



Portal Consolidation Production Guide

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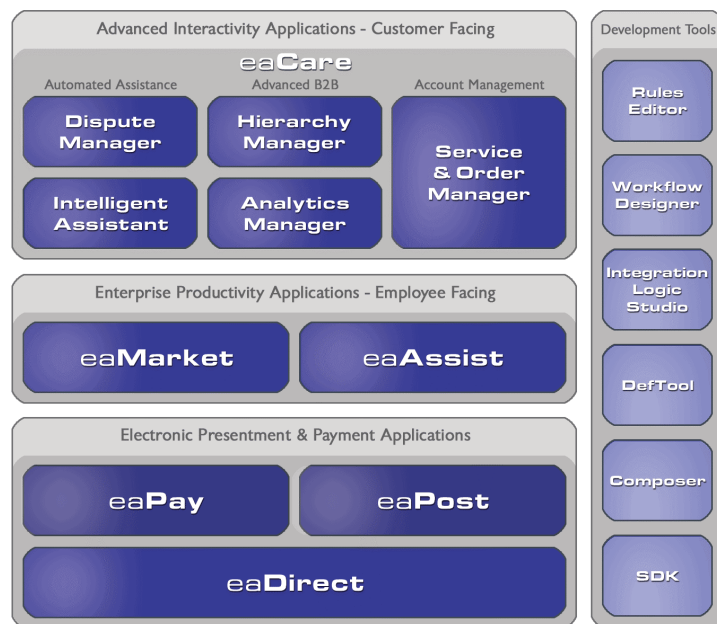
Preface

About Customer Self Service and eaSuite™

edocs has developed the industry's most comprehensive software and services for deploying Customer Self-Service solutions. **eaSuite™** combines electronic presentment and payment (EPP), order management, knowledge management, personalization and application integration technologies to create an integrated, natural starting point for all customer service issues. eaSuite's unique architecture leverages and preserves existing infrastructure and data, and offers unparalleled scalability for the most demanding applications. With deployments across the healthcare, financial services, energy, retail, and communications industries, and the public sector, eaSuite powers some of the world's largest and most demanding customer self-service applications. eaSuite is a standards-based, feature rich, and highly scalable platform, that delivers the lowest total cost of ownership of any self-service solution available.

eaSuite is comprised of four product families:

- Electronic Presentment and Payment (EPP) Applications
- Advanced Interactivity Applications
- Enterprise Productivity Applications
- Development Tools



Electronic Presentment and Payment (EPP) Applications are the foundation of edocs' Customer Self-Service solution. They provide the core integration infrastructure between organizations' backend transactional systems and end users, as well as rich e-billing, e-invoicing and e-statement functionality. Designed to meet the rigorous demands of the most technologically advanced organizations, these applications power Customer Self-Service by managing transactional data and by enabling payments and account distribution.

eaDirect™ is the core infrastructure of enterprise Customer Self-Service solutions for organizations large and small with special emphasis on meeting the needs of organizations with large numbers of customers, high data volumes and extensive integration with systems and business processes across the enterprise. Organizations use eaDirect with its data access layer, composition engine, and security, enrollment and logging framework to power complex Customer Self-Service applications.

eaPay™ is the electronic payment solution that decreases payment processing costs, accelerates receivables and improves operational efficiency. eaPay is a complete payment scheduling and warehousing system with real-time and batch connections to payment gateways for Automated Clearing House (ACH) and credit card payments, and payments via various payment processing service providers.

eaPost® is the account content distribution system that handles all the complexities of enrollment, authentication and secure distribution of summary account information to any endpoint, while also bringing customers back the organization's Website to manage and control their self-service experience.

Advanced Interactivity Applications are a comprehensive set of advanced customer-facing self-service capabilities that enable the full range of business and consumer customer service activities. These sophisticated modules have the flexibility to completely customize the Customer Self-Service solution to meet vertical industry and specific company requirements.

eaCare™ consists of a rich set of sophisticated self-service modules – Dispute Manager, Intelligent Assistant, Hierarchy Manager, Analytics Manager, and Service and Order Manager - for automated assistance, advanced business-to-business applications and account management. These capabilities come together to create a web self-service dashboard for customers to access all service offerings from a single, easy-to-use interface. eaCare’s modularity accelerates time to market with components that can be deployed incrementally in a phased approach.

Enterprise Productivity Applications are employee-facing solutions that empower customer service representatives, sales agents, account managers, marketing managers, broker-dealers and channel partners within an organization and external partner organizations to facilitate self-service and to support assisted service. Employees leverage edocs’ Customer Self-Service solution to deliver customer service, access information, create and deploy marketing and customer service content, and perform activities for the benefit of customers.

eaAssist™ reduces interaction costs and increases customer satisfaction by enabling enterprise agents – customer service representatives (CSRs), sales agents, broker-dealers and others – to efficiently access critical account data and service-related information to effectively service customers. Through its browser interface designed especially for the enterprise agent, eaAssist enables agents to take advantage of customer-facing online capabilities to provide better service by more efficiently resolving customer account inquiries at the point of customer contact.

eaMarket™ is the personalization, campaign and content management solution that enables organizations to increase revenue and improve customer satisfaction by weaving personalized marketing and customer service messages throughout the Customer Self-Service experience. The transactional account data that provides the foundation for a Customer Self-Service solution – such as transaction activity, service or usage charges, current task and prior service history – bring valuable insight into customers and can help optimize personalized marketing and customer service campaigns. eaMarket leverages that data to present relevant marketing and customer service messages to customers.

edocs’ **Development Tools** are visual development environments for designing and configuring edocs’ Customer Self-Service solutions. The Configuration Tools encompass data and rules management, workflow authoring, systems integration, and a software development kit that makes it easy to create customer and employee-facing self-service applications leveraging eaSuite.

Obtaining edocs Software and Documentation

You can download edocs software and documentation directly from Customer Central at <https://support.edocs.com>. After you log in, click on the Downloads button on the left. When the next page appears, you will see a table displaying all of the available downloads. To search for specific items, select the Version and/or Category and click the Search Downloads button. If you download software, an email from edocs Technical Support will automatically be sent to you (the registered owner) with your license key information.

If you received an edocs product installation CD, load it on your system and navigate from its root directory to the folder where the software installer resides for your operating system. You can run the installer from that location, or you can copy it to your file system and run it from there. The product documentation included with your CD is in the Documentation folder located in the root directory. The license key information for the products on the CD is included with the package materials shipped with the CD.

Related Documentation

Online Help for Command Center functions, and a PDF version of this guide are also available.

Online	How to Access
Help	Select Help from eaPost Command Center screens, the select the link to help for eaPost jobs.
A PDF of this guide	A PDF of this guide is available on the eaPost product CD-ROM.

This guide is part of the eaPost documentation set. For more information about implementing your eaPost application, see one of the following guides:

Print Document	Description
<i>eaPost Installation and Configuration Guide: For the Windows NT/2000 Operating Systems and the BEA WebLogic® Server</i>	How to install and configure eaPost on a Windows system.
<i>eaPost Installation and Configuration Guide: Sun Solaris Operating Environment™ Software and the BEA WebLogic® Server</i>	How to install and configure eaPost on a Sun Solaris system using the BEA WebLogic application server.
<i>eaPost Installation and Configuration Guide: Sun Solaris Operating Environment™ Software and the IBM WebSphere® Application Server</i>	How to install and configure eaPost on a Sun Solaris system using the IBM WebSphere application server.
<i>Data Presentation Production Guide</i>	How to set up and run a live eaDirect application in a J2EE environment.

The eaSuite products eaDirect, eaMarket, and eaAssist provide their own documentation.

If You Need Help

Technical support is available to customers who have valid maintenance and support contracts with edocs. Technical support engineers can help you install, configure, and maintain your edocs application.

edocs provides global Technical Support services from the following Support Centers:

US Support Center

Natick, MA

Mon-Fri 8:30am – 8:00pm US EST

Telephone: 508-652-8400

Europe Support Center

London, United Kingdom

Mon-Fri 9:00am – 5:00 GMT

Telephone: +44 20 8956 2673

Asia Pac Rim Support Center

Melbourne, Australia

Mon-Fri 9:00am – 5:00pm AU

Telephone: +61 3 9909 7301

Customer Central

<https://support.edocs.com>

Email Support

<mailto:support@edocs.com>

When you report a problem, please be prepared to provide us the following information:

- What is your name and role in your organization?
- What is your company's name?
- What is your phone number and best times to call you?
- What is your e-mail address?
- In which edocs product did a problem occur?
- What is your Operating System version?
- What were you doing when the problem occurred?
- How did the system respond to the error?
- If the system generated a screen message, please send us that screen message.
- If the system wrote information to a log file, please send us that log file.

If the system crashed or hung, please tell us.



Overview of eaPost

About eaPost

eaPost is a robust and scalable platform for thin consolidation of bill summary data. eaPost uses *cartridge* architecture to translate among consolidator and portal standards for financial data, such as *SIS* from CheckFree, *OFX* for several others, and emerging data standards. Each cartridge translates seamlessly to and from a particular standard, so that billers can easily add additional publishing locations and adapt to changing standards simply by adding or updating cartridges.

eaPost contains all the necessary components for successful bill summary publishing. This includes portal enrollment and consumer enrollment at the portal. Bill summary transfer takes place using daily batch jobs.

eaPost supports the *thin consolidation* model of bill publishing, which sends only bill summaries to a *consolidator* or *portal*. At the portal, a customer can view their summary data, such as amount due, date due, or minimum due, and then click through to the biller to view the bill detail. This allows the biller to retain control of how customers see their data, and promotes cross-selling and up-selling customers. For example, a cellular phone company could display banner ads on their website promoting the benefits of a new cellular phone, which the customer may purchase online by clicking the banner.

eaPost is designed to integrate with eaDirect 4.0. eaDirect, or the biller system, handles the account databases and defines the content and appearance of the bill data presented. For more information on eaDirect, please consult the eaDirect documentation.

What is Consolidation?

Websites want customers to stick around for more than one click. This makes account information valuable content on the web. “Sticky” content like recurring bills and statements keeps customers coming back to a web site, because account data is very personal, very perishable, and very financially significant. Recurring bills and statements make up the bulk of monthly expenses for most households, and posting account data online saves time and money for both billers and customers.

What if you could view and pay all your bills from the same web page? This is consolidation. “Sticky” account data is especially valuable to web consolidators and portals like Yahoo and Yodlee, who compete for one-stop customer service. Portals, consolidators, and other major destination sites on the Internet want to leverage this sticky content to increase traffic and retain visitors by bringing together all of an online customer’s bills, statements, and other account information into one consolidated view.

Telephone and credit card companies, banks, and other major billers want to present account information at portals to reach out to their customers, improving how they manage existing accounts and creating new ones. However, each portal, and each biller, has differing standards for electronic data. Consolidation makes all online data speak the same language in the same place, straight to the customer.

Thin consolidation offers the best of both worlds: summary data at the portal and details from the biller. eaPost is the edocs solution for thin consolidation, translating and exchanging account data between billers and portals so that portals receive only account summaries, which link a customer securely back to the biller for the details. eaPost helps billers and portals publish online accounts so their customers will stick around for that monthly click.

Security in eaPost

eaPost supports a flexible security model where secure data transfer specifications are defined by the biller and portal. eaPost integrates seamlessly into your existing web security protocols through its industry-standard *HTTPS* and *Secure Socket Layers*. Each customer account includes a *secure hash* with the document ID to *authenticate* the URL request for redirect to the bill detail at the biller. When the user requests their bill summary information from the portal, eaPost validates the document ID and hash values in the link against its biller validation database. If the user has entered valid security data, they are linked directly to their bill detail at the biller site without the need to log in again.

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The CheckFree SIS Cartridge for eaPost

About CheckFree and SIS

CheckFree Corporation (www.checkfree.com) is a leading provider of financial e-commerce services and software that let customers view and pay bills over the Internet through a portal or bill consolidator. As a CheckFree partner, edocs supports seamless integration with the CheckFree System Interface Specifications, or *SIS*. The *SIS cartridge* for eaPost allows a biller to translate bill summary data to and from the CheckFree format, for presentment at a portal or consolidator website.

The following table lists the types of SIS records supported by eaPost, and indicates their creator. Note that eaPost does not support all SIS record types, only those listed.

Record Type	Definition	Creator
0000	Header record	Required for all SIS files
2040	Requests enrollments to biller database: account activations (ADD), changes (CHG), or inactivations (INA)	CheckFree
2050	Accepts (A) or rejects (R) account enrollment requests	biller
2050ACK	Acknowledges and confirms the request for account changes and lists any errors	CheckFree
2060	Requests a change to a customer's account number	biller
2060ACK	Acknowledges the receipt of the account number change request, and reports the status of accounts	CheckFree
2070	Requests bill summaries for active accounts	eaPost
2070ACK	Acknowledges the receipt of the request for bill summaries	CheckFree
9999	Trailer record listing the total count of records in the file	Required for all SIS files

The SIS specification from CheckFree includes several other record types, including those designed to handle electronic payment. eaPost does not support any record types other than those listed above. If eaPost encounters unsupported record types while processing a file, it issues an error (PST0316). For more information on SIS errors, see *SIS Validation Errors*.

eaPost requires that all incoming SIS files—the 2050, 2050ACK, 2060ACK, and 2070ACK types—must have the same user-defined file extension to be scanned for processing. edocs recommends using either **.sis* or **.txt*.

Each eaPost cartridge can be updated to handle the rapid pace of emerging data standards. eaPost supports the *SIS 0400* data specification from CheckFree. For a list of data elements in each supported SIS file type, please see the Appendix: SIS 0400 Files. For more detailed information on CheckFree data specifications, please consult your CheckFree representative.

The eaPost Transaction Cycle for SIS

eaPost processes and publishes account data among billers, portals, and customers. For the SIS cartridge, eaPost *jobs* process SIS files that handle *enrollment* of customer/biller *agreements* and summary output of bill data.

Enrollment processes the *2040 files*, the *2050 files*, and *2050ACK files*.

An enrollment change to an existing account number processes the *2050 files*, *2050ACK files*, plus the *2060* and *2060ACK files*.

Summary output includes the generation of the *2070 files* by eaPost and the processing of the *2070ACK files* generated by CheckFree.

Overview of SIS Data Flow

1. CheckFree requests account activations, changes and inactivations with a *2040 file*.
2. eaPost processes the data, and passes the *2040 file* to the biller for validation.
3. The biller validates the account and responds with a *2050 file* listing the accounts that it has activated or inactivated. eaPost processes that *2050 file* and passes it to CheckFree.
4. CheckFree responds with a *2050ACK file* that acknowledges the receipt of the *2050 file* and gives a status of the accounts. eaPost processes the *2050ACK file*. If the portal and the biller both accept the account, it becomes active in eaPost. Activation allows the user to receive summary information for this account.
5. If the biller wishes to change the customer's account number with the biller, the biller sends a CHG request in a *2050 file*. eaPost processes this request and forwards it to CheckFree.

6. A biller can also change account information or inactivate an account by sending a *2050* file. eaPost delivers the *2050* file to CheckFree, which responds with a *2050ACK* file.
7. If the account number change requested in the *2050ACK* file was successful, eaPost generates a *2060 file* and delivers it to CheckFree.
8. CheckFree responds with a *2060ACK file* that acknowledges the receipt of the *2060* file and reports the status of the accounts. eaPost processes this file.
9. eaPost gets the biller's bill or statement summaries using the eaDirect Verify API, and can publish the summaries to multiple locations. For active accounts requesting bill summaries, eaPost generates a *2070 file* to deliver to CheckFree.
10. CheckFree responds with a *2070ACK file* that acknowledges the receipt of the *2070* file. eaPost process the file.

The sections that follow describe *enrollment* and *bill summary output* in more detail.

eaPost Jobs

There are three job types in the eaDirect Command Center for eaPost:

eapostSISSummary - Publishes bill summary output by creating 2070 files.

eapostSISCartridge - Registers customer/biller agreements, by processing 2040, 2050, and 2060 files.

eapostCASSCartridge - Converts CASS enrollment files to SIS format by the eapostCASSCartridge job.

For information creating and running Command Center jobs, see the *eaDirect Production Guide*.

3

Registering and Enrolling Customer/Biller Agreements

About Registration

Before a *consolidator* or *portal* may publish bill summary data on their website, they must register with a biller. Portals register by recording information such as portal name, contact name, and URL in the biller database. The biller must first review and approve the portal, then update the eaPost database and notify the portal. The portal is now ready to receive bill summary information.

Before eaPost can operate, each portal and biller must also register with CheckFree. CheckFree enrolls its own customers, who register a user name, password, and bank information with CheckFree. Rather than create another enrollment layer for eaDirect and eaPost, CheckFree manages customer enrollment, user administration, and access to electronic bill presentation and payment. However, eaPost does handle enrolling a given customer in agreements between CheckFree and the biller.

About Enrollment

For each application you create, eaPost must first *enroll*, or *activate*, customers with a biller. edocs refers to the result of enrollment as an *agreement*. An active customer is enrolled in an agreement to receive electronic bill data from that biller through that portal.

Consolidators and portals may enroll customers with their billers from their websites. At the portal, the customer enters enrollment information (typically first and last name, address, and phone number), and provides security data required by the biller to *authenticate* the customer. Once the portal has all the data, the information is sent to eaPost with the portal ID and password. eaPost processes this data for the biller, who approves or rejects the customer.

To receive summary data, a customer must have active *agreements* with both the biller and portal through eaPost.

Data Flow for SIS Enrollment

CheckFree sends enrollment records to the biller in a *SIS 2040 file*, which eaPost processes and passes to the biller. The SIS cartridge defines three actions for a *2040* record:

- ADD requests eaPost to **add** a customer to the eaPost database, which makes the customer active (the customer is marked pending until the request has been validated by the biller).
- CHG requests eaPost to **change** existing customer information in the eaPost database.
- INA requests eaPost to **inactivate** a customer in the eaPost database.

The biller responds to the portal with a *2050 file*. This file changes the biller status to Active or Inactive in the eaPost database. The SIS cartridge defines two actions for a *2050* record:

- A means that a biller **accepts** the customer into the eaPost database, which activates, or enrolls, the customer to receive account summaries online
- R means that a biller **rejects** the customer, either because information is missing or because of an error in file processing

The portal responds to the biller with a *2050ACK file*. This file changes the portal status to Active or Inactive in the eaPost database. This file returns the same data as the original *2050* file and adds an error code and message for each customer not approved by the portal.

For more information on enrollment files, see your CheckFree SIS documentation.

For each application in eaPost, an eapostSISCartridge job processes enrollment files.



eaPost settings must be set up before creating eaPay jobs.

eapostSISCartridge Job

The eapostSISCartridge job creates agreements that enroll customers with a biller. You configure the job to tell it where to receive files from and where to put processed files.

File transfer between a portal and eaPost must take place over a secure network. The portal and biller must agree on a drop directory accessible to both systems, usually through *FTP*. This arrangement is outside the scope of eaPost. A biller or portal may drop unlimited SIS files into the eaPost incoming drop directories.

After eaPost has detected a SIS file, the eapostSISCartridge job processes the file and updates the eaPost database with the enrollment information for each customer. eapostSISCartridge then moves the file to the “CheckFree pickup directory” if the file is for CheckFree, or to the “Move processed file to directory” if the file is for the biller.

The following picture shows an example of the eapostSISEnrollment job configured for Windows:

Task 1: SISEnrollmentTask	
Billers and CheckFree SIS file drop directory:	C:\EDCSpost\SISEnrollment
CheckFree pickup directory:	C:\EDCSpost\SISCheckfreePickUp
Move processed file to directory:	C:\EDCSpost\SISMovedProcessDirectory
SIS file extension:	.txt
Portal:	CHECKFREE

The configurable parameters for this job are:

Billers and CheckFree SIS file drop directory - This is the path to the directory where eaPost looks for enrollment files.

CheckFree pickup directory – The path to the directory where CheckFree picks up files from eaPost.

Move processed file to directory - The path to the directory where eaPost should put processed files.

SIS file extension - The file extension for SIS files. This field should contain the wildcard symbol (*) plus a suffix for the types of input files to expect, for example *.sis or *.txt.

The SIS 0400 specification requires that all incoming SIS files; the 2040, 2050, 2050ACK, 2060ACK, and 2070ACK types, must have the same file extension to be scanned for processing.

Portal - The portal that this job is processing enrollment for.

eapostCASSCartridge Job

If the biller does not want to send SIS files, they can optionally create CASS files. The eapostCASSCartridge job translates CASS files into SIS files. When the eapostSISCartridge job runs, it sends those SIS files to the portal.

Task 1: CASSEnrollmentTask	
Billers CASS file drop directory:	<input type="text" value="/export/home1/EDCSpst/CASSInput"/>
Billers and CheckFree SIS file drop directory:	<input type="text" value="/export/home1/EDCSpst/CheckFreeDropDirector"/>
Move processed file to directory:	<input type="text" value="/export/home1/EDCSpst/SISMovedProcessDirecto"/>
CASS file extension:	<input type="text" value=".dea"/>
SIS file extension:	<input type="text" value=".sis"/>
Create empty sis file:	<input type="button" value="Yes"/>
Portal:	<input type="button" value="CHECKFREE"/>

Billers CASS file drop directory - The path to the directory where CASS files are picked up for this job.

Billers and CheckFree SIS drop directory - The path to the directory where eaPost places generated SIS enrollment files.

Move processed file to directory - The path to the directory where eaPost should put processed files.

CASS file extension - File extension for CASS files.

SIS file extension - File extension for generated SIS files.

Portal - The portal that this job is enrolling users with.

4

Posting Bill Summaries

About Bill Summaries

eaPost publishes, or posts, existing bill data from eaDirect by matching eaDirect fields to eaPost summary mapping fields. Only statements that have been successfully processed by eaDirect are “pulled” into eaPost for translation and presentment to portals.

eaPost publishes bill summary records to each portal on demand, at least once a day (as required by CheckFree). For each portal and each biller, eaPost generates a 2070 file of bill summary records for active customers.

Data Flow for Bill Summaries

1. Biller provides a bill data file to eaDirect.
2. eaDirect runs the Indexer job to process the bill data file and extract summary data.
3. Using the summary mapping defined for each portal/application pair, eaPost runs the eaPostSISSummary job to pull the summary data for all active accounts in the bill data file, and translates it to the portal format. The job then sends a 2070 file to the portal with a secure URL to that customer’s account on the biller site. See *Data Flow for Enrollment* for more information.
4. CheckFree replies with a 2070ACK file acknowledging receipt of the summary data for active accounts and listing any errors.
5. At the portal, the customer can now view bill summary data, by following a secure URL.
6. Clicking the secure URL redirects the customer transparently to the biller site. Once eaPost authenticates the customer through the URL, eaDirect dynamically composes the HTML view of the customer’s bill detail and presents it to the customer’s browser, without another login.

eaPostSISSummary Job

The eaPostSISSummary job pulls bill summary for active accounts, creates a file with that information, and puts that file in a directory for the portal to get. You configure the job to define the date range of bill summary data you wish to present to the customer. eaPostSISSummary defines the date range values of data to pull, and the location and name of summary output files

The portal and biller must agree on a watch directory accessible to both systems, usually through *FTP*. For more information, consult your CheckFree representative.

Each eaPostSISSummary job should be scheduled to run after the related eaDirect Indexer job completes successfully. This ensures that any new summary data uploaded by the eaDirect indexer will be published to CheckFree.

eaPost uses the date the bill data file was verified by the biller, not the date it was loaded by eaDirect. If the biller is using the Verification feature of eaDirect, both eaDirect processing and biller verification must be completed before the pull deadline.

Task 1: SISSummaryTask	
CheckFree pickup directory:	/export/home1/EDCSpst/SISCheckFreePickl
SIS file extension:	.sis
Portal:	CHECKFREE
Biller:	NationalWireless
Create empty sis file:	Yes
Date selection method:	Fixed date
From date (MM/dd/yyyy):	1/1/2000
To date (MM/dd/yyyy):	1/1/2004
(n) days ago - Today:	NA
SIS summary plugin:	com.edocs.eapost.cartridge.summary.sis.DefaultSummaryPlugin

The configurable parameters for this job are:

CheckFree pickup directory - Directory where CheckFree pulls the summary (request) file.

SIS file extension - The file extension that the generated SIS files should have.

Portal - The portal who provides the summary to the customer.

Biller - The biller providing the summary.

Create empty SIS file - Determines whether to create an empty SIS file when there is no bill summary data.

Date Selection Method - Options are Fixed date, (n) days - Today, or Yesterday - Today.

From date - Enter the date to start the summary.

To date - Enter the date to end the summary. The valid value for the Date Range fields is MM/dd/yyyy.

Today – Summary data starts at the beginning of today and stops at the end of today.

Yesterday – Today – Summary data starts at the beginning of yesterday and stops at the end of today.

(n) days ago – Today – Summary data starts at the beginning of n days ago and stops at the end of today. Currently this must be set to N/A.

SIS Summary Plugin - Location of the plugin used to modify the behavior of the eaPostSISSummary job. For information about implementing this class, contact edocs Professional Services. The default is *com.edocs.eapost.cartridge.summmmary.sis.DefaultSummaryPlugIn*.

The default implementation converts amount “None Due” containing a blank space or a null value to zero amount plus date and time. Converts “Upon Receipt” containing blank spaces or null to today's date plus 25 days.

For information about developing plugins and custom cartridges, please consult your edocs Professional Services representative.

5

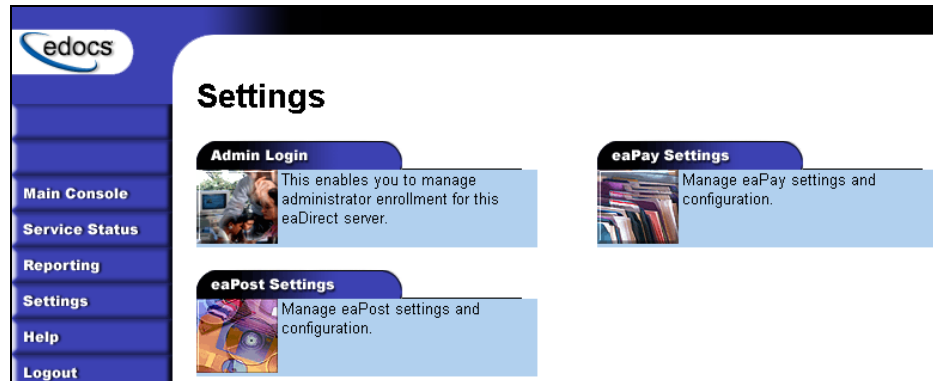
Configuring eaPost Settings

About eaPost Settings

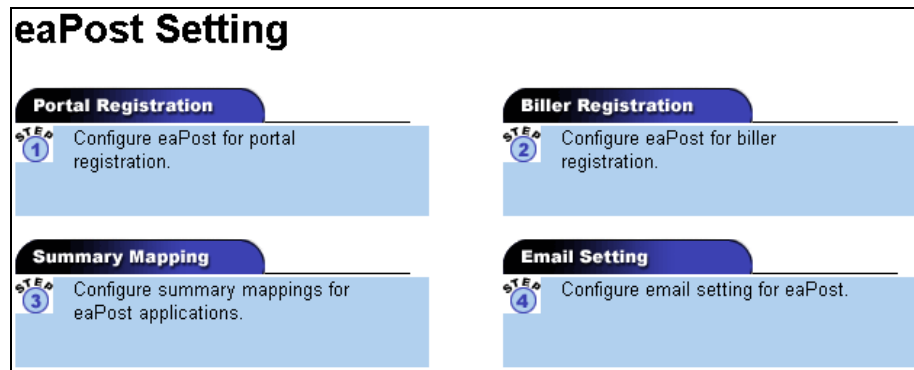
After installing eaPost, you must configure default administration settings for eaPost. You can change these settings at any time.

To configure eaPost settings:

1. Log into the eaDirect Command Center.
2. From the navigation bar, click **Settings**. The main Settings page appears.



3. Click **eaPost Settings**. The eaPost Settings page appears.



4. Select the settings in the order listed, and enter the required information. The following topics describe each setting in more detail.

Step 1, Portal Registration

The portal is the bill processor, and is configured by clicking Portal Registration on the eaPost Settings page.

1. The first time you click Step 1, eaPost displays a link called [Add New SIS Portal](#). Clicking that link brings up a screen similar to the following:

Register new portal.	
Name	<input type="text"/>
Portal Sender ID	671960595
Portal Sender Entity Name	CHECKFREE
	<input type="button" value="Add Portal"/>

2. Enter a descriptive name for your SIS Portal. Our examples use CHECKFREE. Then click the Add Portal button, or editing an existing portal displays the Update Portal screen:

Update CHECKFREE portal	
Name	<input type="text" value="CHECKFREE"/>
Portal Sender ID	671960595
Portal Sender Entity Name	CHECKFREE
	<input type="button" value="Update Portal"/>
CHECKFREE portal alias	
CHECKFREE	Edit Delete
671960595	Edit Delete
<input type="button" value="New alias"/>	<input type="button" value="Help"/> Registered Portals

3. The Update Portal screen displays the configured portal, plus the already defined required aliases. The fields are explained below:

Name - The name of the portal.

Portal Sender ID - A unique identifier for the portal.

Portal Sender Entity Name - The name of the portal that that sends files.

Portal Alias – A portal can be referred to a different name by a biller and portal, an alias is a tie of the portal many name to the same portal instance.

Step 2, Biller Registration

1. The first time you click the Step2 brings up the link [Add a New Biller](#). Clicking that link takes you to the Register a New Biller page:

Register new biller.

Name	<input type="text"/>
Biller Sender ID	<input type="text"/>
Biller Sender Entity Name	<input type="text"/>
Biller Bill Processing ID	<input type="text"/>
Biller Detail URL	<input type="text"/>
<input type="button" value="Add Biller"/>	

If you have already defined one or more billers, then clicking the Biller Registration link takes you the Registered Billers page, where you can create or edit billers to eaPost.

Registered Billers





Edit NationalWireless biller information.

[Add New Biller eaPost Setting](#)

2. Adding a new biller or editing a registered biller brings up the following page:

Update NationalWireless biller

Name	<input type="text" value="NationalWireless"/>
Biller Sender ID	<input type="text" value="000000009"/>
Biller Sender Entity Name	<input type="text" value="NatlWire"/>
Biller Bill Processing ID	<input type="text" value="000000089"/>
Biller Detail URL	<input type="text" value="http://auditeBills/BPUser?app=UserMain&jsp=/user/jsp/Detail.js"/>
<input type="button" value="Update Biller"/>	

NationalWireless biller alias

NationalWireless	Edit Delete
000000009	Edit Delete
<input type="button" value="New alias"/> <input type="button" value="Help"/> Registered Billers	

The configurable parameters for biller registration are:

Biller Sender ID - A unique identifier for the biller.

Biller Sender Entity Name - The name of the client sending the file.

Biller Bill Processing ID - The unique identifier of the bill processing center that will transmit the bills to this account.

Biller Detail URL- You can change the URL prefix so eaPost can generate the correct URL for the bill detail. These prefix values correspond to the application settings defined in eaDirect. eaPost appends these values with the customer document ID it sends to CheckFree. This provides the customer with a link to their bill detail. An example URL may look like this:

```
http://<applicationServer>:<port>/eBills?app=UserMain&jsp=/usr/jsp/Detail.jsp&viewType=HTML&viewName=HtmlDetail
```

Biller Alias – A biller can be referred to different by the portal and biller. An alias defines a different name for the biller to the same biller instance.

Step 3, Summary Mapping

These settings determine the summary data that eaPost presents to each portal. They correspond to the indexed summary fields that you specified in eaDirect for that application. You can change these mappings on the Summary Mapping screen.

1. Clicking on Summary Mapping brings you to the Summary Mapping page, where you choose a portal whose summary mapping you wish to change.

Summary Mapping	
Portal	Portal Format
CHECKFREE	SIS 0400
eaPost Setting	

2. The Summary Mapping page for a portal allows you to change which eaDirect field maps to in the SIS file, and the new field's format:

NationalWireless Summary Mapping		
Application :	NationalWireless	Format
Activity Amount :	TotNewBal	#####- [v]
Amount Due *:	TotNewBal	#####- [v]
Balance Amount :	TotNewBal	#####- [v]
Minimum Amount Due :	MinPymtDEL	#####- [v]
Previous Balance Amount :	MinPymtDEL	#####- [v]
Bill Reference Text :	CustName	
Bill Created Time *:	BillDate	MM-dd-yy [v]
Bill Closed Time :	BillDate	MM-dd-yy [v]
Due Date *:	PymtDueDate	MM-dd-yy [v]
Open Statement Time :	PymtDueDate	MM-dd-yy [v]
* required field		
<input type="button" value="Save Setting"/> <input type="button" value="Help"/> Summary Mapping		

- When you choose the application, the fields that are indexed for that application are available as drop-downs. Choose which field you want to map to that particular SIS field.

The dropdown list values available to the following settings change dynamically depending on the values defined for each field in eaDirect. For more information about those drop-down values, see the eaDirect documentation.



Tip

Any of the Timestamp fields that you specify must have a Date Format value that exactly matches the data indexed in eaDirect. All the data indexed for that field must also conform to that format.

For information about how other fields are treated, refer to the **SIS Summary Plugin** description on page 23.

- Click **Save Setting** to save your changes, which returns you to the Summary Mapping page.

Step 4, Email Settings

eaPost can send email when an eaPost job fails. You configure this function by selecting Step 4, Email Setting, which is one of the options on the eaPost Settings page.

Enable Email Notification	<input checked="" type="checkbox"/>
SMTP Email Server *	mail.smtpserver.net
SMTP Email Server Port *	25
Email Server User ID	eaPost
Email Server Password	*****
From Address *	eaPost@nationalwireless.net
Subject *	eaPost error detected
Recipient *	<div>admin@yourco.com</div> <div>admin@yourco.com</div> <div>Add Remove</div>
Email Message ID List	<div></div> <div>PST2046 PST2045 PST2044 PST2043 PST2042</div> <div>Add Remove Error Codes</div>
* required field	<div>Save Setting Help eaPost Setting</div>

The configurable parameters for this setting are:

Enable Email Notification - Check this box to enable email notification.

SMTP Email Server - The URL of the email server.

SMTP Email Server Port - The TCP port used by the email server. The default is 25.

Email Server User ID - The user ID used to send email through the email server, if a username/password pair is required to use the SMTP server.

Email Server Password - The password used to send email through the email server, if a username/password pair is required to use the SMTP server.

Recipient - For each new recipient, enter the email address in the New Recipient field and click Add Recipient. The Current Recipients field lists the email addresses that receives email alerts.

Email Message ID List - By default, critical errors are emailed, but the email message will not have the error message id in the error message. Adding error messages here causes a **second** email to be sent, and eaPost prepends the error message to the email message id.

6

Reporting in eaPost

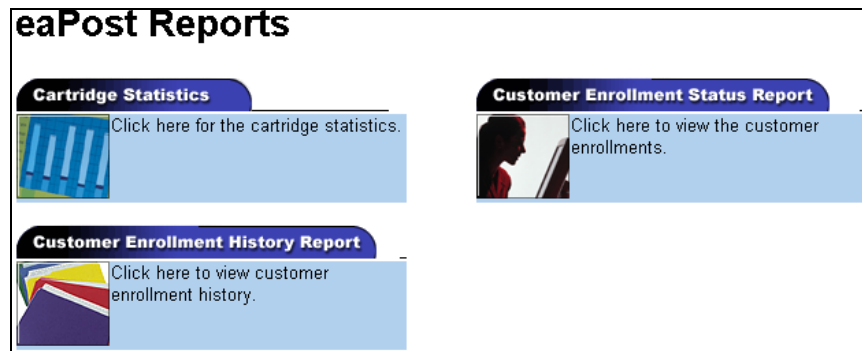
About eaPost Reports

From the edocs Command Center, you can generate reports about eaPost activity. The types of reports available are:

- Cartridge Statistics
- Enrollment Status (includes Account Rejection)
- Enrollment History

To generate reports:

1. On the Command Center navigation bar, click **Reporting**. The Reporting and Logs page appears.
2. Click the **eaPost Reports** icon. The eaPost Reports page appears.



3. Click the icon for the report you wish to configure. The following topics describe each report in more detail.

Cartridge Statistics Reports

This report allows you to check the information processed by a cartridge, such as:

- Number of summary records sent
- Number of enrollment requests processed, accepted, and rejected
- Number of inactivations initiated by customer or biller

- Number of detail bills viewed



User deactivation counts as both a Customer Initiated Deactivate and as a Biller Initiated Deactivate. Take that into account when reading cartridge statistics.

To create a cartridge statistics report:

1. On the eaPost Reports screen, click the Cartridge Statistics icon. The Cartridge Statistics page appears.

Cartridge Statistics Report

Portal :

Biller :

Start Date : [Popup Calendar](#)

End Date : [Popup Calendar](#)

Query by date range :

[Help](#) [eaPost Reports](#)

2. Define the start and end dates for which you want to view cartridge statistics. Enter the values in the Start Date and End Date fields, or click the Popup Calendar to select the dates.
3. Click Query by Date Range.
eaPost summarizes the cartridge statistics data for the date range specified.

Enrollment Status Reports

This report allows you to check the enrollment status of customers processed by eaPost. Such information includes:

- Enrolled or Not Enrolled status
- Main and alternate account numbers
- End point (from where the request originated)
- Account rejections (includes the portal that issued the account information plus the main and alternate account numbers)

To create an enrollment status report:

1. On the eaPost Reports screen, click the Enrollment Status icon. The Customer Enrollment Status Report page appears.

Customer Enrollment Status Report

Portal :	CHECKFREE ▾
Billers :	NationalWireless ▾
Portal Enroll Status	No Filter ▾
Billers Enroll Status	No Filter ▾
Start Date :	<input type="text"/> Popup Calendar
End Date :	<input type="text"/> Popup Calendar
Query by date range :	<input type="button" value="Query By Date Range"/>
User ID :	<input type="text"/>
Query by User ID :	<input type="button" value="Query By User ID"/>
<input type="button" value="Help"/> eaPost Reports	

2. Select the portal and biller for which you want a report from the dropdown lists.
3. The Portal enrollment and/or Biller enrollment status may be filtered by Pending, Accepted, Rejected or Deactivated.
4. To view all the enrollments for a date range, enter the start and end dates. Either enter values in the Start Date and End Date fields, or click the [Popup Calendar](#) to select the dates.
5. To view enrollments for a particular user, enter the user id, and then click the **Query by User ID** button.

**Tip**

The Enrollment report has a * in the left column. Clicking this puts the user ID (which is either the account number or alternate account number) into the entry field of the Query by User ID dialog. This provides a quick way to query all the records for that userid.

To view enrollments for a date range, enter the dates, then click **Query by Date Range**.

eaPost summarizes the enrollment data for the date range or account specified.

Enrollment History Reports

This report allows you to check the enrollment history of eaPost customers. This information includes:

- Enrolled or Not Enrolled status
- Main and alternate account numbers
- End point (from where the request originated)

To create an enrollment history report:

1. On the eaPost Reports screen, click the Enrollment History icon. The **Customer Enrollment History Report** page appears.

Customer Enrollment History Report

Portal :	CHECKFREE	
Billers :	NationalWireless	
Start Date :		Popup Calendar
End Date :		Popup Calendar
Query by date range :	Query By Date Range	
Account Number :		
Query by account number :	Query By Account Number	

* Used Alternate account number if available.

[Help](#)
[eaPost Reports](#)

2. Select the application for which you want a report from the dropdown list.
3. To view all enrollment history for a date range, enter the start and end dates. You can enter the values in the Start Date and End Date fields, or click the Popup Calendar to select the dates. Then click **Query By Date Range**.
4. To view enrollment history for a particular account, enter the account number, then click **Query By Account Number**.
5. eaPost summarizes the enrollment history data for the date range or account specified.



Troubleshooting eaPost

How to Troubleshoot Errors

Follow these steps to help you determine when an error occurs in eaPost and eaDirect.

1. In the Command Center, check the Monitor page, which highlights a job when it fails.

Job Name	Job Type	Last Run	Status	Next Run	Delete?
Summary	eaPostSummary	05/01/2001 15:22	Failed	Not scheduled	<input type="checkbox"/>

2. Configure Step 4, Email Settings to receive alerts when errors occur in eaPost.
3. Check the eaDirect Command Center log for internal errors and traces logged by eaPost.
4. Check the “Move processed file to directory” settings defined for the enrollment jobs for any files of type **.FAILED*, **.ERR*.
5. Check the Application server's log files.

Common Error Types

This section describes the types of error events that eaPost can encounter and the action it takes to process the error.

When eaPost renames a file by appending an extension, or updating the output label. The extension or output label indicates the following:

Extension	Description
err	The file produced a recoverable, non-critical error due to one or more bad records.
failed	The file produced a non-recoverable error, usually due to an invalid file format.
notprocessed	The file was not processed, possibly due to the job configuration.
processed	Everything in the file was processed without errors.

SIS Header Record Error

The header record contained an error code and description.

What eaPost Does:

1. Logs the error description and the name of the SIS file to the eaDirect Command Center Log.
2. Stops processing the file, so that the entire file fails.
3. Appends the extension **FAILED* to the file in the “Move processed file to directory” directory as defined in the eaPostSISSummary job.
4. Sends an email alert of the error to the recipient list defined in *Step 4, Email Settings*.
5. Returns control to the Command Center job to process the next file.

Biller ID Failure

The `biller_ID` for the specified eaDirect application did not exactly match the `biller_ID` contained in the CheckFree record.

What eaPost Does:

1. Logs a specific error message stating `<biller_ID> received does not match <biller_ID> expected`, and the name of the SIS file, to the `eaPostClient_log` file (`biller_ID` is the actual values).
2. Stops processing the file, so that the entire file fails.
3. Appends the extension **NOTPROCESSED* to the file.
4. Sends an email alert of the error to the recipient list defined in *Step 4, Email Settings*.
5. Returns control to the Command Center job to process the next file.

Record Count Mismatch

The total number of records specified in the trailer is not equal to the number of records contained within the file.

What eaPost Does:

1. Logs a specific error message stating `<trailer count> specified does not match <#> of records contained in file`, and the name of the SIS file, to the `eaPostClient_log` file (header count and `#` is the actual values).
2. Stops processing the file, so that the entire file fails.
3. Appends the extension **.err* to the file.

4. Sends an email alert of the error to the recipient list defined in *Step 4, Email Settings*.
5. Returns control to the Command Center job to process the next file.

SIS File(s) Not Received

The daily download of SIS files (2040, 2050, 2050ACK, or 2070ACK) from CheckFree did not occur.

What eaPost Does:

1. Stops processing the job.
2. Changes the job status in the Command Center to `no operation`, as shown in the example, and highlights the job in yellow to indicate that no SIS files were detected.

Application	Job Name	Job Type	Last Run	Run Time	Status	Next Run	Action
GEREG	Change	File2eaPost	05/02/2001 16:04	00:00:01	No operation	Not scheduled	Run Now

3. Resets the Command Center job to run automatically at its next scheduled interval.

Error Code detected in ACK file

eaPost detects an error code and message for a specific account contained in an ACK file for the SIS cartridge.

What eaPost Does:

1. Logs the error description and the name of the SIS file to the Command Center logs.
2. Sends an email alert of the error to the recipient list defined in *Step 4, Email Settings*.
3. Skips the record and continues to the next record.

Bad SIS Records Errors

eaPost encounters a problem processing an SIS record, so that it is unable to read the record.

What eaPost Does:

1. Logs the error description and the name of the SIS file to the Command Center logs.
2. Stops processing the file, so that the entire file fails.
3. Appends the extension `*.err` to the file.
4. Sends an email alert of the error to the recipient list defined in *Step 4, Email Settings*.

- Returns control to the Command Center job to process the next file.

eaPost Processing Errors

A fatal program error occurred while processing a SIS file, for example, a database lock.

What eaPost Does:

- Logs an error to the Command Center logs.
- Stops processing the file, so that the entire file fails.
- Return control to the eaPost Command Center job.
- Changes the job status in the Command Center to `failed` and highlights the job in red, to indicate a fatal error so that the job did not complete.
- Sends an email alert of the error to the recipient list defined in *Step 4, Email Settings*.
- Resets the Command Center job to run automatically at its next scheduled interval.

SIS Validation Errors

If eaPost finds validation errors in the SIS file, these must be corrected before eaPost can process the file. The following table describes the validation errors that eaPost can issue while processing files for the SIS cartridge.

Error	Description
PST0100	Cannot change the account number for biller {0} account number {1} because a SIS record does not exist in the database.
PST0101	Cannot deactivate the account number for biller {0} account number {1} because a SIS record does not exist in the database.
PST0200	Skip 2060 Record due to error; {0}
PST0201	Skip 2050 Record due to error; {0}
PST0202	SIS cartridge "Biller and CheckFree SIS file drop directory" does not exist. [application={0}, jobname={1}]
PST0203	SIS cartridge "CheckFree pickup directory" does not exist. [application={0}, jobname={1}]
PST0204	SIS cartridge "Move processed file to directory" does not exist. [application={0}, jobname={1}]
PST0205	Please selected a portal from the task configuration for SIS cartridge. [application={0}, jobname={1}]
PST0206	Missing portal setting for portal name ; {0}. [application={1}, jobname={2}]
PST0207	No SIS files to process. [application={0}, jobname={1}]
PST0208	Job {2}; {3} SIS Cartridge start at {0} and finish at {1}.

Error	Description
PST0300	Invalid SIS money format for field {0} ; {1} ; {2}
PST0301	Failed to parse field {0} ; {1} ; {2}
PST0302	Invalid SIS date time for field {0} ; {1} ; {2}
PST0303	No Summary sent for account ; {0} ; {1} - Reason ; {2}
PST0304	The FI Transaction Timestamp for summary file must be blank space. {0} ; {1}
PST0305	SIS file cannot have ack and non-ack record in the same file. {0}
PST0306	Bill Publisher ID must be CHECKFREE. {0} {1}
PST0307	SIS header record have error code {0} {1}
PST0308	SIS 2050CHG and 2050INA record required to have Alternate Biller Account Number. {0} {1}
PST0309	SIS 2040 INA/CHG required to have an alternate biller account number. {0} {1}
PST0310	For SIS 2040 ADD, alternate biller account number must be space. {0} {1}
PST0311	Invalid SIS error code, must be length of 5. ; {0} {1}
PST0312	The valid response code are A or R ; {0} ; {1} ; {2}
PST0313	Bill Processing Center ID is required for a 2050 response to 2040 request. ; {0} {1}
PST0314	SIS 2050 ADD with a response code A must have an alternate biller account number {0} {1}
PST0315	The alternate biller account number is not saved on a biller rejected. {0} {1}
PST0316	Valid SIS record are 0000, 2040, 2050, 2060, 2070, 9999 anything else is not supported at this time. : {0}
PST0317	SIS record 0000 must be at least 212 length + CRLF. : {0}
PST0318	One of the sender or receiver id in the SIS header must be {0}, currently two values are {1}, {2}, {3}
PST0319	The file id for SIS record 0000 must be "03" : {0}
PST0320	The file specification version number for SIS record 0000 must be {0} : {1}
PST0321	Invalid SIS error code. Must be length of 5 {0}
PST0322	Invalid SIS file, more than one header record is detected. {0}
PST0323	Invalid SIS file, more than one trailer record is detected. {0}
PST0324	SIS 9999 record must be at least 260 length + CRLF current length {0} {1}
PST0325	There is an error in the SIS file trailer record. : {0}:{1} - {2}

Error	Description
PST0326	The 2050 response record must have the same server transaction timestamp in the 2040 request.
PST0327	Business name is required because service holder type is B. {0}
PST0328	Business name must be blank for service type holder type I. {0}
PST2000	Caught exception; {0}
PST2001	Caught SQLException, error code is {1} and exception is; {0}
PST2002	Caught RemoteException; {0}
PST2003	Caught ProcessException; {0}
PST2004	Caught ConfigureException; {0}
PST2005	Caught RejectedDueToErrorException; This exception is thrown because there are error(s) in the header and trailer record, and according to SIS specs, the whole file is rejected; {0}
PST2006	Caught eapostSISCartridgeException; Throws this exception if an error is encounter while processing the SIS enrollment record; {0}
PST2007	Caught WrongSequenceException; {0}
PST2008	Caught CASSParseException; Error encounter while parsing CASS file format; {0}
PST2009	Caught InvalidSISDateTimeException; Expecting SIS date time format; {0}
PST2010	Caught InvalidSISMoneyException; Expecting SIS money format; account ; {0}
PST2011	Caught SISParseException; Error encounter while parsing SIS file format; {0}
PST2012	Caught InvalidNumberRangeException; {0}
PST2013	Please setup a summary mapping for portal ; {0}, and ddn ; {1}
PST2014	Missing biller setting for biller alias ; {0}
PST2015	Please associate alias {0} with a biller.
PST2016	Please associate alias {0} with a portal.
PST2017	Please selected a portal from the task configuration.
PST2018	Missing portal setting for portal name ; {0}
PST2019	Invalid portal setting for portal name ; {0}
PST2020	Please register a portal name ; {0}
PST2021	Please register a biller name ; {0}
PST2022	Biller sender id is null or empty for biller ; {0}
PST2023	The Portal sender id is null empty for portal ; {0}
PST2024	Biller sender entity name is null or empty for biller ; {0}
PST2025	Job start to finish {0} - {1}
PST2026	Please configure a portal.

Error	Description
PST2027	Please configure a biller.
PST2028	Biller CASS file drop directory is empty.
PST2029	Biller CASS file drop directory ; {0} does not exist.
PST2030	Biller and CheckFree SIS file drop directory is empty.
PST2031	Biller and CheckFree SIS file drop directory ; {0} does not exist.
PST2032	Move processed file to directory is empty.
PST2033	Move processed file to directory ; {0} does not exist.
PST2034	CASS file extension is empty.
PST2035	SIS file extension is empty.
PST2036	No files to process.
PST2037	CheckFree pickup directory is empty.
PST2038	CheckFree pickup directory ; {0} does not exist.
PST2039	Invalid From date {0}
PST2040	Invalid To date {0}
PST2041	Fixed date from must be at an earlier time than to.
PST2042	Failed to move file {0} to directory {1}
PST2043	Date selection method is "{0}", please set the "{1}" field to "NA".
PST2044	Unknown date selection method.
PST2045	Date selection method is "{0}", please clear out the "{1}" field.
PST2046	Date selection method is "{0}", please select a number from "{1}" field.
PST2047	Failed to insert a 2040 record : {0} {1}
PST2048	Failed to update a 2050 record : {0} {1}
PST3000	Warning messages; {0}
PST3001	Info messages; {0}
PST3002	No accepted index batch between {0} and {1}
PST3003	No summary for account {0} between {1} and {2}

The numbers surrounded by brackets (for example, {0}) are placeholders for variables.

Appendix A: SIS 0400 Files

eaPost supports the SIS 0400 specification from CheckFree. This appendix lists the data elements of each of the SIS files supported by eaPost and indicates which elements have changed in the 0400 specification. New elements appear in **bold** (and **red** onscreen), while changed elements appear in *italics* (and *blue* onscreen).

Most of the changes are shifts in character position resulting from the addition of at most three new fields per file type.

0000 File (Header)

0400 Status	Data Element	Pos	Len	Format
	Sender ID	5	32	AN
	Receiver ID	37	32	AN
	Entity Name	69	32	AN
	File Creation Date	101	8	AN
	File Creation Time	109	12	AN
	File ID	121	2	03
	File Specification Version Number	123	4	AN
<i>CHANGED</i>	<i>Error Code DELETED</i>			
<i>CHANGED</i>	<i>Filler</i>	<i>127</i>	<i>85</i>	<i>AN</i>
<i>CHANGED</i>	End of Record	212	2	<i>AN</i>

2040 File (Activation Request)

0400 Status	Data Element	Pos	Len	Format
	Record Action	5	3	AN
	Sponsor ID	8	32	AN
	Subscriber ID	40	32	AN
	Bill Publisher ID	72	32	N
	Biller ID	104	32	N
	Biller Account Number	136	32	AN
NEW	Service Holder Type	168	1	AN
NEW	Business Name	169	40	AN
<i>CHANGED</i>	Service Holder Last Name	<i>209</i>	32	AN
<i>CHANGED</i>	Service Holder First Name	<i>241</i>	32	AN
<i>CHANGED</i>	Service Holder Middle Name	<i>273</i>	32	AN
NEW	Subscriber E-mail Address	305	100	AN

0400 Status	Data Element	Pos	Len	Format
CHANGED	Service Address Line 1	405	40	AN
CHANGED	Service Address Line 2	445	40	AN
CHANGED	Service Address Line 3	485	40	AN
CHANGED	Service City	525	32	AN
CHANGED	Service State	557	2	AN
CHANGED	Service Zip 5	559	5	AN
CHANGED	Service Zip 4	564	4	AN
CHANGED	Service Zip 2	568	2	AN
CHANGED	Service Country Code	570	3	AN
CHANGED	Service Postal Code	573	11	AN
CHANGED	Service Province Name	584	30	AN
CHANGED	Service Day Phone Number	614	32	AN
CHANGED	Service Evening Phone Number	646	32	AN
CHANGED	Electronic Payment Capable Flag	678	1	AN
CHANGED	Biller Pre Authorized Token	679	32	AN
NEW	Biller Pre Authorized Token 2	711	32	AN
CHANGED	Bill Processing Center ID	743	9	AN
CHANGED	Alternate Biller Account Number	752	32	AN
CHANGED	Server Transaction Timestamp	784	20	AN
CHANGED	End of Record	804	2	AN

2050 File (Activation Response)

0400 Status	Data Element	Pos	Len	Format
	Record Action	5	3	AN
	Sponsor ID	8	32	AN
	Subscriber ID	40	32	AN
	Bill Publisher ID	72	32	AN
	Biller ID	104	32	AN
	Biller Account Number	136	32	AN
NEW	Service Business Name	168	40	AN
CHANGED	Service Holder Last Name	208	32	AN
CHANGED	Service Holder First Name	240	32	AN
CHANGED	Service Holder Middle Name	272	32	AN
CHANGED	Service Address Line 1	304	40	AN
CHANGED	Service Address Line 2	344	40	AN
CHANGED	Service Address Line 3	384	40	AN
CHANGED	Service City	424	32	AN
CHANGED	Service State	456	2	AN
CHANGED	Service Zip 5	458	5	AN
CHANGED	Service Zip 4	463	4	AN
CHANGED	Service Zip 2	467	2	AN
CHANGED	Service Country Code	469	3	AN
CHANGED	Service Postal Code	472	11	AN
CHANGED	Service Province Name	483	30	AN
CHANGED	Service Day Phone Number	513	32	AN
CHANGED	Service Evening Phone Number	545	32	AN
CHANGED	<i>Biller Preauthorized Token DELETED</i>			

0400 Status	Data Element	Pos	Len	Format
<i>CHANGED</i>	Bill Processing Center ID	<i>577</i>	9	AN
<i>CHANGED</i>	Alternate Biller Account Number	<i>586</i>	32	AN
<i>CHANGED</i>	New Alternate Biller Account Number	<i>618</i>	32	AN
<i>CHANGED</i>	Server Transaction Timestamp	<i>650</i>	20	AN
<i>CHANGED</i>	Bill Remittance Account Number	<i>670</i>	32	AN
<i>CHANGED</i>	Response Code	<i>702</i>	1	AN
<i>CHANGED</i>	Rejected Text	<i>703</i>	255	AN
<i>CHANGED</i>	<i>Error Code DELETED</i>			
<i>CHANGED</i>	<i>Filler</i>	<i>958</i>	<i>85</i>	AN
<i>CHANGED</i>	End of Record	<i>1043</i>	2	AN

2060 File (Account Number Change Request)

0400 Status	Data Element	Pos	Len	Format
	Record Action	5	3	AN
	Sponsor ID	8	32	AN
	Subscriber ID	40	32	AN
	Bill Publisher ID	72	32	AN
	Biller ID	104	32	AN
	Biller Account Number	136	32	AN
	New Biller Account Number	168	32	AN
	Bill Processing Center ID	200	9	AN
CHANGED	Error Code DELETED			
CHANGED	Filler	209	85	AN
	End of Record	294	2	AN

2070 File (Bill Summary Record)

0400 Status	Data Element	Pos	Len	Format
	Record Action	5	3	AN
	Bill Publisher ID	8	32	AN
	Processing Center Number	40	9	AN
	Biller ID	49	32	AN
	Alternate Biller Account Number	81	32	AN
CHANGED	Biller Bill ID	113	36	AN
CHANGED	Electronic Billing Activity Amount	149	20	N
CHANGED	Electronic Billing Amount Due	169	20	N
CHANGED	Electronic Billing Balance Amount	189	20	N
CHANGED	Electronic Billing Minimum Amount Due	209	20	N
CHANGED	Electronic Billing Previous Balance Amount	229	20	N
	Biller Reference Text	249	80	AN
CHANGED	Electronic Billing Timestamp	329	20	AN
CHANGED	Electronic Billing Closed Timestamp	349	20	AN
CHANGED	Electronic Billing Due Date Timestamp	369	20	AN
CHANGED	Electronic Billing Open Statement Timestamp	389	20	AN
CHANGED	Electronic Billing URL	409	1024	AN
	Teaser Link URL	1433	1024	AN
	Teaser Ad URL	2457	1024	AN
	Teaser Ad Text	3481	80	AN
	FI Transaction Timestamp	3561	20	AN
CHANGED	Electronic Billing Magnet Type	3581	1	AN
NEW	Magnet URL	3582	1024	AN
CHANGED	Error Code DELETED			
CHANGED	Filler	4606	85	AN
CHANGED	End of Record	4691	2	AN