



**NASA ECHO Project**

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# **Provider User Management Program**

## **User Guide**

**To accompany ECHO 10.0**

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## PREFACE

PUMP (Provider User Management Program) is a web-based User Interface (UI) tool that enables Earth Observing System (EOS) Clearing House (ECHO) data providers/partners to manage their ECHO metadata. This document provides basic information on the use of the PUMP User Interface. It describes what PUMP is, where to get it, and how to use it.

## CONVENTIONS

All references to time are in Universal Time Coordinated (UTC).

Data Partners are also referred to as Data Providers.

Client Partners are also referred to as Client Developers.

Words in **bold** text are key words or concepts.

*Best practices, tips, or warnings appear in italicized, boxed text.*

## REFERENCES

The following documents and websites are referenced in this User Guide.

- ECHO 10.0 Operations User Guide
- ECHO 10 Data Partner User Guide
- ECHO 10 Client Partner User Guide
- Ingest for ECHO 10 User Guide and Reference Manual
- ECHO Forms Specification
- ECHO Data Model Entity List on the ECHO website at [http://www.echo.nasa.gov/data\\_partners/ECHO3.shtml](http://www.echo.nasa.gov/data_partners/ECHO3.shtml)
- Data Partner Tools [http://www.echo.nasa.gov/data\\_partners/data\\_tools10.shtml](http://www.echo.nasa.gov/data_partners/data_tools10.shtml)
- Ordering options for SAR data [http://www.echo.nasa.gov/data\\_partners/data\\_docs/asf\\_frame\\_v2.xml](http://www.echo.nasa.gov/data_partners/data_docs/asf_frame_v2.xml)
- ECHO Home Page <http://www.echo.eos.nasa.gov/>
- ECHO References <http://www.echo.eos.nasa.gov/reference/index.shtml>
- ECHO Data Partners [http://www.echo.eos.nasa.gov/data\\_partners/index.shtml](http://www.echo.eos.nasa.gov/data_partners/index.shtml)
- ECHO Client Partners [http://www.echo.eos.nasa.gov/client\\_partners/index.shtml](http://www.echo.eos.nasa.gov/client_partners/index.shtml)
- ECHO 10 Web Services API
  - Operational System: <http://api.echo.nasa.gov/echo/ws/v10/index.html>
  - Testbed: <http://testbed.echo.nasa.gov/echo/ws/v10/index.html>
  - Partner Test: <http://api-test.echo.nasa.gov/echo/ws/v10/index.html>

## **CHAPTER 1. BACKGROUND (HOW PUMP RELATES TO ECHO)**

The primary reason for designing the EOS ClearingHouse (ECHO) was to increase access to Earth science data and services by providing a system with a machine-to-machine interface, that is, an Application Programming Interface (API).

ECHO functions as a metadata clearinghouse of Earth science metadata for a wide variety of partners, enabling the science community to exchange information. Data Partners provide the ECHO community with metadata representing their Earth science data holdings. ECHO technology in turn provides services for Client Partners and Data Partners and supports efficient discovery and access to Earth science data.

ECHO also functions as an order broker for the data, and offers services applied to that data. ECHO provides a portal on the internet where ECHO clients can search the metadata for information they wish to order.

Client applications can access data holdings via order distribution or online access. Data Partners retain complete control over what metadata are represented in ECHO including inserting new metadata, modifying existing metadata and removing old metadata, and controlling access to their metadata.

Client applications can be developed to communicate with ECHO and provide user-friendly access to the ECHO system and allows users to manage their accounts, providers to manage their metadata, and administrators to manage ECHO users and providers. PUMP (Provider User Management Program), is one such application. PUMP is a web-based interface that provides an easy, screen-driven way for users to perform user management, provider, and administrative tasks. While all users benefit from this application for user management, the main focus is on the provider tasks—both Data and Service.

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## CHAPTER 2. ECHO ENTITIES

This section describes several high-level concepts that will help you understand the ECHO system. The following is a selected list of entities. For the complete list of ECHO entities, refer to the ECHO Data Model Entity List on the ECHO website at [http://www.echo.nasa.gov/data\\_partners/ECHO3.shtml](http://www.echo.nasa.gov/data_partners/ECHO3.shtml).

### 2.1 Users

There are two types of users in ECHO: guest and registered users. A registered user is a person who has registered with ECHO by providing basic contact information. Registered users can be given the provider role, which gives them privileges to act on behalf of a data provider to manage their metadata. The provider role can be given to a registered user by ECHO Administrators or by another registered user with the provider role.

Only registered users may use PUMP. However, by registering with ECHO, Guests become registered users and may subsequently use PUMP.

### 2.2 Roles

ECHO regulates access privileges based on the concept of user roles. User roles are a way to grant a user access to sensitive or protected parts the system. These roles facilitate greater flexibility with operation-level authorization and allow certain users the ability to have more than one role without having more than one account in the system.

#### 2.2.1 Provider Role

As a Client Partner, your role is the **provider role**. You may have one or more provider roles, each of which is associated with one provider in the ECHO system.

Provider roles allow users to access and update information about the providers with which they are associated. For example, if a user has a provider role for Oak Ridge National Laboratory (ORNL), then that user can use the Provider Context operations to update the contact information for ORNL.

If a user has more than one provider role, the user must tell the system which provider they currently want to represent. This is the "provider context". The provider context indicates the current provider that you represent, and as the name implies, it is to this provider that the provider-oriented operations in the system are applied.

*Note: If a user is associated with only one provider role, the system assumes the provider associated with that one provider role is specified in the user's "provider context."*

#### 2.2.2 Administrator Role

A user can only be associated with one instance of this role. This role allows the user to access and update information about any user and any provider. Essentially, this role should allow the user full access to almost anything in the system and available through the current PUMP. Users assigned this role should read the *ECHO 10.0 Operations Guide* as well as this document.

### 2.3 Groups

The term **groups** refers to an aggregating mechanism in ECHO that allows Client Partners to associate a Group name with a given set of users. When a group is created, the group's owner specifies an ECHO user to be the group's manager. However, group managers can be added and removed after creation by other group managers. After becoming a member of a group, a user can be granted access to restricted metadata.

### 2.4 Rules

Rules include conditions and provide a complete evaluation. Rules define which specific data is to be controlled, as well as the condition to use for evaluating whether the data should be controlled. Rules also contain a

comparator, which is a key part of rule evaluation. Lastly, rules contain data including **ActionType** (describes which actions the rule applies to), and in the case of a permission, a **GroupName** (describes which Group the permission applies to). **Restrictions** (one type of a rule) apply to the global ECHO population, and **permissions** (the other type of a rule) apply to a specific group.

ECHO provides a mechanism for controlling access to metadata via Rules. Data partners may restrict or permit users of the ECHO system to take action upon metadata. These actions currently include viewing, browsing, and ordering metadata. Data partners may create conditions that are used to specify characteristics of metadata. For example:

- 30 days old
- the month of September
- qaFlag2 value 3

When combined with a Comparator, Action, and Data Holding to create rules, conditions become powerful.

If a rule is a restriction, it applies to the entire ECHO populace. If a rule is a permission it applies only to members of the group specified.

In addition to the restrictions and permissions, a collection can be set to be restricted from viewing, browsing, and ordering by all users except the ones acting on behalf of the provider who owns the collection by simply setting its visibility flag to 'RESTRICT'. This restriction can be removed by simply change its visibility flag back to 'OPEN'. The restriction applied on the collection will also be applied on all its granules.

## 2.5 Orders

An **order** is a collection of **catalog** items that a client wishes to have and would like to order from a Data Provider. Each item in the order is associated with a quantity and any options available for that item. Within ECHO, a user creates an order and then adds, deletes, and updates each item in the order before submitting the order to ECHO.

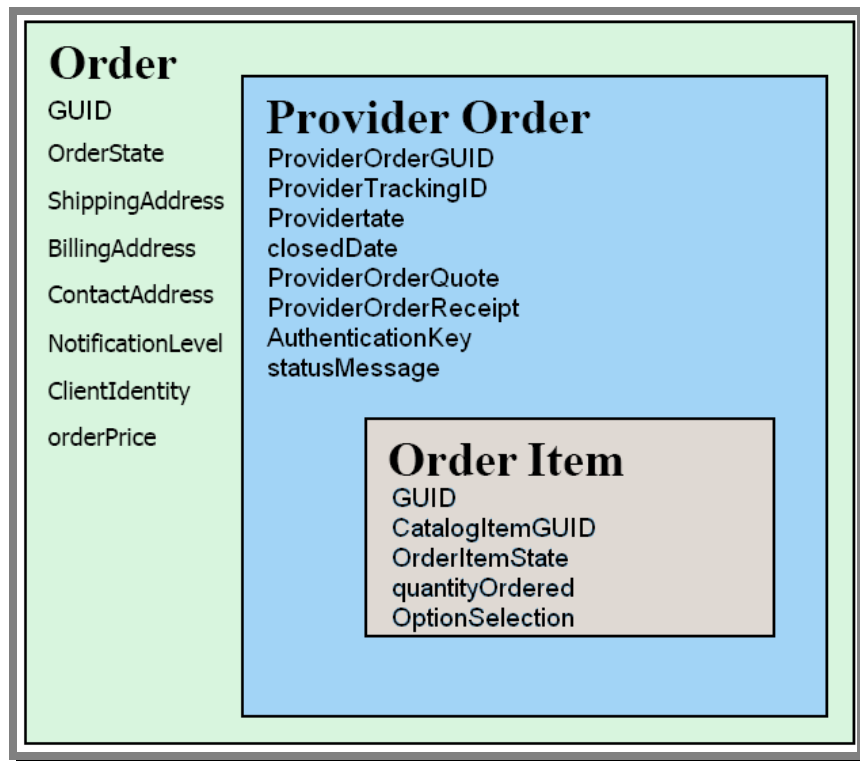


Figure 1: ECHO Order Structure

The **collection** of catalog items that comprises an order does not have to belong to one provider, but can span many providers. When organizing providers and catalog items within an order, another concept called a “provider order” is used. A provider order is a collection of all items in the original order that belong to a single provider. Since an order may contain orders from multiple providers, an order can consist of one or more provider orders. Each provider order can consist of one or more catalog items that belong to the same provider. To identify a specific provider order, you need the GUID of the order that includes that provider order and the GUID of the Data Partner associated with that provider order.

When a full order is submitted, ECHO splits the user’s order into separate provider orders and submits each provider order to the associated Data Provider.

## 2.6 Order Options

Data Partners generally use Provider User Management Program (PUMP) or the API itself to set up order options.

Use **order options** to describe the structure of the data to request of the client as well as how to display the order form to the client. **Option definitions** contain a name, scope, deprecated flag, and an ECHO Form. Every option definition for a provider has a unique name. The **scope** indicates whether it is a system-level option definition or provider-level option definition. The **deprecated flag** indicates that you, as a Data Partner, have made that option definition obsolete. The deprecated flag indicates to clients that they should no longer use the option definition. The form part of the option definition contains an ECHO Form.

*As of ECHO 10.1 data providers are able to supply two additional option definition fields: description and sort key. The new fields are available in a new extended option definition type, OptionDefinition2. The description field allows data providers to supply users with a longer description of the type or purpose of an option definition and it is intended for client display. The sort key allows data providers to indicate display order of their option definitions to users and is intended to be used by clients to sort option definitions on display to users.*

The **Option Selection** is the data from the client for a specific option definition. The selection should be put in the content part of the option selection. Options are also used in ECHO to describe authenticators and options for ordering data from a provider.

## 2.7 PUMP/User Function Mapping

- a. All registered users may manage their own user information and perform all of the tasks in the User Profile (section 3.4), User Preferences (section 3.5), and, if a manager for a group, Group Management (section 3.6)
- b. A registered user who is designated as a group manager can perform Group Management (section 3.6) tasks such as maintaining the group's description, name, and membership roster. A group manager can create groups if he/she also has the provider role.
- c. A registered user with the provider role can access and update information about the providers with which they are associated as well as all of the tasks listed above. Providers can perform all of the tasks described in Provider Context (section 3.7).
- d. A registered user with administrator role may access any of the above tasks plus perform User Management (section 3.8) tasks.

**Table 1. PUMP Function-User Mapping**

	Guest	User	Provider	Administrator
Register as an ECHO User	√			
Register as an ECHO Provider		√		
Update User Profile (self)		√	√	√
Update User Profile (others)				√*
Update User Preferences (self)		√	√	√
Update User Preferences (others)				√*
Group Management, Add/Delete Groups			√	√**
Group Management as Manager		√	√	√
Provider Context			√	√**
User Management				√

\* Administrator may perform these tasks by "acting as" another user

\*\* Administrator may perform these tasks by setting his provider context



## CHAPTER 3. HOW TO USE PUMP

### 3.1 Getting In To PUMP

PUMP is located at the following URLs:

Operational System: <https://api.echo.nasa.gov/pump>

Partner Test: <https://api-test.echo.nasa.gov/pump>

Testbed: <https://testbed.echo.nasa.gov/pump>

To access PUMP, copy the URL desired into your preferred browser (Firefox and Internet Explorer are the recommended browsers).

### 3.2 PUMP User Interface

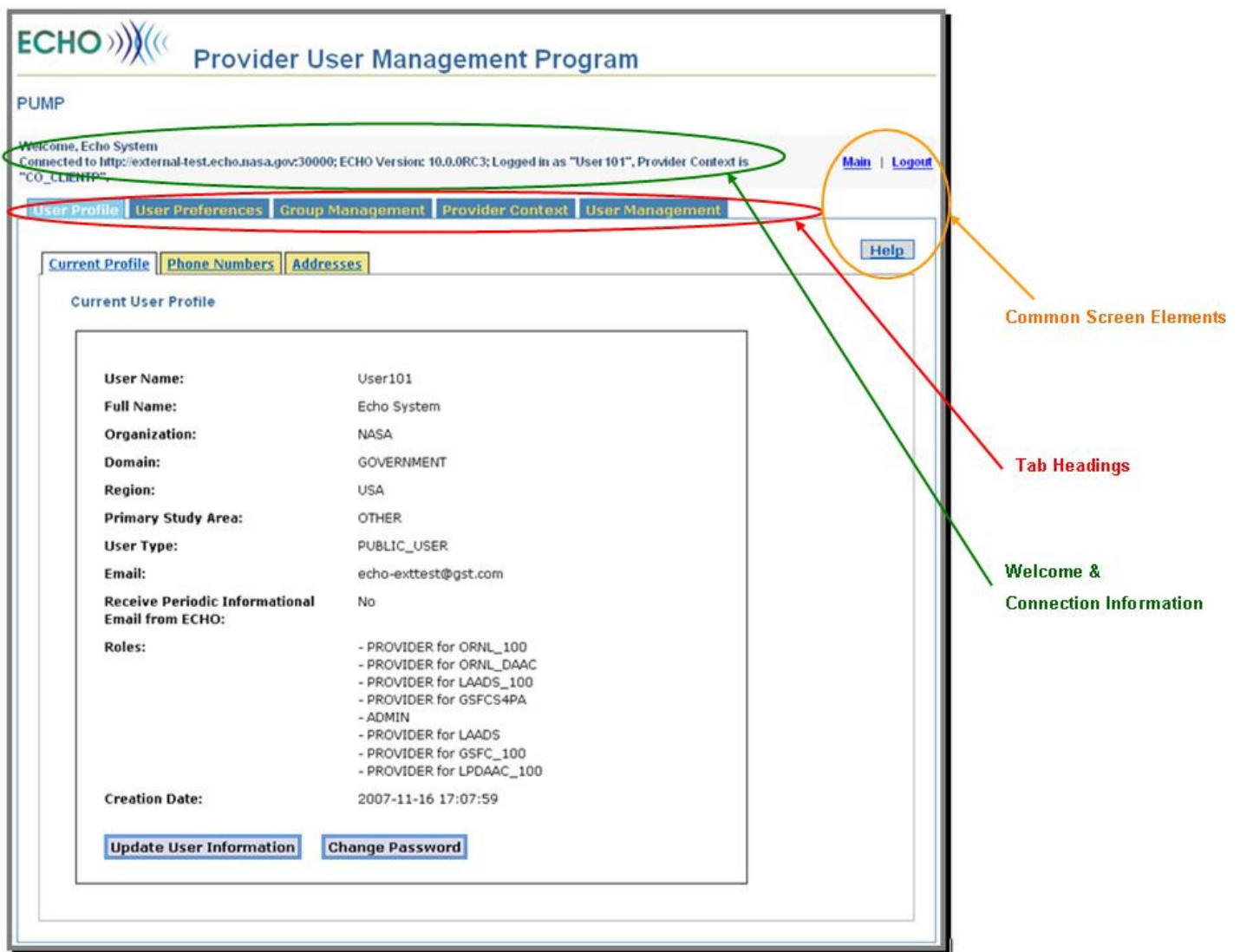


Figure 2. Sample PUMP Screen

### 3.2.1 PUMP Common Screen Elements

Figure 2 shows a sample PUMP screen. All PUMP screens include the following:

- a. "Welcome" and the full name of the user
- b. Connection Information, includes:
  - 1) URL connected to; in this case:  
http://external-test.echo.nasa.gov:30000)
  - 2) Version of ECHO being used; in this case:  
ECHO Version: 10.0.0RC3
  - 3) User Name you are logged in as; in this case:  
Logged in as "User101"
- c. Tab Headings. The possible headings that will be displayed:
  - 1) User Profile
  - 2) User Preferences
  - 3) Group Management
  - 4) Provider Context (Providers & Administrators only)
  - 5) User Management (Administrators only)

Each tab will have sub-tabs beneath them that further break down the functions. More details on each tab and its associated sub-tabs are provided in the following sections.

- d. Common Screen Elements. These links/buttons are available from all PUMP screens.
  - 1) Main—returns the user to the User Profile tab. The last sub-tab (Current Profile/Phone Numbers/Addresses) the user was at in "User Profile" is displayed
  - 2) Logout—Logs out the user
  - 3) Help—Brings up online help screen for the elements on the current screen

### 3.2.2 Tabs/Functions

All pages/screens of the PUMP User Interface (UI) display the PUMP common screen elements (see section 3.2.1, PUMP Common Screen Elements and Figure 2). One of these elements is the Tab Headings.

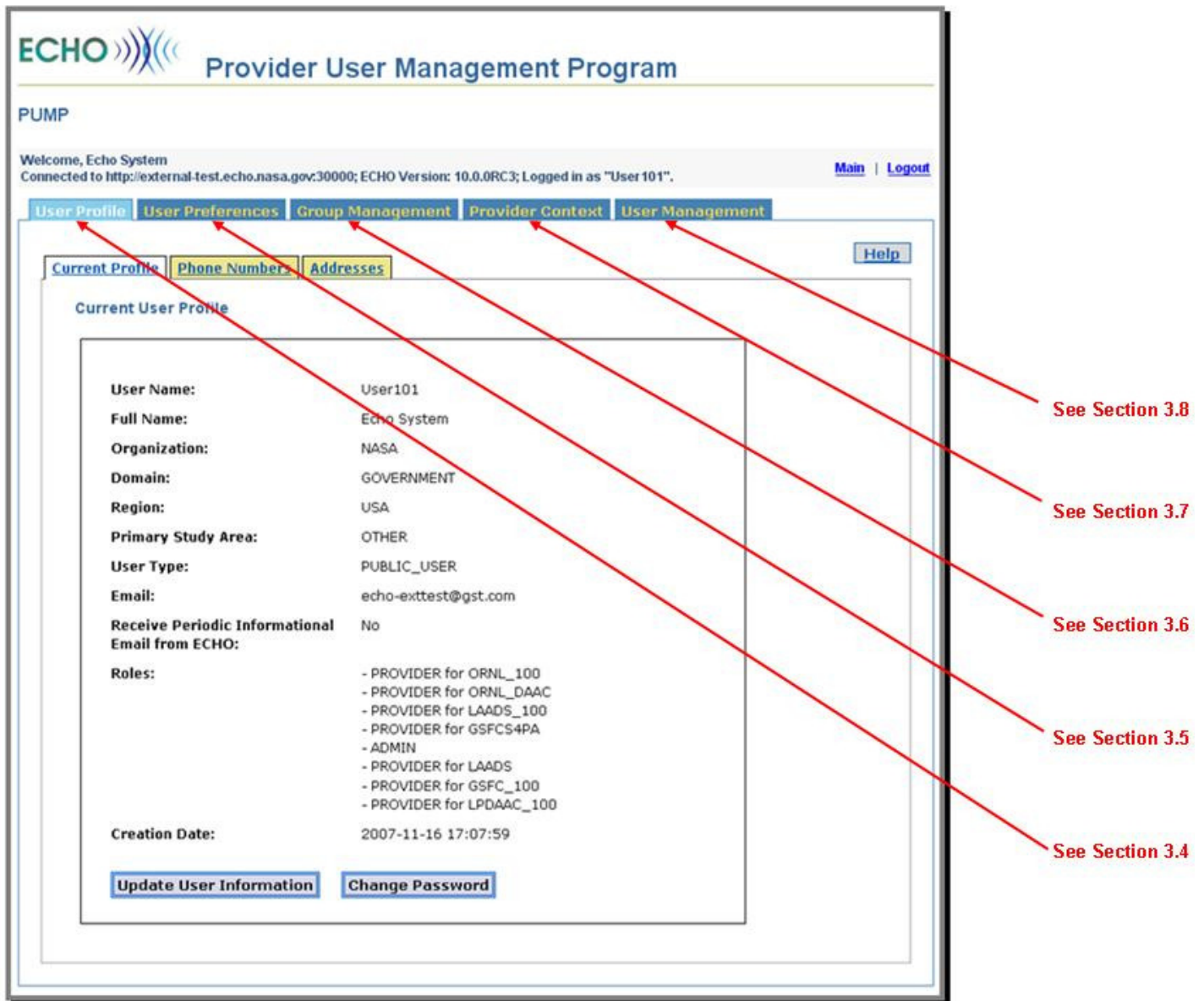


Figure 3. PUMP Tab Function Headings

PUMP functionality is grouped in up to five tabs (three for general registered users, four for providers, and five for administrators) that allow users to maintain (add/delete/modify) the associated information within each tab. (See Figure 3) These tabs/functions include:

- a. User Profile (covered in section 3.4)

*The User Profile contains personal user information specific to the user who owns the currently logged in User Name*

- 1) Update User Information
- 2) Change Password
- 3) Add/Delete/Update Phone Numbers

- 4) Add/Delete/Update Addresses
- b. User Preferences (covered in section 3.5)  
*The User Preferences contains information to be used by ECHO when processing your queries, orders, subscriptions, etc.*
  - 1) Update Order Notification Level
  - 2) Add/Delete/Update Custom Properties XML
  - 3) Add/Delete/Update Contacts
  - 4) Clear all preferences
- c. Group Management (covered in section 3.6)
  - 1) View Groups
  - 2) Create/Delete/Update Groups
  - 3) Add/Delete Managers
  - 4) Add/Delete Members
  - 5) Email Managers and/or Members
- d. Provider Context (Providers and Administrators only) (covered in section 3.7)
  - 1) Set/Leave Provider Context
  - 2) Update Provider Information
  - 3) Grant/Revoke Provider Role
  - 4) Add/Delete/Update Provider Contacts
  - 5) Update/Clear Provider Policies
  - 6) View Provider Orders
  - 7) Data Management
    - a) View/Add/Delete Rules
    - b) Update Visibility
    - c) Rules Search/Report
    - d) View/Add/Delete/Deprecate Option Definitions
    - e) View/Add/Delete Option Assignments
  - 8) User Lookup (user name/user information)
- e. User Management (Administrators only) (covered in section 3.8)
  - 1) Set/Leave User Context
  - 2) Grant/Revoke Administrator Privileges
  - 3) Delete User
  - 4) Reset Another User's Password
  - 5) User Lookup (any User in ECHO)
  - 6) Activate Provider
  - 7) Activate SSL Certificate
  - 8) Generate a Group Report

### 3.3 Welcome/Home Screen

The first screen (Figure 4) you will see is the welcome screen that asks you to login or register with ECHO. Since data providers use PUMP to manage their metadata in ECHO, login to ECHO is necessary to safeguard the metadata integrity. PUMP uses ECHO registration information to authenticate a user. This screen is also where the "Home" link on the Login screen (Figure 5) takes you.

The Welcome screen asks you to click one of the three links:

**a. Login as existing user, recall user name, or reset password here.**

Since data providers use PUMP to manage their metadata in ECHO, login to ECHO is necessary to safeguard the metadata integrity. PUMP uses ECHO registration information to authenticate a user.

This link has three possible uses:

- 1) Log in: If you are already a registered user and have a User Name and password and remember them
- 2) Recall User Name: If you are already a registered user and have a User Name and password but cannot remember your User Name. You will need to provide the email address associated with the User Name.
- 3) Reset Password: If you don't remember your password or if you want to reset if for any reason. You will need to provide your user name (userid) and the email address associated with the User Name.

**b. Register as ECHO user**

- 1) Become a registered user with this link.
- 2) You will be asked to provide account and user information

**c. Register as data provider**

- 1) Existing user may register as a provider user. *Note that this link applies to both Data and Service Providers*
- 2) You must already be a registered user to register as a provider



**Figure 4. PUMP Welcome/Home Screen**

### 3.3.1 Login/Recall User Name/Reset Password Screen

The ECHO PUMP login screen (Figure 5) will appear when you:

- Click on the "Login as existing user, recall user name, or reset password here." link from the welcome page, OR
- If your session times out

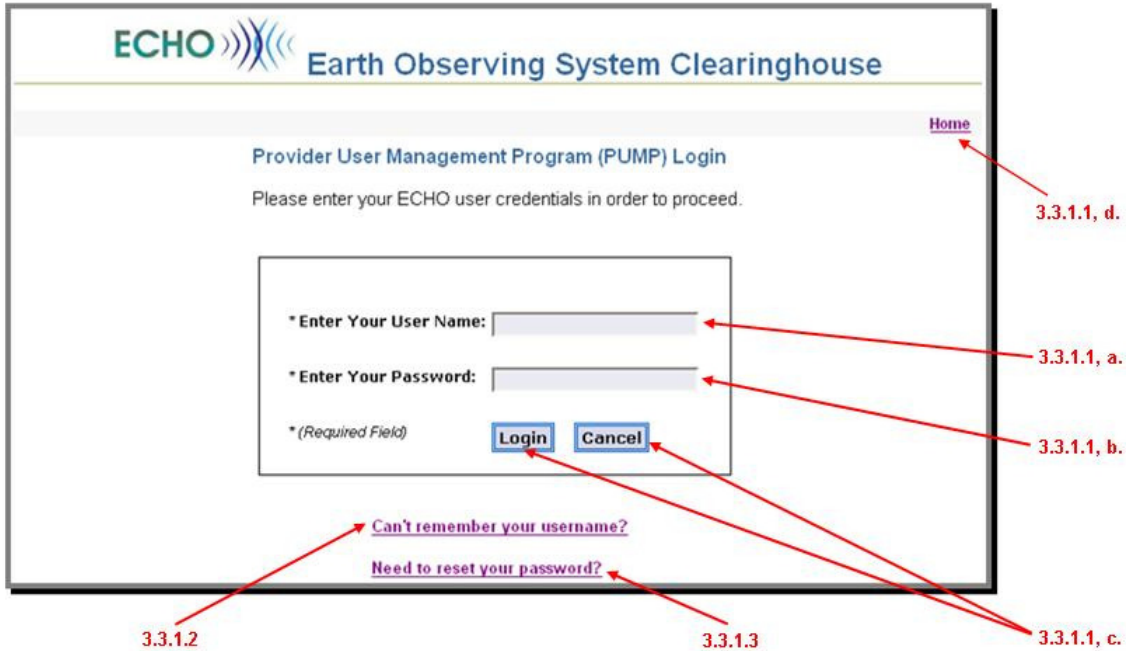


Figure 5. Login/Recall User Name/Reset Password Screen

#### 3.3.1.1 Login

##### a. Enter your User Name

- 1) Enter the User Name you specified when you registered with ECHO or PUMP
- 2) If you have forgotten your User Name, click the "Can't remember your username?" link

##### b. Enter Your Password

- 1) Enter the password associated with the specified User Name
- 2) If you have forgotten your password or you want to reset it, click the "Need to reset your password?" link

c. After entering your User Name and password, click one of the following:

- 1) Login: To proceed with logging in to PUMP
- 2) Cancel: To abort logging in to PUMP

d. If you wish to return to the PUMP Welcome screen, click the "Home" link in the upper right corner.

*Note: You can exit a transaction at any time by clicking the "Cancel" button from any screen and no changes will be saved.*

Once logged in, you may begin using PUMP. The functions available to you depend on your roles and permissions (see section 2.7, PUMP/User Function Mapping and section 3.2.2, Tabs/Functions).

If an invalid User Name is entered, the following error message (Figure 6) appears:



**Figure 6. Error Message for Invalid User Name/User ID**

If an invalid password is entered, the following error message (Figure 7) appears:

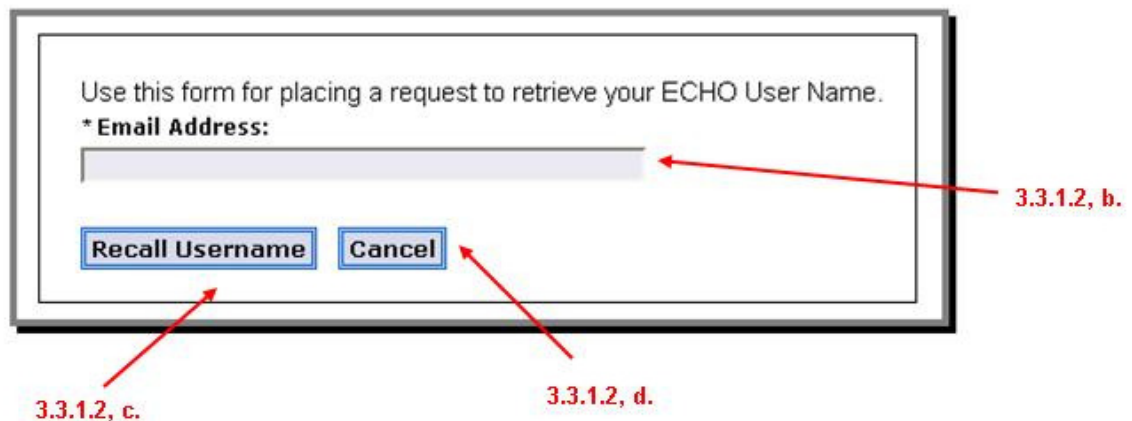


**Figure 7. Error Message for Invalid Password**



**Figure 8. Session Time Out**

### 3.3.1.2 Recall User Name



**Figure 9. Recall User Name Screen**

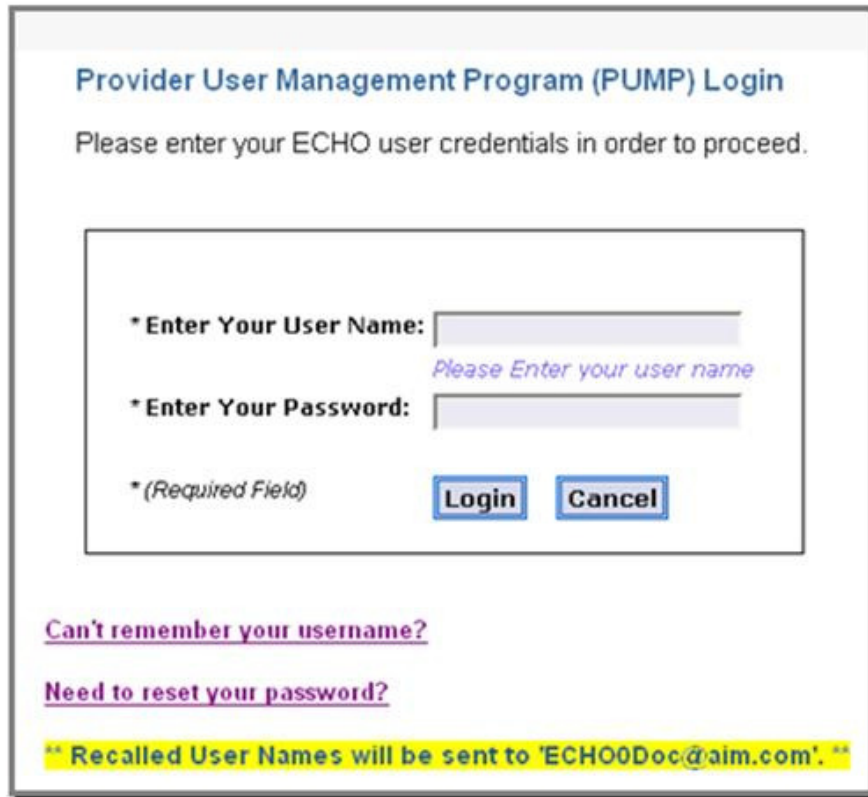
If you have forgotten your User Name:

- a. Click on: **Can't remember your username?** (see Figure 5)  
A box labeled "Email Address" will appear (see Figure 9)
- b. In the Email Address box, enter the email address associated with the User Name you are attempting to retrieve.
- c. Click the "Recall Username" button to continue (see Figure 10 & Figure 11 for results)
- d. At any time, if you wish to cancel the recall request, click the "Cancel" button

*Note that if you enter an invalid email address, PUMP will not tell you (nor will you receive your username). This is a security safeguard to prevent unauthorized persons from knowing whether they have found a valid email address and whether it's associated with a registered user's User Name.*

*If you do not receive a password email and think that you should have, contact ECHO Operations (echo@echo.nasa.gov) to verify what email address is associated with the account.*





The screenshot shows the 'Provider User Management Program (PUMP) Login' page. It includes a title, a prompt to enter ECHO user credentials, and two input fields for 'User Name' and 'Password'. Below the fields are 'Login' and 'Cancel' buttons. At the bottom, there are links for 'Can't remember your username?' and 'Need to reset your password?'. A yellow highlighted banner at the bottom states: "Recalled User Names will be sent to 'ECHO0Doc@aim.com'."

Figure 10. Recall Username Response



Figure 11. Recall Username Email

### 3.3.1.3 Reset Password

The screenshot shows a web form titled "Reset Password". At the top, it says "Use this form for placing a request to reset your ECHO password." Below this are two required fields: "\* User Name:" and "\* Email Address:". Each field has a corresponding text input box. At the bottom of the form are two buttons: "Reset Password" and "Cancel". Red arrows point from labels to specific parts of the form: "3.3.1.3, b." points to the User Name input box, "3.3.1.3, c." points to the Email Address input box, "3.3.1.3, d." points to the "Reset Password" button, and "3.3.1.3, e." points to the "Cancel" button.

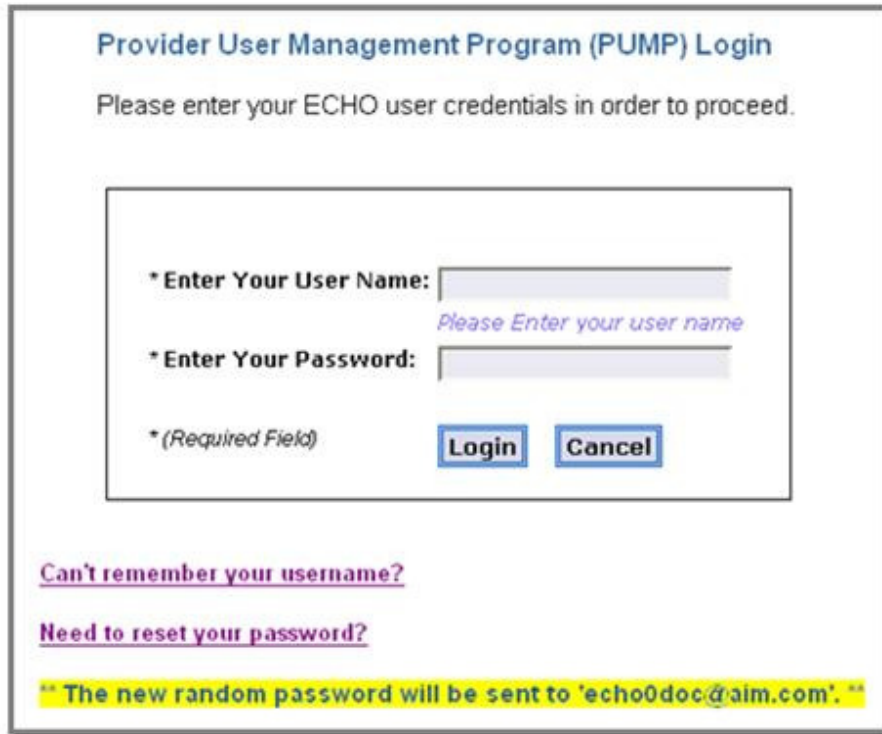
**Figure 12. Reset Password**

If you have forgotten your password or you want to reset it:

- a. Click on: **Need to reset your password?** (see Figure 5)  
Two boxes, one labeled "User Name" and the other labeled "Email Address," will appear (see Figure 12)
- b. In the User Name box, enter the User Name you are resetting the password for
- c. In the Email Address box, enter the email address associated with that User Name.
- d. Click the "Reset Password" button to continue
- e. At any time, if you wish to cancel the reset, click the "Cancel" button
- f. Your password will be reset to a randomly generated string and an email will be sent to the specified email with the new password (see Figure 13 and Figure 14 for results)

*Note that if you enter an invalid email address or User Name, PUMP will not tell you. Additionally, if you enter a valid User Name but an invalid email address, PUMP will appear to send the email but will not and your password will not be reset. This is a security safeguard to prevent unknown/unauthorized users from attempting to find a way into the sensitive portions of the ECHO system.*

*If you do not receive a password email and think that you should have, contact ECHO Operations (echo@echo.nasa.gov) to verify what email address is associated with the account.*



**Provider User Management Program (PUMP) Login**

Please enter your ECHO user credentials in order to proceed.

\* Enter Your User Name:

*Please Enter your user name*

\* Enter Your Password:

\* (Required Field)

**Login** **Cancel**

[Can't remember your username?](#)

[Need to reset your password?](#)

**\*\* The new random password will be sent to 'echo0doc@aim.com'. \*\***

Figure 13. Reset Password Response



Figure 14. Reset Password Email

### 3.3.2 Register As ECHO User

Unlike the ECHO API, to use PUMP you must be a registered user. This screen (Figure 16) will appear when you choose to register with ECHO.

On the "Welcome" screen (see Figure 4), click on "Register as ECHO User" button

The screenshot shows the 'User Registration' form with the following fields and callouts:

- Account Information** (3.3.2, a): A red oval highlights the 'Account Information' section header.
- User Information** (3.3.2, b): A red oval highlights the 'User Information' section header.
- 3.3.2, b.1**: A red arrow points to the 'Last Name' field.
- 3.3.2, b.2**: A red arrow points to the 'Phone Number' field.

The form includes a 'Help' button in the top right corner. The 'Account Information' section contains fields for \*User Name, \*Password, and \*Confirm Password. The 'User Information' section contains fields for Title, \*First Name, Middle Initial, \*Last Name, Receive Periodic Informational Email from ECHO (checkbox), \*Email Address, \*Organization, \*User Domain (dropdown menu showing GOVERNMENT), \*User Region (dropdown menu showing USA), \*Primary Study Area (dropdown menu showing Air-Sea Interaction), \*User Type (dropdown menu showing Production User), Phone Number, \*Phone Type (dropdown menu showing BUSINESS), and \*Phone Number.

**Figure 15. Register as an ECHO User Screen Account Information, Personal, Phones**

The following information is requested when registering. Fields marked with an asterisk (\*) are required. Items marked with a † are required IF the address is a US-formatted address. See Appendix B, Data Entities for details on these fields.

a. Account Information

1) User Name\*

2) Password\*

a) The *password* length must be between 10 to 40 characters long.

b) In accordance with NASA policies, the *password* format must consist of at least three of the following character types:

(1) upper case character (A – Z)

(2) lower case character (a – z)

(3) digit (0 – 9)

(4) special character

3) Confirm Password\*

b. User Information

1) Personal Information

- a) Title (*New field with ECHO 10*)
- b) First Name\*
- c) Middle Initial (*New field with ECHO 10*)
- d) Last Name\*
- e) Do you wish to receive periodic informational emails form ECHO? (check the box for "Yes")
- f) Email Address\*
- g) Organization\*
- h) User Domain\*
- i) User Region\*
- j) Primary Study Area\*
- k) User Type\*

2) Phone Number

- a) Phone Type\*
  - (1) If Custom is picked, a box appears labeled "Custom Type Name" and is required
- b) Phone Number\*

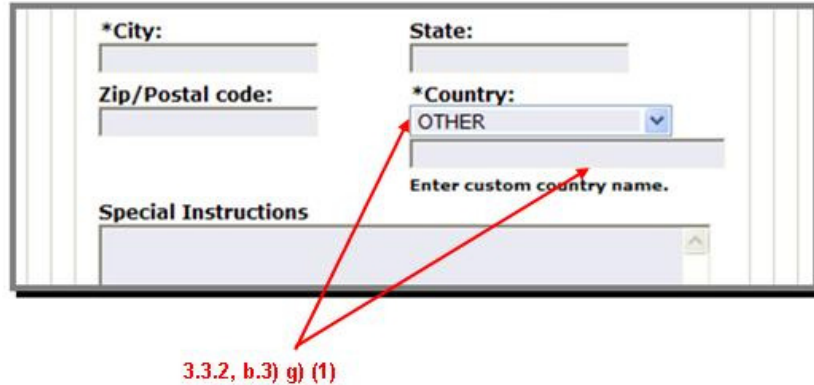
The screenshot shows a web form for entering mailing address information. The form is titled "Mailing Address" and includes the following fields and controls:

- \* Address Name: (work, home, etc.)**: A text input field.
- US Format:** A checkbox.
- \* Street1:**, **Street2:**, **Street3:**, **Street4:**, **Street5:**: Five stacked text input fields for street addresses.
- \* City:** and **State:**: Two text input fields.
- Zip/Postal code:**: A text input field.
- \* Country:**: A dropdown menu currently showing "Abu Dhabi".
- Special Instructions:**: A large text area for additional notes.
- Buttons:** "Register" and "Cancel" buttons at the bottom.

Annotations in the image include:

- A red circle around the "Mailing Address" title with an arrow pointing to the text "3.3.2, b.3)".
- A red arrow pointing from the text "3.3.2, c)" to the "Register" button.
- A red arrow pointing from the text "3.3.2, d)" to the "Cancel" button.

Figure 16. Register as an ECHO User Screen Mailing Address



**Figure 17. Register as an ECHO User Screen Custom Country Name**

- 3) Mailing Address
  - a) US Address Format\* (check the box of "Yes")
  - b) Address Name\*
  - c) Street1\*, Street2, Street3, Street4, Street5
  - d) City\*
  - e) State†
  - f) Zip/Postal Code†
  - g) Country\*

*Change with ECHO 10: Country is now Country Name, not Code. A free form option (OTHER) is also provided to enter a country that is not in the drop down list*

- (1) If OTHER is selected, a "Custom Country Name" field appears and is required
- h) Special Instructions

Once you have entered the requested information:

- c. To complete your registration, click the "Register" button. (See Figure 18)

Data validation will take place against the values you entered. If there is an error, an error message will be displayed. Correct the errors and click the "Register" button again. Your registration will not be complete until all entered data passes data validation. (See Figure 19)

- d. At any time, if you wish to cancel your registration, click the "Cancel" button.

*Note: ECHO requires passwords to be at least 10 characters long and incorporate at least 3 out of 4 character types, such as lower case, upper case, numerical value and special characters. In addition, special characters ("&" "<", ">", etc.) are not accepted in the registration text.*

**Provider User Management Program (PUMP) Login**

**Congratulations! You have successfully created User --Sparhawk!!**

Please enter your ECHO user credentials in order to proceed.

\* Enter Your User Name:   
*Please Enter your user name*

\* Enter Your Password:

\* (Required Field)

[Can't remember your username?](#)

[Need to reset your password?](#)

Figure 18. Register as an ECHO User Screen Response

Middle Initial:

\*Last Name:  *Validation Error: Value is required.*

Receive Periodic Informational Email from ECHO:

\*Email Address:  *Validation Error: Value is required.*

\*Organization:  *Validation Error: Value is required.*

\*User Domain:

Figure 19. Register as an ECHO User Screen Data Validation Error

### 3.3.3 Register As Provider

This action allows you to register as a provider (data or service). A data provider is a provider who will be adding data to the ECHO repository while a service provider is a provider who will be providing web services such as interfaces, implementations, advertisements, or GUIs to access the data in the ECHO repository,.

The user requesting the registration will automatically be given the provider role. Because ECHO operations must approve all new providers, a temporary ID will be returned. ECHO operations will review the provider and activate it in an appropriate timeframe. The registering user will receive an email when the provider is activated.

*To register as a provider, you must first be a registered user of ECHO.*

- a. From the PUMP Welcome/Home Screen (Figure 4), click on the "Register as a Provider" link. The "ECHO Provider Registration" screen (Figure 20) appears.



**Figure 20. Register as a Provider**

- b. Log into PUMP by entering your User Name and password and clicking the "Login" button (see Figure 20)
- c. The "Provider Registration screen" (Figure 21) appears asking for information about your provider organization.



The screenshot shows the 'Provider Registration' form. The top section, enclosed in a red box, includes fields for Organization Name, Provider Types (with a dropdown menu showing 'DATA' and 'SERVICE'), Discovery URLs, Description of Holdings, Description of Services, and Additional Information. Below this is the Contact Information section, with fields for Title, First Name, Middle Initial, Last Name, Role, and Email. The Phone Number section includes Phone Number, Phone Type (with a dropdown menu showing 'BUSINESS'), and another Phone Number field. Red annotations highlight specific parts: a red box around the top section, red circles around the Contact Information and Phone Number sections, and red arrows pointing from text labels on the right to these sections.

**Figure 21. Provider Registration Screen General, Contact, and Phone**

- d. In the following descriptions, fields marked with an asterisk (\*) are required. Items marked with a † are required IF the address is a US-formatted address. See Appendix B, Data Entities for details on these fields
- 1) Organization\*
  - 2) Provider Type\*
  - 3) Discovery URLs\*—identifies a provider web site
  - 4) Description of Holdings\*—description of the type of data holdings the provider maintains
  - 5) Description of Services
  - 6) Additional Information
  - 7) Contact Information
    - a) Title (*New field with ECHO 10*)
    - b) First Name\*
    - c) Middle Initial (*New field with ECHO 10*)
    - d) Last Name\*
    - e) Role\*—user's role in the provider's organization
    - f) Email Address\*
  - 8) Phone Number
    - a) Phone Type\*
      - (1) If Custom is picked, a box appears labeled "Custom Type Name" and becomes required
    - b) Phone Number\*

\* (Required Field)

3.3.3 e.    3.3.3 f.    3.3.3 d.9)

**Figure 22. Register as Provider Mailing Address & Buttons**

9) Mailing Address

- a) Address Name\*
- b) US Address Format\* (check the box of "Yes")
- c) Street1\*, Street2, Street3, Street4, Street5
- d) City\*
- e) State†
- f) Zip/Postal Code†
- g) Country\*

*Change with ECHO 10: Country is now Country Name, not Code. A free form option (OTHER) is also provided to enter a country that is not in the drop down list*

(1) If OTHER is selected, a "Custom Country Name" field appears (see Figure 17) and is required

- h) Special Instructions

Once you have entered the requested information:

- e. To complete your registration, click the "Register" button.

Data validation will take place against the values you entered. If there is an error, an error message will be displayed. Correct the errors and click the "Register" button again. Your registration will not be complete until all entered data passes data validation.

- f. At any time, if you wish to cancel your registration, click the "Cancel" button.

The screenshot shows a web form titled "Provider Registration". It contains several input fields with red error messages below them:

- \* Organization Name:** An empty text box with the error message "Validation Error: Value is required."
- \* Provider Types:** A dropdown menu with "DATA" and "SERVICE" options. The error message "Validation Error: Value is required." is shown below it.
- \* Discovery URLs:** A text box containing "www.pandions.com".
- \* Description of Holdings:** An empty text area with the error message "Validation Error: Value is required."

Figure 23. Register as Provider Data Validation Errors

The screenshot shows the PUMP Welcome screen. At the top, it says "PUMP". Below that, it says "Welcome, Edwin Sparhawk" and "Connected to http://external-test.echo.nasa.gov:30000; ECHO Version: 10.0.0RC3; Logged in as 'Sparhawk'". There are links for "Main" and "Log Out". The main message reads: "You have successfully registered as provider .". Below this, it says: "Your temporary provider ID is D65FD221-2312-0B5B-0BFC-F92DF514CBA1. Please keep or print it out for your record. ECHO operations will review your provider registration and activate it in an appropriate timeframe. You will receive email when this provider is activated."

Figure 24. Register as Provider Response

### 3.4 User Profile



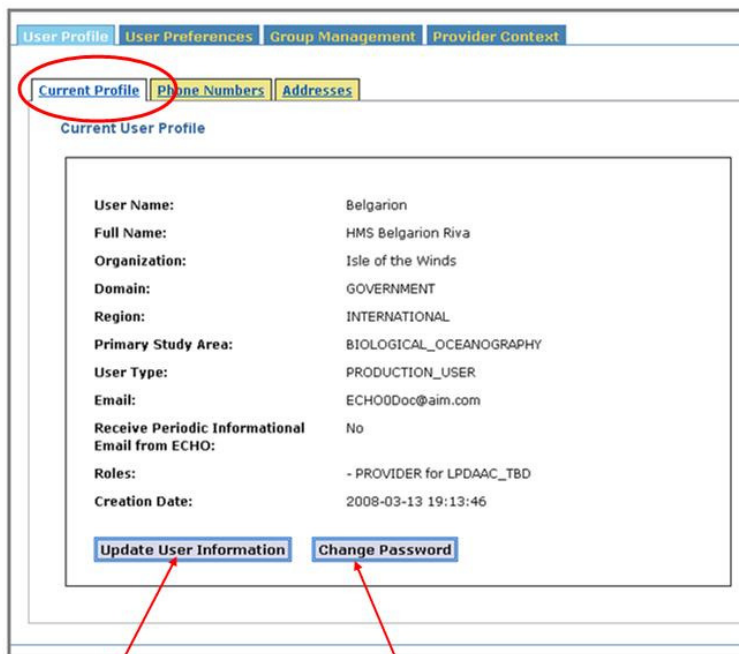
The User Profile information contains the personal information specific to the user who owns the currently logged in User Name. This information includes the user's Profile, Phone Numbers, and Addresses. From this tab, a user may modify his or her personal information, add additional information, or delete old information. The User Profile information is broken up into three sections or sub-tabs: Current Profile, Phone Numbers, and Addresses.

*Note that when you log in you are initially placed in the User Profile tab. Which sub-tab (Current Profile, Phone Numbers, Addresses) you are placed in depends on the last sub-tab you were in when you last accessed the User Profile tab. You see the applicable information in a read-only form.*

The following is the information included in this tab. For details, see section 3.4.1.1, Updating User Information.

- a. Profile—Contains personal information such as User Name/User ID, Full Name, Organization, etc.
- b. Phone Number(s)
- c. User Address(es)

#### 3.4.1 Modifying Current Profile



3.4.1.1

3.4.1.2

Figure 25. Current Profile Tab

### 3.4.1.1 Updating User Information

- a. To modify the user information associated with this User Name, click the "Update User Information" button (see Figure 25).

The "Update User Profile" screen appears (see Figure 26).

The screenshot shows the 'Update User Profile' form with the following fields and values:

- User Name: Belgarion
- Title: CUSTOM | HMS (Note: Input own title. Note that 'CUSTOM' will not be part of the title.)
- \* First Name: Belgarion
- Middle Initial: [Empty]
- \* Last Name: Riva
- Receive Periodic Informational Email from ECHO:
- \* Email Address: ECHODoc@aim.com
- \* Organization: Isle of the Winds
- \* User Domain: GOVERNMENT
- \* User Region: INTERNATIONAL
- \* Primary Study Area: BIOLOGICAL\_OCEANOGRAPHY
- \* User Type: Production User
- Creation Date: 2008-03-13 19:13:46

Red arrows indicate the following annotations:

- 3.4.1.1 c. points to the 'Update' button.
- 3.4.1.1 d. points to the 'Cancel' button.
- 'Set by ECHO, not modifiable' points to the 'Creation Date' field.
- 3.4.1.1 b. points to the main form area.

**Figure 26. Update User Profile**

- b. You may now modify any of the modifiable fields. Note that if a field is required (\*) you may modify it but you may not delete it. See Appendix B, Data Entities for details on these fields.

- 1) Title (*New field with ECHO 10*)
- 2) First Name\*
- 3) Middle Initial (*New field with ECHO 10*)
- 4) Last Name\*
- 5) Do you wish to receive periodic informational emails form ECHO? (check the box for "Yes")
- 6) Email Address\*
- 7) Organization\*
- 8) User Domain\*
- 9) User Region\*
- 10) Primary Study Area\*
- 11) User Type\*

- c. When done, click the "Update" button to perform the actual update.

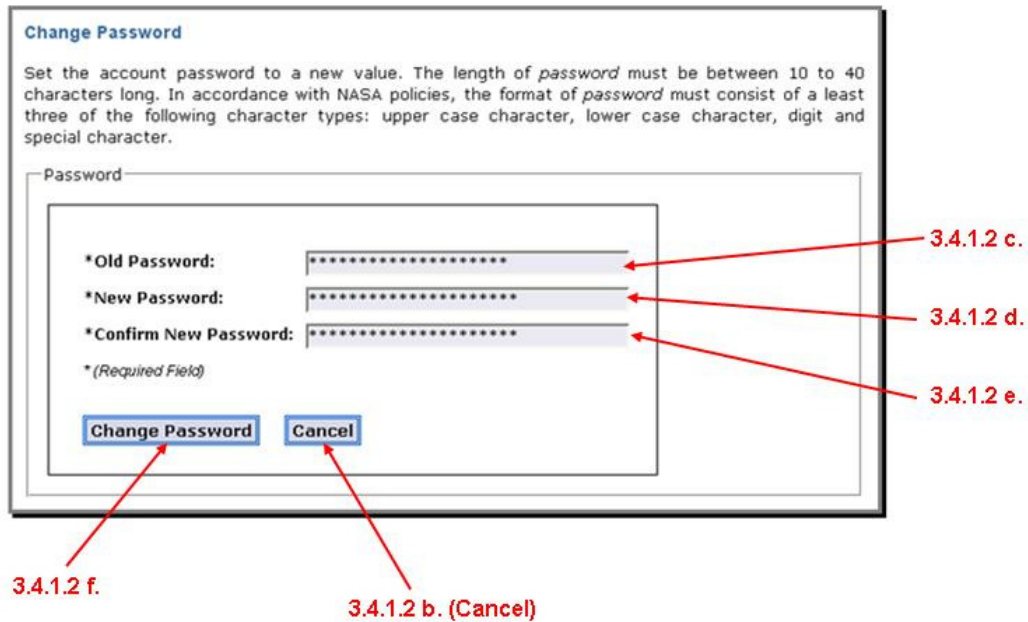
- d. Data validation will take place against the values you entered. If there is an error, an error message will be displayed. Correct the errors and click the "Update" button again. The update will not be complete until all entered data passes data validation.

- e. At any time, if you do not wish to update the profile, click the "Cancel" button.

### 3.4.1.2 Changing Password

- a. To change the password associated with this User Name, click the "Change Password" button (see Figure 25).

The "Change Password" screen appears (see Figure 27).



**Figure 27. Change Password**

- b. If at any time prior to clicking the "Change Password" button you decide not to change your password, click the "Cancel" button to cancel the password change.
- c. Enter your current password in the "Old Password" box
- d. Enter the new password in the "New Password" box. New password must conform to the following:
  - 1) The *password* length must be between 10 to 40 characters long.
  - 2) In accordance with NASA policies, the *password* format must consist of at least three of the following character types:
    - a) upper case character (A – Z)
    - b) lower case character (a – z)
    - c) digit (0 – 9)
    - d) special character
- e. Re-enter the new password in the "Confirm New Password" box
- f. Click the "Change Password" button to change your password

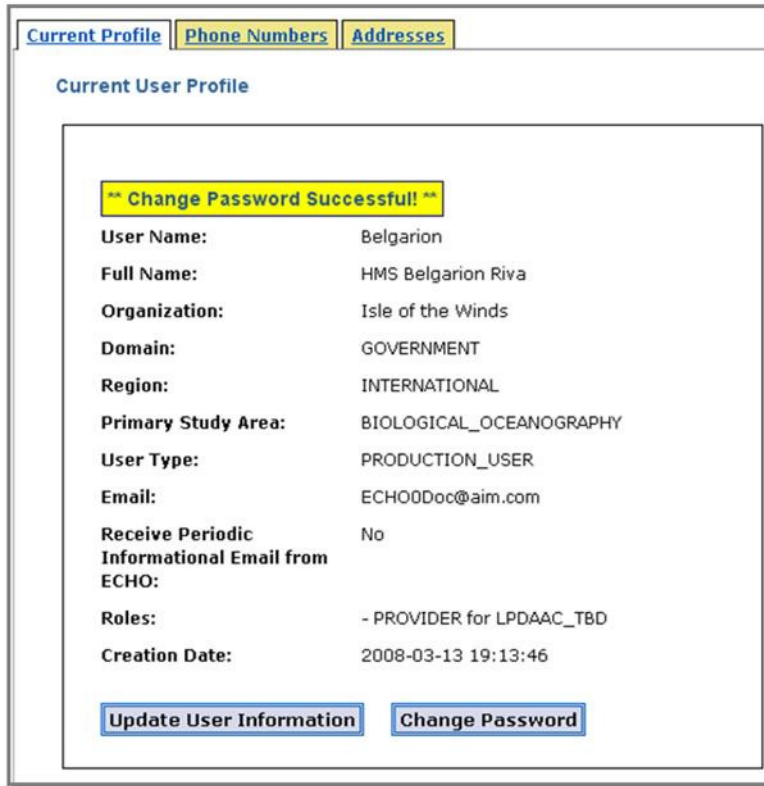


Figure 28. Password Change Successful

- g. Data validation will take place against the old and new password you entered. If there is an error, an error message will be displayed.
- 1) An error is generated if you entered an incorrect "old" (current) password.

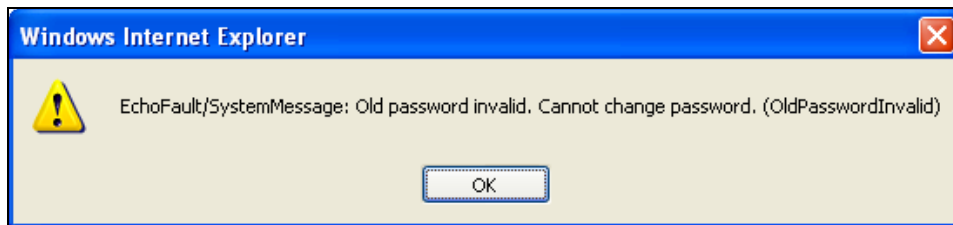


Figure 29. Invalid Current Password entered

- 2) If the new password does not conform to the rules or the "New Password" does not match the "Confirm New Password", an error is generated



Figure 30. Password does not conform to rules

**Change Password**

Set the account password to a new value. The length of *password* must be between 10 to 40 characters long. In accordance with NASA policies, the format of *password* must consist of a least three of the following character types: upper case character, lower case character, digit and special character.

Password

\*Old Password:

\*New Password:  *Validation Error: Value is less than allowable minimum of '10'*

\*Confirm New Password:  *New Passwords do not match!*

\* (Required Field)

**Data validation errors**

**Figure 31. Data Validation Errors**

- 3) Correct the password in error (Old, New, and/or Confirm New) and click the "Change Password" button again. Your password will not be changed until all the passwords passes data validation.



### 3.4.2 Modifying Phone Numbers

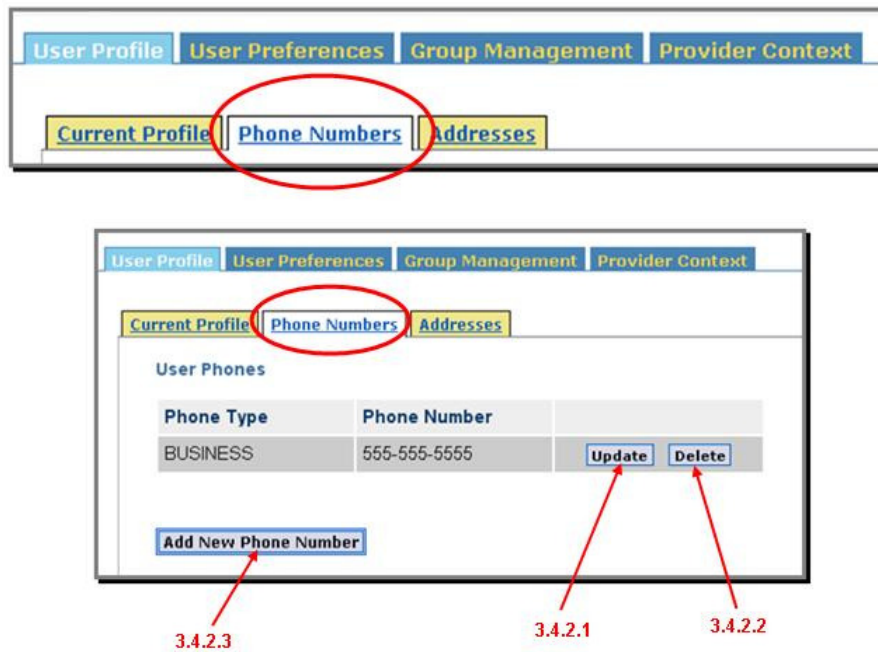


Figure 32. User Profile Phone Numbers Tab

#### 3.4.2.1 Modify Existing Phone Number

- a. To modify the phone information associated with this User Name, click the "Update" button next to the phone number you wish to modify (see Figure 32).

The "Update User Phone" screen appears (see Figure 33).

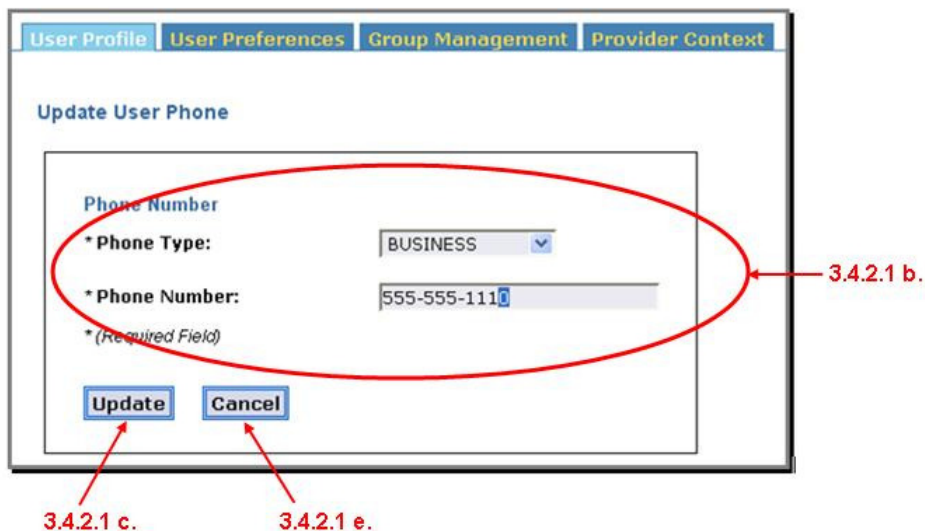


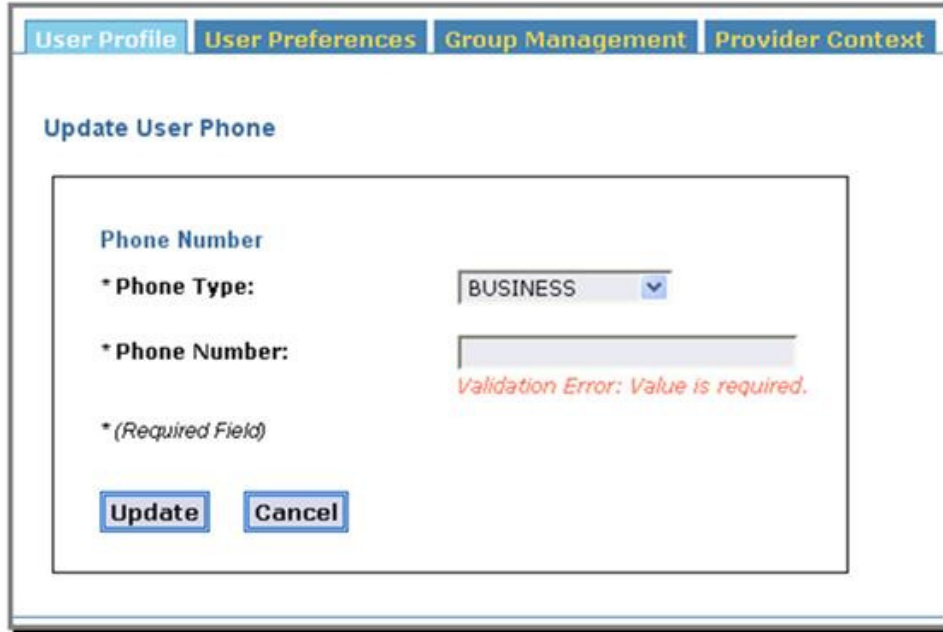
Figure 33. Update User Phone Screen

- b. You may now modify any of the fields. Note that if a field is required you may modify it but you may not delete it. See Appendix B, Data Entities for details on these fields.

- 1) Phone Type\*

- a) If Custom is picked, a box appears labeled "Custom Type Name" and is required

- 2) Phone Number\*
- c. Click the "Update" button to update the phone number
- d. Data validation will take place against the values you entered. If there is an error, an error message will be displayed. Correct the errors and click the "Update" button again. The update will not be complete until all entered data passes data validation.

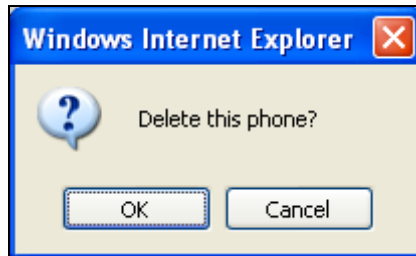


**Figure 34. Update Phone Number Data Validation Error**

- e. At any time, if you do not wish to update the phone number, click the "Cancel" button.

### 3.4.2.2 Delete an Existing Phone Number

- a. To delete the phone information associated with this User Name, click the "Delete" button next to the phone number you wish to delete (see Figure 32).  
A confirmation dialog box will appear.
- b. If you wish to continue the phone deletion, click the "OK" button (see Figure 35)
- c. If you do not wish to continue with the deletion, click the "Cancel" button (see Figure 35)



**Figure 35. Delete Phone Confirmation Dialog**

### 3.4.2.3 Add A New Phone Number

- a. To add a new phone, click the "Add New Phone Number" button (see Figure 32).  
The "Add User Phone" screen will appear (see Figure 36).

**Figure 36. Add User Phone Screen**

- b. You may now enter the requested information for the new phone number. See Appendix B, Data Entities for details on these fields.
  - 1) Phone Type\*
    - a) If Custom is picked, a box appears labeled "Custom Type Name" and is required
  - 2) Phone Number\*
- c. Click the "Add" button to add the phone number
- d. Data validation will take place against the values you entered. If there is an error, an error message will be displayed. Correct the errors and click the "Add" button again. The add will not be complete until all entered data passes data validation. The following fields are required: (See Figure 34 for sample)
- e. At any time, if you do not wish to add the phone number, click the "Cancel" button.

### 3.4.3 Modifying Addresses

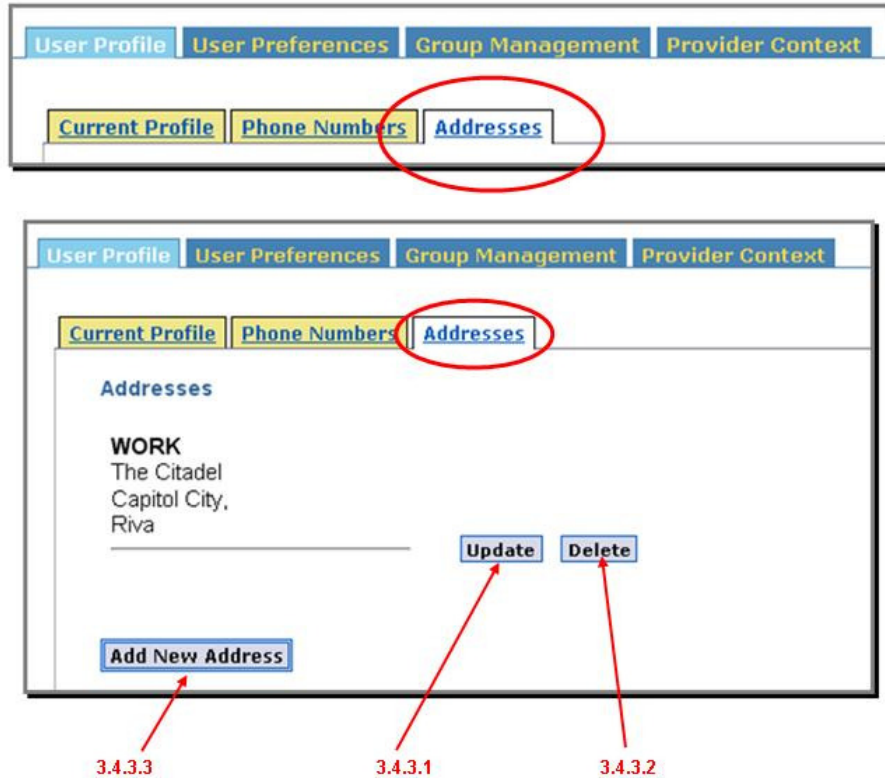


Figure 37. User Profile Addresses Tab

#### 3.4.3.1 Modify Existing Address

- a. To modify the address information associated with this User Name, click the "Update" button next to the address you wish to modify (see Figure 37).

The "Update User Address" screen appears (see Figure 38).

' checkbox; '\*Street1:' through '\*Street5:' with text input fields; '\*City:' with a text input containing 'Capitol City' and '\*State:' with a text input; 'Zip/Postal code:' with a text input and '\*Country:' with a dropdown menu showing 'OTHER' selected and 'Riva' below it, with a note 'Enter custom country name.'; and 'Special Instructions' with a large text area. At the bottom, there are 'Update' and 'Cancel' buttons. A large red circle highlights the main form area, with a red arrow pointing to it from the label '3.4.3.1 b.'. Red arrows also point to the 'Update' button (labeled '3.4.3.1 c.') and the 'Cancel' button (labeled '3.4.3.1 e.')."/>

**Figure 38. Update User Address Screen**

b. You may now modify any of the fields. Note that if a field is required you may modify it but you may not delete it. See Appendix B, Data Entities for details on these fields.

- 1) Address Name\*
- 2) US Address Format\* (check the box of "Yes")
- 3) Street1\*, Street2, Street3, Street4, Street5
- 4) City\*
- 5) State†
- 6) Zip/Postal Code†
- 7) Country\*

*Change with ECHO 10: Country is now Country Name, not Code. A free form option (OTHER) is also provided to enter a country that is not in the drop down list*

- a) If OTHER is selected, a "Custom Country Name" field appears and is required

8) Special Instructions

c. Click the "Update" button to update the address

d. Data validation will take place against the values you entered. If there is an error, an error message will be displayed. Correct the errors and click the "Update" button again. The update will not be complete until all entered data passes data validation.

The screenshot shows a web form titled "Update User Address". The form contains several input fields and a dropdown menu. The "Address Name" field contains "WORK". The "Street1" field contains "The Citadel". The "City" field is empty and has a red error message below it: "Validation Error: Value is required." The "State" field is empty. The "Zip/Postal code" field is empty. The "Country" dropdown menu is set to "OTHER" and has "Riva" entered in the text box below it. The "Special Instructions" field is empty. At the bottom of the form are "Update" and "Cancel" buttons. A note at the bottom left says "\* (Required Field)".

**Figure 39. Update Address Data Validation Error**

e. At any time, if you do not wish to update the address, click the "Cancel" button.

### 3.4.3.2 Delete an Existing Address

- To delete the address associated with this User Name, click the "Delete" button next to the address you wish to delete (see Figure 37).
- A confirmation dialog box will appear.
- If you wish to continue the address deletion, click the "OK" button. (Figure 40)
- If you do not wish to continue with the deletion, click the "Cancel" button. (Figure 40)

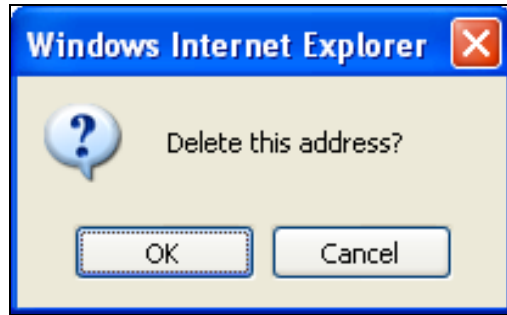


Figure 40. Delete Address Confirmation Dialog

### 3.4.3.3 Add A New Address

- a. To add a new address, click the "Add New Address " button.  
The "Add User Address" screen will appear (see Figure 41).

Figure 41. Add User Address Screen

- b. You may now enter the requested information for the new address. Note that if a field is required, it is marked with an asterisk (\*). See Appendix B, Data Entities for details on these fields.
  - 1) Address Name\*
  - 2) US Address Format\* (check the box of "Yes")

- 3) Street1\*, Street2, Street3, Street4, Street5
- 4) City\*
- 5) State†
- 6) Zip/Postal Code†
- 7) Country\*

*Change with ECHO 10: Country is now Country Name, not Code. A free form option (OTHER) is also provided to enter a country that is not in the drop down list*

- a) If OTHER is selected, a "Custom Country Name" field appears and is required
- 8) Special Instructions
- c. Click the "Add" button to add the new address
  - d. Data validation will take place against the values you entered. If there is an error, an error message will be displayed. Correct the errors and click the "Add" button again. The add will not be complete until all entered data passes data validation. (See Figure 39 for sample)
  - e. At any time, if you do not wish to add the address, click the "Cancel" button.



### 3.5 User Preferences



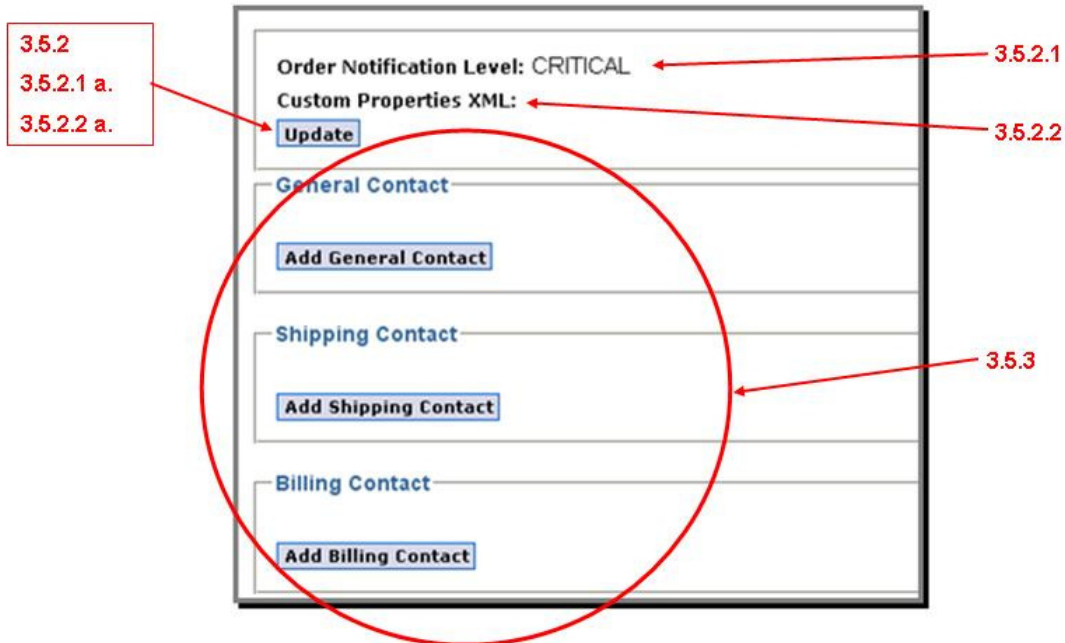
The User Preferences information contains information for ECHO to use when processing your queries, subscriptions, orders, etc.

A screenshot of the 'User Preferences' web interface. At the top is a navigation bar with 'User Preferences' selected. Below the navigation bar is the 'User Preferences' section, which includes:

- 'Order Notification Level: CRITICAL' with a red arrow pointing to callout 3.5.2.1.
- 'Custom Properties XML:' with a red arrow pointing to callout 3.5.2.2.
- An 'Update' button.
- A 'General Contact' section containing:
  - Title: WORK
  - First Name: FirstName, Suite 210
  - Middle Initial: 100 Main
  - Last Name: LastName, Street
  - Role: General Contact, Any City, AK
  - Email: General@contact.com, 11111
  - Organization: United States
  - A table with 'Phone Type' and 'Phone Number' columns, containing 'BUSINESS' and '555-555-1111'.
  - 'Update General Contact' and 'Delete General Contact' buttons.
- 'Shipping Contact' section with an 'Add Shipping Contact' button.
- 'Billing Contact' section with an 'Add Billing Contact' button.
- A 'Clear Preferences' button at the bottom, with a red arrow pointing to callout 3.5.1.

A large red circle highlights the 'General Contact' section, with a red arrow pointing to callout 3.5.3.

Figure 42. User Preferences Screen After Changes



**Figure 43. User Preferences Screen, Defaults Only**

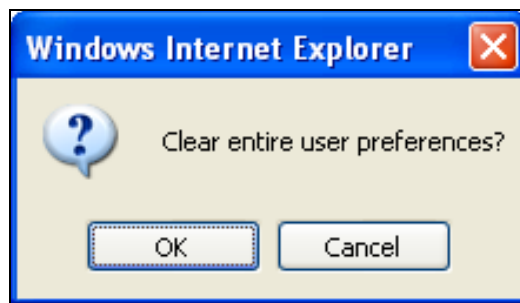
There three general preferences that can be set/changed:

- Order Notification Level—the level of details to receive for status updates on submitted orders
- Custom Properties XML—includes XML properties required by an ECHO client application
- Contacts—general, shipping, and billing contacts for you as a user, in the event you wish to order data

Additionally, if at least one of the above preferences has been set, you will have the option to "Clear Preferences"

### 3.5.1 Clear Preferences

- To clear ALL user preferences, click the "Clear Preferences" button (see Figure 42).  
A clear confirmation box will appear (see Figure 44).
- Click "OK" to continue clearing ALL preferences or "Cancel" to cancel the clear.



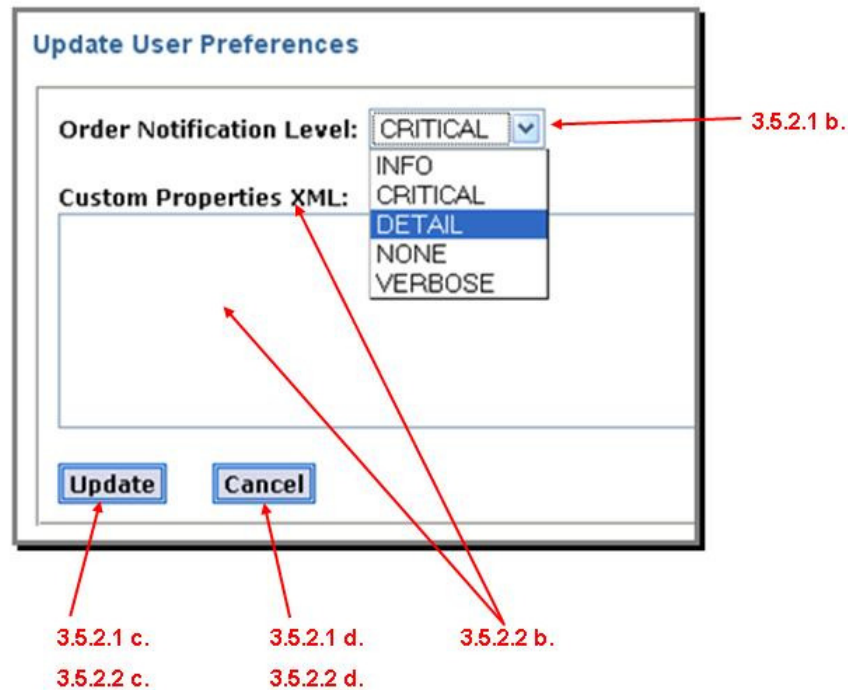
**Figure 44. Clear ALL User Preferences Confirmation**

*Note that this deletes ALL preferences specified...all contact information as well as the Order Notification Level and the Custom Properties XML. Use this with care.*

### 3.5.2 User Preferences Box

- To update the user preferences, click the "Update" button in the "User Preferences" box (see Figure 42 & Figure 43).

The "Update User Preferences" screen appears (see Figure 45).



**Figure 45. Update User Preferences**

### 3.5.2.1 Order Notification Level

The order notification level specifies to what detail you wish to be notified of rmail status updates on submitted orders (see Figure 45). The default is CRITICAL. The following are the valid notification levels:

- VERBOSE—The system will email all state changes and status message updates to the user.
- DETAIL—The system will email the user when only state changes are made.
- INFO—The system will email the user when the operation reaches a final state.
- CRITICAL—The system will email the user when the operation has failed or is rejected. <DEFAULT>
- NONE—The system will not send the user email and the user will have to come back to ECHO and use operations on the specific service to obtain status information.

The emails received are defined in the following table:

Event	Verbose	Detail	Info	Critical
Failure Provider Order State Change (3)	X	X	X	X
Success Provider Order States (2)	X	X	X	
Intermediate Provider Order States (1)	X	X		
Provider Order Status Update	X			

The order states that trigger an email are:

- PROCESSING
- QUOTED, CLOSED
- QUOTE\_FAILED, QUOTE\_REJECTED, SUBMIT\_FAILED, SUBMIT\_REJECTED, CANCELLED

To change your notification level:

- a. Click the "Update" button under the "Custom Properties XML" line.
- b. Select your notification level from the drop down list next to the "Order Notification Level" label.
- c. Click the "Update" button to finalize your choice
- d. At any time, if you do not want to update the Order Notification Level, click the "Cancel" button to cancel the change

### **3.5.2.2 Custom Properties XML**

The Custom Properties XML is used to set values for custom properties that are required by an ECHO client application (see Figure 45). Any valid XML is accepted.

To setup a custom property:

- a. Click the "Update" button under the "Custom Properties XML" line.
- b. In the "Custom Properties XML" box, enter your XML.
- c. Click the "Update" button to finalize your setup
- d. At any time, if you do not want to update the Custom Properties XML, click the "Cancel" button to cancel the change

### **3.5.3 Contact Boxes**

There are three contacts needed when placing an order in ECHO:

- General Contact—identifies who is placing the order
- Shipping Contact—indicates where an order should be physically shipped. This is not applicable if the provider is using FTP for order fulfillment.
- Billing Contact—identifies who will be paying the bill for the order

Note that if there is no data currently entered for a contact, then the only action available is to add the contact. If there is data, entered, then you may update or delete the contact.

Regardless of the contact, the data entered and actions are the same; therefore, data entry and actions will only be described here once.

#### **3.5.3.1 Add Contact**

- a. To add data for a contact, click the "Add <type> Contact" button (<type> = General, Shipping, or Billing, depending on the contact you wish to add) (see Figure 42 and Figure 43).

The "Add User Preferences <type> Contact" screen will appear (see Figure 46).

The screenshot shows a web form titled "Add User Preferences Shipping Contact". The form is divided into several sections:

- Shipping Contact Information:** A red box highlights this section, which includes fields for Title, First Name, Middle Initial, Last Name, Role, Email, and Organization. Red callout boxes point to the First Name field (3.5.3.1 b.1), the Middle Initial field (3.5.3.1 b.2), and the Last Name field (3.5.3.1 b.3).
- Phone Number(s):** A red box highlights this section, which includes a "Phone Type" dropdown (set to BUSINESS), a "Phone Number" field (555-555-1212), and an "Add Phone" button. A red callout box points to the "Phone Number(s)" label (3.5.3.1 b.2).
- Mailing Address:** A red box highlights this section, which includes an "Address Name" dropdown (set to SHIPPING), a "US Format" checkbox, and five "Street" fields (Street1 to Street5). A red callout box points to the "Mailing Address" label (3.5.3.1 b.3).
- City, State, Zip/Postal Code, and Country:** Fields for City (set to Capitol City), State, Zip/Postal Code, and Country (set to OTHER). A red callout box points to the Country field (3.5.3.1 d.).
- Special Instructions:** A large text area for entering special instructions.
- Buttons:** "Add" and "Cancel" buttons at the bottom. A red callout box points to the "Add" button (3.5.3.1 c.).

At the bottom of the form, there is a note: "\* (Required Field)".

Figure 46. Add User Preferences Contact Screen

b. You may now enter the requested information for the new contact. Note that if a field is required, it is marked with an asterisk (\*). See Appendix B, Data Entities for details on these fields.

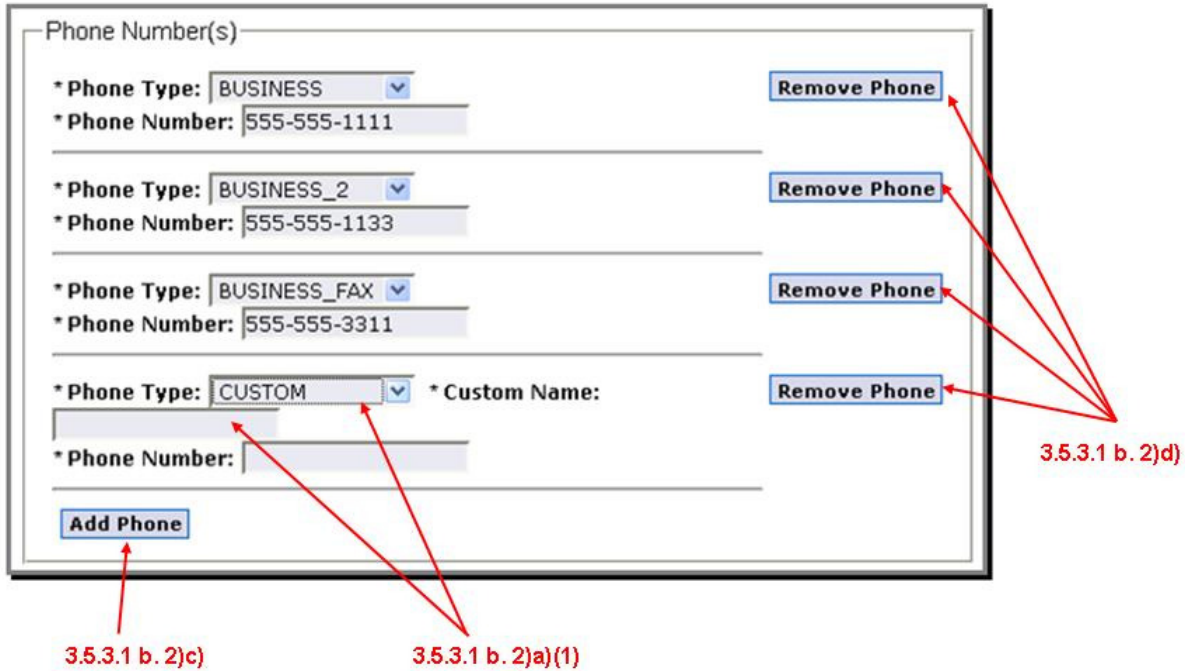
1) Contact Information

- a) Title (*New field with ECHO 10*)
- b) First Name\*
- c) Middle Initial (*New field with ECHO 10*)
- d) Last Name\*
- e) Role\*—user's role in the provider's organization
- f) Email Address\*
- g) Organization\*

2) Phone Number(s)

- a) Phone Type\*
  - (1) If Custom is picked, a box appears labeled "Custom Name" and is required
- b) Phone Number\*

- c) To add a new phone number, you **must first** click the "Add Phone" button. [If you do not click the "Add Phone" button first, whatever you do will modify the phone number that is displayed—the Phone Type and/or Phone Number.]
- d) If you wish to delete a phone number, click the "Remove Phone" button next to the phone number you wish to delete



**Figure 47. User Preferences Add/Update Contact Phone Numbers**

- 3) Mailing Address
  - a) Address Name\*
  - b) US Address Format\* (check the box of "Yes")
  - c) Street1\*, Street2, Street3, Street4, Street5
  - d) City\*
  - e) State†
  - f) Zip/Postal Code†
  - g) Country\*

*Change with ECHO 10: Country is now Country Name, not Code. A free form option (OTHER) is also provided to enter a country that is not in the drop down list*

(1) If OTHER is selected, a "Custom Country Name" field appears and is required

- h) Special Instructions
- c. Click the "Add" button when done
- d. Data validation will take place against the values you entered. If there is an error, an error message will be displayed. Correct the errors and click the "Add" button again. The add will not be complete until all entered data passes data validation.
- e. At any time, if you do not wish to add the contact, click the "Cancel" button.

### 3.5.3.2 Update Contact

**Figure 48. User Preferences Update Contact**

- a. To update data for a contact, click the "Update <type> Contact" button (<type> = General, Shipping, or Billing, depending on the contact you wish to update) (see Figure 42 and Figure 43)

The "Update User Preferences <type> Contact" screen will appear (see Figure 48).

- b. You may now update the requested information for the contact. When done, click the "Update" button to perform the actual update. See section 3.5.3.1, Add Contact for details on the fields that are modifiable and the required vs. optional fields.
- c. Click the "Update" button when done
- d. Data validation will take place against the values you entered. If there is an error, an error message will be displayed. Correct the errors and click the "Update" button again. The update will not be complete until all entered data passes data validation.
- e. At any time, if you do not wish to update the contact, click the "Cancel" button.

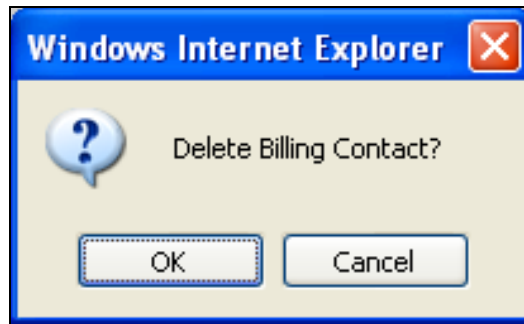
### 3.5.3.3 Delete Contact

If a contact exists, the option to delete it is available.

- a. To delete a contact, click the "Delete <type> Contact" button (<type> = General, Shipping, or Billing, depending on the contact you wish to delete) (see Figure 42 and Figure 43).

A delete confirmation box will appear (see Figure 49).

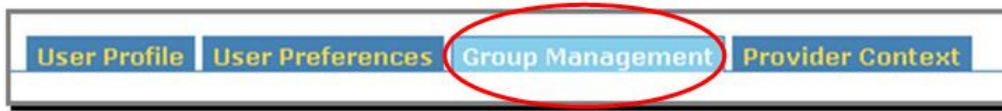
- b. Click the "OK" button to continue with the deletion or
- c. Click the "Cancel" button to cancel the deletion.



**Figure 49. User Preferences Delete Contact Confirmation**



### 3.6 Group Management



The Group Management tab provides all activities that an ECHO user needs to maintain and manage groups of users. Groups are aggregations of ECHO registered users, and there are rules governing the membership actions that can be invoked on a group. Each group consists of one owner and one or more managers. Only registered users with the provider role (Providers or Administrators with a Provider role) can create groups, but the provider can then delegate group management to any registered user. A group manager is responsible for adding and removing ECHO registered users to the group. A group manager is also responsible for the management of the group managers. Groups are used to communicate among groups of users and their managers. Groups are also used in the Data Management when permissions are created in metadata.

The following rules governing the membership actions that can be invoked on a group:

- Each group consists of one or more managers and one or more members
- A group must have at least one manager
- Attempting to remove the last manager of a group results in an error
- A group manager is responsible for removing ECHO registered users from, and adding them to, the group



Figure 50. Group Management, Manager of a Group, No Authority to Add Groups  
(Note the "Add New Group" button is disabled)

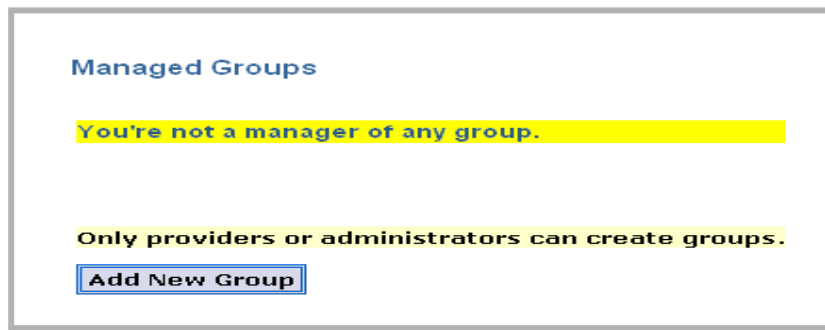


Figure 51. Group Management, Not the Manager of a Group, but do have Authority to Add Groups

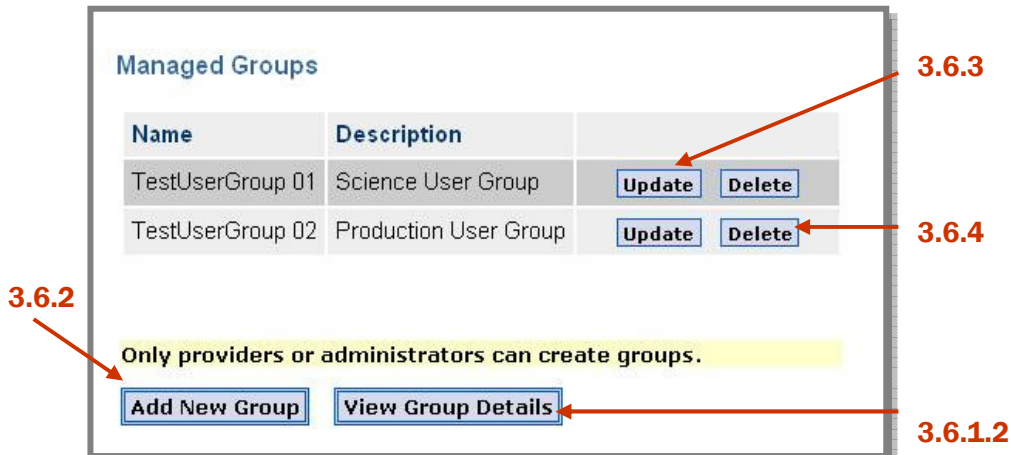


Figure 52. Group Management, Manager of a Group and has Authority to Add Groups

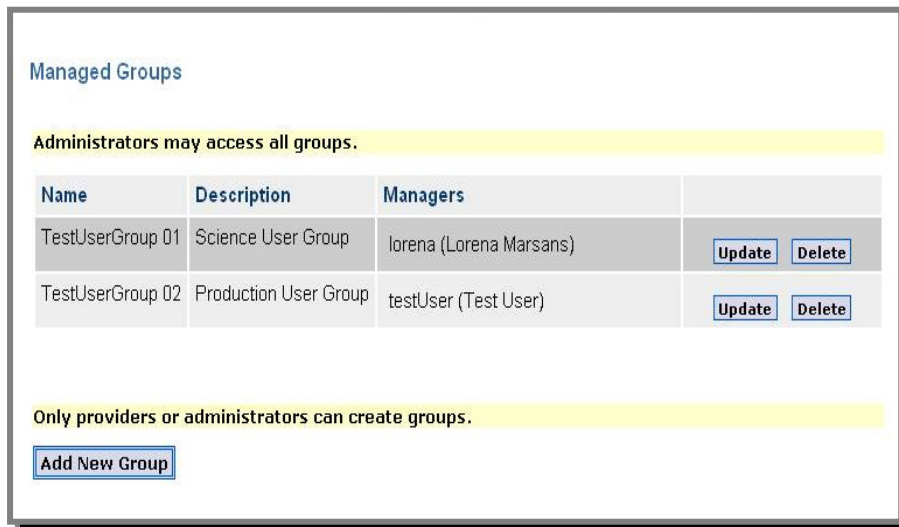


Figure 53. Administrator, has Authority to Add Groups, Managers are displayed

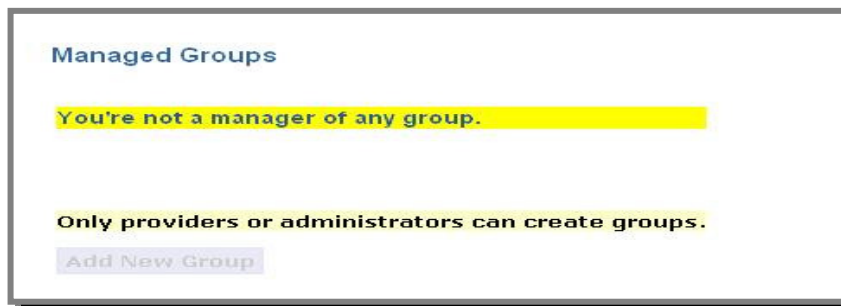


Figure 54. Group Management, Not the Manager of a Group and has no Authority to Add Groups

### 3.6.1 View Groups

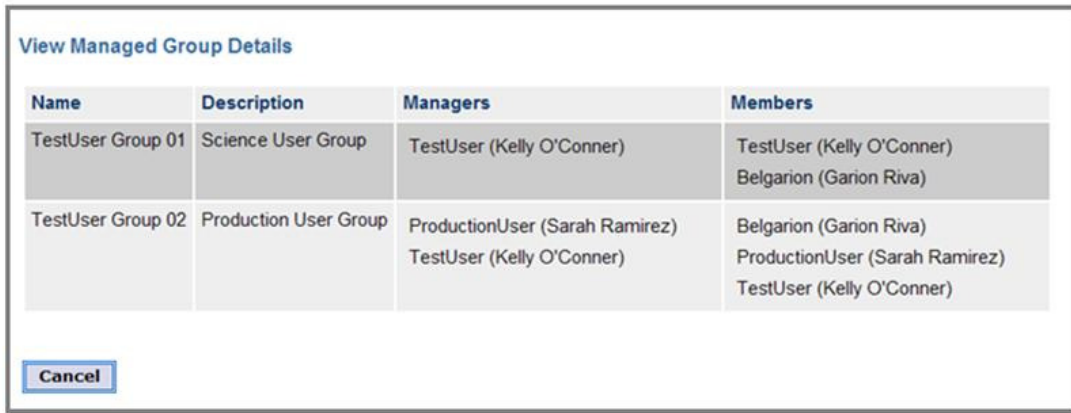
Only managers of a group may view a group. Groups can be viewed in two ways: summary and detailed.

#### 3.6.1.1 Summary

The summary view is the initial list of groups you see when you click the "Group Management" tab. If you are the manager of one or more groups, those groups will be listed with "Update" and "Delete" buttons next to each button (see Figure 50 and Figure 52).

Additionally, the buttons for viewing group details and, if you have a Provider or Administrator role, adding a new group are at the bottom of the list.

### 3.6.1.2 Details



Name	Description	Managers	Members
TestUser Group 01	Science User Group	TestUser (Kelly O'Conner)	TestUser (Kelly O'Conner) Belgarion (Garion Riva)
TestUser Group 02	Production User Group	ProductionUser (Sarah Ramirez) TestUser (Kelly O'Conner)	Belgarion (Garion Riva) ProductionUser (Sarah Ramirez) TestUser (Kelly O'Conner)

Cancel

**Figure 55. View Managed Group Details Screen**

- a. To view the details of your groups, click the "View Group Details" button on the "Managed Groups" screen (see Figure 52).

The "View Managed Group Details" screen appears (see Figure 55).

- b. To return, click the "Cancel" button

### 3.6.2 Create/Add a Group

**Add New Group**

Only providers or administrators can create groups.

\* **Group Name:**  
Group of Scientists

\* **Description:**  
This is a random group of scientists

\* **Managers:** (separate user names with ";")  
Belgarion

\* **Members:** (separate user names with ";")  
Ehlana; Candra

**Add** **Cancel**

**3.6.2 c.** **3.6.2 d.** **3.6.2 b.**

**Figure 56. Add New Group Screen**

- a. To create a new group, click the "Add New Group" button on the "Managed Groups" screen (Figure 52). The "Add New Group" screen appears (Figure 56).
- b. Enter the requested data. Note that all fields are required. This means that a new group must have:
  - 1) A name
  - 2) A description
  - 3) At least one manager
  - 4) At least one member
- c. Click the "Add" button when done
- d. Data validation will take place against the values you entered. If there is an error, an error message will be displayed. Correct the errors and click the "Add" button again. The add will not be complete until all entered data passes data validation.
- e. If you do not wish to add the new group, click the "Cancel" button.

### 3.6.3 Update/Manage a Group

- a. To update an existing group, click the "Update" button next to group you wish to modify on the "Managed Groups" screen (Figure 52).  
The "Manage Group" screen appears allowing you to modify the group you selected for update (Figure 57).
- b. If at any time you do not wish to update the group, click the "Cancel" button.

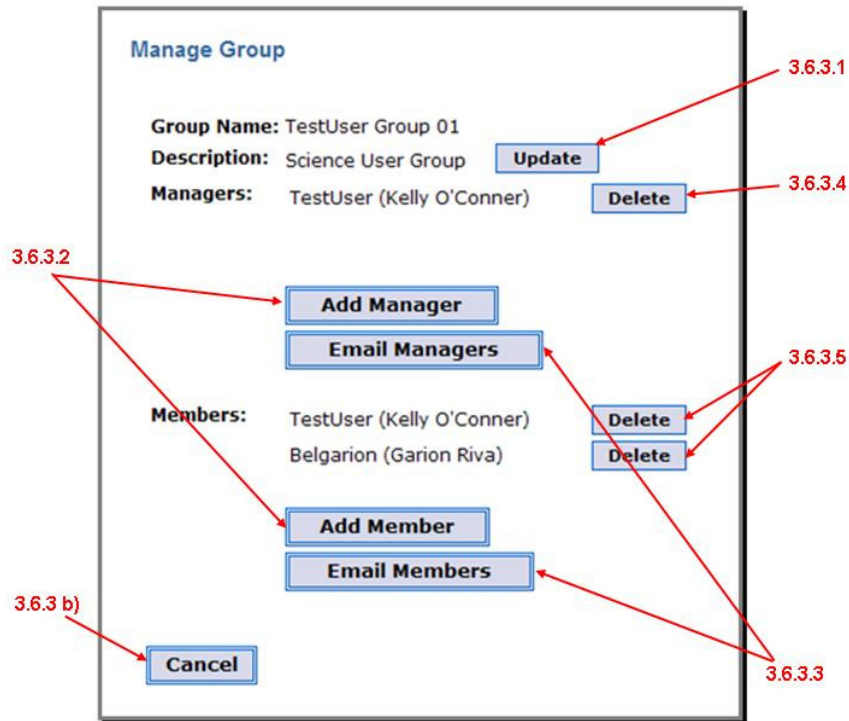


Figure 57. Update/Manage Group Screen

### 3.6.3.1 Update Description

- a. To update the group's description, click the "Update" button next to the "Description" on the "Manage Group" screen (Figure 57).

The "Update Description" screen appears (Figure 58).

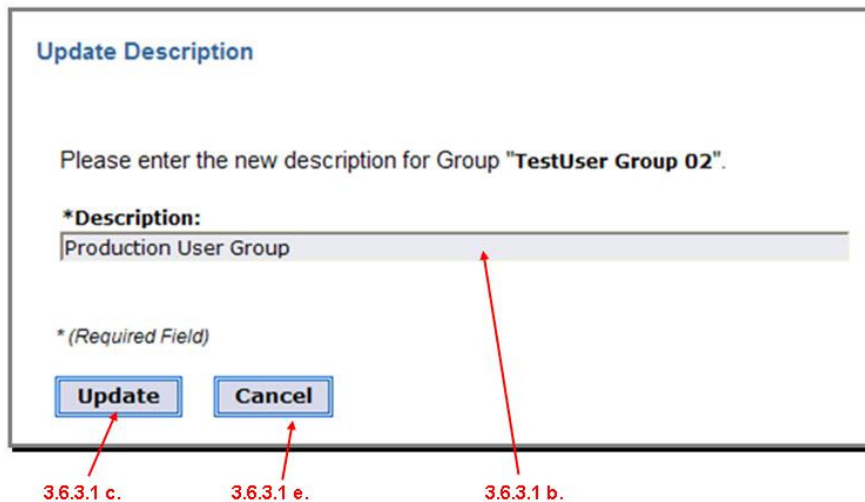


Figure 58. Update Group Description

- b. To modify the description, make your changes in the "Description" box
- c. When done, click the "Update" button.

*Note that "Description" is required so while you make changes, you cannot delete it altogether.*

- d. Data validation will take place against the values you entered. If there is an error, an error message will be displayed. Correct the errors and click the "Update" button again. The update will not be complete until all entered data passes data validation.
- e. At any time, if you do not wish to update the group, click the "Cancel" button.

### 3.6.3.2 Add Manager or Member

- a. To add a new manager to the group, click the "Add Manager" button (Figure 57). OR  
To add a new member to the group, click the "Add Member" button (Figure 57).

The appropriate screen appears ("Add Manager" for manager/"Add Member" for member) (Figure 59 and Figure 60).

**Add Manager**

Please enter the user name to add as manager of Group "TestUser Group 02".

\*User Name:

  
 Notify  
\* (Required Field)

**Add Manager** **Cancel**

3.6.3.2 c. 3.6.3.2 d. 3.6.3.2 f. 3.6.3.2 b.

Figure 59. Add Manager to a Group

**Add Member**

Please enter the user name to add as member of Group "TestUser Group 02".

\*User Name:

  
 Notify

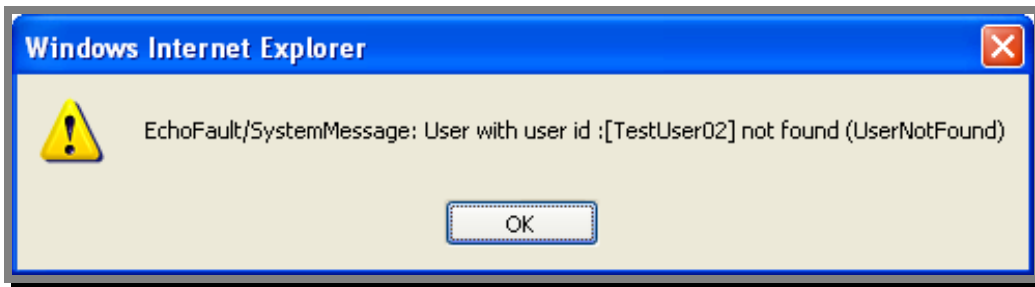
**Add Member** **Cancel**

3.6.3.2 c. 3.6.3.2 d. 3.6.3.2 f. 3.6.3.2 b.

Figure 60. Add Member to a Group

- b. Enter the user name of the person being added as either a manager of the group or member of the group.
- c. If you wish to notify the new manager or member of this action, check the "Notify" box

- d. To complete the addition of the new manager, click the "Add Manager" button OR  
To complete the addition of the new member to the group, click the "Add Member" button
  - e. The "User Name" will be validated against the list of ECHO registered users. If the user name is invalid:
    - 1) An error message will be displayed (see Figure 61).
    - 2) Correct the user name and click the "Add" button again ("Add Manager" for adding new manager/"Add Member" for adding a new member)
    - 3) The add will not be complete until a valid user name is entered
- Note that you may only add one new manager or member at a time.*
- f. At anytime, if you do not wish to add a manager or member to the group, click the "Cancel" button.



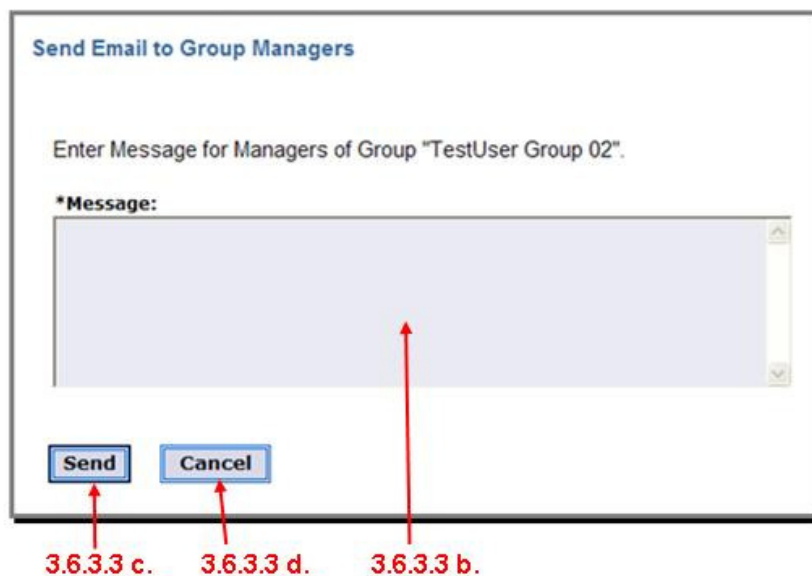
**Figure 61. Invalid User Name for Manager or Member of a Group**

### 3.6.3.3 Email Managers or Members

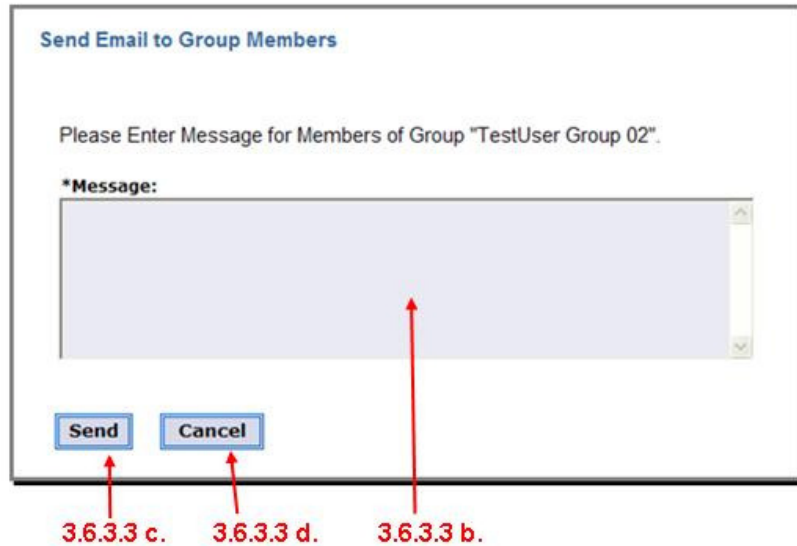
PUMP gives you the ability to send an email to all managers of a group or all the members of a group.

- a. From the "Manage Group" screen (see Figure 57), click the "Email Managers" to send an email to all managers or "Email Members" to send an email to all members of the group.

The appropriate screen appears—"Send Email to Group Managers" or "Send Email to Group Members" (see Figure 62 and Figure 63).



**Figure 62. Email All Managers of a Group**



**Figure 63. Email All Members of a Group**

- b. Enter the Message you wish to send. Note that this field is required.
- c. Click the "Send" button.
- d. At anytime, if you do not wish to email the group's managers or members, click the "Cancel" button.

#### **3.6.3.4 Delete Managers**

Managers may be deleted. However, there must always be at least one manager of the group. If you try to delete the last manager of a group, you will get an error message and the action will be denied. To delete a Manager:

- a. From the "Manage Group" screen (see Figure 57), click the "Delete" button next to the Manager you wish to delete.  
The "Delete Manager" screen appears (see Figure 64).
- b. If you wish to notify the manager of this action, check the "Notify" box
- c. Click the "Delete" button to perform the delete
- d. A check is made to ensure the Manager being deleted is not the last Manager of the group. If this is the last manager, an error message is displayed telling you that at least one manager is required. The actual message references the managers by their unique ID in ECHO, a GUID.
  - 1) If there is no error, the manager is deleted (Figure 64)
  - 2) If the error message is displayed, click the "OK" button (Figure 65)
- e. At anytime, if you wish to cancel the delete, click the "Cancel" button



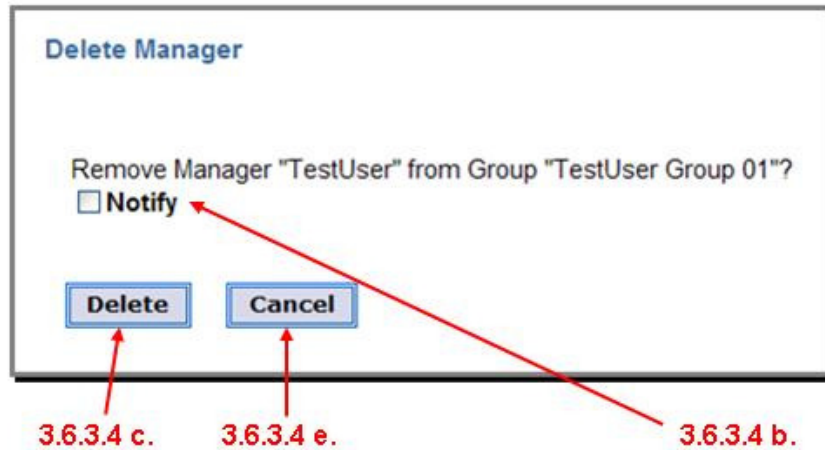


Figure 64. Deleting a Manager

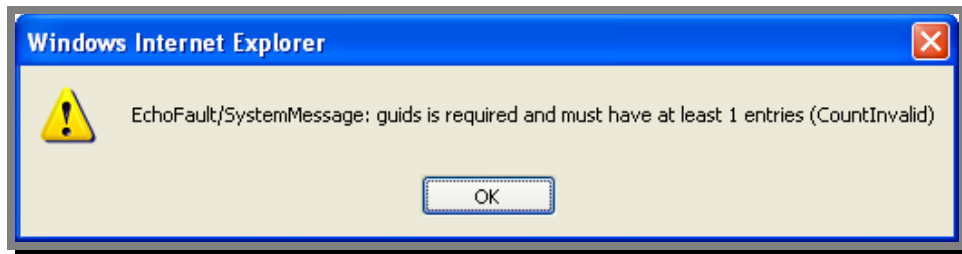


Figure 65. Attempting to Delete the Last Manager of a Group

### 3.6.3.5 Delete Members

Group members may also be deleted. It is possible to have a group with no members. To delete a Member:

- From the "Manage Group" screen (see Figure 57), click the "Delete" button next to the Member you wish to delete.  
The "Delete Member" screen appears (see Figure 66).
- If you wish to notify the member of this action, check the "Notify" box
- Click the "Delete" button to perform the delete
- At anytime, if you wish to cancel the delete, click the "Cancel" button

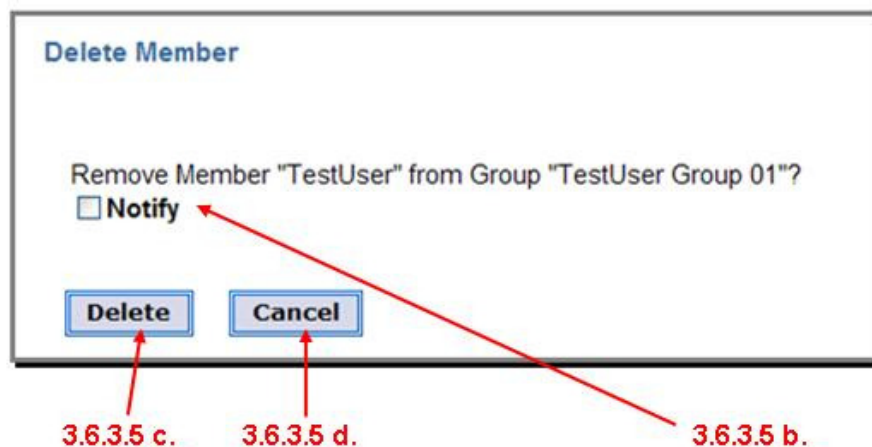


Figure 66. Delete a Member from a Group

### 3.6.4 Delete a Group

- a. To delete a group from ECHO altogether, click the "Delete" button next to the group you wish to be deleted on the "Managed Groups" screen (see Figure 52).

The "Delete Group" screen appears (see Figure 67)

- b. If you wish to notify the Managers and Members of the group that the group is being deleted, check the "Notify Managers and Members" box.
- c. To complete the deletion, click the "Delete" button.
- d. At anytime, if you wish to cancel the delete, click the "Cancel" button

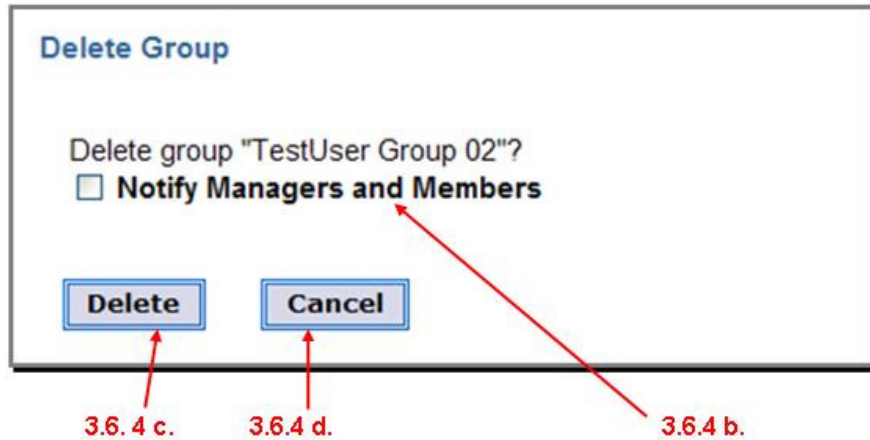


Figure 67. Delete a Group

### 3.6.5 Rename a Group

Groups can no longer be renamed. To perform the same function as a rename:

- a. Create a new group with the same managers, members, and description but with the new name (see section 3.6.2, Create/Add a Group)
- b. Delete the group with the old name (see section 3.6.4, Delete a Group)

### 3.7 Provider Context (Providers and Administrators Only)



To be able to perform provider-specific functions, a user must have a provider assigned to him/her. Only users with a Provider role or administrators will have the "Provider Context" tab and functionality.

Note that Administrators initially have no provider role. However, they may assign themselves a provider role for the duration of their current session. To assign himself a provider role, the Administrator must set his "Provider Context." Once this is done, the Administrator has all provider functionality for the provider he is "acting as".

Users who are not Administrators but who have a provider role will also have provider functionality available.

Users may have more than one provider role, each of which is associated with one provider in the ECHO system. If a user has more than one provider role, he must tell the system which provider he currently wants to represent. This is the "provider context". The provider context indicates the current provider that is represented, and as the name implies, it is to this provider that the provider-oriented functions are applied.

For users who are not administrators but who have a single provider role, the initial view of this tab merely informs them of their provider role and provider ID (see Figure 68).

For Administrators and users with multiple provider roles, the initial view of this tab requires them to select a provider before continuing with provider functions (see Figure 71 for Administrators and users with multiple provider roles).

Users who already have the provider role and administrators with a provider role may assign other users a provider role for the provider they currently represent.

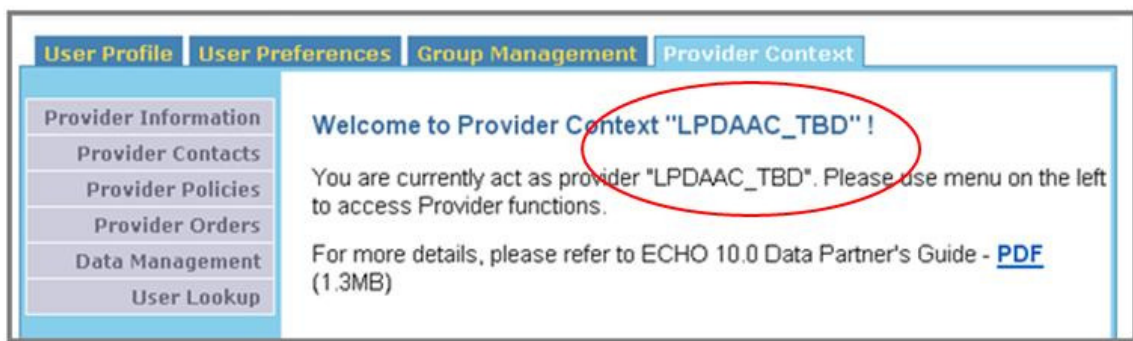


Figure 68. Provider (non-Administrator) w/One Provider Role Provider Context screen



Figure 69. Administrator and Users w/Multiple Provider Roles Provider Context Screen

### 3.7.1 Set Provider Context

Administrators or users with multiple provider roles must first select a provider to "act as". The "Provider Context" screen offers them this ability. Administrators select from the list of all registered ECHO providers (see Figure 71) while users with multiple provider roles select from the list of providers they have a provider role for (see Figure 70).

Until a provider role has been selected, no other provider functions will be offered.

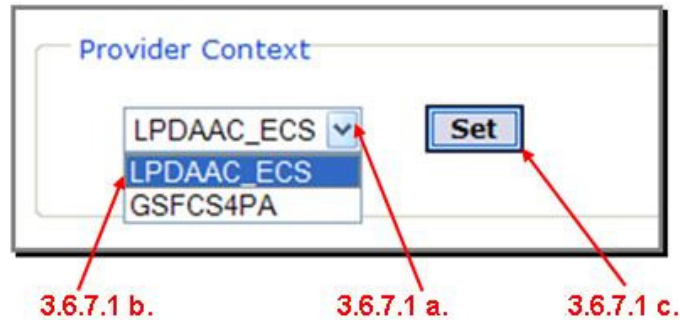


Figure 70. User with Multiple Provider Roles

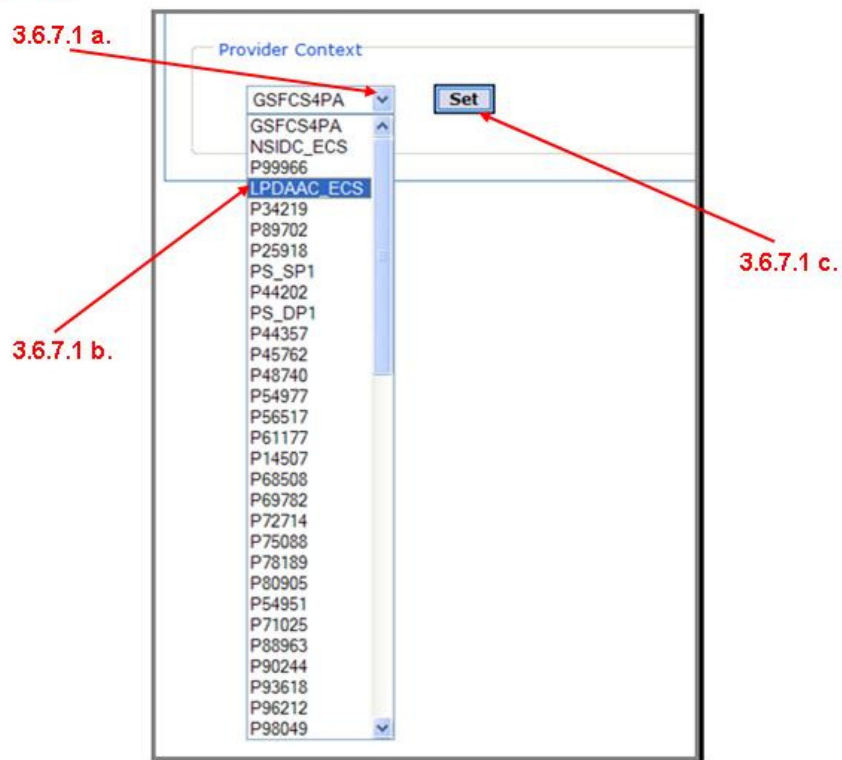
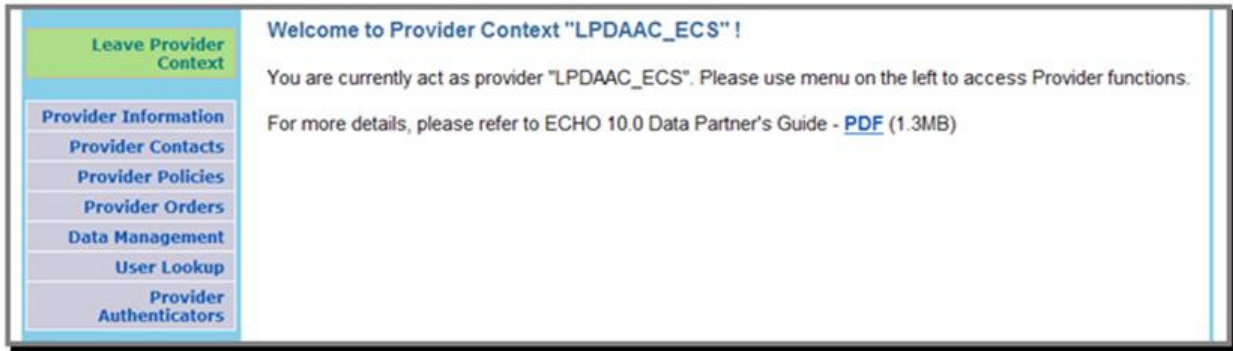


Figure 71. Admin: Selecting a Provider for Provider Context

To select a provider to assign yourself to:

- a. Click on the "Provider Context" box's arrow to see the drop down list of all available providers.
- b. Scroll down to find the provider you wish to act as and select it.
- c. Click on the "Set" button



**Figure 72. Provider Context Set for an Administrator or a User w/Multiple Provider Roles**

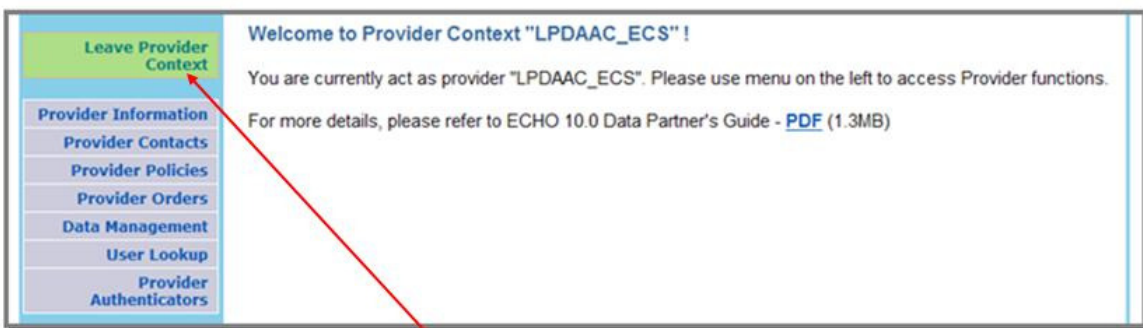
Once the provider context is set (Figure 72), the Administrator now has provider functionality. Note the extra function—the user may remove his provider role at any time. Note that the provider context (role) is only temporary—it will only last as long as the user is logged on. Once logged off, the user reverts back to no provider role set.

### 3.7.2 Leave Provider Context

Administrators and users with multiple provider roles may remove the provider context they have set. For Administrators, this may be necessary to continue with other work that is non-provider specific or to switch to another provider. For users with multiple provider roles, this may be necessary to allow them to switch to another provider.

Once the provider context has been left, provider functions are no longer available.

To leave the Provider context, click the "Leave Provider Context" link on the left side in the navigation panel (see Figure 73).



3.7.2

**Figure 73. Leave Provider Context for an Administrator or a User w/Multiple Provider Roles**

### 3.7.3 Provider Information

This screen displays the user names of all users with a provider role for this provider.

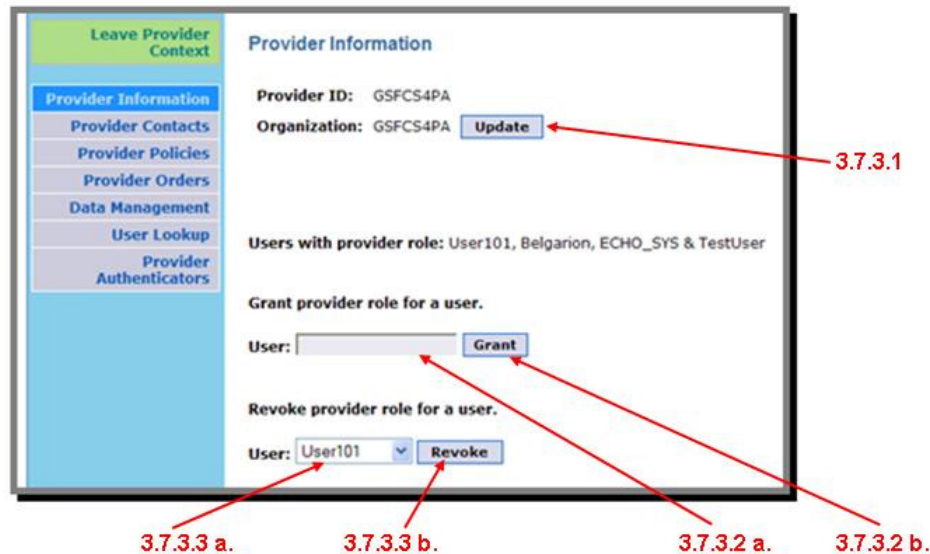


Figure 74. Provider Information Screen

#### 3.7.3.1 Edit Provider Information

- To edit the Organization name for the provider, click the "Update" button next to the "Organization" box (Figure 74)

The "Edit Provider Information" screen appears (see Figure 75).

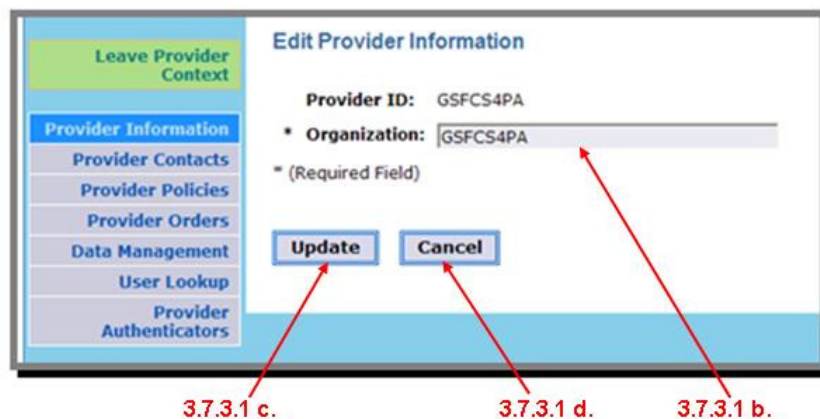


Figure 75. Edit Provider Information

- Make the desired changes to the "Organization". This field is required so while you may change it, you may not delete the name altogether.
- Click the "Update" button when done.
- At any time, if you do not wish to update the Organization, click the "Cancel" button to cancel the update.

#### 3.7.3.2 Grant Provider Role

- To grant a provider role to a user, enter their user name in the "User" box under the "Grant Provider Role for User" label (see Figure 74).
- Click the "Grant" button to grant access.

### **3.7.3.3 Grant/Revoke Provider Role**

- a. To revoke a provider role from a user, select their user name from the "User" box under the "Revoke Provider Role for User" label (see Figure 74).
- b. Click the "Revoke" button to revoke access.

### 3.7.4 Provider Contacts

The provider contacts are similar to other contacts already described in this document. In this case, it is the contact information that an ECHO user may use to contact the provider. Multiple contacts are allowed, each with a name associated with it.

At a minimum, every provider is required to have a contact with a name "User Services". This is the contact information that will be used for emails sent to users as a result of an order status or order state changes.

The initial view of this screen is a list of all the contacts associated with this provider and "Edit" and "Delete" buttons next to each contact (see Figure 76).

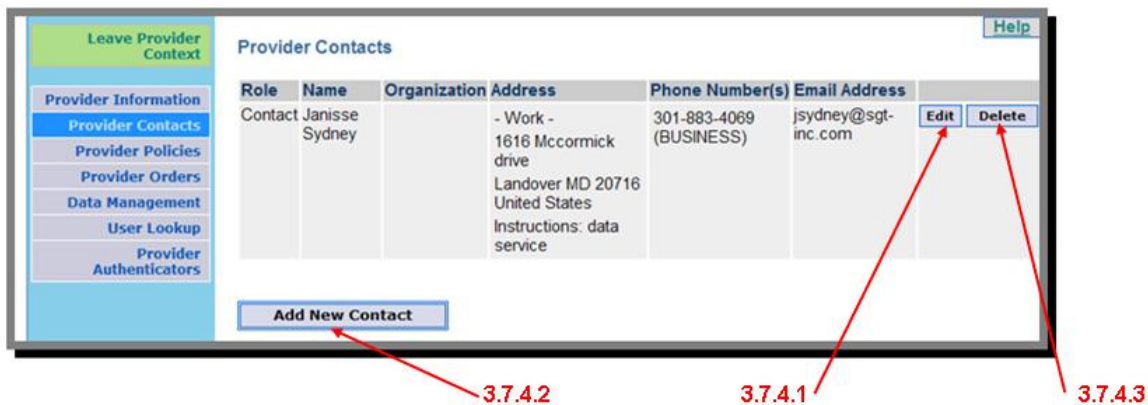


Figure 76. Provider Contacts Screen

#### 3.7.4.1 Edit a Provider Contact

- a. On the "Provider Contacts" screen, click the "Edit" button next to the contact you wish to edit.

The "Edit Contact" screen appears (see Figure 77). See Appendix B, Data Entities for details on these fields.

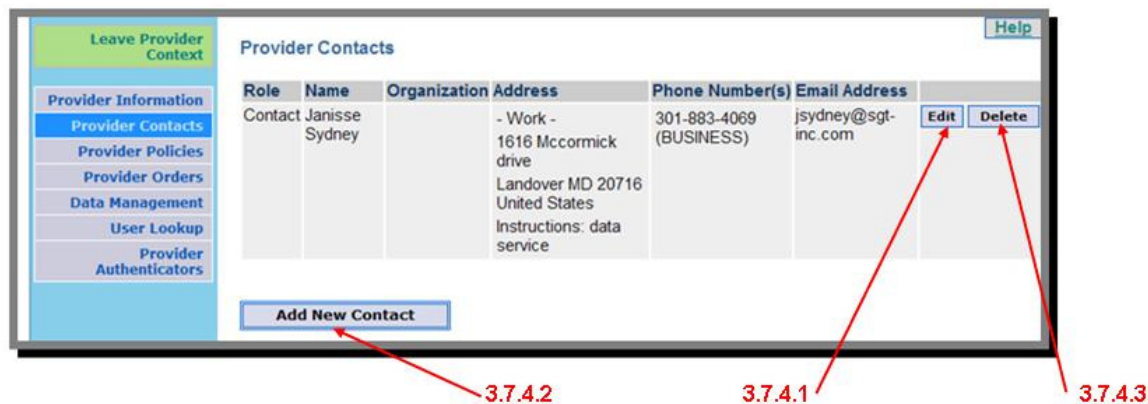


Figure 77. Edit Provider Contact Screen

- b. Enter the requested information. Required fields are marked with an asterisk (\*). Fields marked with a † are required IF the address is a US-formatted address.

- 1) Contact Information
  - a) Title (New field with ECHO 10)
  - b) First Name\*
  - c) Middle Initial (New field with ECHO 10)
  - d) Last Name\*



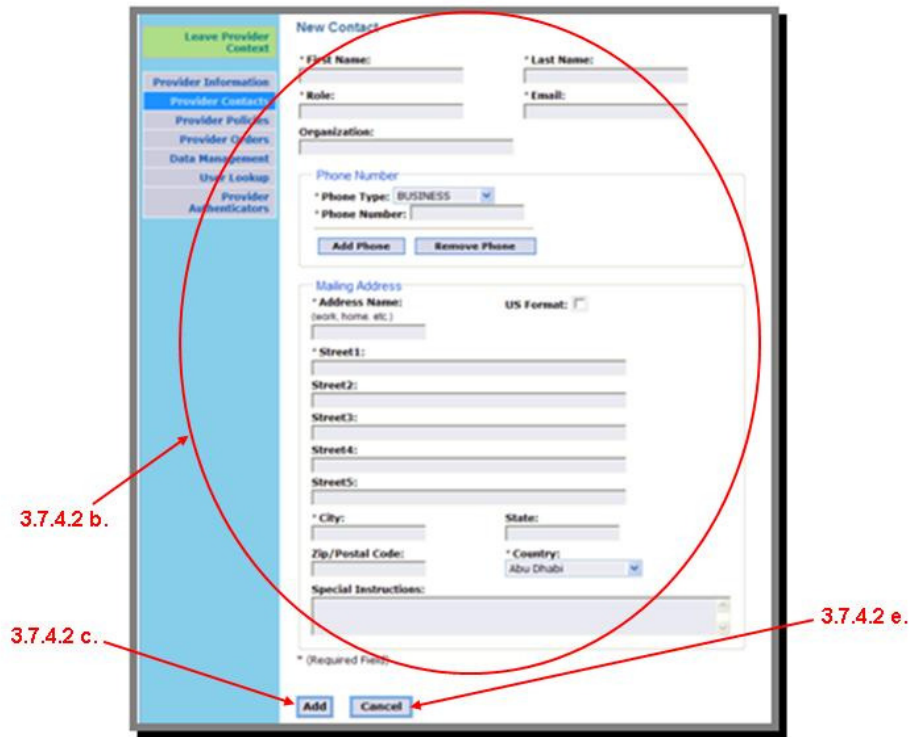
- e) Role\*—user's role in the provider's organization
- f) Email Address\*
- g) Organization\*
- 2) Phone Number(s)
  - a) Phone Type\*
    - (1) If Custom is picked, a box appears labeled "Custom Type Name" and is required
  - b) Phone Number\*
  - c) To add a new phone number, you **must first** click the "Add Phone" button. [If you do not click the "Add Phone" button first, whatever you do will modify the phone number that is displayed—the Phone Type and/or Phone Number.]
  - d) If you wish to remove a phone number,
    - (1) Select the phone number you wish to delete from the drop down list
    - (2) Click the "Remove Phone" button.
- 3) Mailing Address
  - a) Address Name\*
  - b) US Address Format\* (check the box of "Yes")
  - c) Street1\*, Street2, Street3, Street4, Street5
  - d) City\*
  - e) State†
  - f) Zip/Postal Code†
  - g) Country\*

*Change with ECHO 10: Country is now Country Name, not Code. A free form option (OTHER) is also provided to enter a country that is not in the drop down list*

    - (1) If OTHER is selected, a "Custom Country Name" field appears and is required
  - h) Special Instructions
- c. Click the "Update" button when done
- d. Data validation will take place against the values you entered. If there is an error, an error message will be displayed. Correct the errors and click the "Update" button again. The update will not be complete until all entered data passes data validation.
- e. At any time, if you do not wish to update the contact, click the "Cancel" button.

### 3.7.4.2 Add a Provider Contact

- a. To add a Provider Contact, click the "Add New Contact" button at the bottom of the contact list. (Figure 76).  
The "New Contact" screen appears (see Figure 78).

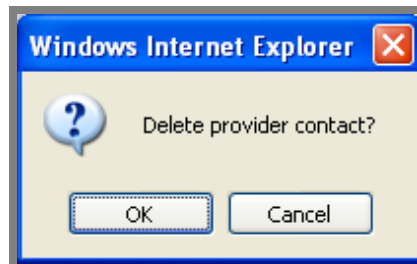


**Figure 78. Add Provider Contact Screen**

- b. You may now enter the requested information for the new contact. See section 3.7.4.1, Edit a Provider Contact for details on the fields that are modifiable and the required vs. optional fields.
- c. When done, click the "Add" button to perform the actual add.
- d. Data validation will take place against the values you entered. If there is an error, an error message will be displayed. Correct the errors and click the "Add" button again. The add will not be complete until all entered data passes data validation.
- e. At any time, if you do not wish to add the contact, click the "Cancel" button.

### 3.7.4.3 Delete a Provider Contact

- a. On the "Provider Contacts" screen, click the "Delete" button next to the contact you wish to delete.
- b. A delete confirmation box will appear (see Figure 79).
- c. Click "OK" to continue with the deletion or "Cancel" to cancel the deletion.



**Figure 79. Delete Provider Contact Confirmation Screen**

### 3.7.5 Provider Policies

Providers must be configured to send information to the order adapter to be used to complete the processing of the order. The provider configuration is done using provider policies. Each provider has a set of provider policies that contain information such as the endpoint for the provider (or adapter), the number of attempts to complete the transaction, which operations are supported, and the amount of time between attempts. Some providers using ECHO maintained order adapters require custom properties.

The policies that you select here apply to ordering.

- a. **Retry Attempts.** Specifies the number of times you want the file transfer service to retry sending or receiving a file after a communication failure occurs.
- b. **Retry Wait Time.** Specifies the number of seconds that the file transfer service waits before it retries a failed file transfer
- c. **Order Transactions supported.** Identifies whether the provider:
  - 1) Will provide a Quote for the order (in cases where data are not free) before submitting the order
  - 2) Users may Submit orders.
  - 3) Users may Cancel orders.
- d. **Routing Location**
  - 1) **End Point.** You must specify an "end point," a Uniform Resource Identifier (URI), also known as network address, where ECHO can send the order. The "endpoint" field in the provider policies should always be configured for the actual endpoint to which ECHO should deliver the order. Therefore, if an ECHO order adapter is used, the endpoint should refer to the adapter endpoint. In this case, a custom provider policy would be used to indicate the final endpoint of the provider.
  - 2) **Type.** Indicates the routing mechanism used to contact the provider. The routing mechanism determines if ECHO is using an order adapter or connecting to the provider directly.
    - a) **LEGACY\_ORDER\_V8.** Indicates the provider is using the WSDL for order fulfillment defined in versions before ECHO V9. When this routing type is used, the endpoint specified in the provider policies should be the endpoint of the service implementing this WSDL. In the case of a provider using an ECHO supported order adapter this would be the endpoint of the order adapter. SSL is not supported through this routing type.
    - b) **ORDER\_FULFILLMENT\_V9.** Indicates the provider is implementing the version 9/version 10 order fulfillment interface. ECHO will make a connection directly to the endpoint specified in the provider policies and transmit the data. If SSL is enabled, an SSL connection to the provider will be used.
- e. **Order Catalog Items.** If this is set to false ECHO will not allow an order item to contain more than one particular catalog item. Users can use the quantity field to order more than one of the same catalog item in a single order item if this option is set to true.
- f. **A Secure Sockets Layer (SSL) Certificate.** Enables **encryption** of sensitive information during online transactions. Each SSL Certificate contains unique, **authenticated** information about the certificate owner. When a Web browser points to a secured domain, a Secure Sockets Layer handshake authenticates the server (Web site) and the client (Web browser). An encryption method is established with a unique session key.

If the SSL certificate is updated, ECHO Operations will receive an email, review the certificate, and then activate it prior to it being applied. An email is generated by the system to notify the provider when the change has been made.
- g. **Order Catalog Items.** Select "Order supports duplicate catalog items" if you, as a data provider, allow orders to be submitted that contain the same item more than once.
- h. **Custom Properties in XML.**
  - 1) There are no standard custom properties for ECS/ODL providers.

- 2) The SOAP dummy provider supports answering the order request in multiple ways. The type of answer requested can be indicated using a custom provider policy:
  - a) `<target.uri>`: custom property element can be set to one of:
    - (1) `urn:dummyprovider1`
    - (2) `urn:dummyprovider2`
    - (3) `urn:dummyprovider3`
    - (4) `urn:dummyprovider4`
- 3) Providers using an order adapter must configure a custom policy that contains the final endpoint of the provider. This policy is used by the adapter to deliver the order to the provider. ECHO will always deliver the order to the endpoint configured in the main provider policies.
  - a) `<provider.endpoint>`

The endpoint of the final provider. The order adapter will extract this value and send the final order here. The format of the endpoint is dependent upon the final provider type. For ODL providers, this will be in the format of `host:port`. For example, `internal.echo.nasa.gov:29000`. For SOAP providers, this will be an HTTP SOAP URL.
- 4) LPDAAC's order adapter implementation supports quoting in the adapter. Therefore the adapter requires extra information to complete the quote request. This information is carried in the custom policies. The required custom property elements for LPDAAC are:
  - a) `<fee.handling.us>`
    - (1) Contains the US handling fee
    - (2) The fee must be an integer.
  - b) `<fee.handling.intl>`
    - (1) Contains the international handling fee
    - (2) The fee must be an integer.
  - c) `<fee.media>`
    - (1) Contains the media fee for any item that is not order via FTP (push or pull)
    - (2) The fee must be an integer.
  - d) `<days.expiration>`
    - (1) Contains the number of days that the quote will be good for
    - (2) This value will be added to the day of month of the current month.

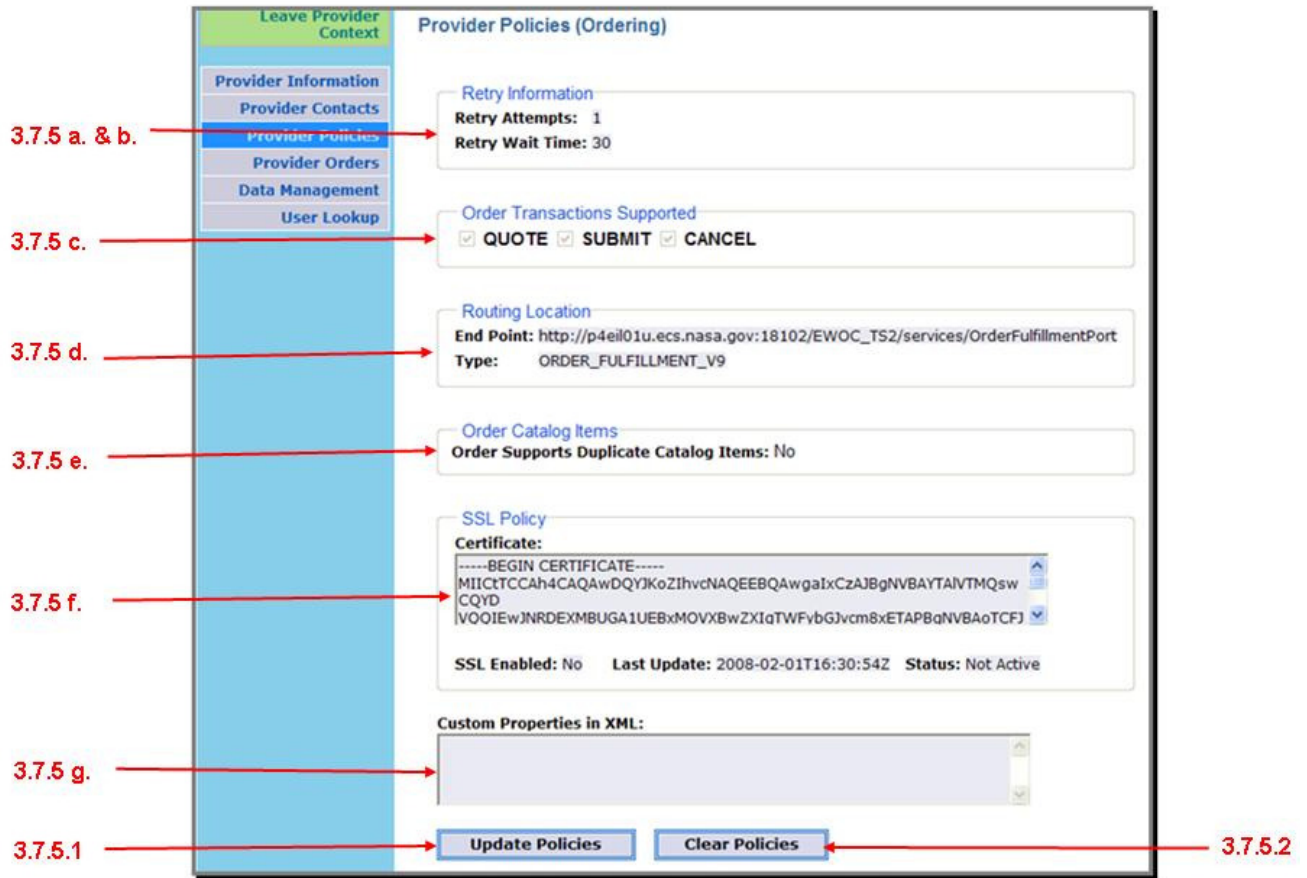
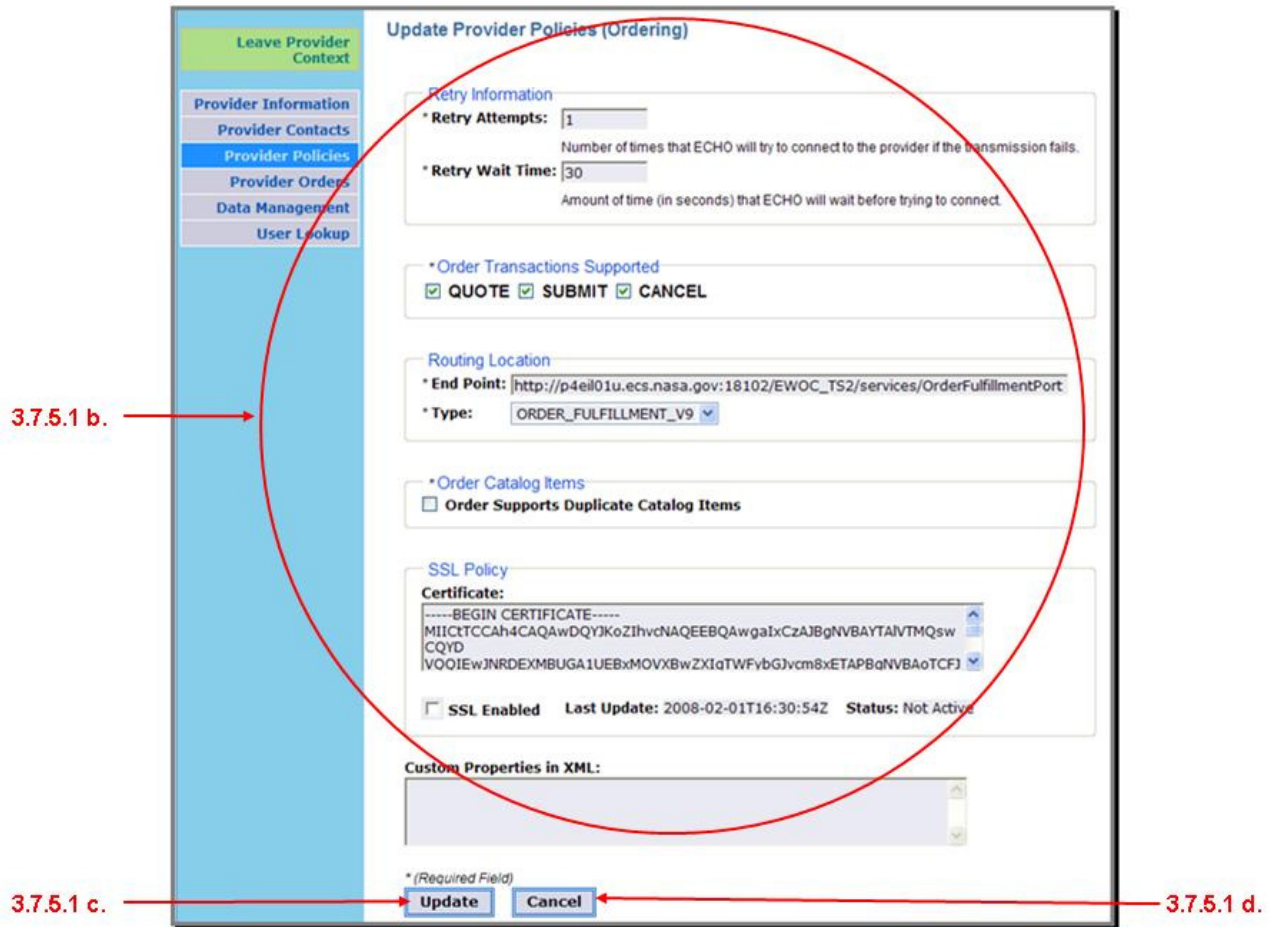


Figure 80. Provider Policies (Ordering) Screen

### 3.7.5.1 Update Policies

a. To update the policies, click the "Update Policies" button.

The "Update Provider Policies (Ordering)" screen appears (see Figure 81)



**Figure 81. Update Provider Policies (Ordering) Screen**

b. Update the fields as needed. Required fields are listed below. See section 3.7.5, Provider Policies for details on all the fields.

- 1) Retry Information
- 2) Order Transactions Supported
- 3) Routing Location
- 4) Order Catalog Items

c. When done, click the "Update" button

d. At any time, if you do not wish to update your policies, click the "Cancel" button

### 3.7.5.2 Clear Policies

- To clear all policies, click the "Clear Policies" button on the "Provider Policies (Ordering)" screen (see Figure 80)
- A confirmation box appears (see Figure 82)
- ; click "OK" to clear the policies or "Cancel" to cancel the clear. Note that ALL policies will be cleared.

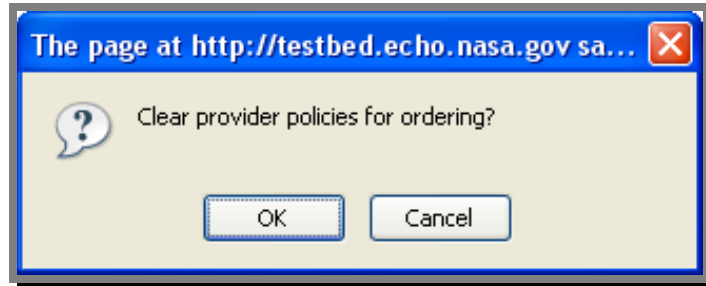


Figure 82. Clear Policies Confirmation Screen

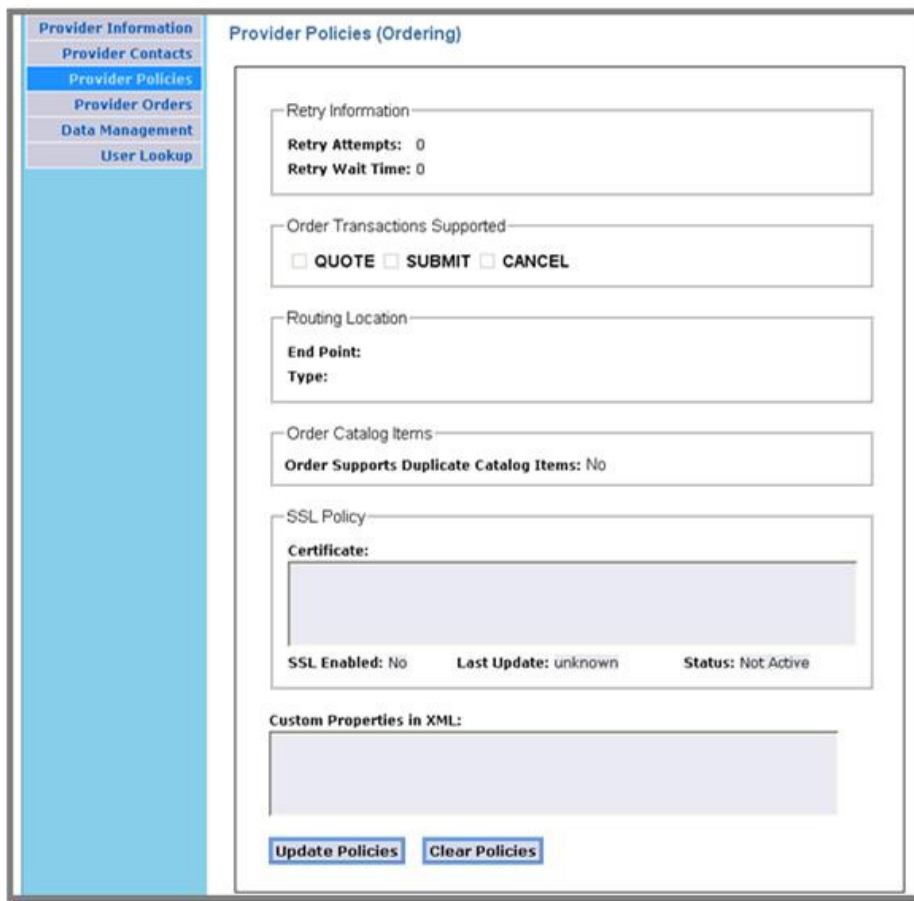


Figure 83. Provider Policies Cleared

### 3.7.6 Provider Order Search

This function allows a user to search for and display orders submitted to the data provider through ECHO.

There are two kinds of orders in ECHO: overall Orders (called Orders) and Provider Orders. An overall Order is submitted by a user to ECHO (Registered or Guest) and will contain items from one or more Providers. Upon submission, the overall Order is broken down into individual Provider Orders, each one containing only those items for that provider. ECHO automatically maintains creating and removing provider orders when items are added and removed from an order. The Provider Orders will be delivered to providers when the order is quoted or submitted.

Each Provider Order has a state associated with it indicating the state of this particular Provider Order. The actual state of the overall Order is calculated from the states of all Provider Orders in the overall Order. When an Order is created, each Provider Order initially has a NOT\_VALIDATED state. After the user sets the options, sets user information, and successfully validates the order, the provider order state becomes VALIDATED.

The Provider Order may be quoted before submitting, if quoting is supported by the provider.

Un-submitted Provider Orders may have the following states: NOT\_VALIDATED, VALIDATED, QUOTING, QUOTED, QUOTED\_WITH\_EXCEPTIONS.

#### 3.7.6.1 Order Search Fields

Orders can be found by specifying a particular order GUID (unique id assigned by ECHO for each order) or by setting up search filters. The following are the available criteria to use for retrieving one or more orders:

**a. Order GUID**

The unique ID assigned by ECHO of the order to which the overall Order or Provider Order belongs

**b. User ID (User Name)**

The User Name of the user who owns this order. This field will be null for orders owned by a Guest user.

**c. Date Range of the creation, submission or last update date**

- 1) Creation Date of order (GMT)
- 2) Submission Date of order (GMT)
- 3) Date (GMT) the order was last updated either:
  - a) State update or
  - b) By the provider (GMT)

**d. Order States**

1) NOT\_VALIDATED

The order has not yet been validated to ensure that all the information in the order is correct.

2) VALIDATED

The order has been validated and all the information in the order is correct. It is important to note that although an order may be in the validated state, if a provider modifies the underlying data being ordered, an order may no longer be valid.

3) QUOTING

The order has been sent to the provider for quoting and the provider has not yet responded.

4) QUOTED

The order was sent to the provider for a quote and the provider has delivered the quote.



5) QUOTED\_WITH\_EXCEPTIONS

The order was sent to the provider for a quote and the provider has delivered the quote however some part of the order could not be quoted. This is most likely because one of the providers in the order does not support quoting.

6) SUBMITTING

The order was submitted to the provider and the provider has not yet accepted the order.

7) SUBMITTED\_WITH\_EXCEPTIONS

The order was submitted to the providers and only some of the providers have accepted the order.

8) PROCESSING

The order has been accepted by all providers and it is being filled.

9) PROCESSING\_WITH\_EXCEPTIONS

The order has been accepted by all providers however, one or more providers have found a problem with the order.

10) CANCELLING

A cancel request has been sent to the provider but the provider has not accepted the request yet.

11) CANCELLED

The provider has accepted a cancel request or the provider has cancelled the order directly.

12) CLOSED

The order has been filled and is now complete.

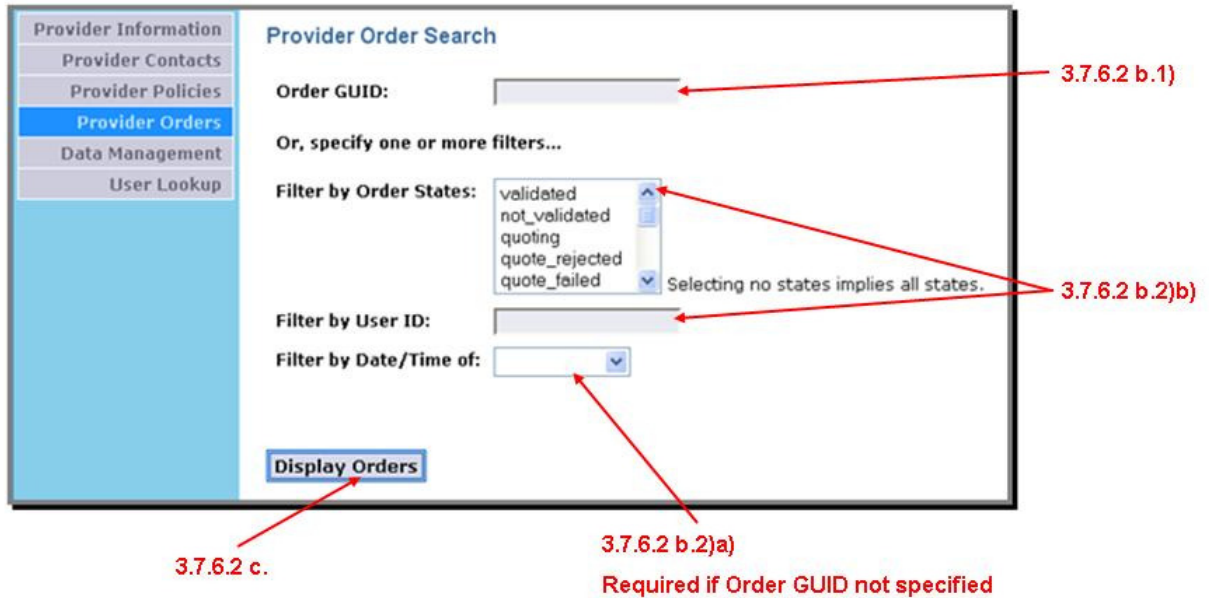
13) CLOSED\_WITH\_EXCEPTIONS

The order has been filled and is now complete however, one or more of the providers encountered problems completing the order.

### 3.7.6.2 Performing an Order Search

- a. To perform the search, first click on the "Provider Orders" link on the left navigation panel of the "Provider Context" tab.

The "Provider Order Search" screen appears (see Figure 84).



**Figure 84. Provider Order Search Screen**

b. Fill in the criteria desired for the search. You may search in two basic ways:

*Note: While entering search criteria, if you do not wish to continue with the order search, simply navigate away from the page (there is no "Cancel" button on this page.)*

1) Specify Order GUID only

This search will retrieve just the order you are looking for and is the fast and most efficient way to find an order. However, you must know the Order GUID. When an Order GUID is used, no other filters/search criteria are needed.

*Note that if you enter an Order GUID, all other filters/criteria are ignored.*

2) Use the other filter criteria (without Order GUID specified)

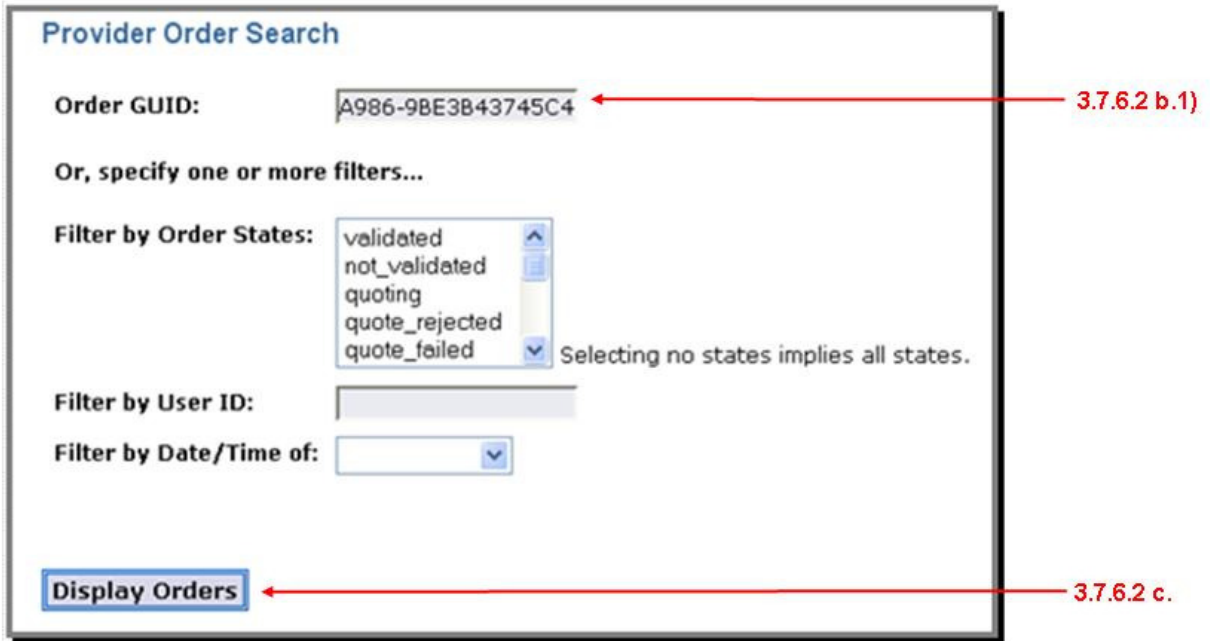
If you are not using an Order GUID for your search, you must use a date, regardless of other criteria used. When specifying the date, you will need to specify which date to use and a beginning and ending date within a 1-week window.

a) Select the type of date search (Creation, Submission, Last Update)

b) Next, enter the beginning (From) and end (To) dates to search. This date range may be no longer than one month (30 days)

c) The other fields are optional (Filter by Order States and Filter by User ID)

(1) User ID (User Name) will further filter the results by only retrieving those orders within the specified date range and with the specified User ID (User Name). If no User ID is specified, all orders for all users within the date range will be retrieved.



**Figure 85. GUID Order Search**

- (2) Order States will further filter the results by only retrieving those orders within the specified date range and with the specified order state (see section 3.7.6.1). If no Order State is specified, all orders for all states within the date range will be retrieved.

If you leave the "Filter by Order States" field empty, PUMP will return all states in ECHO matching the other criteria for the provider.



**Figure 86. Non-GUID Order Search**

- c. Click the "Display Orders" button when done specifying your criteria.
  - 1) When the result is returned, a user may sort by any of the fields displayed by clicking on the header of the Orders Table. Headings:
    - a) State—Order's current state
    - b) Created—Date the order was created
    - c) Submitted—Date the order was actually submitted by the user for fulfillment
    - d) Updated—Date the order's state was last updated
    - e) User ID—User name of the owner of the order
    - f) Contact Name—Name of the order's contact person
  - 2) The user may choose to:
    - a) View order information (section 3.7.6.4) or
    - b) Manage/update the provider order (section 0)
  - 3) When done, click the "Cancel" button to exit the "Orders" screen



Figure 87. Order GUID Search Results

State	Created	Submitted	Updated	User ID	Contact Name	
SUBMITTED_WITH_EXCEPTIONS	2008-02-12 15:29:56	2008-02-12 15:31:31	2008-02-12 15:31:32	emdts2	Seong Lee	<a href="#">View</a> <a href="#">View Provider Order</a>
CLOSED	2008-02-12 15:36:26	2008-02-12 15:37:05	2008-02-14 11:31:40	emdts2	Seong Lee	<a href="#">View</a> <a href="#">View Provider Order</a>
SUBMITTED_WITH_EXCEPTIONS	2008-02-12 16:50:30	2008-02-12 16:50:59	2008-02-12 16:51:00	emdts2	Seong Lee	<a href="#">View</a> <a href="#">View Provider Order</a>
CLOSED	2008-02-13 14:32:56	2008-02-13 14:33:37	2008-02-14 11:28:14	emdts2	Seong Lee	<a href="#">View</a> <a href="#">View Provider Order</a>
SUBMITTED_WITH_EXCEPTIONS	2008-02-14 10:52:23	2008-02-14 11:01:17	2008-02-14 11:01:19	emdts2	Seong Lee	<a href="#">View</a> <a href="#">View Provider Order</a>
CLOSED	2008-02-14 11:04:17	2008-02-14 11:37:37	2008-02-14 11:39:18	emdts2	Seong Lee	<a href="#">View</a> <a href="#">View Provider Order</a>
CLOSED	2008-02-14 11:40:32	2008-02-14 11:40:55	2008-02-14 11:43:19	emdts2	Seong Lee	<a href="#">View</a> <a href="#">View Provider Order</a>
PROCESSING	2008-02-14 11:48:29	2008-02-14 11:49:59	2008-02-14 11:50:00	emdts2	Seong Lee	<a href="#">View</a> <a href="#">View Provider Order</a>
PROCESSING	2008-02-14 12:02:44	2008-02-14 12:09:14	2008-02-14 12:09:17	emdts2	Seong Lee	<a href="#">View</a> <a href="#">View Provider Order</a>
PROCESSING	2008-02-14 12:23:20	2008-02-14 15:40:41	2008-02-14 15:40:43	emdts2	Seong Lee	<a href="#">View</a> <a href="#">View Provider Order</a>
CLOSED	2008-02-14 16:11:54	2008-02-14 16:12:17	2008-02-14 16:15:40	emdts2	Seong Lee	<a href="#">View</a> <a href="#">View Provider Order</a>
CLOSED	2008-02-14 16:16:54	2008-02-14 16:18:55	2008-02-14 16:23:22	emdts2	Seong Lee	<a href="#">View</a> <a href="#">View Provider Order</a>

[Cancel](#)

Figure 88. Non-Order GUID Search Results

### 3.7.6.3 Search Errors

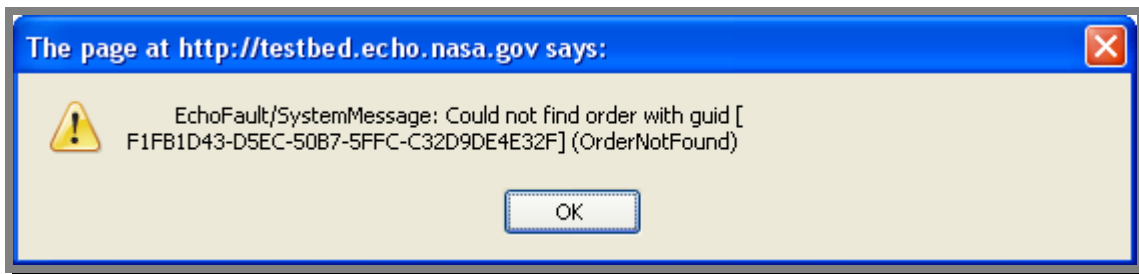


Figure 89. Order GUID Not Found



Figure 90. Missing Order GUID and Date Filter

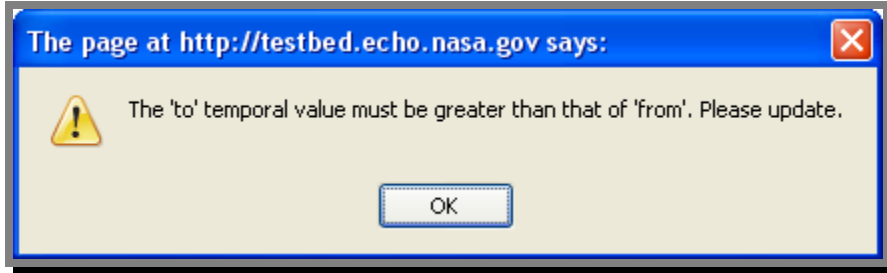


Figure 91. Ending (To) Date Before Beginning (From) Date



Figure 92. Date Range Greater Than One Week

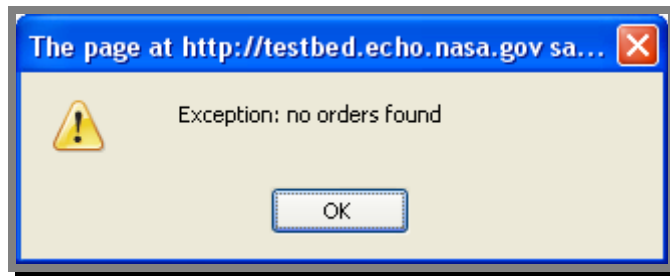


Figure 93. No Orders Found

#### 3.7.6.4 View Provider Order Information

This view gives you an overview of the information set for the order. Information includes:

##### Order Information:

- Order GUID
- Order State
- Price, if known
- Creation Date
- Submission Date
- Last Update Date
- User Name of Owner
- Notification Level setting
- User Domain
- User Region
- Client Used to submit order

##### Contact Information:

- Contact's Role in the Organization
- Contact's Name
- Organization Name
- Contact's Address
- Contact's Phone Number(s)
- Contact's Email Address

##### Billing Information

- Billing Contact's Role in the Organization
- Billing Contact's Name
- Organization Name
- Billing Contact's Address
- Billing Contact's Phone Number(s)
- Billing Contact's Email Address

##### Shipping Information

- Shipping Contact's Role in the Organization
- Shipping Contact's Name
- Organization Name
- Shipping Contact's Address
- Shipping Contact's Phone Number(s)
- Shipping Contact's Email Address

From this screen, you may:

- a. View the Provider Order (Manage/Update the Provider Order)
- b. Cancel (return to the "Orders" screen)

The screenshot displays the 'Order Information' screen with four main sections: Order Information, Contact Information, Shipping Information, and Billing Information. Each section contains specific details about the order and the associated contact. At the bottom, there are two buttons: 'View Provider Order' and 'Cancel'. Red arrows point from the 'View Provider Order' button to the '3.7.6.4 a.)' callout and from the 'Cancel' button to the '3.7.6.4 b.)' callout. A red arrow also points from the '3.7.6.4)' callout to the 'Order Information' section.

Order Information	
<b>Order GUID:</b>	1D2FFC50-F949-EF9B-A986-9BE3B43745C4
<b>State:</b>	PROCESSING
<b>Price:</b>	0.0
<b>Created:</b>	2008-02-14 11:48:29
<b>Submitted:</b>	2008-02-14 11:49:59
<b>Updated:</b>	2008-02-14 11:50:00
<b>Owner:</b>	emds2
<b>Notification Level:</b>	VERBOSE
<b>User Domain:</b>	OTHER
<b>User Region:</b>	USA
<b>Client Identity:</b>	WIST-10.0.0

Contact Information	
<b>Role:</b>	Contact
<b>Name:</b>	Seong Lee
<b>Organization:</b>	
<b>Address:</b>	- Contact - 5700 rivertech ct Riverdale MD 20737 United States
<b>Phone:</b>	3018518297 (BUSINESS)
<b>Email:</b>	seong_lee@raytheon.com

Shipping Information	
<b>Role:</b>	Shipping
<b>Name:</b>	Seong Lee
<b>Organization:</b>	
<b>Address:</b>	- Shipping - 5700 rivertech ct Riverdale MD 20737 United States
<b>Phone:</b>	3018518297 (BUSINESS)
<b>Email:</b>	seong_lee@raytheon.com

Billing Information	
<b>Role:</b>	Billing
<b>Name:</b>	Seong Lee
<b>Organization:</b>	
<b>Address:</b>	- Billing - 5700 rivertech ct Riverdale MD 20737 United States
<b>Phone:</b>	3018518297 (BUSINESS)
<b>Email:</b>	seong_lee@raytheon.com

**3.7.6.4)**

**3.7.6.4 a.)**

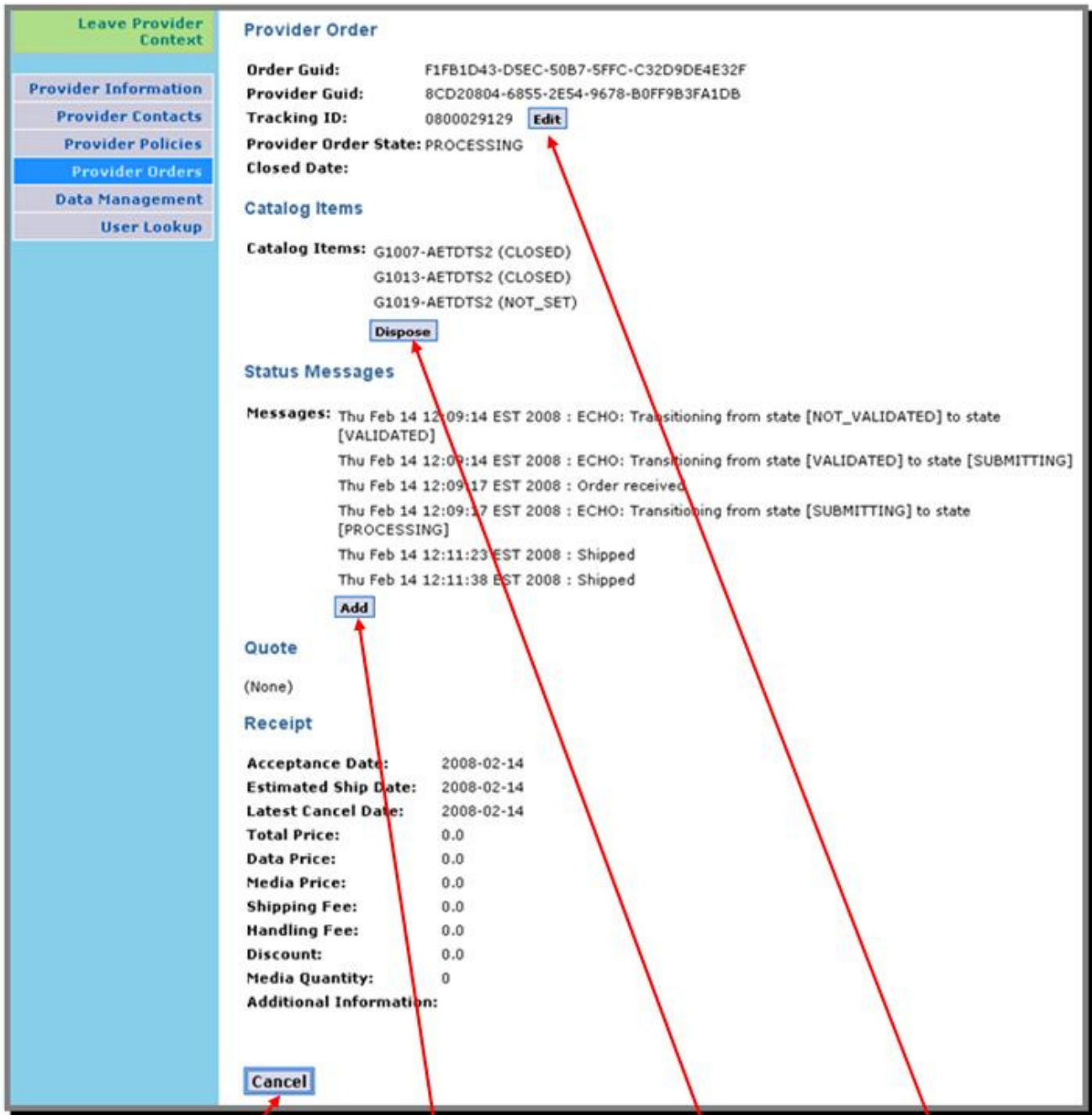
**3.7.6.4 b.)**

**View Provider Order** **Cancel**

Figure 94. View Order

### 3.7.6.5 Manage/Update the Provider Order (View Provider Order)

This function displays the following information. Of this information, the following may be updated:



3.7.6.5 d.

3.7.6.5 c.

3.7.6.5 b.

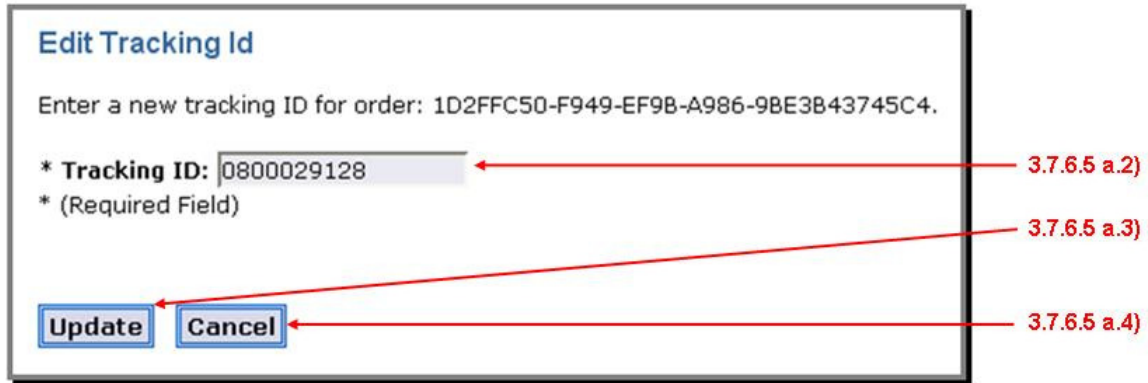
3.7.6.5 a.

Figure 95. Update Order

#### a. Tracking ID of the Provider Order

- 1) Click the "Edit" button next to the "Tracking ID" (Figure 95)  
The "Edit Tracking ID" screen appears





**Figure 96. Edit Tracking ID**

- 2) In the "Tracking ID" field, enter the new Tracking ID
- 3) When done, click the "Update" button (no confirmation dialog)
- 4) To cancel, click the "Cancel" button

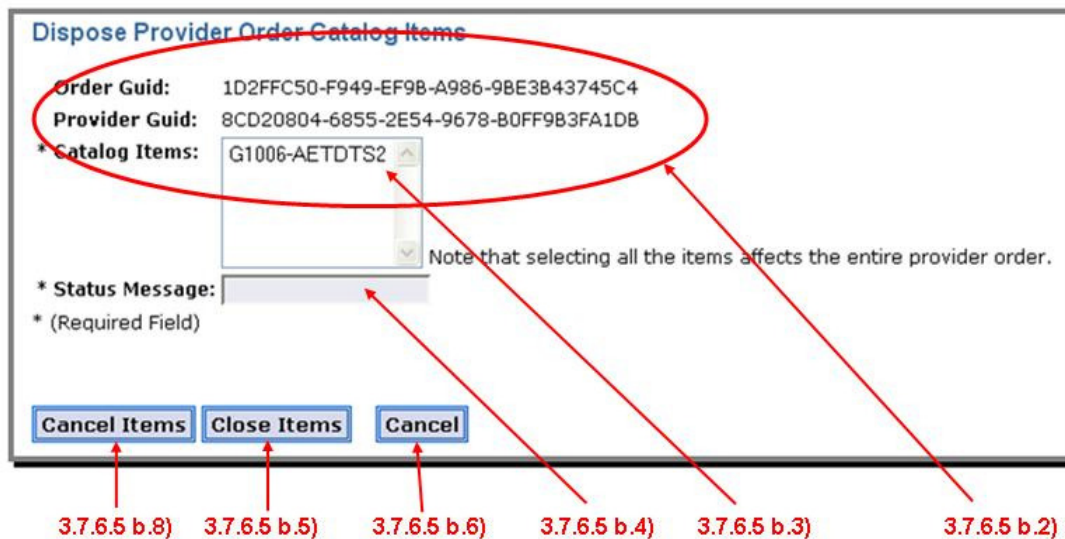
**b. Close/Cancel a Catalog Item from the Order**

You may close or cancel specific catalog line items if they are open and are part of an open order. If you are allowed to close/cancel catalog items, the "Dispose" button will be displayed in the "Catalog Items" area.

*Note that if all the order line items are closed or cancelled, the whole provider order will be automatically closed*

- 1) Click the "Dispose" button (Figure 95)

The "Dispose Provider Order Catalog Items" screen appears



**Figure 97. Dispose Provider Order Catalog Items**

- 2) The following information appears:
  - a) Order GUID
  - b) Provider GUID
  - c) List of Catalog Items in the Order along with their fulfillment states, if any
  - d) Status Messages

- 3) Select the catalog item(s) to be closed/cancelled

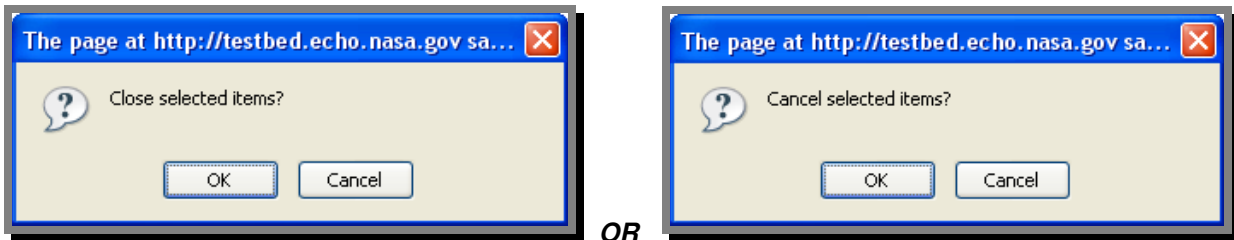
*Note that if you select all the items, the entire order is affected.*

- 4) Add a message in the "Status Message" box. The status message is required.



**Figure 98. Status Message Missing**

- 5) If closing the items, click the "Close Items" button
- 6) If cancelling the item, click the "Cancel Items" button
- 7) You will be asked to confirm the action taken



**Figure 99. Confirm Close/Cancel Catalog Item**

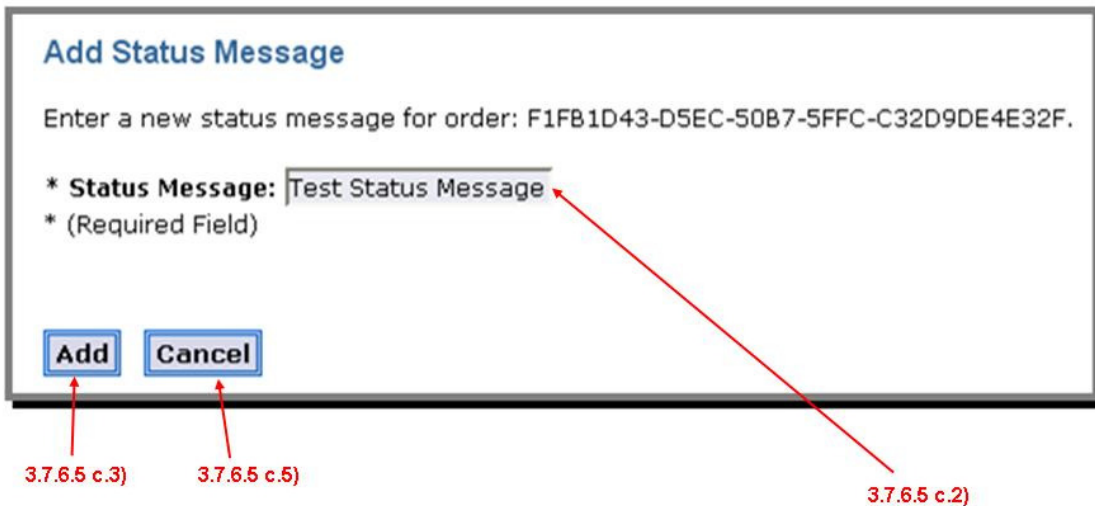
- 8) If you decide not to do anything, click the "Cancel" button

**c. Add Status Message**

Providers may enter messages to indicate the status of orders. The message is a free-form text field.

- 1) Click the "Add" button in the "Status Message" area (Figure 95)

The "Add Status Message" screen appears



**Figure 100. Add Status Message**

- 2) Enter the status message in the "Status Message" field. This is a required field.

- 3) When done, click the "Add" button.
- 4) A confirmation dialog box appears

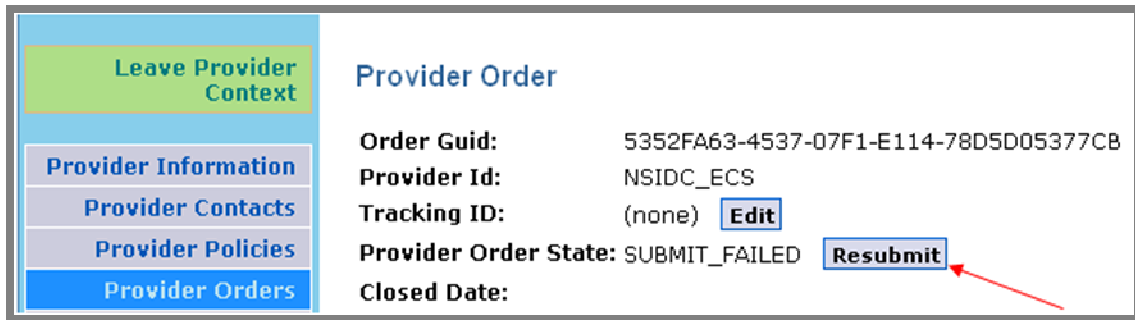


**Figure 101. Confirm Add Status Message**

- a) Click "OK" to continue the add
  - b) Click the "Cancel" button to cancel the add.
- 5) At any time prior to clicking the "Add" button, you may cancel by clicking the "Cancel" button
- d. Cancel**—at anytime, to cancel, click the "Cancel" button (Figure 95)

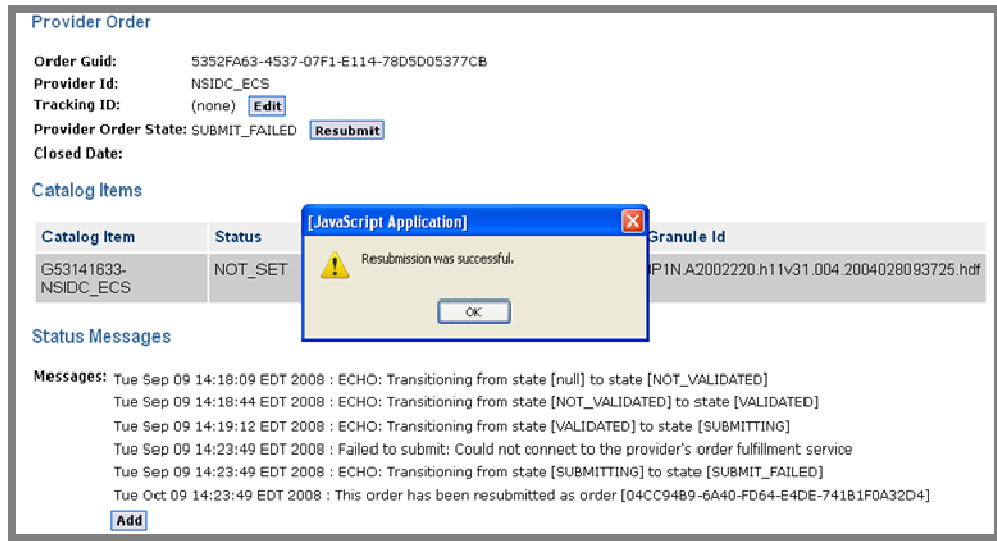
**e. Resubmit Provider Order**

Providers may resubmit orders for their inventory that have reached a terminal state. Resubmitting a provider order will create and submit a new order containing the same contents and user settings as the original provider order. The resubmit will create and submit a new order on behalf of the user who submitted the original order.



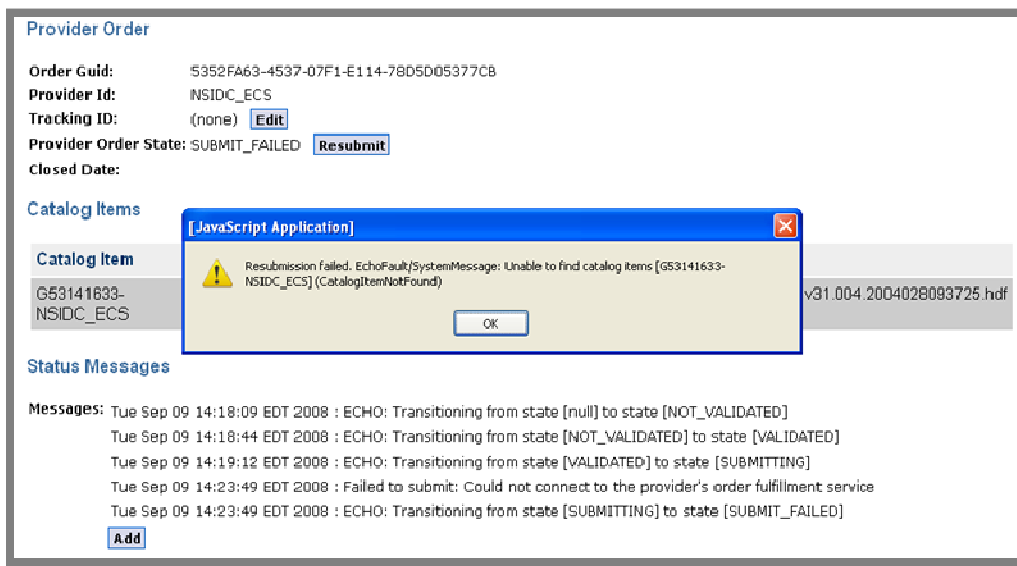
**Figure 102. Resubmit Provider Order**

- 1) Click the "Resubmit" button to resubmit current provider order. The current provider order will immediately be resubmitted to ECHO.
- 2) When the resubmit request is finished a dialog box with the result of the resubmit will appear
  - a. If resubmit was successful the dialog box will indicate success and the original provider order status will be updated



**Figure 103. Resubmit Provider Order Successful**

- b. If resubmit failed the dialog box will indicate failure and include the reason for failure and the original provider order status will remain unchanged.



**Figure 104. Resubmit Provider Order Failure**

### 3.7.7 Data Management

To get to "Data Management", click the "Data Management" on the left navigation panel under the "Provider Context" tab. The default view is the "Rules" view (see Figure 105 or Figure 107).

#### 3.7.7.1 Rules

To get to the Rules, select the "Rules" link under "Data Management" on the left navigation panel.

Rules are the mechanism used to control access to metadata. They restrict users from performing certain actions or they may permit users to take certain actions on the provider's metadata. Actions currently include viewing, browsing, and ordering metadata.

The building blocks are called Conditions. Conditions are used to specify characteristics of metadata. For example: 30 days old, the month of September, aFlag2 value 3. Conditions become powerful when they are combined with a Comparator, Action, and Data Holding.

There are four types of rules and are identified by their conditions:

- **Boolean.** Boolean rules are basic data access rules and are used if you do not want one of the other conditions. Creating a rule with a Boolean condition sets the condition value to TRUE. If the flag is false, then the rule will not be applied. Boolean conditions can only be used with the "equals" comparator.
- **Restriction Flag.** Restriction Flag rules restrict access to collections or granules based on the value of a **RestrictionFlag** metadata field. The field "Lower" in the Restriction Flag condition indicates a value for the restriction flag field in the metadata. Comparator options include "equals", "not equals", "greater than", "greater than or equal", "less than", or "less than or equal". Restriction flag values are integers.
- **Temporal.** Temporal rules are based on time fields in the metadata. This rule uses a date range, so that a date associated with a granule can be compared against the date range (start time and end time) to check for the applicability of the condition. The fields **Production date**, **Acquisition date**, **Insert date**, and **Last update date** can be used for Temporal conditions but only with the "equals" and "not equals" comparators.
- **Rolling Temporal.** Rolling Temporal rules are base on time fields in the metadata. This rule specifies an amount of time after the current time and uses the same fields as Temporal. Rolling temporal can only be used with the "greater than", "greater than or equal", "less than", and "less than or equal" comparators.

*If a rule is a restriction, it applies to the entire ECHO populace.*

*If a rule is a permission, it applies only to members of the group specified.*



Figure 105. Rules Screen, No Rules Defined

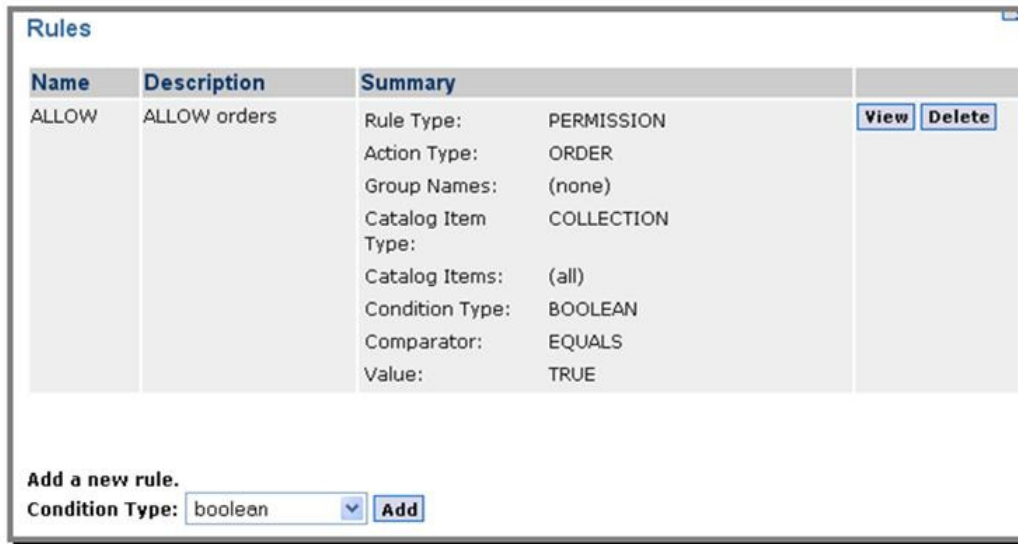


Figure 106. Rules Screen, Permission & Boolean Rule Defined

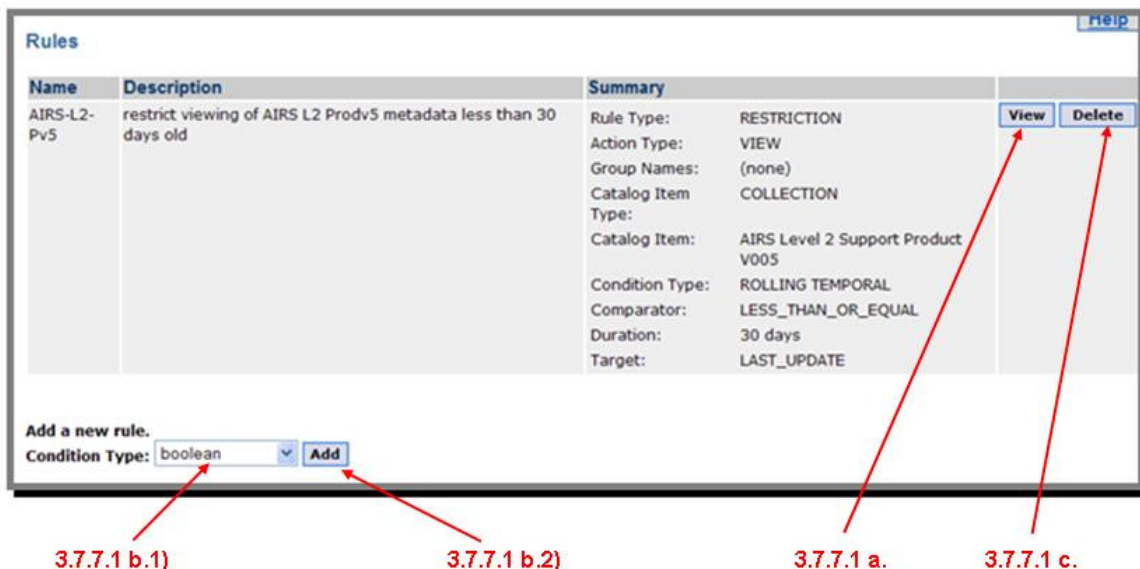


Figure 107. Rules Screen, Restriction & Rolling Temporal Rule Defined

Figure 107 above shows a sample rule to "restrict viewing of all MODIS metadata less than 30 days old":

Condition: 30 days old;  
 Comparator: less than;  
 Action: view;  
 Data Holding: instrument MODIS.

a. **View a rule.** To view a rule, on the "Rules" screen (Figure 107):

- 1) Click the "View" button next to the rule you wish to view.

The "Rule" screen appears (note the singular "Rule" in the screen title rather than the plural used on the previous screen) (see Figure 108)

- 2) Click the "Cancel" button to return to the "Rules" screen

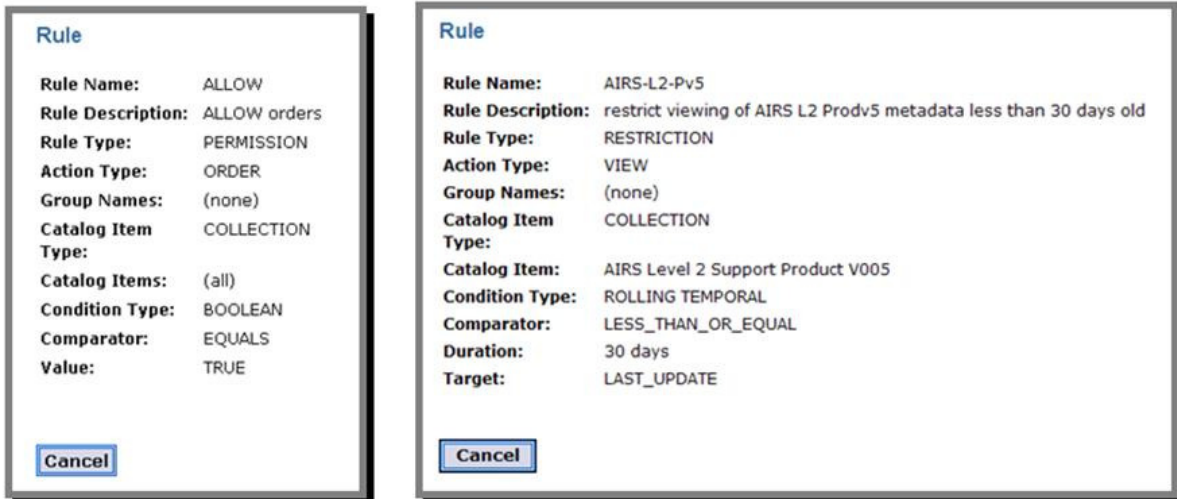


Figure 108. View Rule Screen

- b. **Add a New Rule.** To add a new rule, on the "Rules" screen (see Figure 105 or Figure 107):
- 1) Select the type of rule you wish to add (Boolean, Temporal, Rolling Temporal, Restriction Flag)
  - 2) Click the "Add Rule" box

The "New <type> Rule" screen appears. (<type> will be the type of rule you chose to add) (see Figure 111)

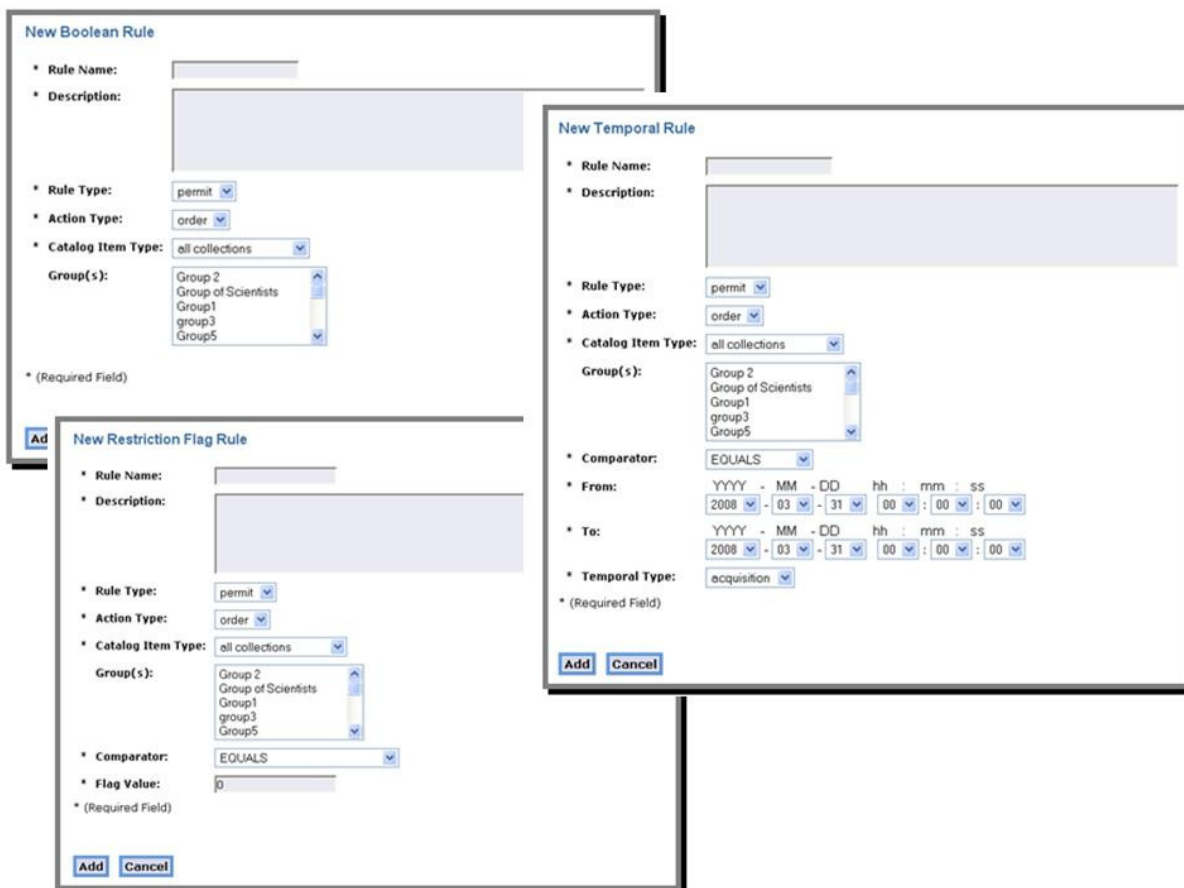


Figure 109. Add New Rule Screens

The screenshot shows the 'New Rolling Temporal Rule' form with the following fields and values:

- Rule Name:** (empty)
- Description:** (empty)
- Rule Type:** permit
- Action Type:** order
- Catalog Item Type:** all collections
- Group(s):** Group 2, Group of Scientists, Group 1, group 3, Group 5
- Comparator:** LESS THAN OR EQUAL
- Duration Value:** 0 days
- Temporal Type:** ecquisition

Required fields are indicated by an asterisk (\*). Buttons for 'Add' and 'Cancel' are at the bottom.

The screenshot shows the 'New Rolling Temporal Rule' form with the following fields and values:

- Rule Name:** Modis Terra Thermal /
- Description:** Restrict viewing of Modis Thermal Anomalies/Fire 5-Min L2 metadata less than 30 days old
- Rule Type:** restrict
- Action Type:** view
- Catalog Item Type:** selected collections
- Collection(s):** MODIS/Terra Thermal Anomalies/Fire 5-Min L2 Swath 1km V004, MODIS/Terra Thermal Anomalies/Fire 5-Min L2 Swath 1km V005, MODIS/Terra Thermal Anomalies/Fire Daily L3 Global 1km SIN Grid V005, MODIS/Terra Vegetation Indices Monthly L3 Global 1km SIN Grid V005, MODIS/Terra-Aqua BRDF/Albedo Model Parameters 16-Day L3 Global 1km SIN Grid V005
- Comparator:** LESS THAN OR EQUAL
- Duration Value:** 30 days
- Temporal Type:** last update

Required fields are indicated by an asterisk (\*). Buttons for 'Add' and 'Cancel' are at the bottom.

Figure 110. New Rolling Temporal Rule

- 3) Based on the type of rule you selected and the criteria set for the rule, fill in the fields to setup your rule. Note the fields with an asterisk (\*) are required. The required fields will also vary depending on the rule type and criteria.
- 4) Click the "Cancel" button if you do not wish to add the rule
- 5) Click the "Add" button to add the rule
- 6) Data validation will take place against the values you entered. If there is an error, an error message will be displayed. Correct the errors and click the "Add" button again. The add will not be complete until all entered data passes data validation.





**Figure 111. New Boolean Rule Screen**

- c. **Delete a rule.** To delete a rule, on the "Rules" screen (see Figure 105 or Figure 107):
  - 1) Click the "Delete" button next to the rule you wish to delete
  - 2) A delete confirmation screen appears (see Figure 112). Click "OK" to continue the deletion or "Cancel" to cancel the deletion



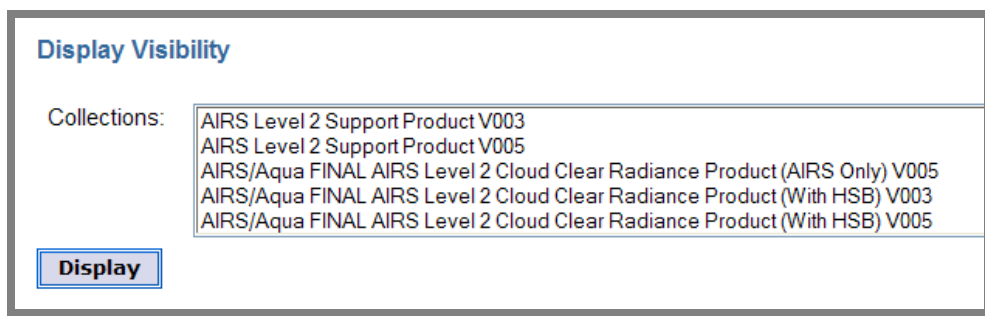
**Figure 112. Delete Rule Confirmation Box**

### 3.7.7.2 Visibility

A collection can be set to be restricted from viewing, browsing, and ordering by all users except those acting on behalf of the provider who owns the collection. To do this function, set the collection's visibility flag to 'RESTRICT'. This restriction can be removed by changing the visibility flag to 'OPEN'. The restriction applied on the collection will also be applied on all its granules. Note that data rules apply only to 'OPEN' datasets; restricted datasets are not visible and hence no data rules will be applied.

To view the visibility of one or more collections:

- a. Select the "Visibility" link under "Data Management" on the left navigation panel (see Figure 105 or Figure 107).
- b. A list of collections is displayed (see Figure 113).



**Figure 113. List of Collections to Select From**

- c. Select the collection(s) you wish to view the visibility for
  - 1) If no collections are selected, then all collections will be displayed

- d. Click the "Display" button
- e. The "Visibility" screen appears (see Figure 114)

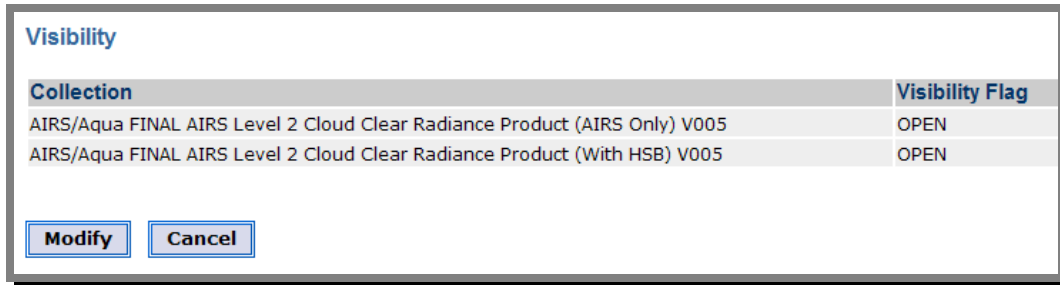


Figure 114. List of Selected Collections Screen

- 1) Click the "Cancel" button to return to the previous screen with no changes.
- 2) To modify the visibility of one or more of the displayed collections, click the "Modify" button
- 3) The "Set Visibility" screen appears (see Figure 115 and Figure 116)

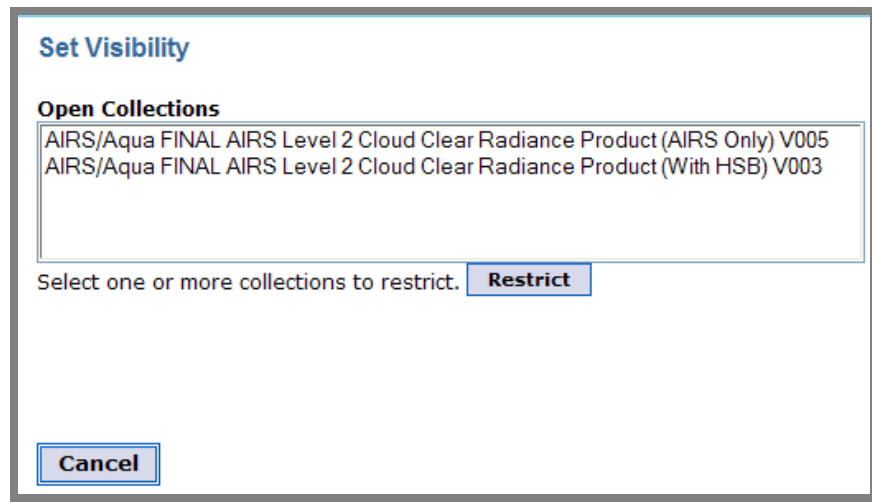


Figure 115. Set Visibility Screen, All the Same Setting

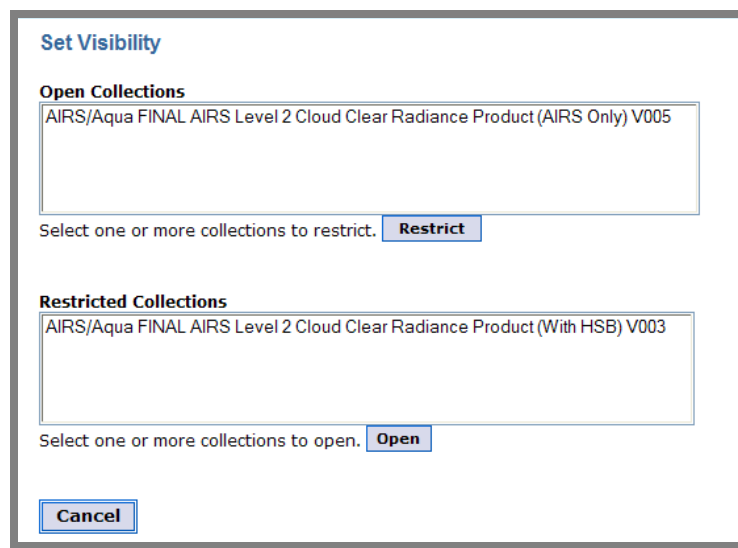


Figure 116. Set Visibility Screen, Mixed Settings

- 4) Select one or more collections and click the "Restrict" or "Open" button
- 5) One of the visibility change confirmation boxes appears (see Figure 117)
- 6) Click "OK" to continue or "Cancel" to cancel the modification.

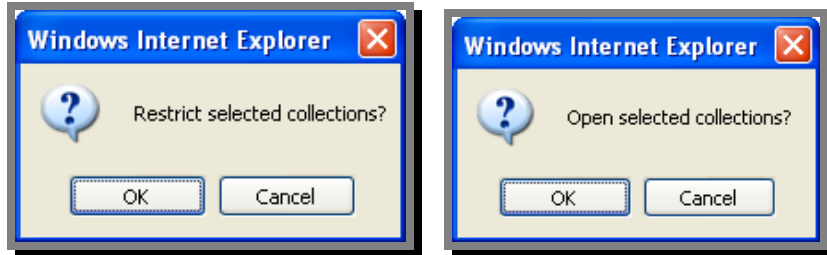


Figure 117. Confirm Change of Visibility

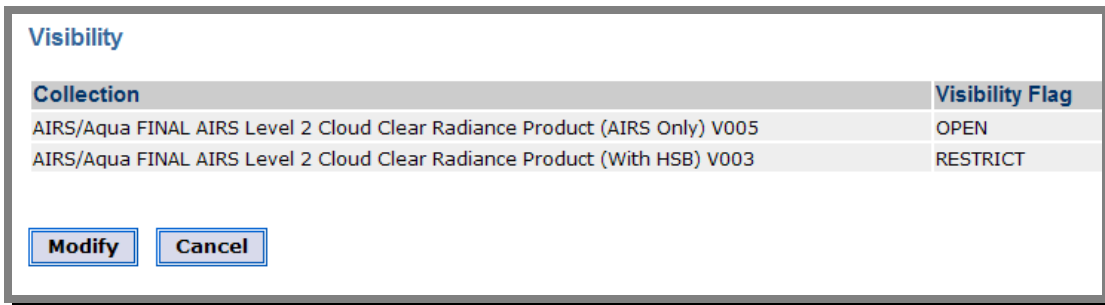


Figure 118. Modified Visibility...Mix of Open and Restricted

### 3.7.7.3 Reports/Rules Search

The Data Management reports provide a way for providers to view their rules based on which rules they wish to see. The default is "All Rules". To get to the "Rules Search" screen, select the "Reports" link under "Data Management" on the left navigation panel under the "Provider Context" tab (see Figure 119).



Figure 119. Rules Search Screen

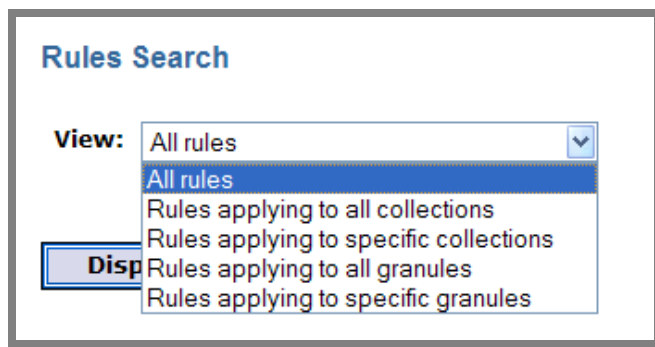


Figure 120. Select Which Rules to Report

To select which rules to view/report:

- a. Click the "View" arrow to see the drop down list
- b. Select the rules you wish to view/report
- c. Click the "Display Rules" button
- d. The "Rules Report" screen appears (see Figure 121) showing all the rules that match the specified criteria.
- e. Click the "Cancel" button to return

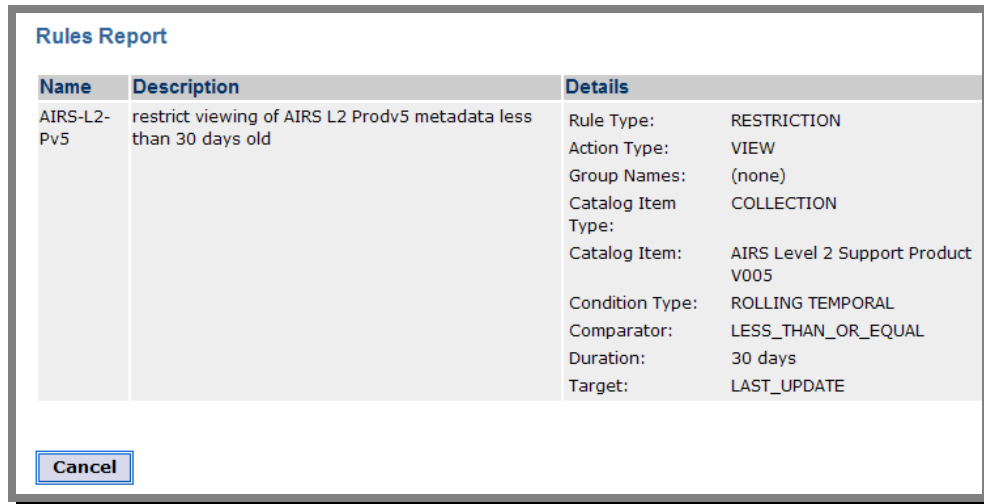


Figure 121. Rules Report

### 3.7.7.4 Option Definitions

Order options allow Data Providers to configure a block of custom provider policies that will define the information that a client must provide as part of an order, as well as other settings such as communications and firewall rules. These options include the delivery method, file format, and other order options. More than one option can be specified at a time in a definition, but the definitions will be applied at the collection level. For example, if a collection only can be delivered via FTP Push, the provider should define a rule that contains only that delivery option.

Order Options use ECHO Forms (refer to [http://www.echo.nasa.gov/data\\_partners/data\\_tools10.shtml](http://www.echo.nasa.gov/data_partners/data_tools10.shtml) for more information) for providers to indicate additional information required from users in order to fulfill their orders, such as the media to put the ordered data on and the specific subset of the data to order. Providers assign Order Option definitions to catalog items. When an order item is added to an order that has required order options, it must contain an option selection that corresponds to one of the assigned option definitions for the catalog item being ordered. These definitions are managed from this screen. See section 1.3 of the ECHO Forms Specification for more details about ECHO Forms.

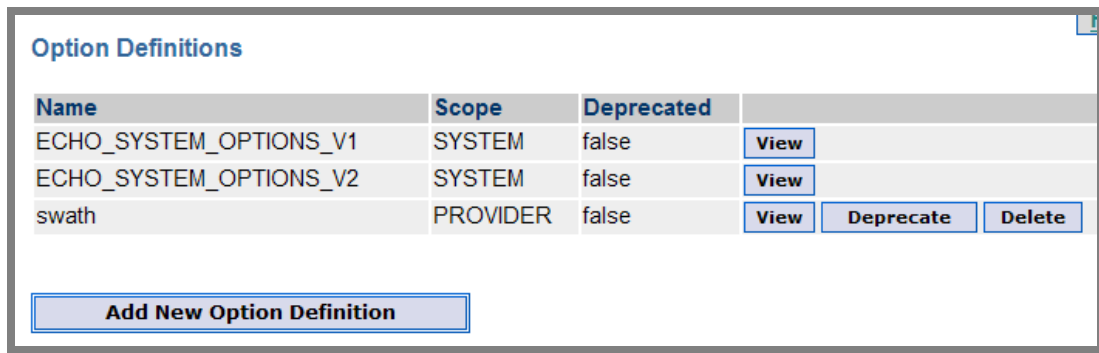


Figure 122. Options Definition Screen (View)

As previously mentioned, when specifying these options, ECHO forms XML must be used. A sample form that contains ordering options for SAR data can be found at:  
[http://www.echo.nasa.gov/data\\_partners/data\\_docs/asf\\_frame\\_v2.xml](http://www.echo.nasa.gov/data_partners/data_docs/asf_frame_v2.xml).

If "Deprecated" is set to true, it means that the provider no longer supports this option. Any open orders will be filled with that option, but it cannot be used for new orders.

*Only ECHO Administrators can "Deprecate" and "Delete" the SYSTEM Scope Option Definitions.*

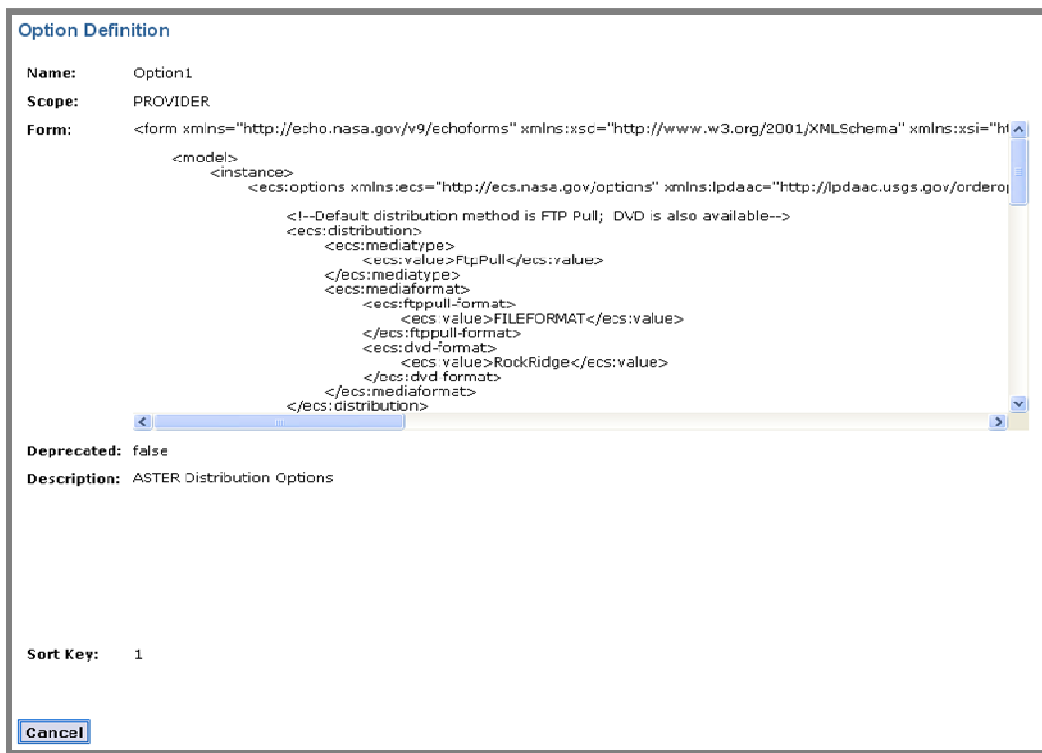
To get to "Option Definitions", click the "Option Definitions" link under "Data Management" in the left navigation bar under the "Provider Context" tab.

The "Option Definitions" screen appears (see Figure 122) with a list of all the option definitions for the provider. Note that if the user is not an Administrator, the option definitions with a SYSTEM scope may be viewed but may not be deprecated or deleted.

For more in-depth information on creating order options, see the *ECHO 10 Data Partner User Guide*.

a. **View Option Definition.** To view an option definition:

- 1) Click the "View" button next to the option definition you wish to view on the "Option Definitions" screen
- 2) The "Option Definition" screen appears with the description of the definition (see Figure 123).
- 3) Click the "Cancel" button to return

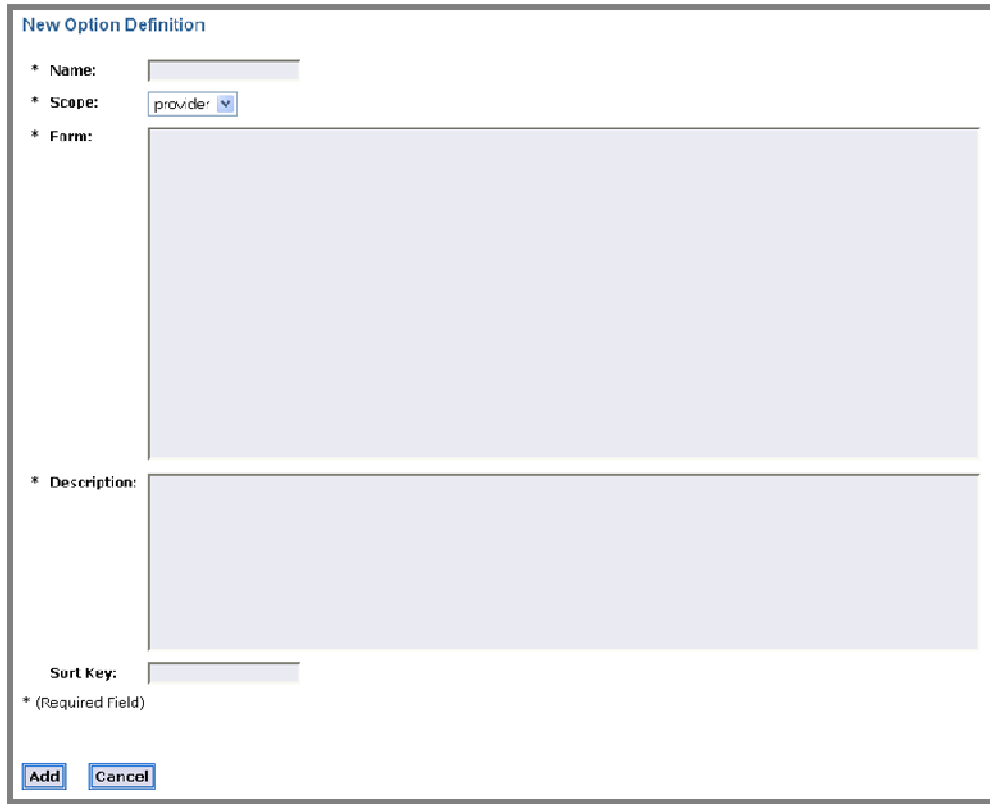


**Figure 123. View Option Definition**

b. **Add Option Definition.** To add a new option definition:

- 1) Click the "Add New Option Definition" button at the bottom of the Option Definition list.
- 2) The "New Option Definition" screen appears (see Figure 124).
- 3) Click the "Cancel" button at any time to cancel the add operation
- 4) All fields are required when defining an Option Definition
- 5) When done, click the "Add" button

- 6) Data validation will take place against the values you entered. If there is an error, an error message will be displayed (see Figure 125). Correct the errors and click the "Add" button again. The add will not be complete until all entered data passes data validation



The screenshot shows a web form titled "New Option Definition". It contains several input fields: "Name" (text box), "Scope" (dropdown menu with "provider" selected), "Farm" (large text area), "Description" (large text area), and "Sort Key" (text box). There are asterisks next to "Name", "Scope", "Farm", "Description", and "Sort Key", indicating they are required fields. At the bottom left, there are "Add" and "Cancel" buttons.

Figure 124. Add a New Option Definition

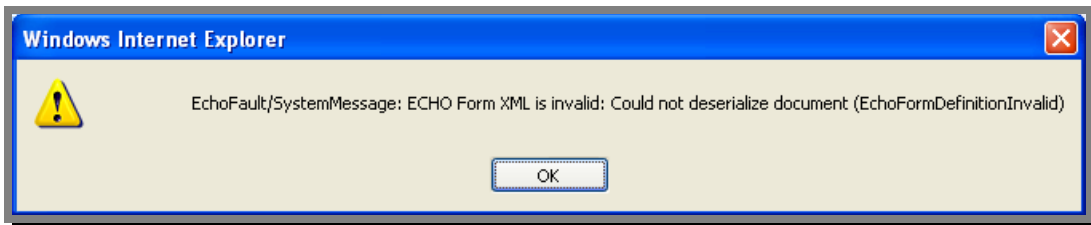


Figure 125. Invalid Forms XML

- c. **Deprecate Option Definition.** This operation works to either deprecate (mark obsolete) or undepricate an option definition. To deprecate an option definition:
  - 1) Click the "Deprecate" button next to the option definition that you wish to deprecate.
  - 2) The "Deprecate Option Definition?" confirmation box appears. (see Figure 126 and Figure 127).

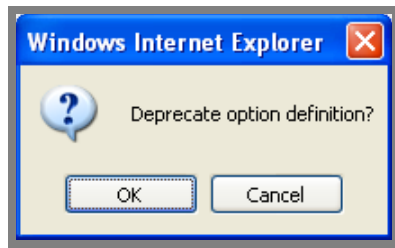
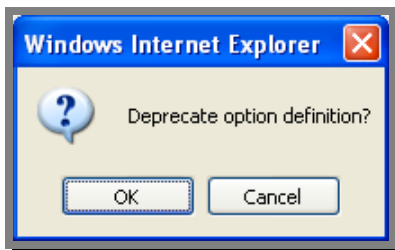
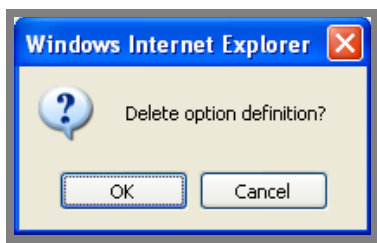


Figure 126. Deprecate Option Definition Confirmation Box



**Figure 127. Undeprecate Option Definition Confirmation Box**

- 3) Click the "Cancel" button to cancel the operation
  - 4) Click the "OK" button to continue with the operation and return to the option definition list
    - a) If the operation was to deprecate, the "Deprecated" column now says "true" for the option definition
    - b) If the operation was to "undeprecate", the "Deprecated" column now says "false" for the option definition
- d. **Delete Option Definition.** To delete an option definition:
- 1) Click the "Delete" button next to the option definition that you wish to delete.
  - 2) The "Delete Option Definition?" confirmation box appears. (see Figure 128).
  - 3) Click the "Cancel" button to cancel the operation
  - 4) Click the "OK" button to continue with the operation and return to the option definition list



**Figure 128. Delete Option Definition Confirmation Box**

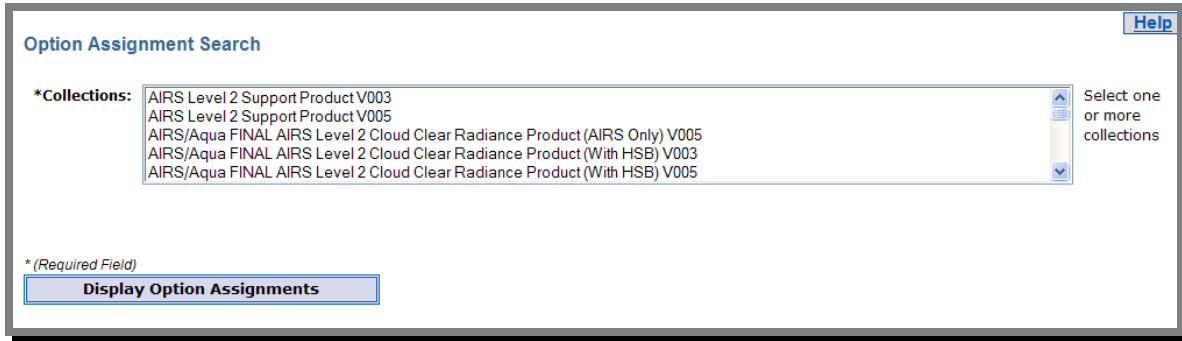
### 3.7.7.5 Option Assignments

Option Assignments are set at the collection level. After creating the option definitions, you must assign them to collections. The assignments specify the ordering options available for a specific collection (see Option Definitions). If more than one collection is available via FTP Push only, you can apply that rule to all collections for which it is true, but the assignments must be made one at a time.

To get to "Option Assignments", click the "Option Assignments" link under "Data Management" in the left navigation bar under the "Provider Context" tab.

The "Option Assignments" screen appears (see Figure 129) with a list of all the collections for the provider.

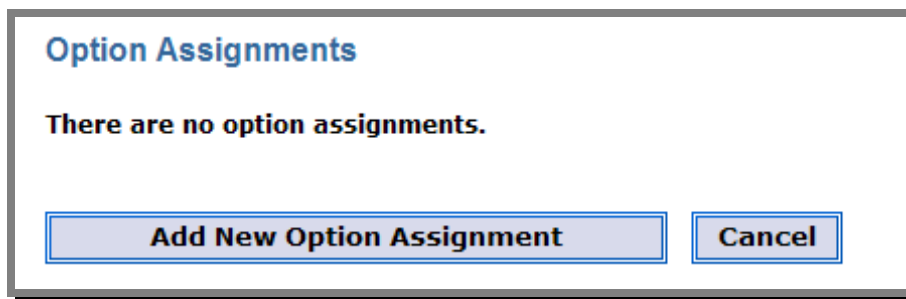
- a. **View/Display Option Assignments.** To display an option assignment:
  - 1) Select one or more collections and click the "Display Option Assignments" button
  - 2) The "Option Assignment Search" screen appears (see Figure 129)



The screenshot shows a web interface titled "Option Assignment Search". At the top right is a "Help" link. Below the title is a section labeled "\*Collections:" followed by a list box containing five items: "AIRS Level 2 Support Product V003", "AIRS Level 2 Support Product V005", "AIRS/Aqua FINAL AIRS Level 2 Cloud Clear Radiance Product (AIRS Only) V005", "AIRS/Aqua FINAL AIRS Level 2 Cloud Clear Radiance Product (With HSB) V003", and "AIRS/Aqua FINAL AIRS Level 2 Cloud Clear Radiance Product (With HSB) V005". To the right of the list box is the text "Select one or more collections". Below the list box is a small asterisk and the text "(Required Field)". At the bottom of the form is a button labeled "Display Option Assignments".

Figure 129. Option Assignment Search Screen

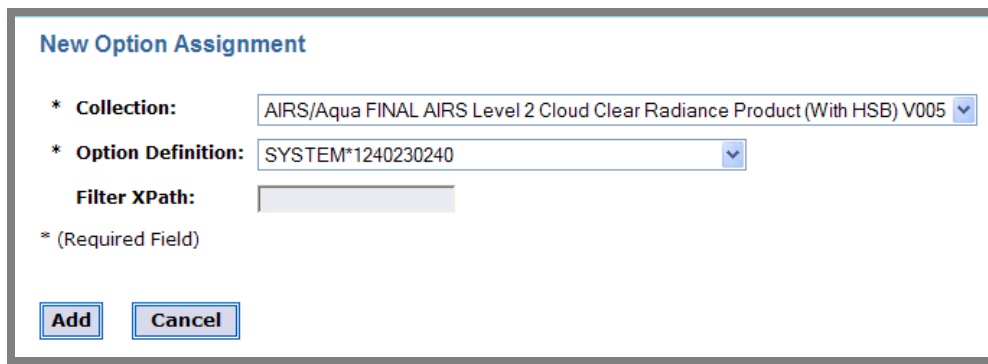
- 3) There may or may not be option assignments (see Figure 130)
- 4) Click the "Cancel" button to return



The screenshot shows a web interface titled "Option Assignments". The main content area contains the text "There are no option assignments." Below this text are two buttons: "Add New Option Assignment" and "Cancel".

Figure 130. Option Assignment Screen

- b. **Add New Option Assignment.** To add a new option assignment, you must first get to the "Option Assignments" page (see Figure 130)
  - 1) Click the "Add New Option Assignment"
  - 2) The "New Option Assignment" screen appears (see Figure 131)



The screenshot shows a web interface titled "New Option Assignment". It contains three required fields, each marked with an asterisk (\*): "Collection:" with a dropdown menu showing "AIRS/Aqua FINAL AIRS Level 2 Cloud Clear Radiance Product (With HSB) V005"; "Option Definition:" with a dropdown menu showing "SYSTEM\*1240230240"; and "Filter XPath:" with an empty text input field. Below the fields is the text "(Required Field)". At the bottom are two buttons: "Add" and "Cancel".

Figure 131. New Option Assignment Screen

- 3) Click the "Cancel" button at any time to cancel the add operation
- 4) Required fields are marked with an asterisk (\*).
- 5) Select the "Collection" for the option assignment
- 6) Select the "Option Definition" to be used for the assignment. If you are not an Administrator, you may not select a SYSTEM option definition.
- 7) Enter the "Filter XPath"
- 8) When done, click the "Add" button



- 9) Data validation will take place against the values you entered. If there is an error, an error message will be displayed (see Figure 132). Correct the errors and click the "Add" button again. The add will not be complete until all entered data passes data validation

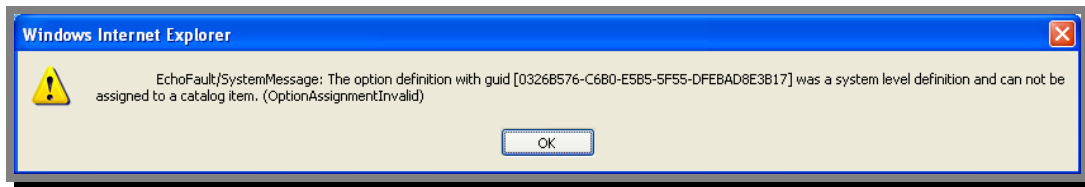


Figure 132. Invalid Option Definition Chosen

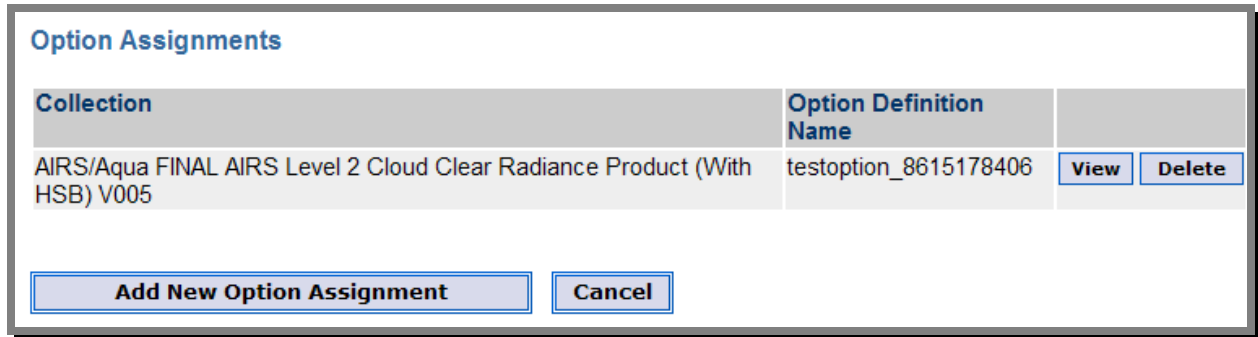


Figure 133. New Option Assignment

- 10) The new option assignment is now displayed (see Figure 133)
- c. **Delete an Option Assignment.** To delete an option assignment:
- 1) Click the "Delete" button next to the item you wish to delete.
  - 2) A delete confirmation box appears

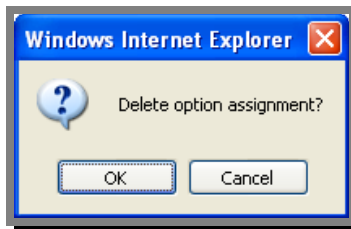


Figure 134. Delete Option Assignment Confirmation Box

- a) Click "OK" to continue deletion
- b) Click "Cancel" to cancel the operation

### 3.7.8 User Lookup

The User Lookup function is used to find a user's organization and login information for user's with the same provider role as the user performing the lookup. There are two ways to lookup a user:

- Using their User Name
- Using their First and Last Names

To get to the main User Lookup screen, click the "User Lookup" link on the left navigation panel under the "Provider Context" tab. The "User Lookup" screen is displayed.

#### 3.7.8.1 Lookup User Name

To perform this lookup:

- a. Enter the First Name and Last Name of the user. Optionally, you may also enter the user's "Organization"
- b. Click the "Lookup User Name" button.
- c. If no match is found, a message is displayed on the screen
- d. If a match is found, the User Names, First Name, Last Name, Organization, and Email Address of each user name that matches the First & Last Names is displayed
- e. Click the "Cancel" button to return

#### 3.7.8.2 Lookup User Information

To perform this lookup:

- a. Enter the User Name of the user for whom you are looking up
- b. Click the "Lookup User Information" button
- c. If no match is found, a message is displayed on the screen
- d. If a match is found, the User Name, First Name, Last Name, Organization, Email Address, and whether the user wishes to receive periodic mailings from ECHO are displayed
- e. Click the "Cancel" button to return

## 3.8 User Management (Administrators Only)

Administrators have the capability to administer to any user in the ECHO system. These functions are contained in the "User Management" tab and include the following:

- "Act as" any user in ECHO (this allows the Administrator to make any necessary changes to a user's account)
- Grant/Revoke Administrator Privileges to other users
- Delete User
- Reset a User's Password
- Lookup any User in ECHO
- Activate Providers
- Activate SSL
- Generate a Group Report

Each of these functions can be found in the left navigation panel of the "User Management" tab.

### 3.8.1 Set User Context

This is used to allow an Administrator to be seen by ECHO as another user. This allows the Administrator to perform any actions the user is has permissions for and to make any necessary changes to the user's account. Once the Administrator sets his context to the other user, ECHO will "see" him as that user. If the user is not an Administrator, then he will no longer have Administrative privileges until he leaves the user context and reverts to his own account.

To change your user context"

- Click the "Set User Context" link on the left navigation panel in the "User Management" tab (see Figure 135)
- The "Set User Context" screen appears.
- Enter the UserName of the user you wish to "act as"
- Click the "Set" button
- Note the "Set User Context" link is now a "Leave User Context" link
- To revert back to your account, either log off and log back on or click the "Leave User Context" link

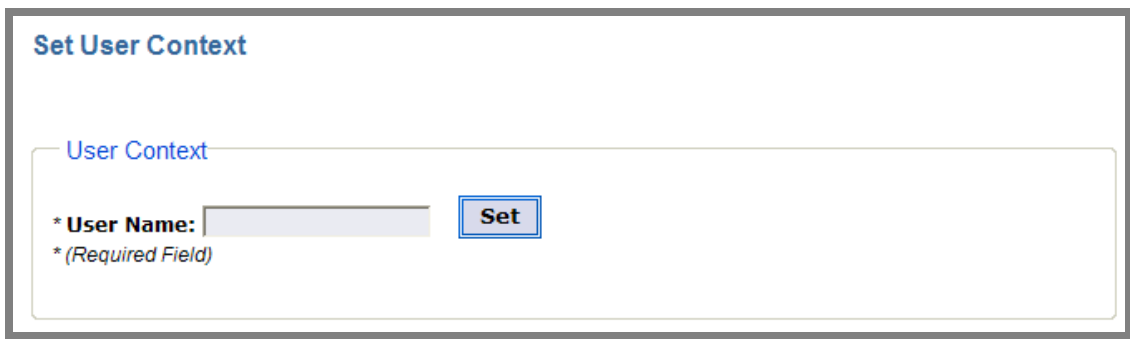


Figure 135. Set User Context Screen

### 3.8.2 Grant/Revoke Administrator Privileges

Not only does this function allow you to grant or revoke administrative privileges to users, but it also lists all users that have Administrative privileges in ECHO. This is the initial screen ("Administrators" screen) displayed when choosing the "User Management" tab (see Figure 136).

- a. To grant administrative privileges:
  - 1) Click the "Administrators" link on the left navigation panel in the "User Management" tab (see Figure 135)
  - 2) Enter the UserName of the user for whom you are granting Administrative access in the box next to the "Grant" button
  - 3) Click the "Grant" button
  - 4) The user will not have administrative privileges and his User Name will appear in the list of Administrators
- b. To revoke administrative privileges:
  - 1) Click the "Administrators" link on the left navigation panel in the "User Management" tab (see Figure 135)
  - 2) Select the UserName of the user for whom you are revoking Administrative access from the drop down list of all users with Administrative access in the box next to the "Revoke" button
  - 3) Click the "Revoke" button
  - 4) The user will no longer have administrative privileges and his User Name will no longer appear in the list of Administrators

**Administrators**

Grant administrative privilege for a user:

\* User Name:

\* (Required Field)

**Administrators:** alai10, User101 & ECHO\_SYS

Revoke administrative privilege for a user:

\* User Name:

\* (Required Field)

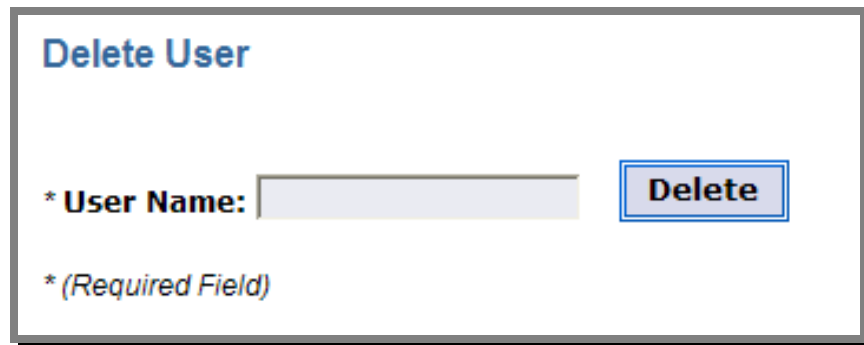
Figure 136. Grant/Revoke Administrative Privileges

### 3.8.3 Delete User

Administrators may delete users from ECHO. This allows them to clean up the user base for both system resource savings but also as a security measure. If a User Name is no longer in use, it should be deleted as soon as possible to prevent possible unauthorized use.

To delete a user:

- a. Click the "Delete User" link on the left navigation panel in the "User Management" tab (see Figure 135)  
The "Delete User" screen appears (see Figure 137)
- b. Enter the User Name of the user you are deleting
- c. Click the "Delete" button
- d. The user will be deleted from ECHO



The screenshot shows a web form titled "Delete User". It contains a text input field with the label "\* User Name:" and a "Delete" button to its right. Below the input field, there is a note: "\* (Required Field)".

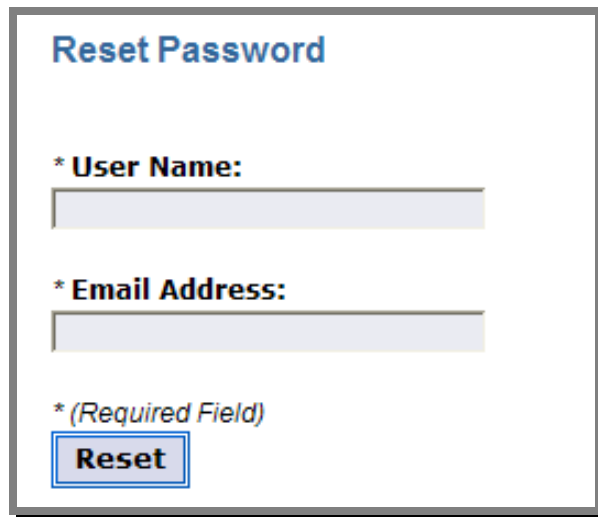
Figure 137. Delete User Screen

### 3.8.4 Reset Password

Administrators may reset the password for any ECHO user. This is necessary when a user has forgotten his password.

To reset a user's password:

- a. Click the "Reset Password" link on the left navigation panel in the "User Management" tab (see Figure 135)  
The "Reset Password" screen appears (see Figure 138)
- b. Enter the User Name of the user you are resetting the password for
- c. Enter the Email Address of the user associated with the user's account
- d. Click the "Reset" button
- e. ECHO verifies the Email address matches the Email Address associated with the User Name (in the user's profile)
- f. If the two do not match
  - 1) An error message is displayed
  - 2) The password remains unchanged
- g. If the two do match,
  - 1) The user's password is reset to a randomly generated password
  - 2) The new password is emailed to the user



**Reset Password**

\* **User Name:**

\* **Email Address:**

\* (Required Field)

Figure 138. Reset Password Screen

### 3.8.5 User Lookup

The User Lookup function is used to find a user's organization and login information. There are two ways to lookup a user:

- Using their User Name
- Using their First and Last Names

To get to the main User Lookup screen, click the "User Lookup" link on the left navigation panel under the "Provider Context" tab (see Figure 135).

The "User Lookup" screen is displayed (see Figure 139)

The screenshot shows the 'User Lookup' interface. It is divided into two main sections: 'Lookup User Name' on the left and 'Lookup User Information' on the right. The 'Lookup User Name' section contains three input fields: '\* First Name:', '\* Last Name:', and 'Organization:'. Below these fields is a button labeled 'Lookup User Name' with a note '\* (Required Field)'. The 'Lookup User Information' section contains one input field: '\* User Name:'. Below this field is a button labeled 'Lookup User Information' with a note '\* (Required Field)'.

Figure 139. User Lookup Screen

#### 3.8.5.1 Lookup User Name

To perform this lookup:

- a. Enter the First Name and Last Name of the user. Optionally, you may also enter the user's "Organization" (see Figure 140)

This screenshot shows the 'User Lookup' interface with data entered. In the 'Lookup User Name' section, the '\* First Name:' field contains 'Judith' and the '\* Last Name:' field contains 'Wright'. The 'Organization:' field is empty. The 'Lookup User Information' section remains empty. The 'Lookup User Name' button is highlighted, indicating it is the next step in the process.

Figure 140. Lookup User Name

- b. Click the "Lookup User Name" button.

- c. If no match is found, a message is displayed on the screen (see Figure 141)

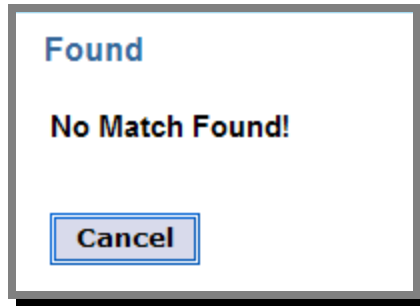


Figure 141. No Match Found

- d. If a match is found, the User Names, First Name, Last Name, Organization, and Email Address of each user name that matches the First & Last Names is displayed (see Figure 142)

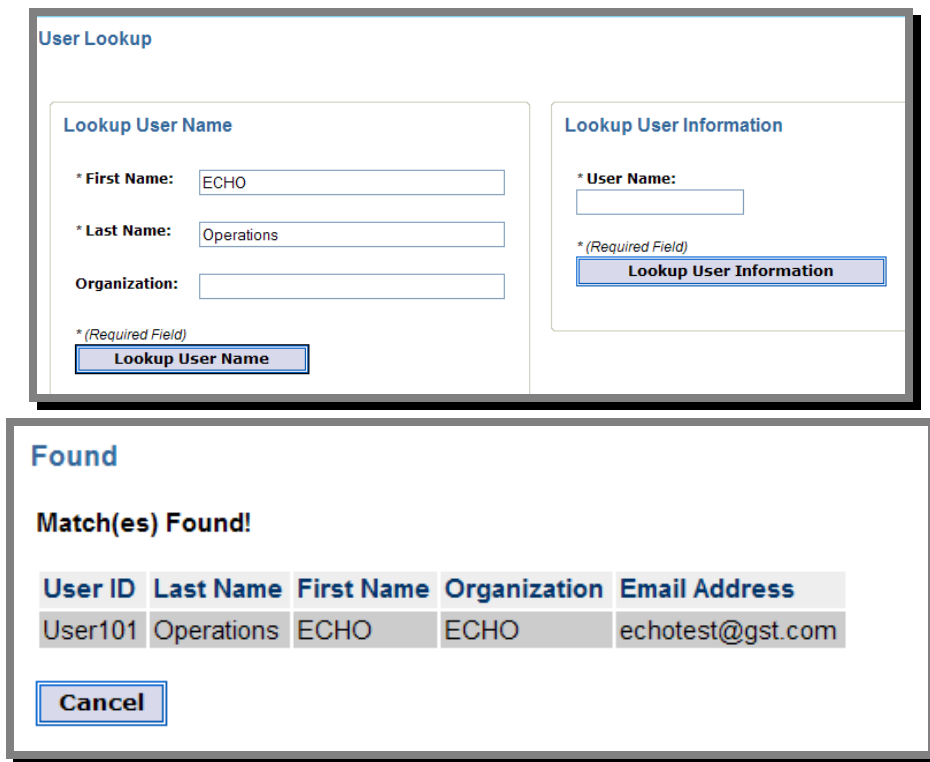


Figure 142. Successful User Name Search

- e. Click the "Cancel" button to return

### 3.8.5.2 Lookup User Information

To perform this lookup:

- a. Enter the User Name of the user for whom you are looking up (see Figure 143)



**User Lookup**

**Lookup User Name**

\* First Name:

\* Last Name:

Organization:

\* (Required Field)

**Lookup User Name**

**Lookup User Information**

\* User Name:

\* (Required Field)

**Lookup User Information**

Lookup User Info

**Figure 143. Lookup User Information**

- b. Click the "Lookup User Information" button
- c. If no match is found, a message is displayed on the screen
- d. If a match is found, the User Name, First Name, Last Name, Organization, Email Address, and whether the user wishes to receive periodic mailings from ECHO are displayed (see Figure 144)

**User Information**

**Found Information for "User101" !**

<b>User ID:</b>	User101
<b>Last Name:</b>	Operations
<b>First Name:</b>	ECHO
<b>Organization:</b>	ECHO
<b>Receive Periodic Informational Email from ECHO:</b>	true
<b>Email Address:</b>	echotest@gst.com

**Cancel**

**Figure 144. Successful User Information Search**

- e. Click the "Cancel" button to return

### 3.8.6 Activate Provider

When a user wishes to become a provider in ECHO, they submit a registration request. However, approval is not automatic. All provider requests must be reviewed by the ECHO Operations Team prior to approval. Once a request has been approved, the provider is activated using the "Activate Provider" screen.

Note that to activate a provider, you will need the temporary Provider ID assigned to the requestor. This temporary ID was emailed to both the provider and ECHO Operations at the time the request was submitted. Additionally, a permanent Provider ID must have been obtained. Both of these fields are required.

If the provider is to be a Data Provider, a provider schema must have been setup; you will need the name of this schema. Finally, the Data Center ID for the Data Provider must also be known.

*As of Release 10.0 of ECHO, the Data Center ID and the Provider ID must be the same.*

To get to the "Activate Provider" screen, click the "Activate Provider" link on the left navigation panel under the "Provider Context" tab (see Figure 135).

The "Activate Provider" screen appears (see Figure 145)

To activate a provider:

- a. Enter the temporary Provider ID of the requestor in the "Provider GUID" box
- b. Enter the permanent Provider ID In the "Provider ID" box
- c. If the provider is a Data Provider, enter the provider's schema name in the "Provider Schema Name" box
- d. If the provider is a Data Provider, enter the Data Center ID in the "Data Center ID" box
- e. Click the "Activate Provider" button
- f. A confirmation box is displayed.
  - 1) Click the "Cancel" button to cancel the activation
  - 2) Click the "OK" button to continue with the activation

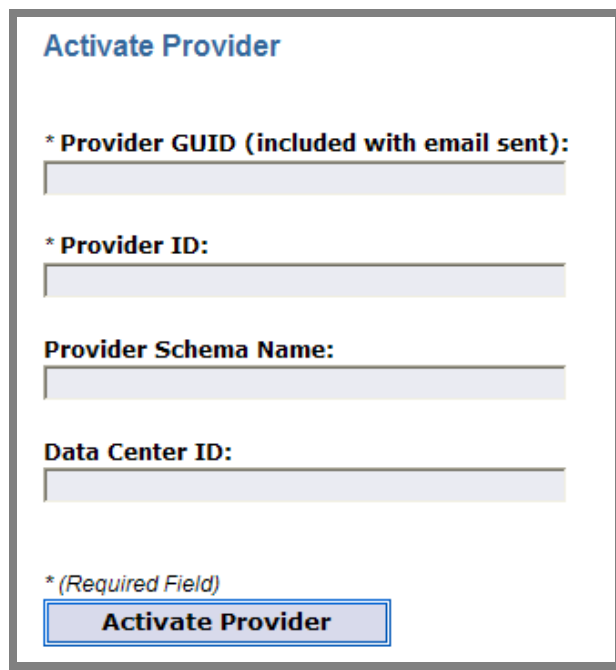


Figure 145. Activate Provider Screen



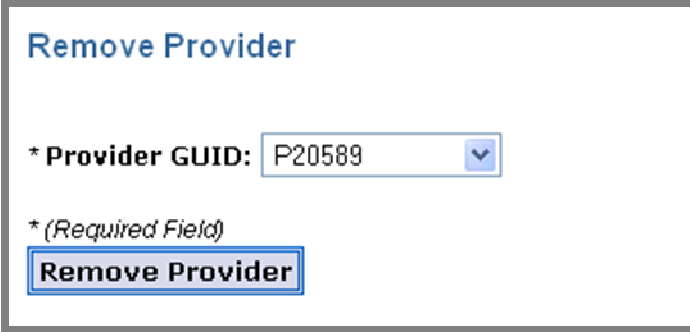
**Figure 146. Activate Provider Confirmation Box**

### 3.8.7 Remove a Provider

Administrators may remove providers from ECHO. This allows them to clean up inactive providers in the system. Providers with entities such as orders, data access rules, catalog item options, and/or extended services can not be removed from the system. When providers are removed, if there is an existing data schema for that provider the data schema will not be removed from the system, and the provider and associated business schema data will not be archived during removal

To remove a provider:

- g. Click the "Remove Provider" link on the left navigation panel in the "User Management" tab  
The "Remove Provider" screen appears (see Figure 147)
- h. Enter the Provider GUID of the provider you are removing
- i. Click the "Remove Provider" button
- j. The provider will be removed from ECHO



**Remove Provider**

\* **Provider GUID:** P20589

\* (Required Field)

**Remove Provider**

Figure 147. Remove Provider Screen

### 3.8.8 Activate SSL

Order processing must be done over a Secure Socket Layer (SSL). The provider must submit his certificate for approval via his Provider Policies. The provider's SSL certificate must be approved by ECHO Operations before it can be used. Once the new or changed certificate has been approved, ECHO Operations must activate the certificate before ECHO will use it for order processing.

Anytime an SSL certificate is changed, it will be deactivated and ECHO Operations will be notified.

To get to the "Activate SSL Certificate for Provider" screen, click the "Activate SSL" link on the left navigation panel under the "Provider Context" tab (see Figure 135).

The "Activate SSL Certificate for Provider" screen appears (see Figure 149)

To activate a the certificate for a provider

- a. Select the Provider ID from the drop down list
- b. Click the "Activate SSL Certificate" button
- c. A confirmation box is displayed
  - 1) Click the "Cancel" button to cancel the activation
  - 2) Click the "OK" button to continue with the activation

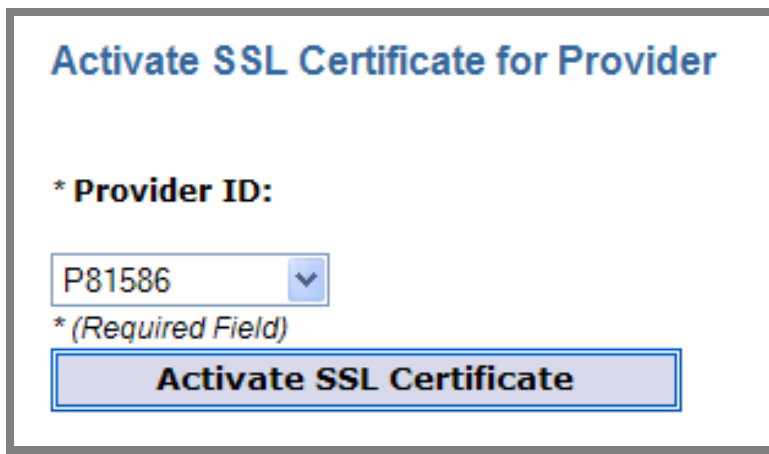


Figure 148. Activate SSL Certificate

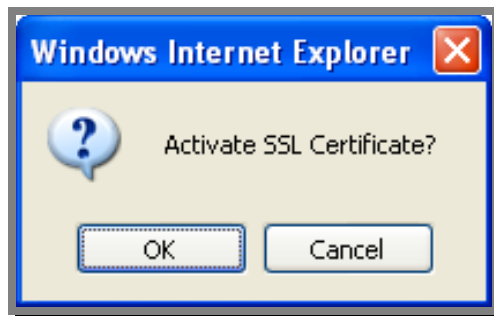


Figure 149. Activate SSL Certificate Confirmation Box

### 3.8.9 Group Report

Administrators have the capability of running a report showing all groups.

To run the Group Report, click the "Group Report" link on the left navigation panel under the "Provider Context" tab (see Figure 135).

The "Group Report" screen appears with the report of all groups (see Figure 150)

Group Report (All)			
Name	Description	Managers	Members
Z**4886799858	*** Test group. ***	Z786843047 (Bug Tester) Z141449544 (Bug Tester)	Z315021788 (Bug Tester) Z385597300 (Bug Tester)
Z**9167558178	*** Test group. ***	Z464916502 (Bug Tester) Z505297593 (Bug Tester)	Z467043010 (Bug Tester) Z754580520 (Bug Tester)
Z**2669147820	*** Test group. ***	Z866275189 (Bug Tester) Z686594437 (Bug Tester) Z420363612 (Bug Tester)	Z469641666 (Bug Tester) Z784797507 (Bug Tester) Z487475698 (Bug Tester)
Z**3787442492	*** Test group. ***	Z660587969 (Bug Tester) Z908992000 (Bug Tester)	Z438405085 (Bug Tester) Z118816065 (Bug Tester)
Z**2975752199	*** Test group. ***	Z493998600 (Bug Tester) Z339230139 (Bug Tester)	Z478816251 (Bug Tester) Z810669048 (Bug Tester)
Z**6313644671	*** Test group. ***	Z706273778 (Bug Tester) Z657193509 (Bug Tester)	Z258743977 (Bug Tester) Z685869561 (Bug Tester)
Z**5891795758	*** Test group. ***	Z247077855 (Bug Tester) Z145776998 (Bug Tester)	Z153412052 (Bug Tester) Z303261540 (Bug Tester)
Z**8655726228	*** Test group. ***	Z899961814 (Bug Tester) Z266347386 (Bug Tester)	Z271081244 (Bug Tester) Z481555678 (Bug Tester)
Z**1984393398	*** Test group. ***	Z934565843 (Bug Tester) Z756123706 (Bug Tester)	Z701654104 (Bug Tester) Z447271466 (Bug Tester)
Z**5840725635	*** Test group. ***	Z336395416 (Bug Tester) Z468171493 (Bug Tester)	Z252737250 (Bug Tester) Z711690946 (Bug Tester)
Z**4325279189	*** Test group. ***	jsmith (John Data)	
Z**8202753702	*** Test group. ***	jsmith (John Data)	
Z**9817231467	*** Test group. ***	jsmith (John Data)	
Z**1410120042	*** Test group. ***	jsmith (John Data)	
Z**4225418110	*** Test group. ***	jsmith (John Data)	

Figure 150. Group Report

---

## APPENDIX A. ACRONYMS USED IN ECHO

Acronyms used in this document are contained in this appendix. A complete list of the acronyms frequently used in discussions of ECHO can be found on the ECHO website on the ECHO Acronyms page at [http://www.echo.nasa.gov/overview/over\\_acronyms.shtml](http://www.echo.nasa.gov/overview/over_acronyms.shtml).

ACL	Access Control List
API	Application Programming Interface
AQL	Alternative Query Language
ASF DAAC	Alaska Satellite Facility DAAC
ASTER	Advanced Spaceborne Thermal Emission and Reflection Radiometer
BMGT	Bulk Metadata Generation Tool
COTS	Commercial Off The Shelf
DAAC	Distributed Active Archive Center
DB	DataBase
DTD	Document Type Definition
ECHO	EOS Clearinghouse
ECS	EOSDIS Core System
EDC	EROS Data Center
EDG	EOS Data Gateway
EJB	Enterprise JAVA Beans
EMD	EOSDIS Maintenance and Development
EOS	Earth Observing System
EOSDIS	EOS Data and Information System
EROS	Earth Resources Observation Systems
ESDIS	Earth Science Data and Information System
ESIP	Earth Science Information Partner
ETC	ECHO Technical Committee
FTP	File Transfer Protocol
GCMD	Global Change Master Directory
GES DAAC	GSFC Earth Sciences DAAC
GHRC	Global Hydrology Resource Center
GIS	Geographic Information System
GML	Geography Markup Language
GMT	Greenwich Mean Time
GSFC	Goddard Space Flight Center
GUI	Graphical User Interface
GUID	Globally Unique Identifier

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IIMS	Independent Information Management Subsystem
J2EE	Java 2 Enterprise Edition
LAADS	Level 1 and Atmosphere Archive and Distribution System
LP DAAC	Land Processes DAAC
MISR	Multiangle Imaging SpectroRadiometer
MODIS	Moderate Resolution Imaging Spectroradiometer
NASA	National Aeronautics and Space Administration
NSIDC DAAC	National Snow and Ice Data Center DAAC
ODL	Object Description Language
OGC	OpenGIS Consortium
ORNL DAAC	Oak Ridge National Laboratory DAAC
PGE	Product Generation Executives
PO.DAAC	Physical Oceanography DAAC
PSA	Product Specific Attribute
PUMP	Provider User Management Program
QA	Quality Assurance
SEDAC	Socioeconomic Data and Applications Center
SOAP	Simple Object Access Protocol
SSC	Stennis Space Center
SSL	Secure Sockets Layer
UDDI	Universal Description, Discovery, and Integration
UI	User Interface
UR	Universal Reference
UR	Uniform Resource Identifier
URL	Uniform Resource Locator
UTC	Universal Time, Coordinated (also called GMT/UTC)
WIST	Warehouse Inventory Search Tool
WGS	World Geodetic System
WRS	Worldwide Reference System
WSDL	Web Services Description Language
XML	eXtensible Markup Language
XSLT	eXtensible Style Language Transformation



## APPENDIX B. DATA ENTITIES

### B.1 User Profile

a. Profile

- 1) User Name/User ID
- 2) Full Name
- 3) Organization
- 4) Domain (sector of the user community you are associated with)
- 5) Region (USA or international user)
- 6) Primary Area of Study
- 7) User Type
- 8) Email
- 9) Whether the user wishes to receive system status and other informational email from ECHO
- 10) Roles
- 11) Date the User Name was created

b. Phone Number(s)

For each Phone Number:

- 1) Phone Type\*
  - a) Drop down list
  - b) Values: Business, Business\_2, Business\_Fax, Home, Home\_2, Home\_Fax, Mobile, Pager, Custom
  - c) If Custom is picked, a box appears labeled "Custom Type Name"
  - d) "Custom Type Name" is required when the Phone Type = Custom

- 2) Phone Number\*

c. User Address(es)

For each address:

- 1) Address Name
- 2) Up to 5 street address lines
- 3) City
- 4) State
- 5) Zip/Postal Code
- 6) Country
- 7) Special Instructions

## B.2 User Preferences

### B.2.1 Account/Personal Information

In the following descriptions, fields marked with an asterisk (\*) are required in ECHO.

- a. Account Information
  - 1) User Name/User ID
  - 2) Password\*
    - a) Minimum 10 characters
- b. Personal Information
  - 1) Title (*New field with ECHO 10*)
    - a) Drop down list
  - 2) First Name\*
  - 3) Middle Initial (*New field with ECHO 10*)
    - a) One letter
    - b) A – Z and a – z
  - 4) Last Name\*
  - 5) Do you wish to receive periodic informational emails form ECHO? (check the box for "Yes")
  - 6) Email Address\*
  - 7) Organization\*
  - 8) Organization\*User Domain\*
    - a) Drop down list
    - b) Values: Government, K12, University, Commercial, Other
  - 9) User Region\*
    - a) Drop down list
    - b) Values: USA, International
  - 10) Primary Study Area\*
    - a) Drop down list
    - b) Values: See PUMP (too many to list here)
  - 11) User Type\*
    - a) Drop down list
    - b) Values: Production User, Science Team, QA/Testing User, Data Provider Internal User, Public User

## B.3 Addresses

All addresses, whether Mailing, General Contact, Shipping Contact, or Billing Contact, have the same basic fields. Addresses are found in Registering with ECHO (section 3.3.2), Registering as a Provider (section 0), User Profile (section 3.4), and User Preferences (section e). Fields marked with an asterisk (\*) are required. Items marked with a † are required IF the address is a US-formatted address.

- a. Address Name\*
  - 1) Maximum 100 characters

- b. US Address Format\* (check the box of "Yes")

*Note that Street1, Street2, Street3, Street4, and Street5 may contain up to 1024 characters each.*

- c. Street1\*
- d. Street2
- e. Street3
- f. Street4
- g. Street5

*Note that City and State may contain up to 100 characters each.*

- h. City\*
- i. State†
- j. Zip/Postal Code†
  - 1) Maximum 20 characters
- k. Country\*

*Change with ECHO 10: Country is now Country Name, not Code. A free form option (OTHER) is also provided to enter a country that is not in the drop down list*

- 1) Drop down list
  - 2) If OTHER is selected, a "Custom Country Name" field appears
    - a) Maximum 40 characters
- l. Special Instructions
  - 1) Special instructions related to this address as supplied by the user such as "Leave packages with the front desk".
  - 2) Maximum 1024 characters

## **B.4 Phone Numbers**

As with addresses, all phone numbers have the same format. Fields marked with an asterisk (\*) are required.

- a. Phone Type\*
  - 1) Drop down list
  - 2) Values: Business, Business\_2, Business\_Fax, Home, Home\_2, Home\_Fax, Mobile, Pager, Custom
  - 3) If Custom is picked, a box appears labeled "Custom Type Name"
  - 4) "Custom Type Name" is required when the Phone Type = Custom
- b. Phone Number\*

## **B.5 Provider Information**

In the following descriptions, fields marked with an asterisk (\*) are required.

- a. Organization\*
- b. Provider Type\*
  - 1) Drop down list
  - 2) Values:
    - a) Data—provider offers data such as collections and granules

- b) Service—provider offers web services such as interfaces, implementations, advertisements, or GUIs
- c. Discovery URLs\*—identifies a provider web site
  - 1) Multiple URLs allowed
  - 2) Separate URLs with a semicolon (;)
- d. Description of Holdings\*—description of the type of data holdings the provider maintains
- e. Description of Services
- f. Additional Information
- g. Contact Information
  - 1) Title (*New field with ECHO 10*)
    - a) Drop down list
  - 2) First Name\*
  - 3) Middle Initial (*New field with ECHO 10*)
    - a) One letter
    - b) A – Z and a – z
  - 4) Last Name\*
  - 5) Role\*—user's role in the provider's organization
  - 6) Email Address\*
- h. Phone Number
  - 1) Phone Type\*
    - a) Drop down list
    - b) Values: Business, Business\_2, Business\_Fax, Home, Home\_2, Home\_Fax, Mobile, Pager, Custom
    - c) If Custom is picked, a box appears labeled "Custom Type Name"
    - d) "Custom Type Name" is required when the Phone Type = Custom
  - 2) Phone Number\*
- i. Mailing Address
  - 1) Address Name\*
    - a) Maximum 100 characters
  - 2) US Address Format\* (check the box of "Yes")  
*Note that Street1, Street2, Street3, Street4, and Street5 may contain up to 1024 characters each.*
  - 3) Street1\*
  - 4) Street2
  - 5) Street3
  - 6) Street4
  - 7) Street5  
*Note that City and State may contain up to 100 characters each.*
  - 8) City\*
  - 9) State†

10) Zip/Postal Code†

- a) Maximum 20 characters

11) Country\*

*Change with ECHO 10: Country is now Country Name, not Code. A free form option (OTHER) is also provided to enter a country that is not in the drop down list*

- a) Drop down list
- b) If OTHER is selected, a "Custom Country Name" field appears (see **Error! Reference source not found.**)

(1) Maximum 40 characters

12) Special Instructions

- a) Special instructions related to this address as supplied by the user such as "Leave packages with the front desk".
- b) Maximum 1024 characters

<b>Account Entity</b>						
<b>Element Name</b>	<b>Description</b>	<b>Format</b>	<b>Required</b>	<b>Unique</b>	<b>Multiplicity</b>	<b>Notes</b>
<b>Account Information:</b>						
User ID/User Name	User's user ID used to access ECHO	String(30)	Y	Y	1	Maximum 30 characters
Password	Password associated with the User ID/User Name	String(40)	Y	Y	1	Minimum 10 and Maximum 40 characters Must include at least three types of the following: <ul style="list-style-type: none"> <li>• Uppercase letter</li> <li>• Lowercase letter</li> <li>• Digit</li> <li>• Special Characters</li> </ul>
<b>User Profile/Personal Information:</b>						
Title	User's title (e.g., Mr., Ms, Dr.)	String(5)	N	N	1	Drop down menu in PUMP Free text field also available
First Name	User's first name	String(20)	Y	N	1	
Middle Initial	User's middle initial	String(1)	N	N	1	
Last Name	User's last name	String(20)	Y	N	1	
Organization/Affiliation	Name of Organization	String(1024)	Y	N	1	
Email Address	User's email address	String(256)	Y	N	1	
User Domain	Government, University, etc.	Enumerated	Y	N	1	<i>Valid Values:</i> <ul style="list-style-type: none"> <li>• Government</li> <li>• K12</li> <li>• University</li> <li>• Commercial</li> <li>• Other</li> </ul> In ECS this is known as the user's Affiliation <ul style="list-style-type: none"> <li>• Drop down menu in PUMP.</li> </ul>
User Region	The region the user is located in	Enumerated	Y	N	1	<i>Valid Values:</i> <ul style="list-style-type: none"> <li>• USA—United States of America</li> <li>• INTERNATIONAL—Any country other than USA</li> </ul> <ul style="list-style-type: none"> <li>• Drop down menu in PUMP</li> </ul>

<b>Account Entity</b>						
<b>Element Name</b>	<b>Description</b>	<b>Format</b>	<b>Required</b>	<b>Unique</b>	<b>Multiplicity</b>	<b>Notes</b>
User Type		Enumerated	Y	N	1	Drop down menu in PUMP
Informational Flag/Opt In	Flag indicating whether the user wishes to receive periodic informational emails from ECHO	Boolean	N	N	1	Defaults to "No" Checkbox in PUMP In PUMP, defaults to "No" if not checked
Primary Area of Study	Research field	Enumerated	N	N	1	<i>Valid Values:</i> <ul style="list-style-type: none"> <li>• AIR_SEA_INTERACTION</li> <li>• ATMOSPHERIC_AEROSOLS</li> <li>• BIOGEOCHEMICAL_DYNAMICS</li> <li>• BIOLOGICAL_OCEANOGRAPHY</li> <li>• CLOUDS</li> <li>• CRYOSPHERIC_STUDIES</li> <li>• GEOPHYSICS</li> <li>• GLOBAL_BIOSPHERE</li> <li>• HUMAN_DIMENSIONS_OF_GLOBAL_CHANGE</li> <li>• HYDROLOGIC_CYCLE</li> <li>• LAND_PROCESSES</li> <li>• PHYSICAL_OCEANOGRAPHY</li> <li>• POLAR_PROCESSES</li> <li>• RADIATION_BUDGET</li> <li>• SEA_ICE</li> <li>• TROPOSPHERIC_CHEMISTRY</li> <li>• UPPER_ATMOSPHERE_COMPOSITION</li> <li>• UPPER_ATMOSPHERE_DYNAMICS</li> <li>• OTHER</li> </ul> Drop down menu in PUMP

<b>Account Entity</b>						
Element Name	Description	Format	Required	Unique	Multiplicity	Notes
<b>Address Information: (No limit on # of addresses)</b>						
Address	Various addresses (mailing, shipping, contact, etc)	ADDRESS Entity	N	N	Unbounded	<ul style="list-style-type: none"> <li>The initial address entered when a user registers is the user's contact address</li> <li>Additional addresses may be added once account is created via "Add New Address" under the "Addresses" tab</li> </ul> ECHO has no limit on number of addresses
General Contact, Shipping Contact, Billing Contact	Various contact addresses	CONTACT Entity	N	N	Unbounded	<ul style="list-style-type: none"> <li>Contacts may be added once account has been created via the "Add ... Contact" under "User Preferences" tab</li> </ul> ECHO has no limit on number of addresses
<b>Other:</b>						
GUID	The unique id assigned by ECHO for this	String	N/A	Y	1	Set by ECHO system
Creation Date	Date account was created	dateTime	N/A	N	1	Set by ECHO system
Roles	The roles the user has been granted The roles currently include one or more provider roles and an admin role.	List of ROLE Entity	N	N	List	Not set/updated during Register or Update Profile, set by Provider (provider role only) or Administrator only
** Format may reference another Data Entity (shown as all caps). dateTime, Boolean, Float, Int, & String are basic XML primitive types. See <a href="#">the XML Schema specification</a> for more information						