2)
RECIPIENT_ZIP	NUMBER(10)
LAB_UID	NUMBER(10)
LAB_DELIVERY_DATE	DATE
LAB_DELIVERY_TIME	VARCHAR2(5)
LAB_OUTSIDE_DESCRIPTION	VARCHAR2(4000)
LAB_INSIDE_DESCRIPTION	VARCHAR2(4000)
LAB_COMMENTS	VARCHAR2(4000)
LAB_RESULTS	VARCHAR2(4000)
LAB_CRT_USER	VARCHAR2(256)
LAB_CRT_DATE	DATE
LAB_UPD_USER	VARCHAR2(256)
LAB_UPD_DATE	DATE
CRT_USER	NOT NULL VARCHAR2(256)
CRT_DATE	NOT NULL DATE
UPD_USER	VARCHAR2(256)
UPD_DATE	DATE
OWNER_ORGANIZATION	VARCHAR2(256)

Note: Karl Bosch decided on the existing structure of Bt\_Incident. Since there was a 1-1 relationship between Bt\_Incident, Recipient, Lab\_Report and Delivery\_Information, it was decided that a complete denormalization strategy would speed up the development effort.

By default when the record is created by the State Police user, his/her userid would be captured in the CRT\_USER column. In point of view of the application, the record will belong to the owner\_organization of the Bt\_incident record.

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### BT\_Exposed\_Person

This table stores a list of people who were exposed to various BT samples. Each BT Incident could have zero or more exposed people. Table description shown below:

Name	Null?	Type
-----		
EXPOSED_PERSON_UID		NOT NULL NUMBER
NAME		NOT NULL VARCHAR2(50)
DAY_PHONE		VARCHAR2(14)
ALTERNATE_PHONE		VARCHAR2(14)
CRT_USER		NOT NULL VARCHAR2(256)
CRT_DATE		NOT NULL DATE
UPD_USER		VARCHAR2(256)
UPD_DATE		DATE
BT_INCIDENT_UID		NOT NULL NUMBER(10)
DELETE_FLAG		VARCHAR2(1)

Components

### 1.7 Data Objects

Almost all information passed around the main BT application components are encapsulated within data classes. These classes hold the data used by the application.



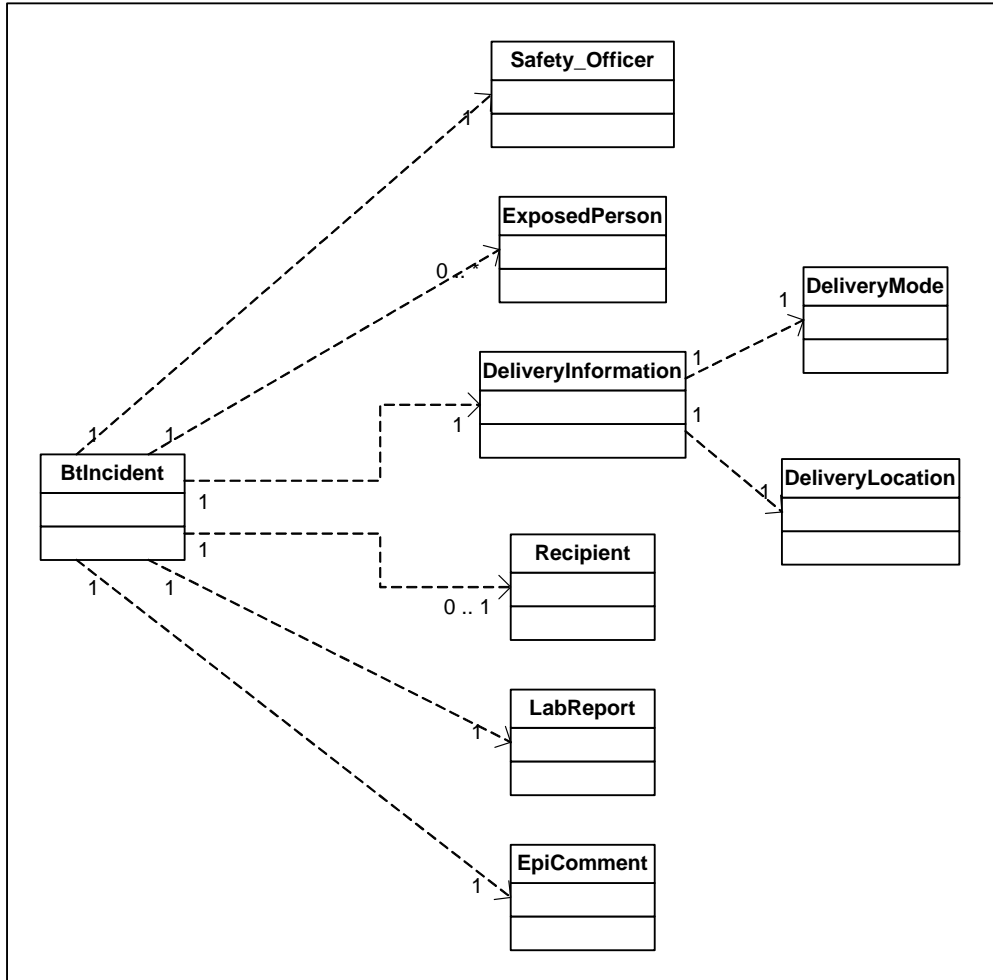


Figure 1.2 – Data Object Class Diagram

The main data object class is the BTIncident class. This class contains information related to a Bio Terrorism incident (BT incident). It is a composite class and contains all the other data object classes, which hold the data that make up an incident.

### BTIncident Class

This class represents the entire BT incident. It has get and set methods for the following fields:

<b>protected int</b>	<b>iBtIncidentUid = 0;</b>
<b>protected ReportArea</b>	<b>iReportArea = new ReportArea();</b>
<b>protected String</b>	<b>iBtIncidentCity = "";</b>
<b>protected String</b>	<b>iLspCirNo = "";</b>
<b>protected String</b>	<b>iLocation = "";</b>
<b>protected String</b>	<b>iScreenedFlag = "";</b>
<b>protected String</b>	<b>iThreatType = "";</b>
<b>protected String</b>	<b>iCrtUser = "";</b>
<b>protected Date</b>	<b>iCrtDate;</b>
<b>protected String</b>	<b>iUpdUser = "" ;</b>
<b>protected Date</b>	<b>iUpdDate;</b>
<b>protected String</b>	<b>iComplaint = "";</b>
<b>protected String</b>	<b>iOffenseTime = "";</b>

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```

protected Date      iOffenseDate;
protected String    iComplaintTime = "";
protected Date      iComplaintDate;
protected String    iEpiComments="";
protected String    iOwnerOrganization="";
protected Status    iFinalStatus = new Status();
protected SafetyOfficer iSafetyOfficer = new SafetyOfficer();
protected DeliveryInformation iDeliveryInformation = new
DeliveryInformation();
protected Vector    iExposedPersonList = new Vector();
protected LabReport  iLabReport = new LabReport();
protected Recipient  iRecipient = new Recipient();

```

### **BtSessionManager Class**

This class manages the BT-related information that needs to be maintained in the session. It also provides a simple way to add objects to and get objects from the session. A new Session is created in the Incident\_search.jsp if one does not already exist for the user. When the session is created for the user, BtSessionManager.getBtSessionManager method, loads the following information into the user session

- User Organization – This would be retrieved from the LA OPH User object
- Lab List – List of laboratories from the Lab table in the database
- Status List – List of Statuses from the bt\_status table in the database
- Delivery Mode List – List of Delivery modes from Delivery\_mode table in the database
- Delivery Location List-List of Delivery locations from Delivery\_Location table in the database
- Report Area List – List of Report Areas from Report Area table
- User Role List – List of roles the user has access to. This is to be retrieved from the User object. (Note that the LA Oph User object in turn retrieves this information from OID). This information is necessary to check for user roles so that the permissions the user has to access various sections of this application could be determined

Once BtSessionManager is initialized, it is passed between components of the application, so that each of them may access user/session specific information. List of attributes of the BtSessionManager class are shown below. These attributes are populated by methods in the BtSessionManager class as described above.

```

protected final static String  DEFAULT_CRT_USER = "none-provided";
protected static PrintHandler  iPrintHandler = new SystemPrintHandler();
protected BtController         iController = new BtController("TESTUSER",
iPrintHandler);
protected Vector               iLabList = new Vector();
protected Vector               iStatusList = new Vector();
protected Vector               iReportAreaList = new Vector();
protected Vector               iDeliveryModeList = new Vector();
protected Vector               iDeliveryLocationList = new Vector();
protected BtIncident           iBtIncident = new BtIncident();
protected Vector               iRoles = new Vector();
protected String               iCrtUser = "RJ";
protected String               iCrtUserOrganization = "";

```

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**protected boolean                    iIsSessionAuthenticated = false;**

### **SafetyOfficer Class**

This class holds information related to the person or organization who is bringing the BT incident to OPH's attention.

- **protected int    iSafetyOfficerUid;**
- **protected String iFirstName = "";**
- **protected String iLastName = "";**
- **protected String iOrganization = "";**
- **protected String iAddress = "";**
- **protected String iCity = "";**
- **protected String iState = "";**
- **protected String iZip = "";**
- **protected String iTelephone = "";**
- **protected String iFax = "";**
- **protected String iEmail = "";**
- **protected String iCrtUser = "";**
- **protected Date    iCrtDate;**
- **protected String iUpdUser = "";**
- **protected Date    iUpdDate;**

### **ExposedPerson Class**

This class represents people who may have been exposed to the incident.

```
protected int    iExposedPersonUid;
protected String iName = "";
protected String iDayPhone = "";
protected String iAlternatePhone = "";
protected String iDeleteFlag = "";
protected String iCrtUser = "";
protected Date    iCrtDate ;
protected String iUpdUser = "";
protected Date    iUpdDate;
```

### **DeliveryInformation Class**

This class represents the delivery information of the BT item.

```
protected DeliveryLocation    iDeliveryLocation = new DeliveryLocation();
protected DeliveryMode iDeliveryMode = new DeliveryMode();
protected String    iOtherDeliveryMode = "";
protected String    iDeliveryTime = "";
protected Date    iDeliveryDate ;
protected String    iOtherDeliveryLocation = "";
protected float    iPostageAmt = 0.00f;
protected String    iPostageDescription = "";
protected String    iPostmarkOrigin = "";
protected String    iTrackingNo = "";
protected String    iReturnAddressName = "";
protected String    iReturnAddress = "";
protected String    iReturnCity = "";
protected String    iReturnState = "";
```

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**protected String iReturnZip = "";**

### Recipient Class

This class represents the Recipient of the BT item or package.

- **protected String iName = "";**
- **protected String iOccupation = "";**
- **protected String iAddress = "";**
- **protected String iCity = "";**
- **protected String iState = "";**
- **protected String iZip = "";**
- **protected String iTelephone = "";**

### LabReport Class

This class represents the Lab Information, tests, and results on submitted BT items as entered by laboratory personnel.

- **protected Lab iLab = new Lab();**
- **protected String iLabRecordNo = "";**
- **protected Date iSpecimenCollectionDate;**
- **protected String iSpecimenCollectionTime = "";**
- **protected Date iLabDeliveryDate;**
- **protected String iLabDeliveryTime = "";**
- **protected String iOutsideDescription = "";**
- **protected String iInsideDescription = "";**
- **protected String iLabComments = "";**
- **protected String iLabResults = "";**
- **protected Status iLabStatus = new Status();**
- **protected String iLabCrtUser = "";**
- **protected Date iLabCrtDate;**
- **protected String iLabUpdUser = "";**
- **protected Date iLabUpdDate;**

### Lab Class

- **protected int iLabUid;**
- **protected String iLabName = "";**

### DeliveryMode Class

This class corresponds to the bt\_delivery\_mode code table.

- **protected int iDeliveryModeUid;**
- **protected String iDescription = "";**
- **protected String iCrtUser = "";**
- **protected Date iCrtDate;**
- **protected String iUpdUser = "";**
- **protected Date iUpdDate;**

### DeliveryLocation Class

This class corresponds to the bt\_delivery\_location code table.

- **protected int iDeliveryLocationUid;**
- **protected String iDescription = "";**
- **protected String iCrtUser = "";**
- **protected Date iCrtDate;**
- **protected String iUpdUser = "";**

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- **protected Date** iUpdDate;

### Report Area Class

This class stores Report Areas from the Report\_Area table

- **protected int** iReportAreaUid;
- **protected int** iRegion;
- **protected String** iRegionName = "";
- **protected String** iCounty = "";
- **protected String** iCity = "";

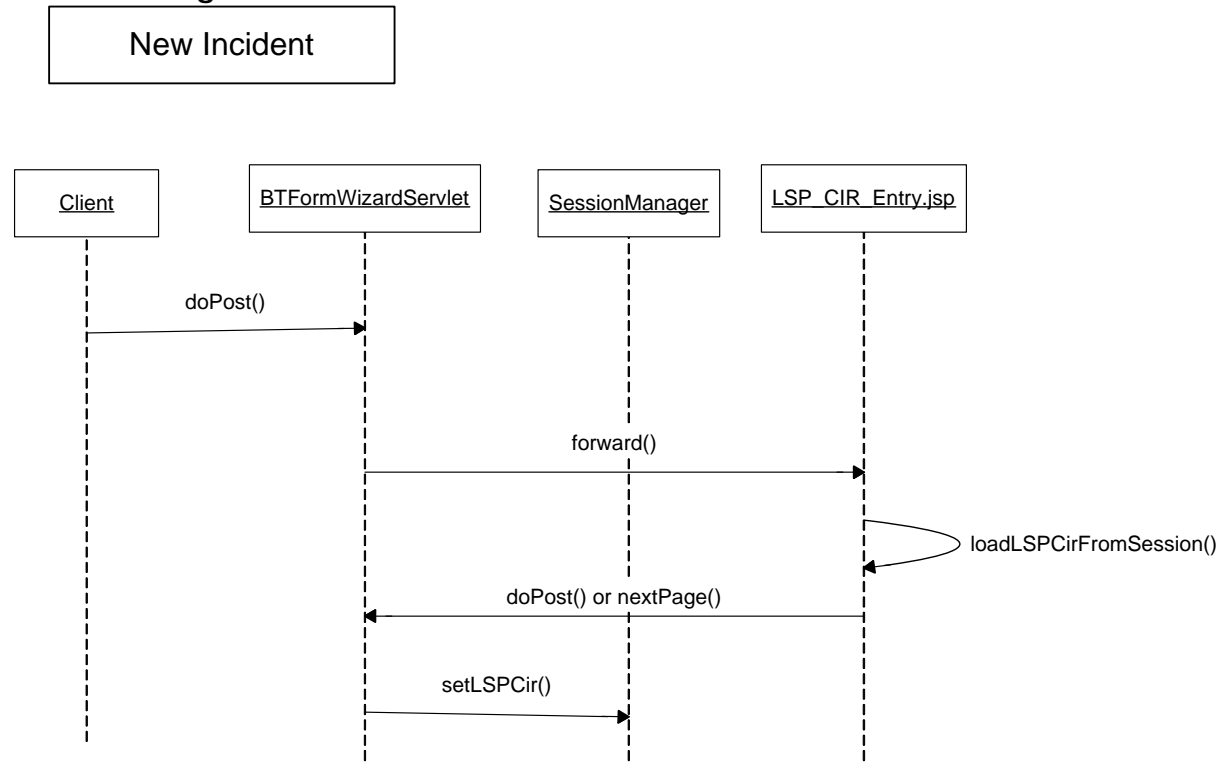
### Status Class

This class stores all the statuses for either Lab\_status or Final\_status of the Bt Incident.

- **protected int** iStatusUid;
- **protected String** iDescription = "";

## Component Interactions

### New/Existing Incident – Incident Screen



#### Description:

**New Incident:** Normally, a State Police user enters the LSPCIR number generated by their internal system in the LSPCIR number field, Selects the Owner Organization from the Organization list, enters last name, first name and email id of the deliverer (Note: When the safety officer in charge of the case delivers the specimens to the laboratory, then he would be the deliverer himself). After entering the above information, the state police user clicks on new button to be navigated to the LSPCIR entry section. The State Police user saves the B.T Incident information after entering the fields in the LSPCIR section.

**Note:** When the State Police user selects an organization from the Organization list, Organization description is populated in the field. But the organization's dn is stored in a hidden field. This dn would be eventually stored in the `bt_incident.owner_organization` column.

On the other hand, a `Bt_User` (Epi Central Site or Epi Regional users) may create `bt_incidents` without LSPCIR number. Under such cases, a `Bt_User` may check the automatically generate Bt CIR number check box in `BT_Incident_Entry.jsp` and press new. This process would automatically assign a new Bt Cir Number to case. You may view the new number generated by the system in the Bt Cir Number field of LSP CIR Section.

**Note:** The search capability is restricted to LSP CIR Numbers and does not include BT Cir Numbers. To be able to pull up a BT Cir Number, `Bt_Users` will have to use the `Bt_Incident` report. Only `bt_users` would have access to this report.

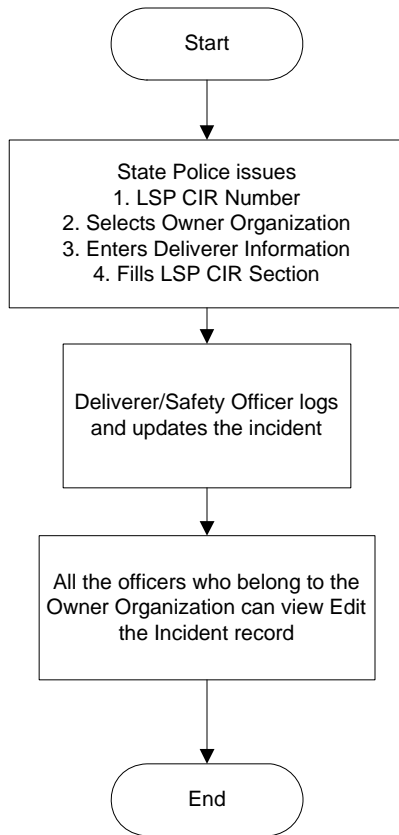
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**Ownership of the record:**

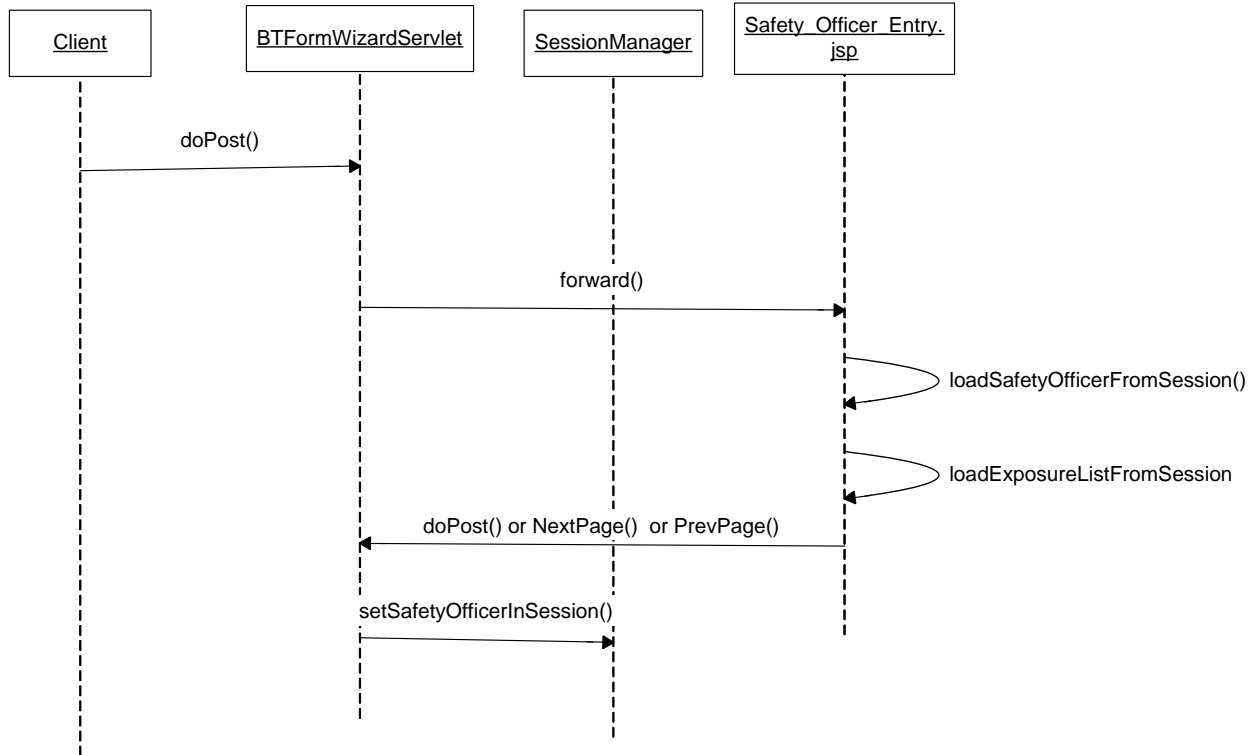
Once the State Police saves the record in the database, owner organization would own the record when the State Police user saves the incident into the database.

The system checks if the safety officer is a registered user. If the safety officer is not registered with OPH portal, then an email is sent to the user notifying him of the case assignment and requesting him to register with OPH portal. From this instant onwards, the record becomes visible to all the safety officers who work the same organization whose dn is stored in Bt\_incident.owner column.

How and when to populate the Bt\_incident.owner column:



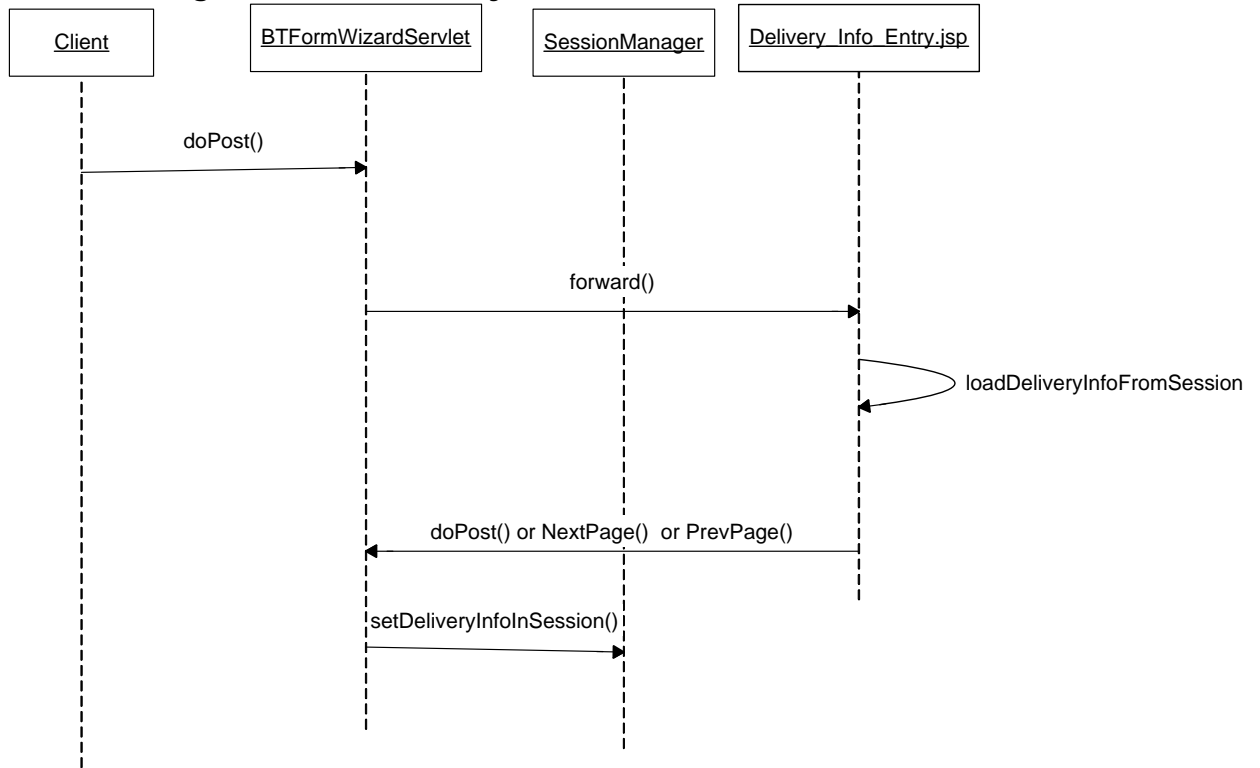
**New/Existing Incident – Safety Officer Screen**



**Description:** When the user clicks on “Next” Button in LSPCir\_entry.jsp, the form would be submitted to BTFormWizardServlet. As mentioned in the previous illustration, after setting LSPCir information in the session (using SessionManager), BTFormWizardServlet forwards the request to Safety\_Officer\_entry.jsp. Once the user enters the appropriate information in the to Safety\_Officer\_entry screen and clicks on “prev” or “next” button, the form would be submitted to BTFormWizardServlet. At this point BTFormWizardServlet sets to Safety officer information (including the including safety officer and exposure list) in BTIncident object of HttpSession (using SessionManager). Then, depending on the button pressed by the user, BTFormWizardServlet forwards the request either to the DeliveryInfo\_entry.jsp or LSPCir\_entry.jsp respectively.

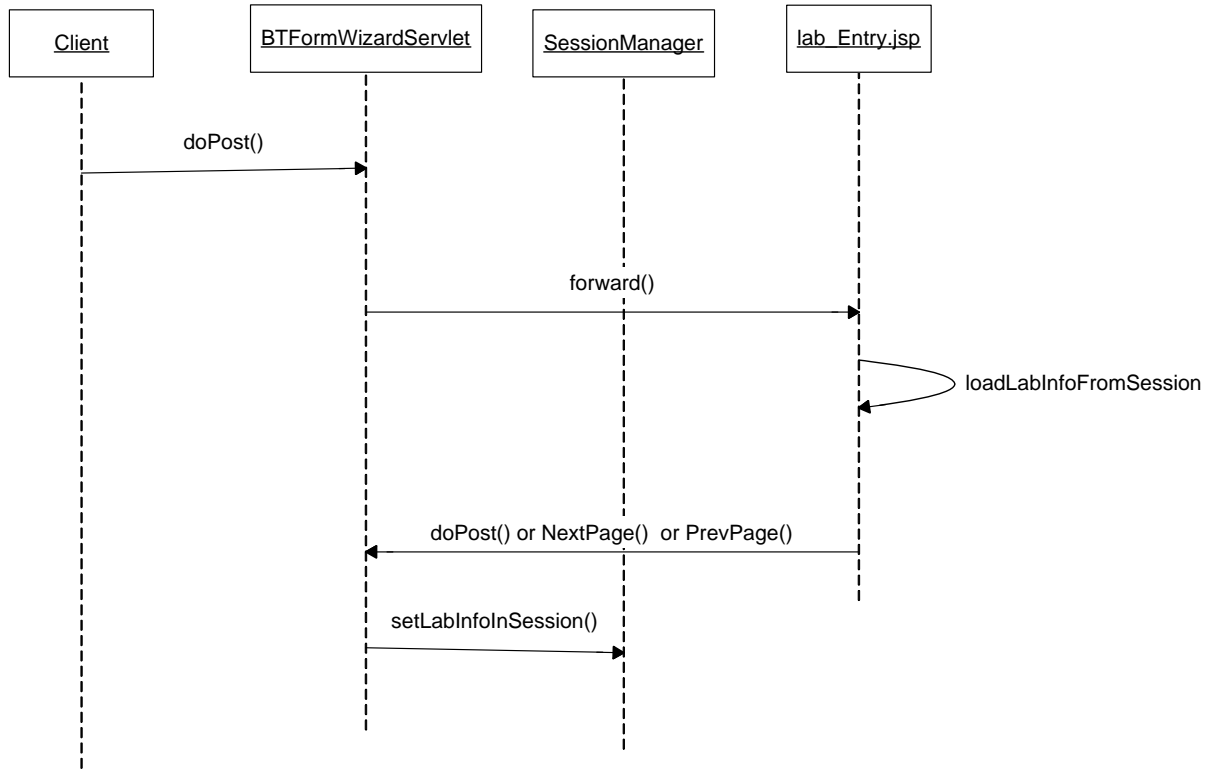


### New/Existing Incident – Delivery Info Screen



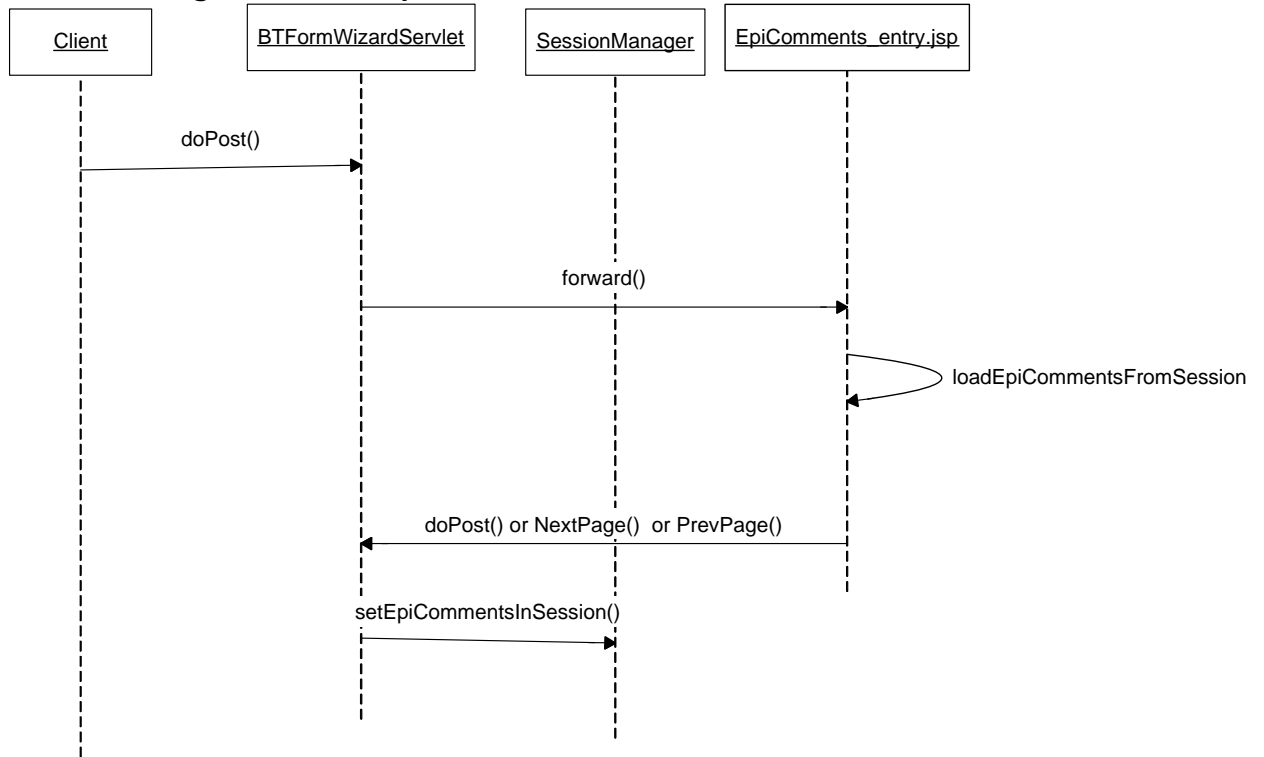
**Description:** When the user clicks on “Next” Button in Safety\_Officer\_entry.jsp, the form would be submitted to BTFormWizardServlet. As mentioned in the previous illustration, after setting Complainant information in the session (using SessionManager), BTFormWizardServlet forwards the request to DeliveryInfo\_entry.jsp. Once the user enters the appropriate information in the DeliveryInfo\_entry screen and clicks on “prev” or “next” button, the form would be submitted to BTFormWizardServlet. At this point BTFormWizardServlet sets Delivery information (including the specimen, return address and recipient information) in BTIncident object of HttpSession (using SessionManager). Then, depending on the button pressed by the user, BTFormWizardServlet forwards the request either to the Lab\_entry.jsp or Safety\_Officer\_entry.jsp respectively.

### New/Existing Incident – Lab Report Screen



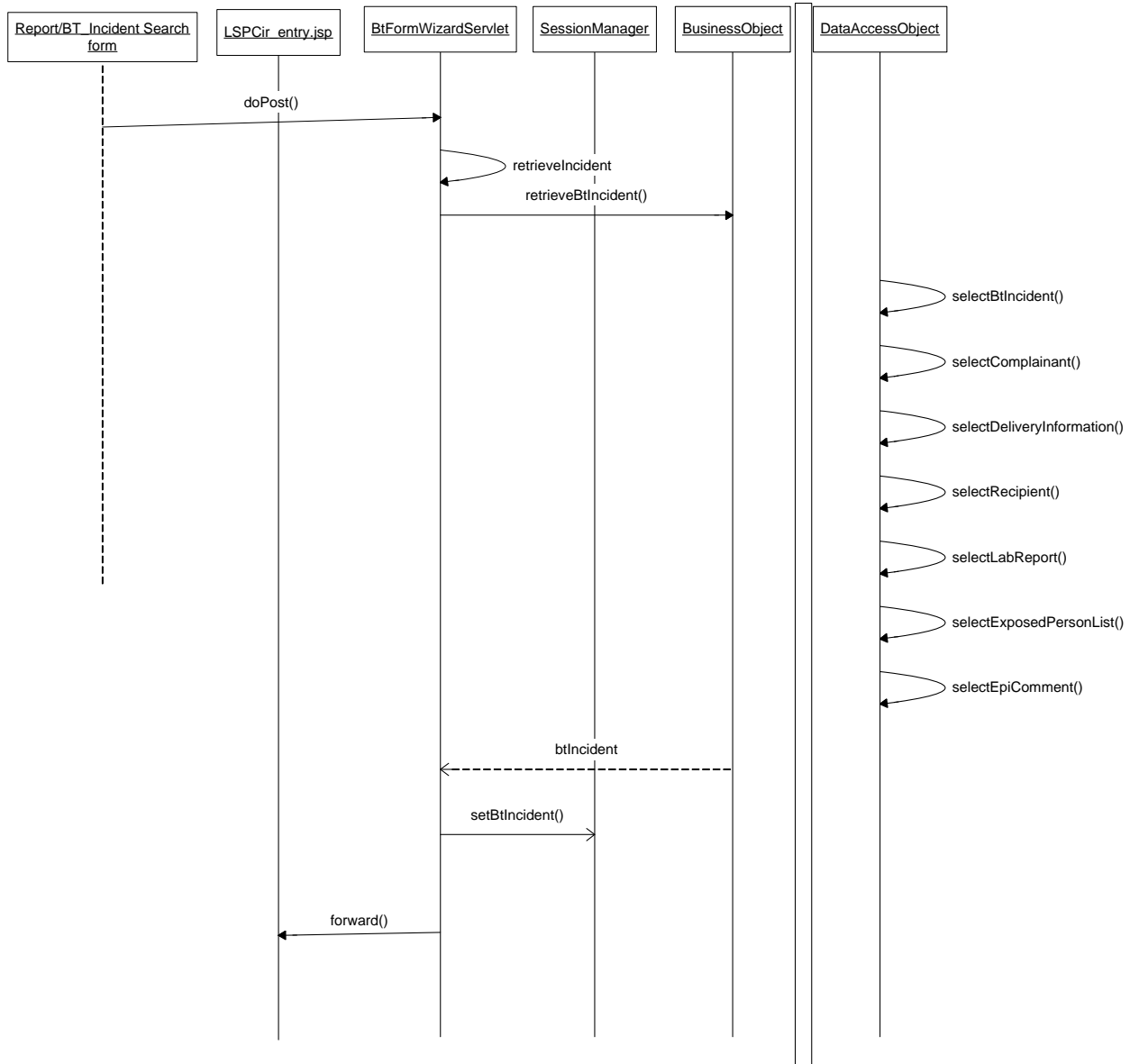
Description: When the user clicks on “Next” Button in DeliveryInfo\_entry.jsp, the form would be submitted to BTFormWizardServlet. As mentioned in the previous illustration, after setting Delivery information in the session (using SessionManager), BTFormWizardServlet forwards the request to LabInfo\_entry.jsp. Once the user enters the appropriate information in the LabInfo\_entry screen and clicks on “prev” or “next” button, the form would be submitted to BTFormWizardServlet. At this point, BTFormWizardServlet sets Laboratory information in BTIncident object of HttpSession (using SessionManager). Then, depending on the button pressed by the user, BTFormWizardServlet forwards the request either to the EpiComments\_entry.jsp or DeliveryInfo\_entry.jsp respectively.

### New/Existing Incident – EpiComment Screen



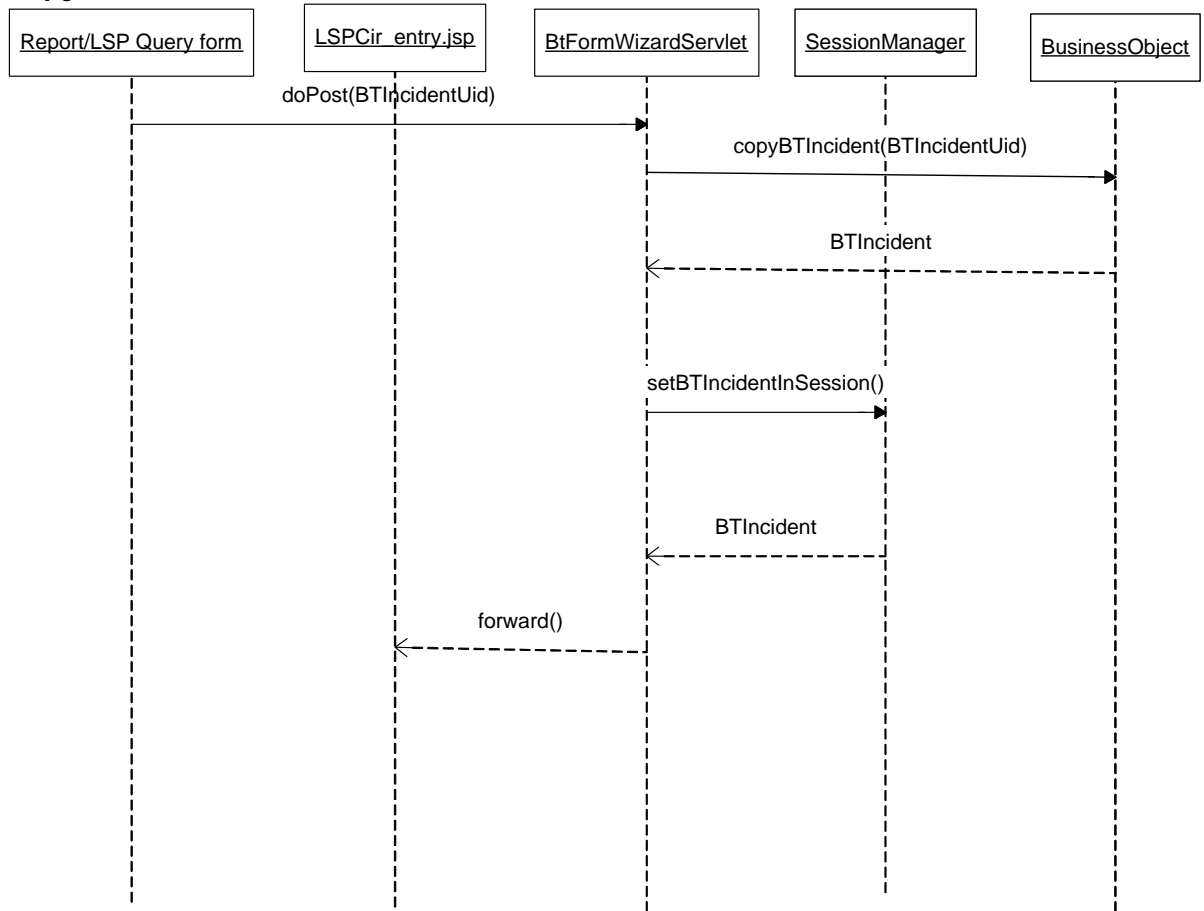
Description: When the user clicks on “Next” Button in LabInfo\_entry.jsp, the form would be submitted to BTFormWizardServlet. As mentioned in the previous illustration, after setting laboratory information in the session (using SessionManager), BTFormWizardServlet forwards the request to EpiComments\_entry.jsp. Once the user enters the appropriate information in the EpiComments\_entry screen and clicks on “prev” or “Save” button, the form would be submitted to BTFormWizardServlet. At this point, BTFormWizardServlet sets EpiComments information in BTIncident object of HttpSession (using SessionManager). Then, depending on the button pressed by the user, BTFormWizardServlet forwards the request either to the LabInfo\_entry.jsp or the success/failure page respectively.

### Retrieve Incident



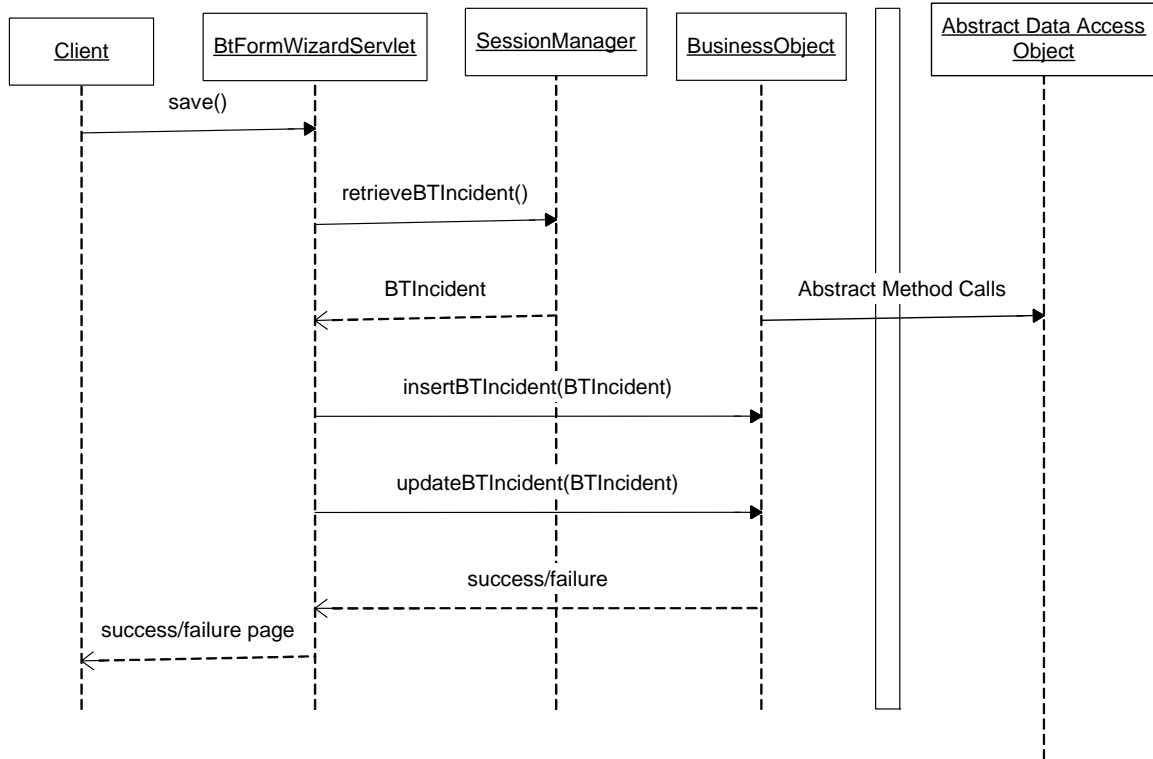
When the user either enters a specific LSPCjr number in the BT Incident Query form or clicks on LSPCjr number on the B.T Incident report, his request would be submitted to the BTFormWizardServlet. BTFormWizardServlet retrieves the LSPCjr\_no from the request and passes it as a parameter to the Business object's retrieveBTIncident method. This method returns a BTIncident object to BTFormWizardServlet. BTFormWizardServlet sets the BTIncident object in the session and forwards the request to LSPCjr\_entry.jsp.

### Copy Incident



Description: When the user enters a specific LSPCir number and clicks on the "copy" button in the BT Incident form, his request would be submitted to the BtFormWizardServlet. BtFormWizardServlet retrieves the LSPCir\_no from the request and passes it as a parameter to the Business object's copyBTIncident method. This method returns a BTIncident object to BtFormWizardServlet. This BTIncident object would contain the data from the database corresponding to the LSPCir\_no entered by the user, but with btIncidentUid, ComplainantUid, ExposureUid, deliveryInfoUid, LabUid set to null. BtFormWizardServlet sets the BTIncident object in the session and forwards the request to LSPCir\_entry.jsp.

### Save Incident



When the client clicks on “Save”, the form would be submitted to BtFormWizardServlet. After setting the appropriate information in HttpSession,

### 1.7.1 Processing Narrative for component n

*A processing narrative for the component is presented. This includes software process flows as well as input, output, and exception handling descriptions for all objects, modules, functions, etc.*

### 1.7.2 Interface Description for Component n

*A detailed description of the input and output interfaces for the component is presented.*

### 1.7.3 Processing Detail for Component n

*A detailed algorithmic description for the component is presented.*

## 2. User interface design

*A description of the user interface design of the software is presented.*

### 2.1 B.T Incident Entry Screen

This screen shall enable LA Department of Public Safety, and LA OPH personnel to enter B.T Incident information. The screen shall have four sections

- LSP\_CIR\_No section. Fields included in the section are as follows:
  - BT\_Incident\_Uid – Hidden Field
  - LSP CIR Number – Text Field
  - Lab Number – Text Field
  - Location – Text Field
  - City – Text Field
  - Parish – Combo box

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- o Region – Text Field – Read only
- o Screened – Radio Button. Values: Yes, No
- o Threat Type (Specific Agent(s) or Organisms)- Text Field
- o Next Button – This button should not be enabled unless the user selects “Yes” for the Screened field. Once the user presses the Next button, all the information the user had entered in this section should be loaded into HttpSession and the user would be transported to the Complainant section of the screen.
- Safety Officer and Exposure List Section
  - o Safety\_Officer\_uid – Hidden Field
  - o Name – Text Field
  - o Organization – Text Field
  - o Address – Text Field
  - o City – Text Field
  - o State – Text Field Default to LA
  - o Telephone – Text Field. Validate to format: (999)999-9999
  - o Fax – Text Field. Validate to format: (999)999-9999
  - o Complaint – Text Area
  - o Time of Offense-Text Field. Validate to format: HH24:MI
  - o Date of Offense-Text Field. Validate to format: MM/DD/YYYY
  - o Time of complaint-Text Field. Validate to format: HH24:MI
  - o Date of complaint-Text Field. Validate to format: MM/DD/YYYY
  - o

#### Exposure List

This should be a dynamic section. By default this section should show empty records. If the user enters information into records, at any given point in time, the user should be shown atleast 2 empty records.

Note: While showing the exposed person records, un deleted exposed person records should be shown prior to showing those records where delete flag is set to ‘Y’.

- o Delete\_Flag – Checkbox. Note that this should be a logical field in the database. When the user checks this field, a value of ‘Y’ should be stored in han.bt\_exposure\_list.delete\_flag column.
- o Exposure\_uid – Hidden Field
- o Name – Text Field
- o Day Phone – Text Field. Validate to format: (999)999-9999
- o Alternate Phone – Text Field. Validate to format: (999)999-9999
- o Previous Button-Button- When the user presses this button, all the information entered by the user in this section should be loaded into HttpSession and the user should be transported to Lab\_Cir\_No section.
- o Next Button-Button- When the user presses this button, all the information entered by the user in this section should be loaded into HttpSession and the user should be transported to Delivery Information Section
- Delivery Information
  - o BT\_Delivery\_Info\_Uid – Hidden Field
  - o Delivery\_Mode – Combo Box
  - o Specify\_Other – Text Field
  - o Delivery\_Time – Text Field. Validate to format HH24:MI
  - o Delivery\_Date – Text Field. Validate to format: MM/DD/YYYY
  - o Delivery\_Location – Combo Box

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- Specify Other Location – Text Box
- Following information should be enabled only if Delivery Mode is either UPS, USPS, FEDEX or Airborne Express
- Postage Amount – Text Field. Validate to a number
  - Description – Text Area
  - Post Mark/Origin- Text Field
  - Tracking Number-Text Field

#### Return Address

- Name/Business- Text Field
- Address-Text Field
- City-Text Field
- State-Text Field. Default to LA

#### Recipient/Complainant Information section

- Name/Business- Text Field
- Address-Text Field
- City-Text Field
- State-Text Field. Default to LA
- Occupation-Text Field
- Location-Text Field
- Telephone-Text Field. Validate to format (999)999-9999
- Previous Button- When the user presses this button, all the information entered by the user should be stored in HttpSession object and the user should be transported to Complainant Information section. If there is data corresponding to that section in the session, fields in the Complainant section should be populated.
- Next Button- When the user presses this button, all the information entered by the user should be stored in HttpSession object and the user should be transported to Laboratory Section.

- 
- **Laboratory Section**

Only Laboratory personnel are supposed to edit information in the laboratory section. Epi Central site users may view (but not edit) data in this section.

- Specimen Collection Date-Text Field. Validate to format MM/DD/YYYY
- Specimen Collection Time-Text Field. Validate to format HH24:MI
- Lab Delivery Date-Text Field. Validate to Format MM/DD/YYYY
- Lab Delivery Time-Text Field. Validate to Format HH24:MI
- Outside Description-Text Area
- Inside Description-Text Area
- Additional Lab Comments-Text Area
- Lab Results-Text Area
- Final Status – Combo Box. Values- Positive, Negative, Pending

#### Epidemiology section

This is should be a dynamic Section. All the internal users (namely Epi Central Site Users, Regional Users, and Laboratory Users) should be able to view the comments put by other users. But they should be able to modify the comments put by them. Only Epi Central Site Users are supposed to edit information in the laboratory section. Laboratory users may view (but not edit) data in this section.

- Epi Comments – Text Area
- Previous Button- When the user presses this button, all the information entered by the user should be stored in HttpSession



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object and the user should be transported to delivery Information section. If there is data corresponding to that section in the session, fields in the delivery information section should be populated

## 2.2 *B.T Incident Transfer*

Users may reach this screen by clicking on the transfer button of Incident search screen. Here it is important to note that when a transfer occurs, it occurs between two organizations. By default, the owner column in the BT\_Incident table is populated with the "dn" of the primary organization of the user (safety officer) owns the record. When the transfer occurs, owner column is updated with the transferee organization "dn". This screen is primarily used for the following purposes:

- Deliverer wants to transfer an incident in his possession to another organization
- Bt\_User wants to transfer an incident from a deliverer or safety officer to another organization

In the BT Incident Search screen, the user would enter an LSPCIR Number he would like to transfer and click on the Transfer button. BtFormWizardServlet checks if the user has access to the LSPCIR number. If the user has access to the LSPCIR number, then he would be forwarded to the BT Incident transfer screen. If the user is not authorized to transfer the incident, then BtFormWizardServlet would send an "Authorization Failed" message.

In the Transfer form, the LSPCIR number is automatically populated. The user may choose the transferee from the list of all Safety Officers and click on the transfer button. This would

### 2.2.1 **Screen images**

*Representation of the interface from the user's point of view.*

### 2.2.2 **Objects and actions**

*All screen objects and actions are identified.*

## 2.3 *User Interface design rules*

*Conventions and standards used for designing/implementing the user interface are stated.*

## 3. **Appendices**

*Presents information that supplements the design specification.*