BSP Administration Guide

iPlanet Biller Xpert B2B Edition 4.6

May 2002

Contents

About This Guide

This guide contains reference and operating procedures for administering a company's Internet Bill Presentment and Payment (IBPP) BillerXpert B2B Edition from iPlanet e-commerce solutions.

The preface contains the following sections:

- Audience
- What's in This Document
- The Document Online
- Related Documentation

Audience

The *BillerXpert B2B Edition Billing Service Provider (BSP) Administration Guide* is written specifically for a BSP administrator, the person who manages the hardware and software for a billing company's Web invoice presentment system. The BSP manages the information related to online IBPP, including: data on its members, departments, payment methods, and profile records. As the BSP, you are the person responsible for maintaining the entire systsem.

A BSP administrator should have experience in working with and administering the following:

- Multi-hosted systems
- Web servers
- Internet Bill Presentment and Payment (IBPP)
- Internet browsers

What’s in This Document

The following chapters and information are contained within this document:

- Chapter 1, “Introduction"”, is an overview of the responsibilities of a BSPAdmin. The graphical user interface (GUI) is explained, including its tabs, function buttons, and logging in and logging out procedures are defined.
- Chapter 2, “Propagating Profiles", is an explanation of what a profile is and how it is used within a BSP.
- Chapter 3, “Building Billers", details all of the Admin’s tasks relating to managing members. Adding, updating, and searching for members is included in the responsibilities.
- Chapter 4, “Managing Members", describes what the roles application is and how it relates to the members it services.
- Chapter 5, “Referring Roles and Privileges"
- Chapter 6, “Delegating Data Management", including creating and setting archive directories, recovering data, and manually loading data.
- Chapter 7, “Evoking Events and Handlers", information on processes and process instances and their relationships with handlers.
- Chapter 8, “Producing Payment Vendors", are the procedures of setting up Internet payment vendors.
- Chapter 9, “Accessing Activities", discusses the ability of the Admin to view all company-related B2B activities. These activities can be searched for by time frame.
- Chapter 10, “Comprising Clusters", defines the meaning of clusters, how they are associated with the application, the directories, and the servers.
- Appendix A - Glossary, is an alphabetical listing of major terms and acronyms used in this guide.
- Appendix B - Error Messages, is a numerical listing of error messages for this application and how to correct these messages.
- Appendix C - Loader, details the B2B Loader and describes pertinent data you need for efficient and effective manual loads.
- Index - is a cross-referenced table of the major topics and headings in this guide.

The Document Online

You can find this manual online in Portable Document Format (PDF) and Hypertext Markup Language (HTML) formats on the following Web site:
`http://docs.iplanet.com/docs/manuals`

Related Documentation

The documentation for iPlanet BillerXpert B2B Edition includes:

- **Administration Guides**, which contain reference and operating procedures for administering a fully-installed BillerXpert's B2B Edition 4.5 from iPlanet. The three specific guides are: Billing Service Provider Administrator (BSP), Biller Administrator (BillerAdmin), and Company Administrator (CoAdmin).
- **API and Schemas Reference**, describes the interface to component business objects you can use and describes the database schemas that refer to them.
- **Customization Guide**, discusses the B2B architecture and how to customize it through a collection of classes and templates building on the iPlanet Application Server (IAS).
- **Installation Guide**, provides planning information and guidelines for product deployment.

Chapter 1

Introduction

This chapter is an overview of the iPlanet BillerXpert B2B Edition Biller Administrator (BillerAdmin) including:

- Definition of Administrator (Admin)
- Navigating the Graphical User Interface (GUI)
- Describing BSPAdmin Tasks
- Logging In and Out

Definition of Administrator (Admin)

An administrator, is a person that can administrate and manage company information and functions by; company, event, and biller management data. The Admin can be one of three types; company, biller, and billing service provider.

The tools that are used to administer the B2B are part of its graphical user interface and the movement around and within it.

Billing Services Provider (BSP) Administrator

The BSP hosts the equipment, hardware and software, for the billing and buying companies. A BSP is responsible for: monitoring load status for billers, manually loading a file, setting an archive directory, purging data, recovering data, monitoring events, adding a new event, monitoring a handler, adding a new handler, searching for a biller, adding new billers, updating a biller profiles, creating a new biller group, adding and /or updating BSP administrators, adding a new payment type, searching for a biller’s payment vendor, adding a new payment vendor. The BSP’s company is called the Hosting company.

Navigating the Graphical User Interface (GUI)

The B2B Graphical User Interface (GUI) has a series of Main Menu tabs: including Profiles, Payments, Members, Departments, and Activities, as illustrated in the following.

Figure 1-1 Main Menu tabs

Main Menu Tabs

Profile

The Profile tab gives the BSP information on the address and contact information for their company. It displays company contact information and the company's ID along with other pertinent data.

Billers

The Billers tab details information of the billing companies under the BSP. The data includes, name, contact names and IDs, company status, and so on.

Membership

The Membership tab describes membership list, the user IDs, and the status of a member. You can add, delete, update, and search for members via this function.

Roles and Privileges

The Roles and Privileges tab provides a list of tasks and the related privileges for that role. These can be assigned to the members within a company.

Data Management

The Data Management tab gives you the ability to track loaded files, archive data, check the respective status of a load, and so on.

Events

The Events tab gives you the ability to schedule processes that can be triggered by changes in the system such as loading files and alerting the affected users.

Payment Vendors

The Payment Vendors tab details the name, the description, status, and protocol of the vendors.

Activities

The Activity tracking tab gives you the ability to view all activities tracked by the system.

Clusters

The Clusters tab describes the process manager activities to supervise and deploy software applications, in view only mode.

Function Buttons, Browsers, and Input Fields

The B2B GUI reacts as most standard software applications, in that:

- Function buttons, such as Remove, are invoked after the correct actions are taken prior to invocation.
- Most function buttons operate as toggles, opening the function at the first click. After correctly completing the request, in the form of a message, or input screen, the function is closed, on the second click of the toggle button.
- Success or error messages describe the results of user actions and inputs to the GUI.
- Browser arrows, such as Back and Forward, react as they would to page ahead or return to the previous screen.
- All input fields with an asterisk ***** next to it are required and must be completed.
- The only metacharacters allowed are:
    - ampersand @
    - equal sign =
    - plus sign +
    - parentheses ( )
    - brackets [ ]

- Embedded spaces are allowed and preconfigured into the application.

Describing BSPAdmin Tasks

The BSP can perform various tasks. Some of these tasks are performed frequently, perhaps on a daily basis. Others are performed infrequently, or once after the system is installed and set up for production. The following table describes the tasks a BSP can perform and what tab these tasks are associated with:

Table 1 - 1 BSPAdmin Tasks

Task	Tab
View profile	Profile
Update profile	
View biller	Biller
Update biller	
Search for a biller	
Delete a member	Membership
Search for a member	
Add a member	
Update a member	
Delete a member	
Add a role and a privilege	Roles and Privileges
Search for a role and privilege	
Update a role and privilege	
Manual load	Data Management
Set archive directory	
Archive a database	
Recover a database	
Search for a database	
Add an event/handler	Events
Update an event/handler	

Table 1 - 1 BSPAdmin Tasks

Task	Tab
Search for an even/handler	
Schedule an even/handler	
Delete an event	
Add a payment vendor	Payment Vendors
Update a payment vendor	
Search for a payment vendor	
Delete a payment vendor	
Search for an activity	Activities
Update an activity	
Add an activity	
View cluster information	Clusters

Logging In and Out

Logging in for all three admins takes place on the same screen. This screen is a portal to the entry point of a billing site. Depending upon your log in and admin access level, depends on the GUI that is displayed, after completing a successful log in.

Logging In

The following screen is the entry portal to the B2B.

Figure 1-1 Log In Screen

- From the BillerXpert B2B Administrative Login, enter:

  admin@bsp.com

- Enter your password and click the Login button. The default password is admin.

NOTE The format for the User ID will follow <admin> which is your user ID name, @ <domain name>.

To log in as the Root, the format for the ROOT ID is Root, root@bsp.com, and the password is admin. For more information on Root users, see Appendix D.

Logging Out

- Click the Logout button, found at the right hand top of every screen.

Chapter 2

Propagating Profiles

This chapter provides information on propagating profiles. The chapter includes:

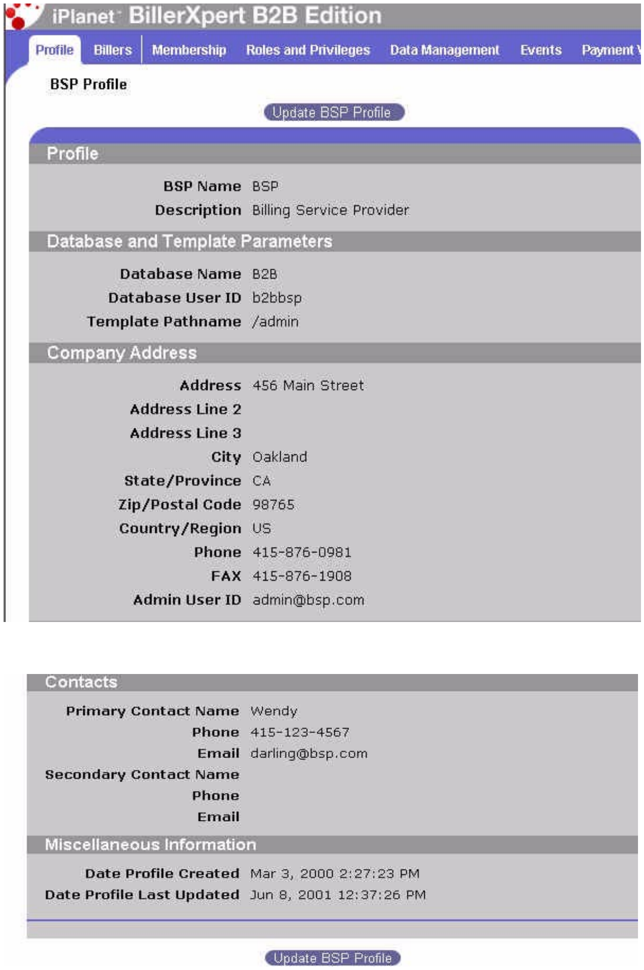
- Propagating a BSP Profile
- Updating a BSP Profile
- Changing an Oracle Password

Propagating a BSP Profile

The profile is a detailed listing of the BSP’s location, contact information, and related data. As the administrator, it is your responsibility to ensure that this information is kept up to date.

As the Admin you can update a BSP’s profile information. The profile screen is displayed in the following:

Figure 2 - 1 BSP Profile



Details of the BSP Profile Screen

The details, data, operations, and procedures of the company profile screen are explained in this section.

- Profile
- Database and Template Parameters
- Company Address

- Contacts
- Miscellaneous Information

Profile

BSP name and a description

Database and Template Parameters

Name of the database, database user ID, and pathname, template location

Address

Address and other-related location information

NOTE The Admin email is the login into the Admin screen.

Contacts

Primary and secondary names of contacts

Contacts might be someone other than the Admin, such as a facilities manager, financial department head, or chief operating officer, etc. The phone numbers and email addresses of these contacts are also included.

Miscellaneous Information

Status, creation date, last time the profile was updated.

Updating a BSP Profile

To update a BSP profile:

1. Click the Update BSP Profile button, on the Profile screen.
2. Complete the information in the respective fields. For more information on input fields, see “Chapter 1 - Introduction”.

3. Click Save.

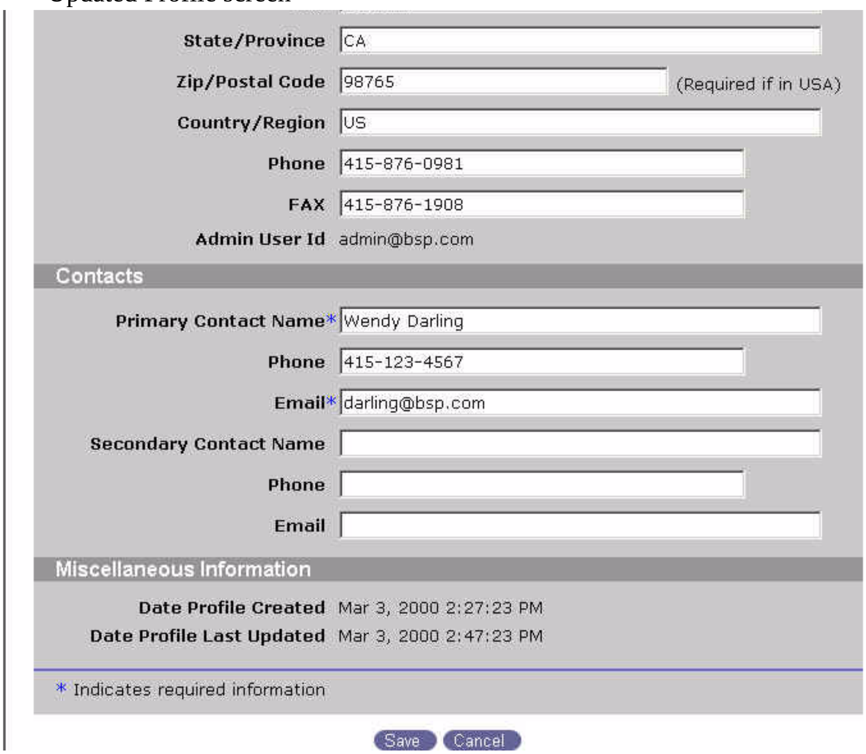
For example, if you want to change the company address and administrator’s email, *456 Main Street*, and *Peter Pan* to *Wendy Darling.*

Enter the information in the respective fields. Click Save.

The results are displayed in the following:

Figure 2 - 2 Updated Biller Profile

Updated Profile screen



Changing an Oracle Password

When you update a profile, there are two fields, Database password, and Re-enter database password, that you must complete. The password refers to the Oracle database password.

To change an Oracle password:

1. Navigate to the Profile tab.
2. Click Update BSP Profile.
3. At the Update BSP Profile screen, enter the new password, following Oracle's conventions.

NOTE Contact your database administrator for these procedures and refer to your IAS Administration manual on the procedures to change passwords for data sources.

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4. Re-enter the password for security purposes.
5. Click Save.

Chapter 3

Building Billers

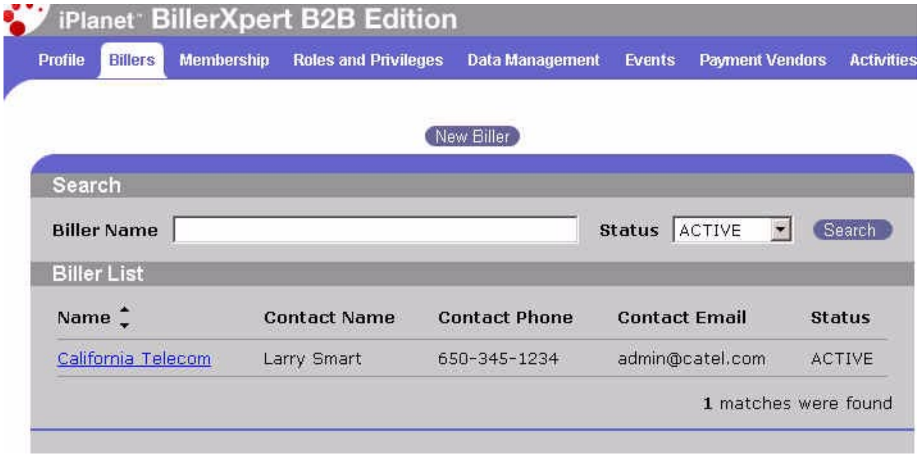
This chapter details the procedures of adding and updating billers. It contains:

- Details of the Biller Screen
- Prerequisites to Adding a Biller
- Adding a Biller
- Searching for a Biller
- Updating a Biller
- Changing a Biller Password:
- Deleting a Biller

Details of the Biller Screen

The Biller Profile screen consists of a listing of the biller's location, contact information, and related data of the billing organization. As the BSP you can manage a biller's profile information, as displayed in the following:

Figure 3-1 Biller List



Name

Name of biller

Contact Name

Primary contact name for biller

Contact Email

Primary contact email for biller

Status

Active or Inactive

Prerequisites to Adding a Biller

There are prerequisites to adding a Biller that involve running a script to enable the Admin to complete that task. The prerequisites are for the Oracle database, as well as Signio, Clear Commerce and PaymentXML, as payment vendors. You can perform the following steps either while adding a New Biller or the Update Biller screens.

Oracle

1. Open a Unix terminal.
2. Go to `$BX_HOME/schema/oracle directory`
3. Run the script `preAdminBillerCreate.sh`
4. Answer the prompts as required.

   The Oracle user and schema are created.
5. Login as the BSPAdmin and create the biller.

NOTE The Preadmin script creates one Oracle user. You can apply the same user and password for both the biller database parameters and the cluster parameters.

If you would like to have clusters and billers under separate Oracle accounts, then create another userid for your cluster.

6. The application now needs to be bootstrapped. For further information on bootstrapping, see the Cluster chapter in the *Biller Administration Guide*.

Signio

1. Select Signio as the payment vendor.
2. The Payment URL should be in the form `http://host:port/port/NASApp/billxb2b/SignioOFXServer`. The host and port should be replaced with your webserver hostname and http port.
3. Setup a userid that is unique for the Biller and setup a corresponding password. The userid and password can also be referred to as the Biller's OFX signon parameters.
4. Save the biller profile.
5. Open a Unix terminal.
6. Go to `$BX_HOME/schema/oracle directory`

7. Run the `create_signioOFXUser.sh` script as follows:

```
% ./create_signioOFXUser.sh payment/payment@b2b MyBiller
MyPassword
```

where -

payment/payment	Userid and password of the Oracle user created for the payment schema at the time of installation
b2b	Oracle instance id, under which, the payment user was created
MyBiller	The Billerid that you entered in step 3, above.
MyPassword	The Password that you entered in step 3, above

8. Run create_signioUserInfo.sh as follows:

```
% ./create_signioUserInfo.sh payment/payment@b2b BillerId
SignioUID
```

where -

payment/payment	Userid and password of the Oracle user created for the payment schema at the time of installation
b2b	Oracle instance id, under which, the payment user was created
BillerID	ID with which Biller is created.
	NOTE: This is the ID with which you identify the biller.
SignioUID	ID provided by Signio to the Biller.
SignioPwd	Password for the ID provided by Signio to the Biller.

ClearCommerce

1. Select ClearCommerce as the payment vendor.
2. The Payment URL should be in the form `http://host:port/port/NASApp/billxb2b/CCOFXServer`. The host and port should be replaced with your webserver hostname and http port.

3. Use the ID and password provided by ClearCommerce as the userid and password.
4. Save the biller profile.

Payment XML

1. Select PaymentXML as the payment vendor.
2. The Payment URL should be in the form `http://host:port/port/NASApp/billxb2b/PXMLServer`. The hopst and port should be replaced with your webserver hostname and http port.
3. Payment XML does not use the userid and password fields, so you can use *test* as the userid and *test* as the password.
4. Save the biller profile.

Adding a Biller

To add a biller:

1. Navigate to the Billers tab.
2. Click the New Biller button.

   Enter the biller name.
3. Complete all required fields (those containing asterisks *****)

NOTE Ensure all of the various password and IDs fields are entered correctly, using their respective parameters.

NOTE It is important to note that Oracle user names should be unique.

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4. Click Save.

Searching for a Biller

To search for a biller:

1. Navigate to the Billers tab.
2. Click the Search button, to locate the biller you want to update OR.

   Enter the name of the biller in the Biller Name field.
3. Click Search.

Updating a Biller

To update a biller:

1. Navigate to the Billers tab.
2. Click the Search button, to locate the biller you want to update OR

   Enter the name of the biller (in the Biller Name field) and click Search.
3. Amend any data field you need to update.
4. Click Save.

Changing a Biller Password:

To change a biller password:

1. At the Billers tab, click Search or enter the name of the biller whose password is going to be changed.
2. Change the password in the Oracle database.

NOTE Contact your database administrator for these procedures.

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3. Change password in the IAS. This can be done by bringing up the *ksvradmin* tool.

NOTE You will also need to change the Cluster password in the Cluster tab.

NOTE Refer to your IAS Administration manual on the procedures to change passwords for data sources.

4. Click on the Billers tab.
5. Click Update Profile and complete your changes.
6. Click Save.

Deleting a Biller

To delete a biller:

1. Navigate to the Billers tab.
2. Click the Search button, to locate the biller you want to update OR.

   Enter the name of the biller in the Biller Name field.
3. Click Search.
4. Select Inactive in the Status field.
5. Click Save.

Chapter 4

Managing Members

This chapter provides procedures on managing members and describes the following:

- Describing a Member
- Details of the Membership
- Adding a Member
- Searching for a Member
- Deleting a Member

Describing a Member

A member is a constituent part of any structural or composite whole; for example, as in an employee of a payroll department. The department itself can be a member of a larger organization such as a financial division.

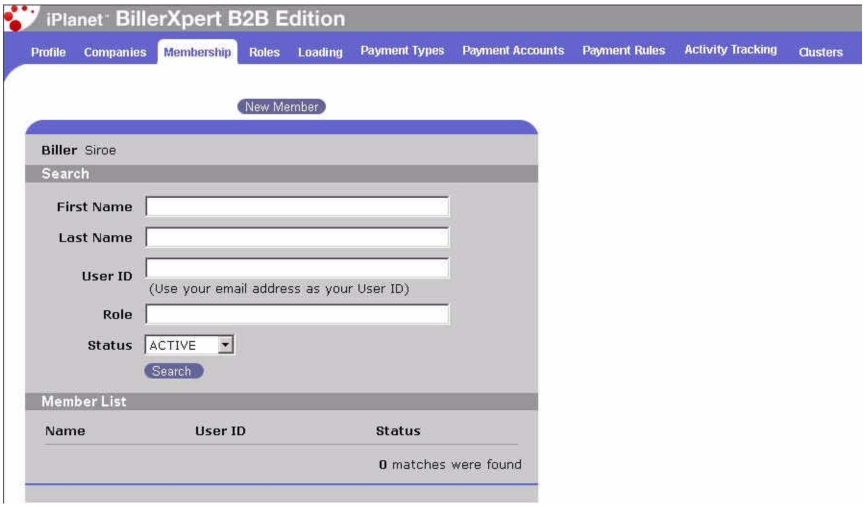
The system includes three members, who are:

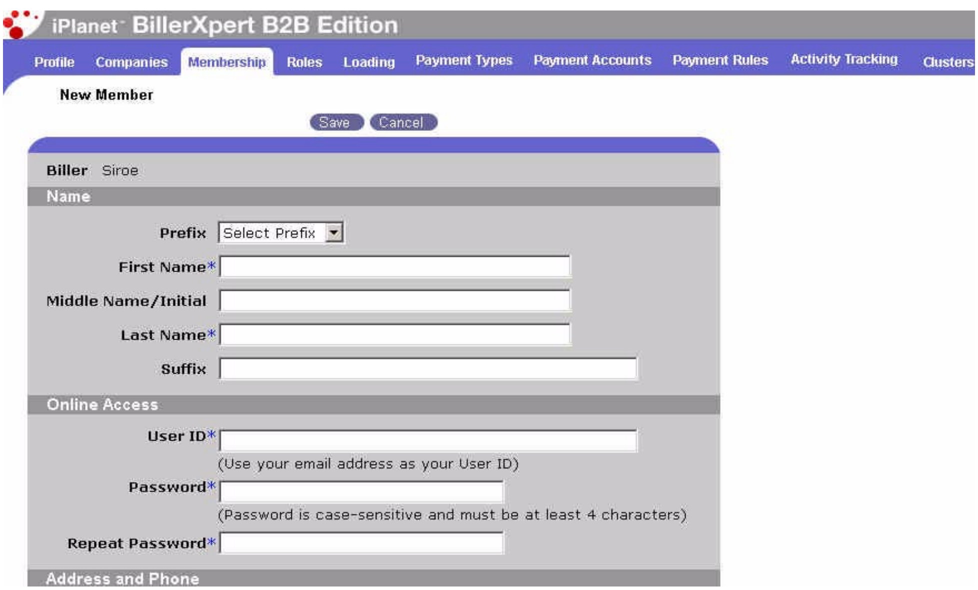
- admin
- operator
- root

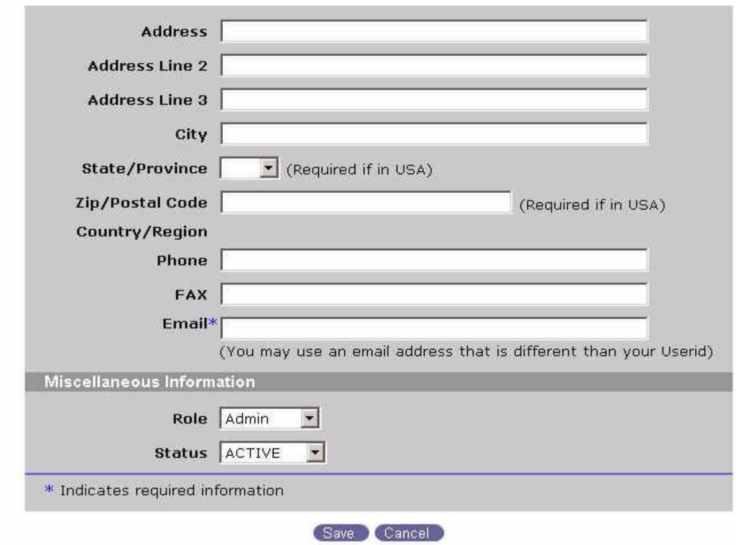
Each one of these roles have different privileges associated with them, that can be modified and updated.

Details of the Membership

Figure 4-1 New Member







Details of the Add a New Member Screen

The details, data, operations, and procedures of the New Member screen are explained in this section.

Name

The name and address of the new member, to be added, comprises this section.

Online Access

User ID and password are the details of this section.

NOTE Remember User ID is usually the email address of the new member.

Also be aware that passwords are case sensitive and must be at least four characters in length.

Address and Phone

Address, phone, fax numbers, and a contact email address is included in this area. The email address can be someone other than the administer.

Miscellaneous Information

This information includes the new members role and member status.

Adding a Member

To add a member:

1. Navigate to the Membership tab.
2. Click the New Member button.
3. Enter the new member data in the corresponding fields.
4. Click Save.

Searching for a Member

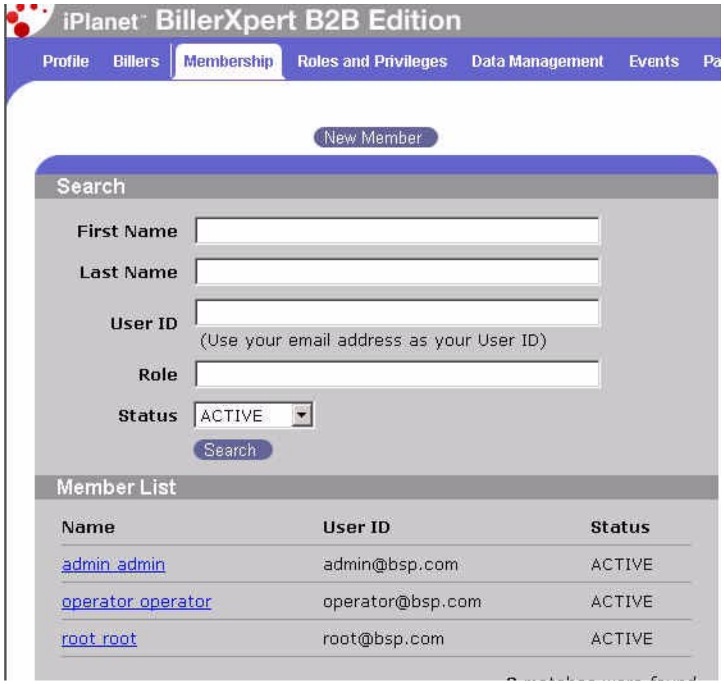
To search for a member:

1. Navigate to the Membership tab, to display the New Member screen.
2. If you know the name of the member you are searching for, enter it in the Name field. OR

   If you do not know the name, click the Search button to have a complete list of all members displayed.

   For example, if you want to search for a member called *Root.*
3. At the New Member screen, enter Root in the name field or select Search to display all of the members names. A screen is displayed, as illustrating in the following:

Figure 4-2 Searching for Root



4. Click on *Root* (or the member name that initiated the seach) to display its details searchUpdating a Member

To update a member:

1. Locate a member through the Search function.
2. At the Search screen, select the member link that you want to update.
3. Enter the data that you want to update.
4. Click Save.

Deleting a Member

To delete a member:

1. Locate the member through the Search function.
2. At the Search screen, select the member link to delete.
3. At the Status field, select Inactive.
4. Click Save.

Chapter 5

Referring Roles and Privileges

This chapter provides procedures on referring roles and privileges to members and describes the following:

- Describing Roles and Privileges
- Adding a New Role
- Updating a Role
- Searching for a Role
- Adding a Privilege
- Updating a Privilege
- Searching for a Privilege

Describing Roles and Privileges

The Admin has the ability to refer a role, and its privileges, to a member. For example, the role can be the ability to add a company member, move a department, or add a company payment method. All, or any of these privileges, can be referred to a role.

The user has membership by reason of associations: i.e.; roles, and privileges.

- A role is a collection of privileges that define a member's capabilities to perform actions on various resources.
- Members have associating roles and privileges assigned to them by way of their user ID in their organizations.

BSP's Privileges

The BSP manages a member by mapping the member's privileges and roles to their user IDs. A member is attached to one role and that role can have many privileges, or permissions to perform certain tasks. These roles and privileges are displayed in the following.

Table 5 - 1 BSP Admin Privileges

BSP Admin's Privileges	Description of Privileges
AdminSignOn	Access Admin functions via sign on
AdminViewProfile	View a company/billerprofile
AdminUpdateBSPProfile	Update a BSP profile
AdminUpdateBillerProfile	Update biller profile
AdminAddBiller	Add a biller
AdminUpdateBillerProfile	Update a biller profile
AdminAddRole	Add a role
AdminUpdateRole	Update a role
AdminAddPrivilege	Add a privilege
AdminUpdatePrivilege	Update a privilege
AdminAddMember	Add a member
AdminUpdateMember	Update a member
AdminLoadFile	Load a file
AdminVoidReplaceFile	Void and/or replace a file
AdminPurge	Purge a file
AdminRecover	Recover a file
AdminSetArchiveDir	Set archive directory
AdminAddEvent	Add an event
AdminUpdateEvent	Update an event
AdminAddHandler	Add a handler
AdminUpdate Handler	Update a handler
AdminAddSchedule	Add a schedule (to an event)
AdminUpdateSchedule	Update a schedule

BSP Admin's Privileges	Description of Privileges
AdminAddPaymentVendor	Add a payment vendor
AdminUpdatePaymentVendor	Update a payment vendor
ROOT	Become a Root user

NOTE For further information on ROOT users, see Appendix D.

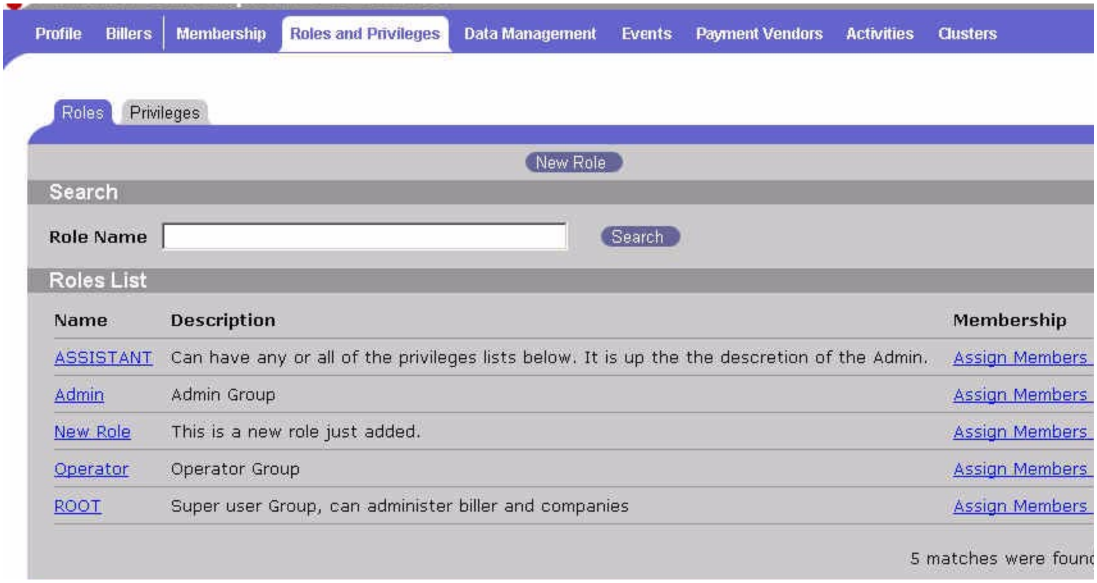
Adding a New Role

To add a new role:

1. Navigate to the Roles and Privileges tab.
2. Click the Role tab.
3. Click the New Role button.
4. Enter the new role information in its respective fields.
5. Click Save.

   For example, if you wanted to add a new role, called *Assistant*, you would navigate to the Roles and Privileges tab. Click New Role and at the New Role screen, you would add a description. Then, select the privileges you want to add by highlighting the selection from the Available list, and clicking the Add button. (Selecting Add, moves your selection to the Assigned list. Selecting Add All, moves the entire Available choices to the Assigned list.) To save the addition, you would click Save. The final results would appear as illustrated in the following:

Figure 5-1 New Role Added



Updating a Role

To update a role:

1. At the Roles tab, if you do not know the role name, click Search to display a list of roles as links. OR
2. Enter the name of the role you want to update and click the Search button.
3. Click the desired role link you want to update. Edit the information on the Update role screen by highlighting the Assigned and Unassigned roles accordingly.
4. Click Save.

Searching for a Role

To search for a role:

1. Navigate to the Roles and Privileges Tab. Click the Roles tab, if you do not know the role name, click Search to display a list of roles as links. OR
2. Enter the name of the role you want to search for in the role name field.
3. Click Search.

Adding a Privilege

To add a privilege

1. Click the Roles and Privileges tab.
2. Click the New Privilege button.
3. Enter the new privilege information in its respective fields and select the type of privilege.
4. Click Save.

Updating a Privilege

To update a privilege

1. At the Roles and Privileges tab, select Privileges.

   If you do not know the privilege name, click Search to display a list of privileges as links. OR
2. Enter the name of the privilege you want to update and click the Search button.
3. Click the desired privilege link you want to update. Edit the information on the Update Privilege screen.

4. Click Save.

Searching for a Privilege

To search for a privilege

1. At the Roles and Privileges tab, select Privileges.

   If you do not know the privilege name, click Search to display a list of privileges as links. OR

2. Enter the name of the privilege you want to search for in the privilege name field, and click the Search button.

Chapter 6

Delegating Data Management

This chapter provides processes and procedures involving data management including:

- Defining Data Management
- Detailing the Data Management Screen
- Determining Load Status
- Managing a Manual Load
- Setting an Archive Directory
- Accessing Archive Data
- Searching for Data
- Voiding/Deleting a Database Process
- Recovering a Database
- Viewing File Details

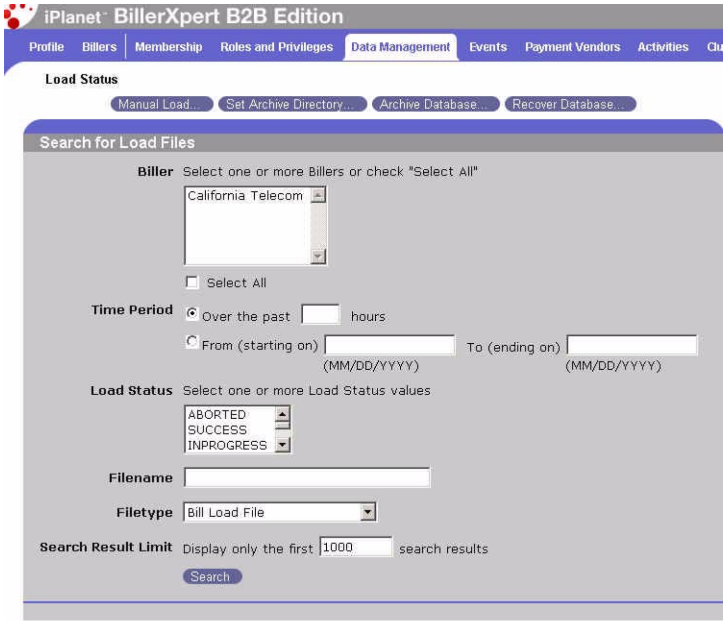
Defining Data Management

The Data Management pages describe file, load, and archive information, as well as other related database management procedures.

Detailing the Data Management Screen

After signing on as a BSP Administrator and navigating to the Data Management tab, the Load Status screen is displayed.

Figure 6 - 1 Data Management



Biller

Names of the billers

Time Period

Hours, dates, using starting and ending parameters

Load Status

The load status choices are as follows:

Table 6-1 Load Status

Load Status Value	Description of Value
Aborted	System files halted from loading.
Success	File loading completed.
In Progress	Loading procedures currently being done.

Table 6-1 Load Status

Load Status Value	Description of Value
Failed	File loading unsuccessful.
Partial	Loading incomplete, fractionally complete.
Void	File loading stopped prior to processing.

Filename

Name of the file

Filetype

Types of files; bill load, department hierarchy, and user registration

Search Result Limit

Limits the search results

Determining Load Status

To determine load status:

1. Navigate to the Data Management Tab.
2. Enter the name of the file, whose status you want to check.

   If you know the name of the biller whose database the file is part of, select the name of the biller.

   Selecting a time period for that file can be added.

NOTE Limiting the number of search results is also a good idea.

3. Click Search.

Managing a Manual Load

To manage a manual load:

1. Navigate to the Data Management tab.
2. Select Manual Load.
3. Enter the name and the full path for the file that you want to load.

NOTE	To load a single record, enter a record number to start the process.

4. Click Load.

NOTE	For further information on the B2B Loader, see Appendix C.

Setting an Archive Directory

To set an archive directory:

1. At the Data Management tab, select Set Archive Directory.
2. Select a biller from the list displayed.
3. Enter the name of the archive directory.
4. Select (to move= YES, to not move= NO) successfully loaded files into the Archive Directory.
5. Click Set Archive.

Accessing Archive Data

To access archive data:

1. From Data Management, select Archive Database.
2. Select the biller from the listbox.
3. Enter the amount of data to archive, in months.
4. Enter the name and the full path for the file where the data will be saved.
5. Select Archive.

Searching for Data

To search for data:

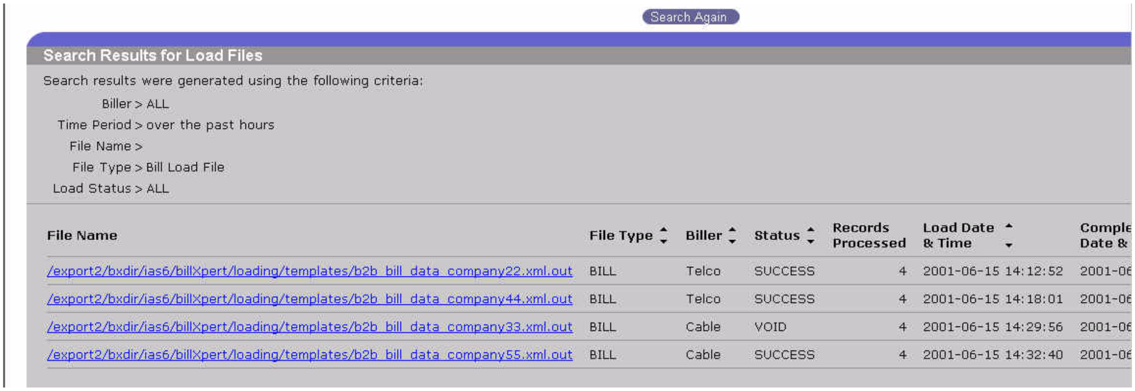
1. If you want, select a biller or billers whose data you want to search for, a time period to search for, one or more load statuses, the file name and type, and a number to limit the results displayed on your screen.
2. Click Search.

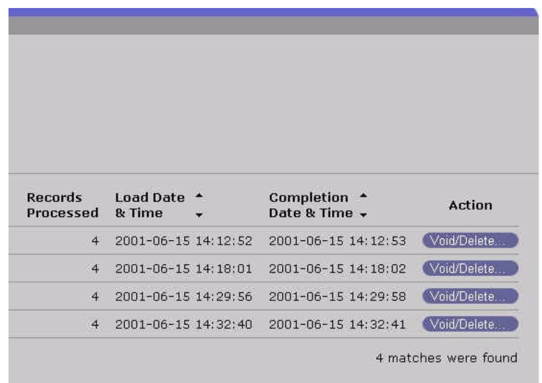
Voiding/Deleting a Database Process

To void a database process:

1. If you want, select a biller or billers whose data you want to search for, a time period to search for, one or more load statuses, the file name and type, and a number to limit the results displayed on your screen.
2. Click Search.
3. The file(s) are displayed as links, as in the following figure.

Figure 6 - 2 Displayed File Links





4. Select the file link you want to void, and click its respective Action tab (Void/Delete), to display the following,

Figure 6 - 3 Void/Delete Screen

5. Select the action you want to take by clicking the radio button next to, Void File or Delete File.
6. If you want to replace the file contents with another, enter the file name and the full path name of that file.
7. Click Submit.

Recovering a Database

To recover a database:

1. From Data Management, click the Recover Database button.
2. Select a biller from the list box.
3. Enter the file name and the full path name of that file.
4. Click Recover.

Viewing File Details

To view file details:

1. If you want, select a biller or billers whose data you want to search for, a time period to search for, one or more load statuses, the file name and type, and a number to limit the results displayed on your screen.
2. Click Search.
3. From the searched file list, that are displayed as links, select the link you want to view.

Chapter 7

Evoking Events and Handlers

This chapter provides information on the procedures and processes of evoking events and handlers, including:

- Defining an Event and a Handler
- Details of the Event and Handler Screens
- Adding an Event
- Updating an Event
- Searching for an Event
- Deleting an Event
- Adding an Event Schedule
- Updating an Event Schedule
- Searching for an Event Schedule
- Deleting an Event Schedule

Defining an Event and a Handler

An event is a process that occurs in the system. The event could be attached to a specific schedule, such as loading all invoices at a specific time. The handlers are the entities that “do the work” and dispense the requests of the Admin. Some of the events the system are INITPROCESSINSTANCE, LOADERDONE, PAYMENTSYNCEVENT, and SENDMAILEVENT.

Details of the Event and Handler Screens

The details, data, operations, and procedures of the Event and Handler screens are explained in this section.

Figure 7-1 Events

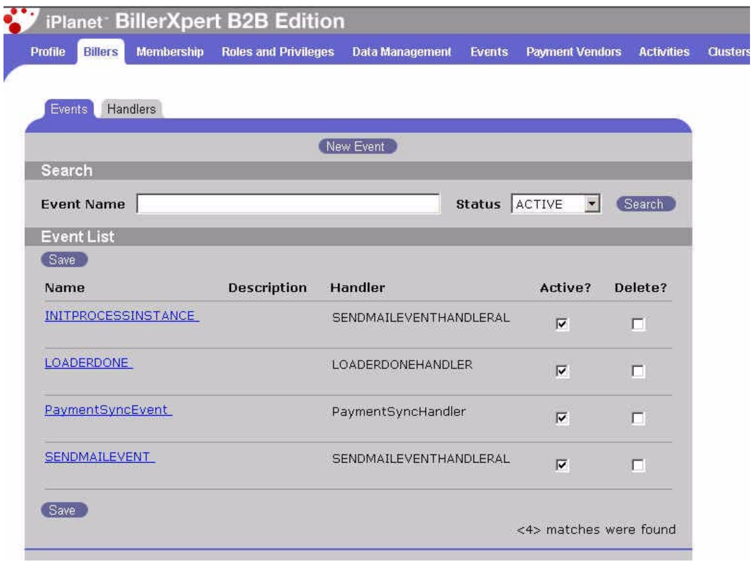
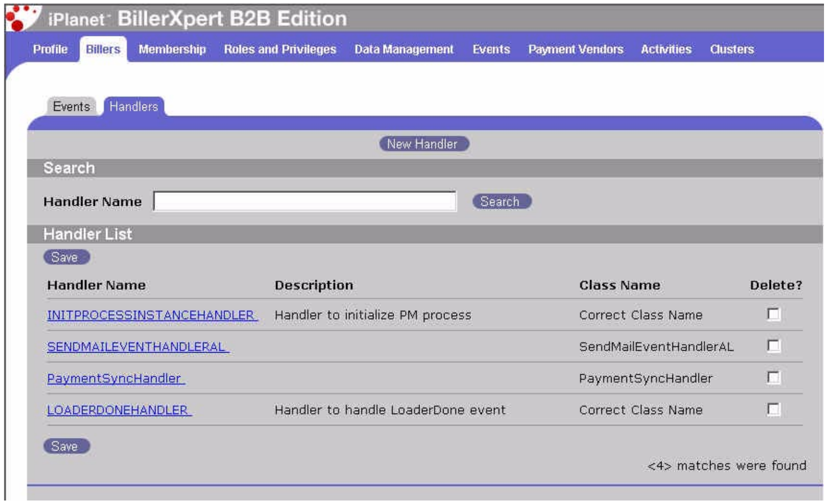


Figure 7-2 Handlers



NOTE	As you can see, most of the information displayed on the Events and Handlers screen is similar. All of the other function screens almost mirror each other. Therefore, applications and procedures for Events, can be done exactly in the same manner, by navigating to the respective tab.

Name

Name of event

Description

Narrative of event

Event or Handler (depending on the function)

Name of appropriate item

Active or Delete

Select event status

Adding an Event

To add an event

1. Navigate to the Events tab.
2. Click the New Event button.
3. Enter the name of the new event, and a description if you want one.
4. Select to activate the event upon creation, or not, by clicking the radio button of your choice.
5. Select a handler from the list displayed.
6. Click Save.

Updating an Event

To update an event:

1. Navigate to the Events tab.

   If you know the name of the event enter it. OR

   If you do not know the name click Search.
2. The events are displayed in the form of clickable links. Select the link of the event you want to update.
3. Enter the information you want to amend on the Update Event screen.
4. Click Save.

Searching for an Event

To search for an event:

1. At the Events tab, if you know the name of the event enter it. OR

   If you do not know the name click Search.

2. The events are displayed in the form of clickable links. Select the link of the event you want.

Deleting an Event

To delete an event:

1. At the Events tab, if you know the name of the event enter it. OR

   If you do not know the name click Search.

2. The events are displayed in the form of clickable links. Select the link of the event you want.
3. Select INACTIVE for the event status. The event is not deleted from the database, it just disappears from your screen.
4. Click Save.

Adding an Event Schedule

To add an event schedule:

1. At the Events tab, if you know the name of the event enter it. OR

   If you do not know the name click Search.

2. The events are displayed in the form of interactive links. Select the link of the event you want.

3. On the New Events Schedule screen, enter the name of the event in which to add a schedule.
4. If needed, enter the schedule data for the event handler. Repeat this step in the next field.
5. Complete the starting, ending, and Repeat Until timeframes, using the correct parameters.
6. Click Save.

Updating an Event Schedule

To update an event schedule:

1. At the Events tab, if you know the name of the event enter it. OR

   If you do not know the name click Search.
2. The events are displayed in the form of interactive links. Select the link of the event you want.
3. On the Update Events Schedule screen, enter the name of the event.
4. If needed, enter the schedule data for the event handler. Repeat this step in the next field.
5. Complete the starting, ending, and Repeat Until timeframes, using the correct parameters.
6. Click Save.

Searching for an Event Schedule

To search for an event schedule:

1. At the Events tab, if you know the name of the event enter it. OR

   If you do not know the name click Search.

2. The events are displayed in the form of clickable links. Select the link of the event you want.

Deleting an Event Schedule

To delete an event schedule:

1. At the Events tab, if you know the name of the event enter it. OR
2. If you do not know the name click Search.
3. The events are displayed in the form of clickable links. Select the link of the event you want.
4. At the Event Schedule section of the event, click Delete Selected.
5. Click Save.

Chapter 8

Producing Payment Vendors

This chapter provides information on the procedures and practices of producing payment vendors. It includes:

- Definition of a Payment Vendor
- Details of the Payment Vendor Screen
- Adding a Payment Vendor
- Updating a Payment Vendor
- Deleting a Payment Vendor

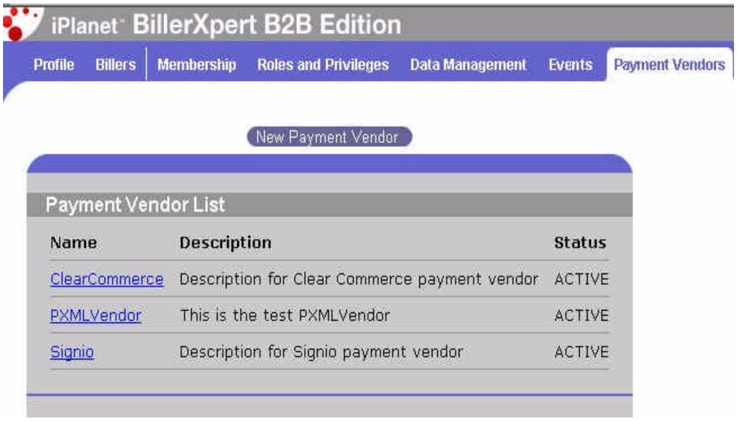
Definition of a Payment Vendor

A payment vendor is a company that provides payment processing services for other companies, such as billers and buyers, to make payments using the Internet.

Details of the Payment Vendor Screen

The details, data, operations, and procedures of the Payment Vendor screen is explained in this section.

Figure 8-1 Payment Vendors



Name

Name displayed as an interactive link

Description

Description, if added,

Status

Active or Inactive

Adding a Payment Vendor

To add a payment vendor:

1. Navigate to the Payment Vendor tab.
2. Click the New Payment Vendor button.
3. Enter the name, description, status, and protocol for the new payment vendor.
4. Click Save.

Updating a Payment Vendor

To update a payment vendor:

1. Navigate to the Payment Vendor tab.
2. Select the Payment Vendor link you want to update.
3. Enter the updated information for that vendor.
4. Click Save.

Deleting a Payment Vendor

To delete a payment vendor:

1. At the Payment Vendor tab, select the vendor link you want to delete.
2. At the Update Payment Vendor screen, select INACTIVE status.
3. Click Save.

Chapter 9

Accessing Activities

This chapter provides information on the processes and procedures of accessing activities, including:

- Definition of an Activity
- Description of the Activity Screens
- Adding an Activity
- Updating an Activity
- Searching for an Activity
- Deleting an Activity

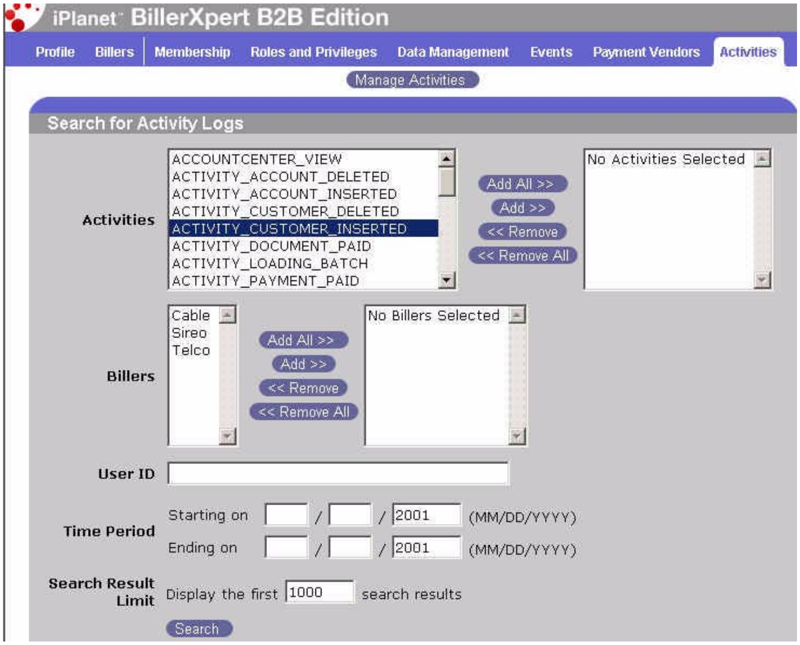
Definition of an Activity

An activity is an action taken by a user, such as making or canceling a payment.

Description of the Activity Screens

The details, data, operations, and procedures of the Activity screen are explained in this section.

Figure 9 - 1 Activity



Activities

Lists all activities

Billers

Lists the billers of this BSP Admin

User ID

User identification for billers

Time Period

Beginning and ending date for the activity

Search Result Limit

Amount of search results to display

Adding an Activity

To add an activity:

1. Navigate to the Activities tab.
2. Click the Manage Activities button.
3. At the Manage Activities screen, click New Activity.
4. Add the name, a description, and the status of the activity.
5. Click Save.

Updating an Activity

To update an activity:

1. Navigate to the Activities tab and click the Manage Activities button.
2. Select the link of the activity you want to update.
3. Amend the information on the Update Activity screen.
4. Click Save.

Searching for an Activity

To search for an activity:

1. Navigate to the Activities tab.

   The Search for Activities screen is displayed.

   Highlight the activity, or activities, you want to search for by using the dropdown list of Activities. There are Add and Remove selection buttons, to enable your list selection and another scroll list for your “completed” activity selections.

2. Select the Biller, or Billers, to search for activities.
3. You can also enter a user id and a time period to hone in on your search as well as limit the search results displayed on your screen.
4. Click Search.

Deleting an Activity

To delete an activity:

1. Navigate to the Activities tab to display the Search for Activities screen. OR
2. At the Activities tab, if you know the name of the activity select it. OR
3. If you do not know the name, select all, click Search.
4. The activities are displayed in the form of clickable links. Select the link of the activity you want.
5. At the Status field, enter INACTIVE.
6. Click Save.

Chapter 10

Comprising Clusters

This chapter contains information on comprising clusters, including the following sections:

- Defining a Cluster
- Details of the Cluster Screen
- Viewing Cluster Information
- Summary

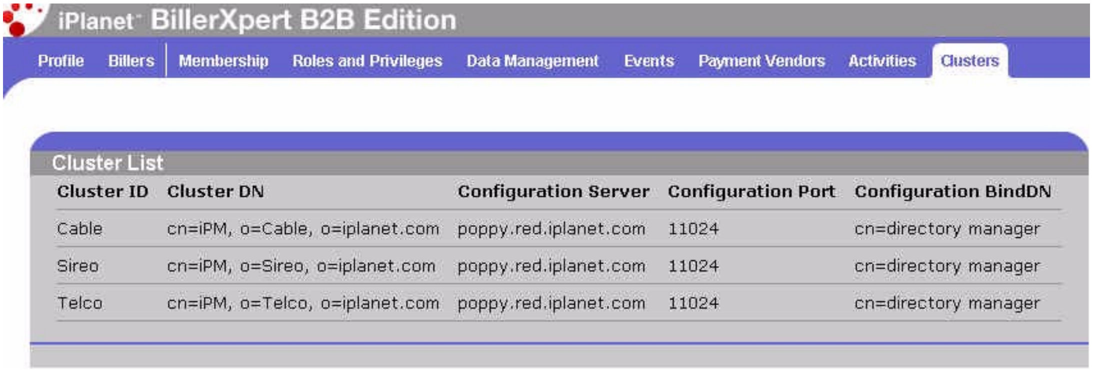
Defining a Cluster

A cluster is defined as the association of a configuration directory, a corporate user directory, one more application servers, and a database.

Details of the Cluster Screen

The following describes the display of the cluster screen, as shown in the following figure.

Figure 10 - 1 Cluster



Cluster ID

Identification of the cluster

Cluster DN (Distinguished Name)

Address where cluster information on the directory server is located.

Configuration Server

Server where cluster is located.

Configuration Port

Port where cluster is configured.

Configuration BindDN

User who has access to the cluster information and can manage it.

Viewing Cluster Information

To view cluster information:

1. Navigate to the Clusters tab.

   The cluster information is displayed.

Summary

You, as a BillerXpert B2B BSP Administrator, now recognize:

- how the GUI works and how to navigate through its functionality
- what a profile is and its importance to a BSP
- where to prepare, update, and edit payment vendors
- how payment types, payment methods, payment accounts all interrelate
- when to relate roles to privileges and how to add, update, and delete them
- how viewing and searching activities can give you detailed information

The appendices to this guide, including the B2B Loader, a glossary of terminology and an index of error messages (and how to regulate these messages) along with the functional index, give you the added tools you need to perform all the tasks to become a successful BSP Administrator.

Appendix A - Glossary

Administrators Administrators can be Business, System, or Company.

Attribute Holds descriptive information about an entry. Attributes have a label and a value. Each attribute also follows a standard syntax for the type of information that can be stored as the attribute value.

Authentication 1. Process of proving the identity of the client user to the Directory Server. Users must provide a bind DN and the corresponding password in order to be granted access to the directory. The Directory Server allows the user to perform functions or access files and directories based on the permissions granted to that user by the directory administrator.

2. Allows a Client to make sure they are connected to a secure server, preventing another computer from impersonating the server or attempting to appear secure when it is not.

Authentication Certificate Digital file that is not transferable and not forgeable and is issued by a third party. Authentication certificates are sent from server to client or client to server in order to verify and authenticate the other party.

Bind DN Distinguished name used to authenticate to the Directory Server when performing an operation.

Browser Software, such as Netscape Navigator, used to request and view World Wide Web material stored as HTML files. The browser uses the HTTP protocol to communicate with the host server. Also known as a Client program.

CA See Certification Authority.

Certification Authority Company or organization that sells and issues authentication certificates. You may purchase an authentication certificate from a Certification Authority that you trust. Also known as a CA.

CGI Common Gateway Interface. An interface for external programs to communicate with the HTTP server. Programs written to use CGI are called CGI programs or CGI scripts, and can be written in many of the common programming languages. CGI programs handle forms or perform output parsing that is not done by the server itself.

Ciphertext Encrypted information that cannot be read by anyone without the proper key to decrypt the information.

CIR See consumer-initiated replication

Class This is a reference to the type of Java Class used.

Class of Service (COS) Functionality that enables the Directory Server to provide different levels of service to different users.

Client See LDAP client.

Companies There are three types of companies, Hosting, Billing, and Buying. The Hosting company has a BSP for an administrator, the Billing, a Biller, and the Buying company, uses a Company Administrator.

Consumer Server containing replicated directory trees or subtrees from a supplier server.

Consumer-Initiated Replication Replication configuration where Consumer servers pull directory data from supplier servers.

COS See Class of Service (COS)

COS schema Objectclass and optional attributes that define a COS Scheme. Specifically, the `cosDefinition` object class and its required and allowed attributes.

Daemon A background process on a Unix machine that is responsible for a particular system task. Daemon processes do not need human intervention to continue functioning.

Directory Server Gateway A collection of CGI forms that allows a browser to perform LDAP client functions, such as querying and accessing a Directory Server, from a web browser.

Directory Service A database application designed to manage descriptive, attribute-based information about people and resources within an organization.

Distinguished Name (DN) String representation of an entry's name and location in an LDAP directory.

DNS Domain Name System. The system used by machines on a network to associate standard IP addresses (such as 198.93.93.10) with hostnames (such as www.netscape.com). Machines normally get the IP address for a hostname from a DNS server, or they look it up in tables maintained on their systems.

DNS Alias A DNS alias is a hostname that the DNS server knows points to a different host—specifically a DNS CNAME record. Machines always have one real name, but they can have one or more aliases. For example, an alias such as `www.[yourdomain].[domain]` might point to a real machine called `realthing.[yourdomain].[domain]` where the server currently exists.

File Extension The section of a filename after the period or dot (.) that typically defines the type of file (for example, .GIF and .HTML). In the filename `index.html` the file extension is `html`.

File Type The format of a given file. For example, graphics files are often saved in GIF format, while a text file is usually saved as ASCII text format. File types are usually identified by the file extension (for example, .GIF or .HTML).

Gateway See Directory Server gateway.

GUI Graphical User Interface or the screens between the system and the user.

hostname A name for a machine in the form machine.domain.dom, which is translated into an IP address. For example, www.netscape.com is the machine www in the subdomain netscape and com domain.

HTML Hypertext Markup Language. The formatting language used for documents on the World Wide Web. HTML files are plain text files with formatting codes that tell browsers such as the Netscape Navigator how to display text, position graphics and form items, and display links to other pages.

HTTP Hypertext Transfer Protocol. The method for exchanging information between HTTP servers and clients.

HTTPD An abbreviation for the HTTP daemon or service, a program that serves information using the HTTP protocol. The daemon or service is often called an httpd.

HTTP-NG The next generation of Hypertext Transfer Protocol.

HTTPS A secure version of HTTP, implemented using the Secure Sockets Layer, SSL.

IBBP =This is an acronym for Internet bill presentment and payment.

IP address Internet Protocol address. A set of numbers, separated by dots, that specifies the actual location of a machine on the Internet (for example, 198.93.93.10).

Language Language refers to the common written text, such as Java, or HTML, used to create files.

LDAP Lightweight Directory Access Protocol. Directory service protocol designed to run over TCP/IP and across multiple platforms.

LDAP client Software used to request and view LDAP entries from an LDAP Directory Server. See also *Browser*.

LDAP Data Interchange Format See LDIF.

LDIF LDAP Data Interchange Format. Format used to represent Directory Server entries in text form.

Lightweight Directory Access Protocol See LDAP.

Loading Loading refers to how files are entered into the system, sometimes referring to manual loads or time-based loading functions.

Management Information Base A database of managed objects accessed by network management protocols that can be accessed by standard or minimal predefined objects.

Master Agent *See SNMP master agent*.

MD5 A message digest algorithm by RSA Data Security, Inc., which can be used to produce a short digest of data, that is unique with high probability, and is mathematically extremely hard to produce a piece of data that will produce the same message digest.

MD5 Signature A message digest produced by the MD5 algorithm.

MIB Management Information Base.

Network Management Application An application on a network that can be managed by SNMP.

Network Management Station **(NIS)** Network Information Service. A system of programs and data files that Unix machines use to collect, collate, and share specific information about machines, users, file systems, and network parameters throughout a network of computers.

NMS Network Management Station is one that processes and controls for maximization and efficiency. The station can be one to management: fault, accounting, configuration, security, and performance.

ns-slapd Netscape's LDAP Directory Server daemon or service that is responsible for all actions of the Directory Server. See also *slapd*.

Object Class Defines an entry type in the directory by defining which attributes are contained in the entry.

Object Identifier A string, usually of decimal numbers, that uniquely identifies an object, such as an object class or an attribute, in an object-oriented system.

OFX OFX is an acronym for open financial exchange which is an agreed upon system for trading and paying for goods using various monetary units.

OID See Object Identifier.

Pass-Through authentication See PTA Pass-through authentication. Mechanism by which one directory server consults another to check bind credentials..

Pass-Through Subtree In pass-through authentication, the PTA directory server will pass through bind requests to the authenticating directory server from all clients whose DN contains this subtree.

Password File A file on Unix machines that stores Unix user login names, passwords, and user ID numbers. It is also known as `/etc/passwd`, because of where it is kept.

Pathname The is the explicitly routed Internet address for a file, or the location where the file can be found.

Profiles Profiles are details for companies and billers, such as contact names, types of payments used, and so on.

Protocol A set of rules that describes how devices on a network exchange

PTAPass-through authentication. Mechanism by which one directory server consults another to check bind credentials.

PTA directory server In pass-through authentication (PTA Pass-through authentication. Mechanism by which one directory server consults another to check bind credentials.), the PTA directory server is the server that sends (passes through) bind requests it receives to the authenticating directory server.

PTA LDAP URL In pass-through authentication, the URL that defines the authenticating directory server, pass-through subtree(s) and optional parameters.

Public-Key Encryption Encryption that uses two keys: a public key for encrypting data, and a private key for decrypting data. Someone sending you encrypted information encrypts it using your public key. The information can then only be decrypted using your private key.

RAM Random access memory. The physical semiconductor-based memory in a computer. Information stored in RAM is lost when the computer is shut down.

rc.local A file on Unix machines that describes programs that are run when the machine starts. It is also called `/etc/rc.local` because of its location.

RDN Relative distinguished name. The name of the actual entry itself, before the entry's ancestors have been appended to the string to form the full distinguished name.

Referential Integrity Mechanism that ensures that relationships between related entries are maintained within the directory.

Replication Act of copying directory trees or subtrees from supplier servers to consumer servers.

Replication Agreement Set of configuration parameters that identify the directory objects to replicate, the times during which replication can occur, and the servers involved in the replication process.

RFC Request For Comments. Procedures or standards documents submitted to the Internet community. People can send comments on the technologies before they become accepted standards.

Root The most privileged user available on Unix machines. The root user has complete access privileges to all files on the machine.

Schema The definition of an entire database is the schema or the type of contents that each data element within it contains.

schema checking Ensures that entries added or modified in the directory conform to the defined schema. Schema checking is on by default and users will receive an error if they try to save an entry that does not conform to the schema.

Secure Sockets Layer See SSL.

Server Console Java-based application that allows you to perform administrative management of your Directory Server from a GUI.

Server Daemon The server daemon is a process that, once running, listens for and accepts requests from clients.

Server Service The server service is a process on Windows NT that, once running, listens for and accepts requests from clients.

Server Root A directory on the server machine dedicated to holding the server program and configuration, maintenance, and information files.

Server Selector Interface that allows you select and configure servers using a browser.

Service A background process on a Windows NT machine that is responsible for a particular system task. Service processes do not need human intervention to continue functioning.

SIR See supplier-initiated replication.

slapd LDAP Directory Server daemon or service that is responsible for most functions of a directory except replication. See also *ns-slapd*.

SNMP master agent Software that exchanges information between the various subagents and the NMS.

SNMP Subagent Software that gathers information about the managed device and passes the information to the master agent.

SSL Secure Sockets Layer. A software library establishing a secure connection between two parties (client and server) used to implement HTTPS, the secure version of HTTP.

Subagent See SNMP Subagent.

Superuser The most privileged user available on Unix machines (also called root). The superuser has complete access privileges to all files on the machine.

Supplier Server containing the master copy of directory trees or subtrees that are replicated to consumer servers.

Supplier-Initiated Replication Replication configuration where Supplier servers replicate directory data to consumer servers.

Symmetric Encryption Encryption that uses the same key for both encrypting and decrypting.

TCP/IP Transmission Control Protocol/Internet Protocol. The main network protocol for the Internet and for enterprise (company) networks.

Template A pre-designed document or data file formatted for common purposes such as a fax, invoice, or bill.

UID User ID or identification, a unique number associated with each user on a Unix system.

URL Uniform Resource Locator. The addressing system used by the server and the client to request documents. It is often called a location. The format of a URL is `[protocol]://[machine:port]/[document]`. The port number is necessary only on selected servers, and it is often assigned by the server, freeing the user of having to place it in the URL.

Appendix B - Error Messages

The following are a list of error messages (contents) and the procedures used to correct them (description).

Contents	Description
004000 Validation failed:	Passwords don’t match. Re-enter passwords again.
004001 Validation failed:	Admin User ID is missing. Enter user ID.
004002 Validation failed:	Admin Password is missing. Enter admin password.
005011 Validation failed:	Invalid Credit Card Nickname. Enter valid credit card nickname.
005012 Validation failed:	First name is missing. Enter first name.
005013 Validation failed:	Last name is missing. Enter last name.
005014 Validation failed:	Invalid first name. Enter valid first name.
005015 Validation failed:	Invalid last name. Enter valid last name.
005016 Validation failed:	Invalid middle name. Enter valid middle name.
005017 Validation failed:	Invalid Prefix. Enter valid prefix.
005018 Validation failed:	Invalid Suffix. Enter valid suffix.
005020 Validation failed:	Bad Visa Card Number. Enter correct card number.
005021 Validation failed:	Bad Master Card Number. Enter correct card number.
005022 Validation failed:	Bad American Express Card Number. Enter correct card number.
005023 Validation failed:	Bad Discover Card Number. Enter correct card number.
005024 Validation failed:	Bad Diners Club Card Number. Enter correct card number
005025 Validation failed:	Expiration date is set before current date.Enter correct date.
005026 Validation failed:	Bad Credit Card Number. Enter correct number.

Contents	Description
005027 Validation failed:	Credit Card Brand is missing. Enter correct brand.
005028 Validation failed:	Credit Card Number is missing. Enter correct number.
005029 Validation failed:	OnlineName is missing. Enter name.
005030 Validation failed:	Password is missing. Enter password.
005031 Validation failed:	Invalid User Name. Enter correct name.
005032 Validation failed:	Invalid Password. Enter correct password.
005033 Validation failed:	Invalid Nickname. Enter correct nickname.
005034 Validation failed:	Invalid Email address. Enter correct address.
005035 Validation failed:	Card holder name is missing. Enter correct name.
005036 Validation failed:	Card holder address is missing. Enter correct address.
005037 Validation failed:	City is missing. Enter city.
005038 Validation failed:	Postal code is missing. Enter postal code.
005039 Validation failed:	Card holder name is invalid. Enter valid name.
005041 Validation failed:	Card holder address is invalid. Enter valid address.
005042 Validation failed	City is invalid. Enter valid city.
005043 Validation failed:	State is invalid Enter valid state.
005044 Validation failed:	Postal code is invalid. Enter valid postal code.
005045 Validation failed:	Bank Routing Number is missing. Enter bank routing number.
005046 Validation failed:	Bank Account Number is missing. Enter bank account number.
005047 Validation failed:	Bank Routing Number is invalid. Enter valid number.
005048 Validation failed:	Bank Account Number is invalid. Enter valid number
005049 Validation failed:	Check Nickname is invalid. Enter valid name.
005050 Validation failed:	Bank Routing Number failed. Reenter routing number.
005100 Validation failed:	Invalid Address Line 1. Reenter valid address.
005101 Validation failed:	Invalid Address Line 2. Reenter valid address.
005102 Validation failed:	Invalid Address Line 3. Reenter valid address.

Contents	Description
005103 Validation failed:	Invalid City. Reenter valid city.
005104 Validation failed:	Invalid State. Reenter valid state.
005105 Validation failed:	Invalid Postal Code. Reenter valid code.
005106 Validation failed:	Address 1 is missing. Reenter Line 1 - Address.
005108 Validation failed:	State is missing. Reenter state.
006011	From Date should be before To Date. Reenter correct dates.
006012	Incorrect date format. Reenter dates using correct format.
006041	Card holder address is invalid. Enter valid address.
006083	Failed to load Payment Type information. Reenter payment type data.
006085	Failed to save Payment Type information. Reenter and save data.
006086	Failed to create payment type. Create payment type.
006087	The payment type is successful.
006088	Failed to create payment type...duplicate card brand. Redo and correct.
006089	Failed to create payment type...card brand is missing. Reenter card brand.
006090	Payment Types not found in server for biller. Enter payment type for biller.
007000	Failed to retrieve archival data. Redo procedure and rearchive again.
007001	Failed to save archival data. Redo procedure and save again.
007002	Search failed. Data not found. Redo procedure and search again.
007003	File not found. Check for correct file number and redo procedure.
007004	Failed to verify specified directory. Check for correct directory and redo.
007005	Save failed. You don’t have write permission...Ask Admin for help.
100001	Internal error. Cannot create billing object. Redo and recreate object.
100002	Internal error. Cannot create membership object. Redo and recreate object.
100003	AppLogic Error: Invalid Request. Redo request.
100005	Internal Error. Cannot create payment object. Redo and recreate object.
100006	Internal Error. Cannot create config object. Redo and recreate object.

Contents	Description
100007	Connection failed. NAS Server may be down. Call System Admin.
100008	Failed to login to NAS Server. Redo procedure and resubmit.
100009	Internal Error: Calling Applog failed. See log for details.
100011	User session not found. See log for details.
100016	Failed to create user session. See log for details.
100017	User not found. Check with System Admin.
100018	Authentication failed. User statis is not ACTIVE. See System Admin.
100019	Authentication failed:User don't belong to Admin_Group. See System Admin
100110	Access not allowed. See System Admin.
100111	Unknown biller type. Check biller type and reenter.
100112	Authentication failed: Biller statis is not ACTIVE. See System Admin.
100113	Validation failed: Biller name is missing. Enter biller name.
100114	Validation failed: Invalid Biller name. Reenter biller name.
100500	Failed to retrieve users. Reenter request and resubmit.
100501	Failed to delete users. Reenter request and resubmit.
100502	No users matching....Reenter request and resubmit.
100600	User added successfully.
100601	User is updated successfully.
100602	User is removed successfully.
101001	Specified biller not found. Reenter biller and resubmit.
101102	You have entered a duplicate name. Delete duplicate.
101103	You need to enter a value first. Enter a value.
101104	Failed to delete interface. See log for details.
101105	Failed to retrieve objects. See log for details.
102000	You can not delete default Account type. Reenter type and resubmit.
103000	Option name is required. Reenter name and resubmit.

Contents	Description
103001	You have entered a duplicate option name. Reenter name and resubmit.
103100	Biller Name Missing. Reenter biller name.
103101	Biller Name Invalid. Reenter biller name.
103102	Phone missing. Reenter phone number.
103103	Phone invalid. Reenter valid number.
103104	URLmsg. Enter correct URL.
103105	URLmsg invalid. Enter correct URL.
103106	Faxnumber missing. Enter correct number.
103107	Faxnumber invalid. Enter correct number.
103108	Dayphone missing. Enter phone number.
103109	Dayphone invalid. Enter phone number.
103110	Evephone missing. Enter phone number.
103111	Evephone invalid. Enter phone number.
103112	Email missing. Enter email address.
103113	Email invalid. Enter email address.
103114	Billerid missing. Enter biller ID.
103115	Billerid invalid. Enter biller ID.
103116	Language missing. Enter correct language.
103117	Language invalid. Enter correct language.
103118	Templatepath missing. Enter templatepath.
103119	Templatepath invalid. Enter templatepath.
103120	Database missing. Enter correct database.
103121	Database invalid. Enter correct database.
103122	Userid missing. Enter user ID.
103123	Userid invalid. Enter user ID.
103124	Billtype missing. Enter correct bill type.

Contents	Description
103125	Billtype invalid. Enter correct bill type.
103126	Tabledef missing. Enter correct table definition.
103127	Tabledef invalid. Enter correct table definition.
103128	Category missing. Enter correct category.
103129	Category invalid. Enter correct category.
103130	Description missing. Enter correct description.
103131	Description invalid. Enter correct description.
103132	Industryprofile missing. Enter industry profile.
103133	Industryprofile invalid. Enter industry profile.
103134	Cycledate missing. Enter correct date.
103135	Cycledate invalid. Enter correct date.
103136	Billingmonth missing. Enter correct month.
103137	Billingmonth invalid. Enter correct month.
103138	Primary contact name missing. Enter correct name.
103139	Primary contact name invalid. Enter correct name.
103140	Primary phone number missing. Enter number.
103141	Primary phone number invalid. Enter number.
103142	Primary email missing. Enter email address.
103143	Primary email invalid. Enter email address.
103144	Secondary contact name missing. Enter correct name.
103145	Secondary contact name invalid. Enter correct name.
103146	Secondary phone number missing. Enter correct number.
103147	Secondary phone number invalid. Enter correct number.
103148	Secondary contact email missing. Enter correct email address.
103149	Secondary contact email invalid. Enter correct email address.
103150	Address 1 missing. Enter correct address.

Contents	Description
103151	Address 1 invalid. Enter correct address.
103152	Address 2 missing. Enter correct address
103153	Address 2 invalid. Enter correct address.
103154	Address 3 missing. Enter correct address.
103155	Address 3 invalid. Enter correct address.
103162	Country missing. Enter country.
103163	Country invalid. Enter country.
103164	Charset missing. Enter character set.
103165	Charset invalid. Enter character set.
103169	Event biller missing. Enter correct biller.
103170	Event name missing. Enter correct event name.
103171	Event description missing. Enter correct description.
103172	Event status missing. Enter correct status.
103173	Handler name missing. Enter correct name.
103174	Handler description missing. Enter correct description.
103175	Handler class name missing. Enter correct name.
103176	Handler package missing. Enter correct pacakage.
103177	Handler application logic name missing. Enter correct one.
103178	Schedule dates appear invalid. Enter correct dates.
103179	Please select schedule mode. Enter correct schedule mode.
120000	Purge execution failed. Redo procedure and resubmit.
120001	Recovery execution failed. Redo procedure and resubmit.
009000	Limit has exceeded default. See Admin.
103200	Loaded file name missing. Enter file name.
103201	Loaded file type missing. Enter file type.
103202	Invalid date input. Enter correct date.

Contents	Description
103203	Date input missing, Enter input date.
103204	Invalid date range input. Enter valid date.
103205	Date range input missing. Enter correct date.
103206	Invalid number input. Enter correct number.
103207	Input number missing. Enter correct number.
103208	Please enter a schedule name. Enter a schedule name.
010001	Invalid date input. Enter correct date.
011000	Failed to create dept ID. Duplicate date entered. Delete duplication.
011200	The department was successfully created.
011300	Failed to update department. Redo procedure and resubmit.
011400	The department was successfully updated.
011500	Please select a department from the list. Select a department.
011700	Failed to delete the department. Redo procedure and resubmit.
011800	The department was successfully deleted.
011900	Failed to move the department. Redo procedure and resubmit.
012000	The entered department does not exist. Redo procedure and resubmit.
012200	The current parent and new parent department are the same. Redo/submit
109000	Company name missing. Enter company name.
009001	Company name invalid. Enter company name.
200000	You request was successfully completed.

Appendix C - B2B Loader

The following details the B2B Loader and describes pertinent data you will need for efficient and effective manual loads. The appendix includes:

- Types of Loading
    - Bill Data
    - Customer Profile
    - Department Tree
- Invoking the Loader
- Configuration and Structure
    - Configuring the Loader
    - Changing the Existing Table Definition
    - Adding a New Detail Table
- Error Handling
- Load Status
- Events Pushed by Loader

Types of Loading

Types of loading support the following:

- Bill Data
- Customer Profile Data
- Department Tree

Bill Data Loading

The Bill Data Loader loads the bill data in the database. The DTD for this loading option is billx_b2b.dtd. The Loaders uses the BillerId tag in the input XML file to determine in which schema the files are loaded.

The Bill Data Loader supports the following operations:

- Insert
- Replace

Insert

Insert is used when you want to insert new bills into the system with already existing accounts.

Before loading invoices for any account, that account has to be already present in the database. The account is supposed to be created while creating the company.

If the account is not present in the BXBillerCustomerAccount database table, bills will not be loaded and an error will be thrown.

Replace

The REPLACE Operation for the Bill Data Loader (to replace the specified invoices) marks the old invoice VOID and a new replacement invoice is loaded. The payments made against the old invoice is linked to the new invoice.

NOTE Invoice Number, PO Number, and Department Number are attributes that can be either at the Document level or at the individual LineItem level, when the loader uses the following approach. If these attributes are present in the document, for all the line items of that document, the same values are assigned to these attributes irrespective of the values of those attributes at the LineItem level.

Customer Profile Data Loading

The Customer Profile Data Loader loads the customer profile information in the LDAP. The DTD for this option is billxmemb.dtd. The Loader users BillerId tag and CompanyId tag in the input XML file to determine in which branch the customer profile should be loaded and uses operation tags to determine what kind of action to perform.

The Customer Profile Data Loader supports the following operations:

- Insert
- Update
- Delete

Insert

This operation should be used when you want to insert a new Customer Profile in the LDAP. The DTD for this option is billxmemb.dtd.

Update

This operation should be used for updating a user profile that already is inserted into the LDAP. The DTD is billxmemb.dtd.

Delete

This operation should be used to completely delete the Customer Profile from the LDAP. The DTD is billxmembdel.dtd.

NOTE	The XML file for loading user profile contains the <bcpGrp> attribute. This attribute designates the Role that the user gets assigned to. This value should be one of the defined Roles for the company for which the user profile is being loaded. For example, if Admin and User are the two roles defined for a company, then while adding a new user with the Admin Roles, the bcpGrp field will have Admin as its value.

Department Tree Loading

The Department Tree Loaders loads the Department Tree into the LDAP. The Loader uses BillId and CompanyId tags in the input XML file to determine in which branch the department tree should be loaded. It also uses the operation tag to determine what kind of action to perform.

The department tree data loader supports the following operations:

- Insert
- Update

- Deletenode
- Deletebranch
- Movenode
- Movebranch

Insert

This operation should be used when you want to insert a department tree. The DTD for this operation is dept_tree_ insert.dtd.

NOTE	Duplicate department IDs will be rejected. If you do not specify the ParentName of the Department Node, it is considered as the ROOT node.

Update

This operation should be used to update the following attributes of the department node: DepartmentName, Description and Approver, ParentName and DepartmentId can to be updated. The DTD for this option is dept_tree_update.dtd.

Deletenode

This operation should be used to delete a particular node in the department tree. The children of the node being deleted become children of the parent node. The DTD for this option is dept-tree-delete.dtd.

Deletebranch

This operation should be used to delete the node and all its children in the department tree. The DTD for this option is dept_tree_delete.dtd.

Movenode

This operation should be used to move the node in a department tree. The ParentName in the input XML file should indicate the DepartmentId of the node where it will be moved. The DTD for this option is dept_tree_move.dtd.

Movebranch

This operation should be used to move the subtree in the department tree. The ParentName in the input XML file should indicate the DepartmentId of the node where it will be moved. The DTD for this option is dept_tree_move.dtd.

Multi-valued Attributes

Some of the attributes can have multiple values, for example: secondaryContact, acctType, group attributes in CustomerProfile and approver in DEPT_TREE. Multiple values can be specified by separating them using “,”. For example, referencing multiple values for group user, admin, special.

Invoking the Loader

There are two ways to invoke the loader, via:

- the command line
- the Admin UI

To invoke the loader through the command line:

1. This can be done by using scripts; “load”, which are under $BX_HOME/loading/tools.

NOTE	Please make sure that you have sourced the BillerXpert environment before running scripts. The script displays the usage if you run it without any argument.

To invoke the loader through the Admin UI:

1. Log into the system as a BSP administrator entering, *admin@bsp.com* at the login screen.

2. Click on the MANUAL LOAD tab to get the screen for “Load” operations.

Loader Configuration and Structure

This section details the operations and procedures for configuration and structure. The section describes how it will appear, what to do with it and explains any special attributes will be used. The loader configuration and structure includes:

- Loading Attributes
- Configuring the Loader
    - Changing the Existing Table
    - Adding a New Detail

Loading Attributes

The following table describes the loading attributes.

Attribute	Description of Attribute
DEBUG_LEVEL	This attribute specifies the debug level for the loader. The possible values are from 0 to 5. Debug level 5 will product maximum debug statements, even at XML tag level. The recommended debug level is 1. By default, the debug level is set to 0 which will produce minimum debug messages. The debug level is for the entire loader and hence is the property of APPLICATION.
ARCHIVE_DIR	This attribute specify the directory where the file should be archived after successful loading. This directory can be specified on a per biller basis.
ARCHIVE_FLAG	This flag determines whether to archive a file or not. This can also be specified on a per biller basis.
ABORT_ERROR_COUNT	This attribute specifies the count of errors after which the loading should be considered as failed. This can be specified on a per biller basis.
STATUS_INTERVAL	This attribute indicates the interval after which the status loading should be updated in the BXLoadTrack record, which is used to display the progress of the loading. This can be specified on a per biller basis.
BATCH_SIZE	This attribute indicates the size of the batch to be submitted to the database for insertion. This attribute only makes sense in the case of bill data loading. This can be specified on a per biller basis.
TBD	More data and attributes TBD.

Configuring the Loader

The Loader is configurable to take care of changes in The database schema where the data will be loaded. The application server needs to be restarted in order to take the new configuration into effect. The following are two common situations where the Loader donfiguration data needs to be changed.

- Changing the existing table definition
- Adding a new detail table

Changing the Existing Table Definition

To change an existing table definition:

1. Using the LDAP console, go to the LOADING_OPTION of the appropriate biller.
2. Select the appropriate table from the list of tables.
3. Edit the ATTRIBUTE property listed under that table to add new attributes or delete unwanted ones.

NOTE	In the case of the DETAILS table, make sure that there is a LINEID attribute in the list. It is mandatory for Detail table loading to work correctly.

4. Edit the INSERT_SQL_STRING property listed under that table to take care of the newly added or deleted attributes.

NOTE	If you need to add extra fields or delete unwanted fields in existing tables, the loader code need not be changed; only the configuration of corresponding tables has to be changed in the LDAP.

Adding a New Detail Table

To add a new detail table:

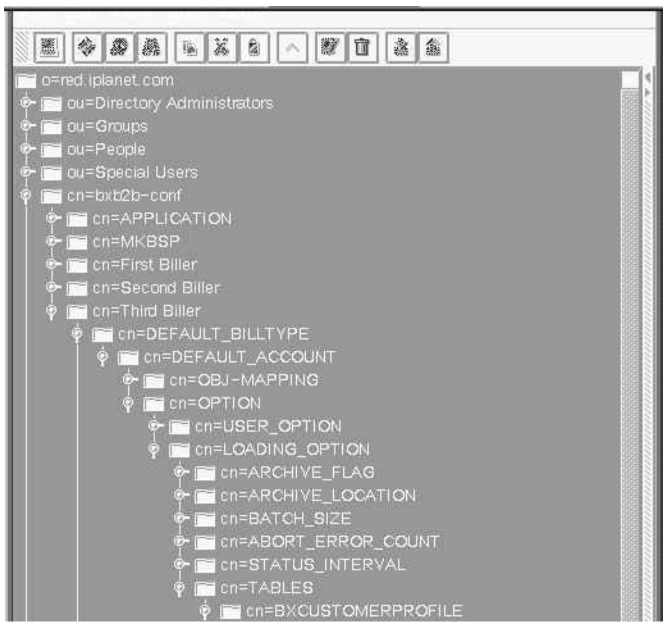
1. Using the LDAP console, go to the LOADING_OPTION of the appropriate biller.
2. Click the DETAIL tree present under the TABLES tree.
3. Add a new Entry of type_NTV and a name, the same name as the table name under the DETAIL tree.
4. Add the following three new entries of type_STR under the newly created node in step 3.
   a. SEQUENCE_NAME: Add the sequence name of the new table as the value of this entry.

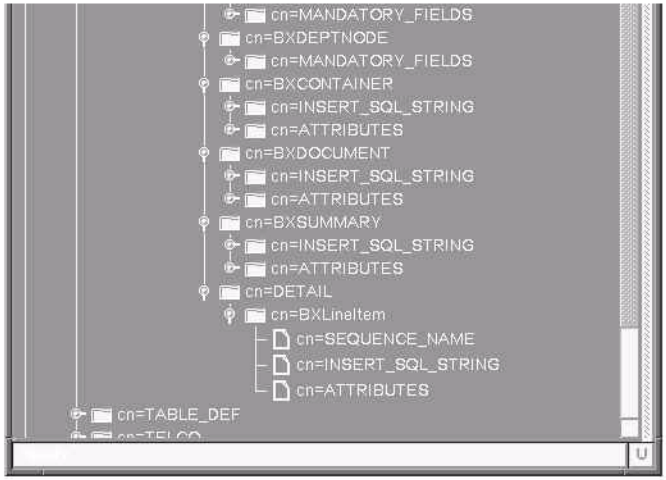
b. ATTRIBUTES: Add the list of attributes of the new table as the value of this entry. Make sure to add a mandatory LINEID field in the list. The same attribute tags should be present in the input XML field.

c. INSERT_SQL_STRING: Add the insert SQL statement required to insert a row in this table as the value of the entry. Make sure to add a mandatory LINEID field in the list.

An example of the Hierarchy Tree is displayed in the following:

Figure 1 Loader Tree Hierarchy





Error Handling

Errors for bill data, customer profile, and department tree loaders, are handled in the following ways:

Bill Data Loader

Error handling is done at the Invoice level, i.e., if there is a single error in the LineItem of an invoice, the entire invoice is considered as the wrong one. It is not loaded into the database and an error is logged in the BXError table for that invoice.

Replace

Replaces works only with bill data. It deletes the unseen and unpaid bills from the old file and marks all seen and paid bills as VOID. Replace loads the new bills and applies the payments of an old bill to the new one, if the old bill is paid. It creates a new table in the LoadTrack table for the new file load and marks the old LoadTrackRecord as VOID.

Delete

Delete works only for bill data. Delete does not delete the record from the BxLoadTrack table, it just marks it as VOID. It deletes all the unseen and unpaid bills and marks all seen or paid bills as VOID.

If you run delete for any other type of load other than Bill Load data, it will just mark the BXLoadTrack record as VOID without actually deleting the associated data.

Customer Profile Loader

Error handling is done at a customer record level and an error is logged in the BXError table.

Department Tree Loader

Error handling is done at the load level, i.e.; if a single node fails, the entire load is considered as bad.

Reload

This operation should be used when you want to reload the corrected file. For example, you tried to load File 1.xml, but it failed at record 3. You may then correct record 3 and try reloading the same file starting from record 3. You have to use reload for that file to correct any errors.

There is an extended RELOAD functionality to the Customer Profile Loader (CPL) as the Bill Data Loader and the CPL support the ability to reload the same file. To reload a previously partially loaded file, the start record number must be specified as >0.

NOTE RELOAD functionality can not be used for the file which contains multiple loads. It is also not supported for the Department Tree Loader.

Load Status

The following are the possible statuses of a load:

- SUCCESS
- PARTIAL_SUCCESS
- ABORTED
- FAILED

SUCCESS

Everything is fine, no error. Everything is loaded into the database or LDAP.

PARTIAL_SUCCESS

There are some errors but they are less than ABORT_ERRROR_COUNT. Records with no errors are loaded into the database or LDAP.

ABORTED

There are errors and they are equal to or more than ABORT_ERROR_COUNT. Records with no errors, until the point this condition happened, are loaded into the database or LDAP.

FAILED

There are some errors in the load and nothing has been loaded into the database or LDAP.

Events Pushed by the Loader

In the RELOAD operations, previous loadtrack records of loading are overwritten with the new record. This is due to the uniqueness constraint on the LoadTrack table.

The Loader now pushes the LOADERDONE event, in the vent queue, after loading everything in the input file. It puts billerid, companyid, loadtype, status, and number of records loaded, in the parameter list.

The default handler LoaderDoneServerlet is provided. Currently it sends an email message to the company admin. The mail_section in the billxb2b.conf should have the sender_address and sender_host property set up to make this handler work.

NOTE	This handler should be customized to match the requirement.

Appendix D - Root

The following appendix details the procedures and processes of the Root User, including:

- Definition of a Root User
- Privileges of a Root User
- Logging Out

Definition of a Root User

A root user and its privileges make it a super user for the system. A Root can administer all the tasks of any user and this member can also administer organizations under itself. In other words, the BSP Root can administer all billers, companies, and all companies associated with it.

Privileges of a Root User

The following table displays the privileges of the Root User.

Privilege	**Description of Privilege**
AdminSignOn	Access CoAdmin functions via sign on
AdminUpdateCompanyProfile	Update company profile
AdminUpdateBillerProfile	Update biller profile
AdminAddCompanyPaymentMethod	Add company payment method
AdminUpdateCompanyPaymentMethod	Update company payment method
AdminAddGroup	Add a company group
AdminAddMember	Add a company member
AdminAddRole	Add a role

Privilege	Description of Privilege
AdminUpdateMember	Update a member
AdminAddDepartment	Add a department
AdminUpdateDepartment	Update a department
AdminDeleteDepartment	Delete a department
AdminMoveDepartment	Move a department
AdminLoadFile	Load file
AdminVoidReplaceFile	Void or replace a file
AdminPurge	Purge a file
AdminRecover	Recover a file
AdminSetArchiveDir	Set an archival directory
AdminAddSchedule	Add a schedule to events
AdminAddHandler	Add a handler
AdminUpdateHandler	Update a handler
FE* (all of the above)	Can do all the above via the front end

Logging in as a Root User

To log in as a root user:

1. From the BillerXpert B2B Administrative Login, enter:

Name: BSP

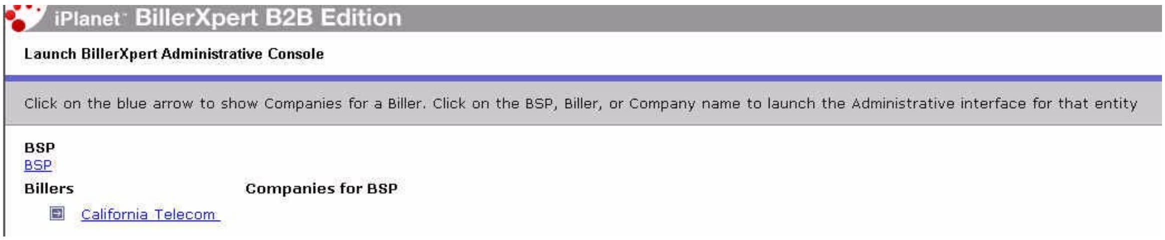
User ID: root@bsp.com

Password: root

2. Click the Login button.

The following screen is displayed.

Figure D - 1 Example of a Launch Console Screen



NOTE	This example displays the ability of the root user as being the super user. The root can emulate a BSP, a Biller, or any companies of the BSP or Billers.

3. Make your selection as to whom you want to emulate. For further instructions on your emulated user and the procedures for administering a buying company a billing company or the host company, see the

- *Company Administration Guide*
- *Biller Administration Guide*
- *BSP Administration Guide*

Logging Out

To log out:

1. Click the Logout button.

The button is located on the top right hand corner of every page.

Index

T

U

V