

Connected Backup

Software Version 8.11

Account Management Web Services Development



Document Release Date: October 2018
Software Release Date: October 2018

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Documentation updates

The title page of this document contains the following identifying information:

- Software Version number, which indicates the software version.
- Document Release Date, which changes each time the document is updated.
- Software Release Date, which indicates the release date of this version of the software.

You can check for more recent versions of a document through the [MySupport portal](#). Many areas of the portal, including the one for documentation, require you to sign in with a Software Passport. If you need a Passport, you can create one when prompted to sign in.

Additionally, if you subscribe to the appropriate product support service, you will receive new or updated editions of documentation. Contact your Micro Focus sales representative for details.

Support

Visit the [MySupport portal](#) to access contact information and details about the products, services, and support that Micro Focus offers.

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- Search for knowledge documents of interest
- Access product documentation
- View software vulnerability alerts
- Enter into discussions with other software customers
- Download software patches
- Manage software licenses, downloads, and support contracts
- Submit and track service requests
- Contact customer support
- View information about all services that Support offers

Many areas of the portal require you to sign in with a Software Passport. If you need a Passport, you can create one when prompted to sign in. To learn about the different access levels the portal uses, see the [Access Levels descriptions](#).

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Chapter 1: Concepts

This chapter describes basic concepts that you must understand before you build a custom Account Management application.

- [Account Management Website overview, below](#)
- [Recommended functions, on page 13](#)
- [Recommended content , on page 11](#)
- [Recommended functions, on page 13](#)

Account Management Website overview

Website purpose

The standard Account Management Website allows users to register and manage their backup accounts without intervention from system administrators. The standard Account Management Website is useful in the following situations:

- **Service provider model.** If you provide a backup service to external customers, you can use Support Center to create configurations for each service plan or customer type. When customers purchase your service, you can direct them to the Account Management Website where they register their account, download the software, and install the Agent, without assistance.
- **Enterprise model.** In a corporate environment, you can use the Account Management Website as a self-service tool for employees who need to use the Agent to back up their data. Use Support Center to create configurations for specific organizations or types of users. Employees access the Website, register their account, and install the software without a system administrator's assistance.

Standard Account Management Website

You can install the standard Account Management Website when you install the Data Center software. You can change the branding for this Website to match your corporate standards. The standard Website lets you perform the following functions:

- Register and download Agent software
- View a summary of backup statistics
- View details of backups and retrievals
- Order copies of backed-up files on CDs or DVDs
- Reinstall the Agent software
- Brand the Website to match corporate standards
- Edit or view profile information

Custom Account Management applications

If the standard Website does not meet your needs, you can use the Account Management Web Services Application Programming Interface (API) to create a custom Web-based application. The AMWS API does not support mobile applications.

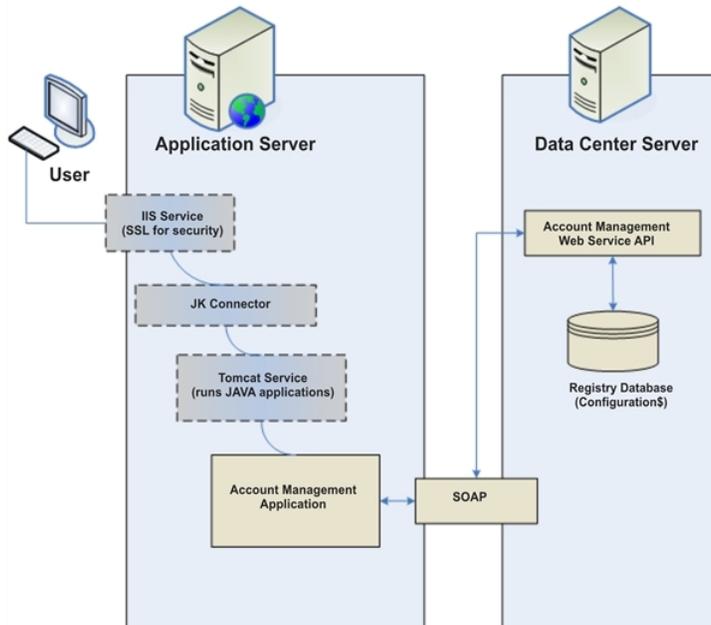
A custom application allows you to include features that are not part of the standard Website. For example, if you host a service for external users, you can add billing and transaction processing functionality. This type of functionality is not part of the standard Website and is not provided in the Account Management Web Services API. However, you can use your own API to build this functionality, and then call the Account Management Website API.

The Account Management Web Services API includes a method to retrieve branding information from the Data Center, so you can use the branding feature in Support Center to brand your custom application.

Application interaction with the Data Center

Communication flow

The following diagram shows an example of how you can design the communication flow for a custom Web-based Account Management application. Your implementation may require a different approach.



In this illustration, the following process occurs:

1. The Microsoft IIS Service enables you to use SSL for secure connections. If you do not want to create a Web-based application, you do not need this component.

2. The JK Connector forwards requests to the URL for the Web application server. In this example, the Jakarta Tomcat service runs the Account Management application. If you do not want to create a Web-based application, you do not need these components.
3. The Account Management application uses SOAP to communicate with the Account Management Web Service API that resides on the Data Center server.
4. The API communicates with the Registry Database on the Data Center server to store the account information, and then uses the SOAP interface to return data to the Account Management application.

Website settings in Support Center

The Account Management Web Services API includes methods that allow your application to retrieve Website Settings information from the Data Center. Therefore, you can use the Website Settings in Support Center to control the following options in your custom application:

- The information displayed in the registration and profile pages
- Whether users can order backed-up files on media
- Whether users can access the MyRoam application to retrieve files
- The Support contact information displayed in the Website

If your application is not designed to retrieve any or all of this information from the Data Center, you do not need to define these settings in Support Center.

Access user's account online link

When you install the Account Management Website, the Account Summary page in Support Center contains a link to the standard Account Management Website. It does not link to your custom Account Management application. If you have a license to use the MyRoam™ application, you can use this Website to retrieve files on behalf of the user.

However, you can use the Account Management Web Services API to link an Agent configuration to your custom application.

Recommended content

General content

If you create a custom Account Management application to use instead of the standard Website, you might want to include the following content in your application:

- Graphical overviews of the product.

Many users do not understand how the files from their computers are backed up and protected on a remote Data Center. A simple graphical diagram can help people understand the workflow for backups. Also include terminology and concepts, such as the difference between a first backup and

an incremental backup. You also might want to include a product simulation or video that describes how to use the Agent.

- Support options.

Include a page that describes your support options, and let potential customers view this information before they select or purchase the backup service.

- About Us information

Provide an About Us section to give users information about your company or organization. If you provide a service to external customers, this information helps build a sense of confidence with users.

- Security feature description

Include information that describes the product's security features. On this page, emphasize the benefits of offsite storage in case of fire, flood, or hardware problems. You might want to provide answers for the following questions:

- How can I be sure that my data is safer with this service than it is in my home office?
- Who sees my data?
- What are my rights in case of an audit?
- What are my legal rights if my data is lost or temporarily unavailable?

- Frequently Asked Questions (FAQs)

- On this page, include information that helps users select the appropriate backup plan (if you offer different plans) or how to use the application.

System requirement content

If you plan to implement your application as a service to customers, include information about the following Agent system requirements:

- Processor speed
- Operating system
- RAM
- Disk space
- Recommended connection speeds for each backup plan that you offer
- Web browser version to access the Account Management Website

This information helps users make educated selections when they choose a backup plan.

Backup plan content

If you plan to implement your application as a service to customers, include the following information:

- Backup size estimation.

If you offer different backup plans with varying backup storage limits, provide instructions to help users estimate the amount of space they need. For example, you can include an explanation about how to use Windows Explorer to determine file and folder sizes.

- Chart of backup plans.

If you offer multiple backup plans, display them in a chart so users can compare the features of each plan.

Recommended functions

Introduction

The following sections describe recommended functions to include in your custom application. Depending on the functionality that you include in the application (registration, download, and account management to an internal enterprise or a backup service for external customers), you might also want to include components specific to your environment and needs.

Use the descriptions in the following sections as a guideline to build a useful application.

Sign in

To provide secure access to users' account information, include a logon component that requires users to enter their credentials.

By default, Account Management Website requires users with native or enterprise directory credentials to enter the e-mail address and password that they provided during registration. Users with single sign-on credentials must enter the credentials required by the third-party identity provider that authenticates their account. You can use this model or create one of your own.

Registration and download

This component directs users to enter profile information, specifically the credentials for the account. The type of credentials depend on the account type. Native and enterprise directory accounts require an e-mail address and password. Single sign-on accounts require the credentials specified by the third-party identity provider that authenticates the account.

After the registration completes, the application transmits this information to the Data Center, which creates the account and builds the custom Agent Setup file. The Agent Setup file includes the account number and community ID where the Agent is registered.

TIP:

Before you allow a user to register or download software, you might want to include an End User License Agreement window that users must accept.

Backup plan and billing

If you plan to offer different types of backup plans, for example, different plans based on storage limits, provide a component that allows users to select a plan. If necessary, add a transaction processing component to allow online payment for specific selections.

The Account Management Web Service does not include methods for transaction processing or billing. You must use a third-party package or create your own software to include this functionality in the application.

Account recovery

The Agent Setup file that the Data Center creates for a user is also the file that the user needs to recover an accounts. Include a component that allows users to download the same Agent Setup file that they downloaded when they originally registered their accounts.

Because the account number and community ID where the Agent originally registered is built in to the Agent Setup file, users only need to be able to access their account recovery link to download the correct file.

Change password

This component allows users with native Micro Focus Connected Backup accounts to change their own passwords, as needed, without a system administrator's intervention. Connected Backup does not store passwords for accounts with enterprise directory or single sign-on credentials. Therefore, this component does not support those types of accounts.

Change profile

This component allows users with native Connected Backup accounts to update their registration information at any time, without a system administrator's intervention. Connected Backup does not let users with enterprise directory or single sign-on account credentials update their profile. Therefore, this component does not support those types of accounts.

Order media

You can include a component in your application that can send a request to the DataBundler application. This functionality allows users to order a specific set of backed-up files on a CD or DVD. Users can then retrieve files to any location using the Media Agent. You might want to include a choice of delivery options, such as overnight, or two-day shipping.

NOTE:

Only users with accounts that run on a Microsoft Windows operating system can order media and retrieve files through the Media Agent.

Chapter 2: Development environment

This chapter contains information about the development environment.

- [Interfaces, below](#)
- [Available code examples, on the next page](#)
- [Method overview, on page 17](#)
- [Variable types, on page 18](#)

Interfaces

Account Management Web Services

The Account Management Web Services API is a stateless interface that allows a Website or application to communicate with a Data Center server. Stateless interfaces enable you to issue calls in any order without changing the state of the system or affecting other calls. The Account Management Web Services interface includes a Web Services Description Language (WSDL) file that defines the available methods, their parameters, and the data that they return.

This interface includes authenticated and unauthenticated methods.

Authenticated methods

These methods require you to provide authentication values whenever they are called. The authentication values include the following values:

- Community ID
- Account number
- Account password

Unauthenticated methods

These functions do not require any type of validation.

Simple Object Access Protocol

The Simple Object Access Protocol (SOAP) allows you to use HTTP and XML to pass information from one application to another. The Account Management Web Services uses SOAP to communicate with the Data Center server.

Find the Web Services API WSDL file

A WSDL file that describes the Web Services API is created on the server when you install the Account Management Website on a server. To locate the WSDL file, use the following URL on the server where you installed the Account Management Website software:

```
http|https://localhost/SSWSAPI/SSWSAPI.dll?Handler=GenWSDL
```

You can run a stub generator on the WSDL file to generate the appropriate stub files for the programming language you plan to use.

NOTE:

The WSDL file contains methods that are not described in this document. These methods are for use by Micro Focus. Do not use these methods in your custom applications.

Available code examples

Description

The Account Management Website software includes a set of code examples that you can use as a starting point for your application. The code examples are written in Java.

You also can use the source code for the standard Account Management Website as a starting point for your custom application.

Use the sample code

The code examples in this manual are written in Java and assume the use of Apache Axis to generate stub files from the WSDL file.

To compile and run the code examples

1. Download the sample code ZIP archive file from the Account Management Website installation folder:

```
C:\Inetpub\wwwroot\SSWSAPI\ssws_examples.zip
```

2. Extract the files to a convenient folder.
3. Define system environment variables for the location of the Java software and add this variable to your PATH variable. For example:

```
set JAVA_HOME=C:\Program Files\Java\jdk1.5.0_06
```

```
set PATH=%JAVA_HOME%\bin;%PATH%
```

4. To compile and run each code example, enter commands similar to the following commands:

```
C:\sswsapisamples> setclasspath.cmd
```

```
C:\sswsapisamples> javac.exe example.java
```

```
C:\sswsapisamples> java.exe example.java  
http://server/sswsapi/sswsapi.dll?Handler=Default
```

Use the standard online help files

You can use the existing online Help files as a starting point for your Help system. The Help files for the standard Account Management Website are in WebHelp format.

You can copy the existing HTML files from the following folder on the server where you installed the Data Center software:

```
DataCenter\apache-tomcat-7.0.42\webapps\ssws\help
```

Method overview

Sequence of calling methods

Because the Account Management Web Services API is stateless, you can call most methods in any order except for the following operations:

- Registration operations
- Logon operations
- Order media operations

Authenticated methods

Although the Account Management Web Service API is stateless, most methods require authentication. These methods must include the values in the `SSWS ticket` data type. This data type includes information about a user's account, including the account number, the community where the account is registered, and the password associated with the account. For a description of this data type, see [SSWSAddressInfo, on page 71](#).

The Account Management Web Service API includes the following methods:

- `GenerateAgentSetupLocal`. Sends a request to the Data Center server to create an Agent Setup file.
- `FetchAgentSetupBytes`. Downloads a specified number of bytes in the Agent Setup file.
- `VerifyTechAccountAccess`. Verifies that a specified technician can access a specific community.
- `GetAccountInfo`. Retrieves information about a specific account.
- `GetBackupDates`. Retrieves the available backup dates for a specific account.
- `SetAccountPassword`. Sets the password for the account. This method does not affect password values stored in an enterprise directory.
- `SetAccountProfile`. Changes the values stored in the profile.
- `GetMediaTypes`. Determines the media types available for a specific account when requesting a

backup image.

- `SubmitMediaOrder`. Sends a request for a backup account image to the `DataBundler` application.

Variable types

The Account Management Web Services API uses the following variable types:

| Simple type | Description |
|------------------------------------|---|
| <code>wsdl_base64Binary</code> | Base64-encoded binary data. The API uses base64-encoded binary data to encode strings such as file paths and file names to protect them from corruption. The encoding ensure that file paths and file names that are not valid XML or SOAP strings do not result in errors. |
| <code>wsdl_bool</code> | A boolean value. For example: <ul style="list-style-type: none">• 1 or 0• True or false |
| <code>wsdl_int</code> | An integer. |
| <code>wsdl_long</code> | A long integer. |
| <code>wsdl_string</code> | A text string. |
| <code>wsdl_unsignedLong</code> | A nonnegative long integer. |
| <code>wsdl_utc_time_in_msec</code> | A variable that evaluates to a <code>wsdl_long</code> type. It is a 10-digit number that represents the number of milliseconds between January 1, 1970 12:00:00 AM UTC and a specified time. |

Chapter 3: Application navigation

This chapter contains recommendations for the types of navigation to consider for your application.

- [Types of navigation, below](#)
- [Examples, on the next page](#)

Types of navigation

When you design your Web application, you must design a way for your users to navigate the different options in the application.

Top navigation

Add a top navigation bar to your application to display and provide access to the following information:

- The user's name
A message such as **Welcome** *User* where *User* is the name of the user.
- Account number
The account number associated with the user.
- Computer name
The name of the computer associated with an account.
- Sign Out link
A link that allows users to end a session and protect access to their account information.
- Help link
An online Help system to describe how to use the functions in your application. The Help system can be any type of HTML-based help system.

Left navigation

You can use a left navigation bar as the primary way to navigate to functions of your application. You might want to include links to the following options:

- Summary
- View History
- Retrieve Files with the MyRoam application
- Order CDs or DVDs
- Reinstall Agent

- Edit Profile
- Change Backup Plan
- View Accounts
- Support

You might want to hide the left navigation bar on all pages. For example, you could exclude the left navigation from the following pages:

- Registration
- Support contact
- Change password

Bottom navigation

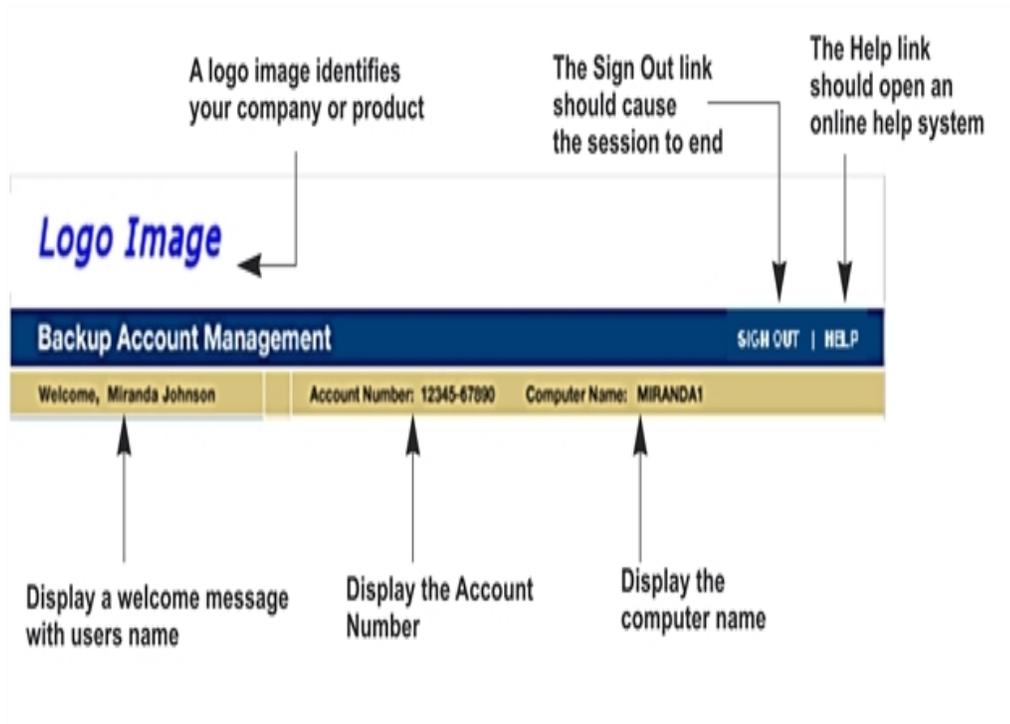
You can use a navigation bar at the bottom of your pages to provide links to your Terms of Condition, Privacy, and Security statements.

- On the Terms of Condition page, include information about the legal use of the application.
- On the Privacy Statement page, include information about privacy policies that your company uses to protect customer information.

Examples

Sample top navigation bar

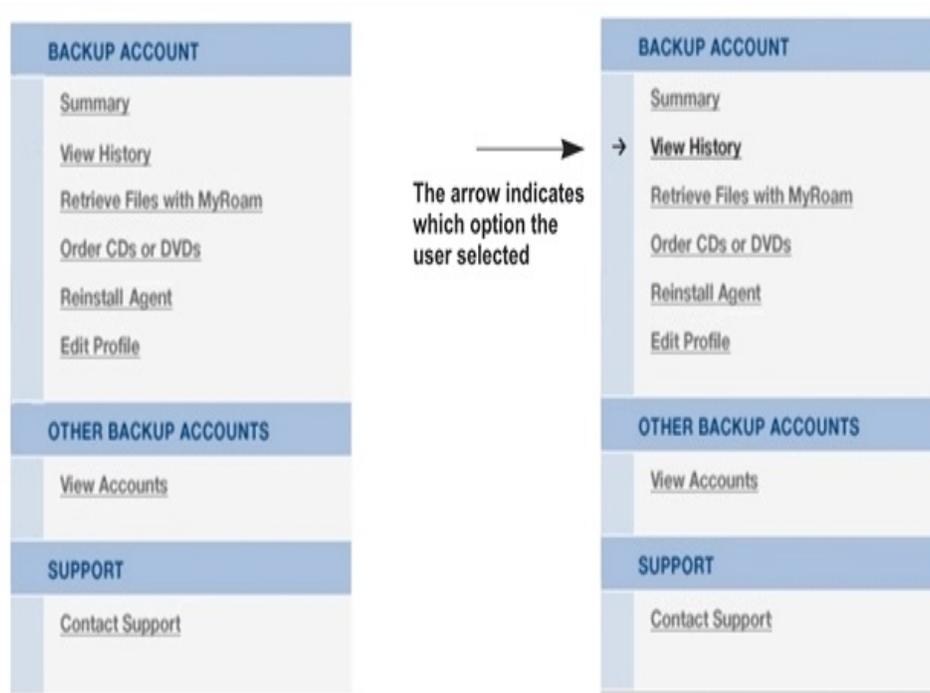
The following figure is an example of a top navigation bar:



You can use the [GetAccountInfo, on page 102](#) method to obtain information for the top navigation bar. This method returns the user name, the account number, and the computer name.

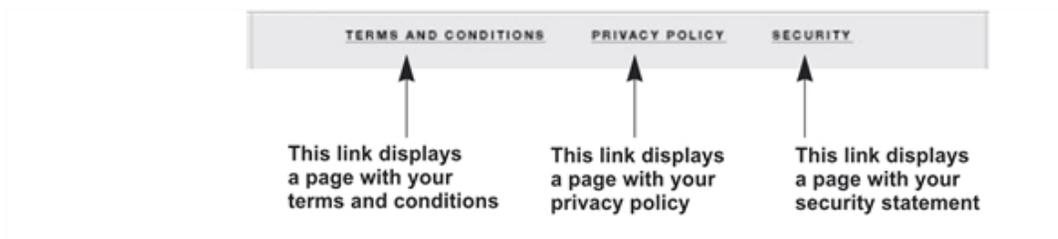
Sample left navigation bar

In the left navigation bar, include a visual cue that indicates the current selection. The following figure is example of a navigation bar before and after a user selects an option:



Sample bottom navigation bar

The following figures is an example of the bottom navigation bar:



Create pages that contain the appropriate content for your site, and use the bottom navigation bar to link to these pages.

Chapter 4: User welcome

This chapter contains recommendations for the first page in your application that users see.

- [About the Welcome page, below](#)

About the Welcome page

Purpose

The **Welcome** page provides basic information and links to help a users register and download an Agent Setup file.

There are no specific methods in the Account Management Web Services API for this purpose.

Recommended content

On the Welcome page, provide an introduction to your Account Management application and the backup software or service. For example, you might want to highlight the key features that the Agent provides. Also provide a link to the **Registration** page.

You also might want to include a link to your Sign In page for users that already have a registered backup account.

Sample Welcome page

The following figure is an example of a **Welcome** page:

Account Management SUPPORT | HELP

[HOME](#) [REGISTER](#) [SIGN IN](#)

Welcome

This Website gives you access to backup software and tools for managing your backup account. By using this software, you can securely protect your data from loss or damage.

Backup

The backup software that runs on your computer, called the Agent, automatically backs up your computer's information. It encrypts your data and transmits it safely over the Internet to a secure Data Center.

Retrieval

All your backed-up information is available to you whenever you need it.

Download Backup Software

To use this software, you must register a backup account and download the Agent.

[Register and Download](#)

Already registered? [Sign In](#) to view information about your backup account.

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Chapter 5: Application sign in

This chapter contains recommendations for the sign in and sign out functions in your application.

- [Sign-in operation, below](#)
- [Recommendations, on page 30](#)

Sign-in operation

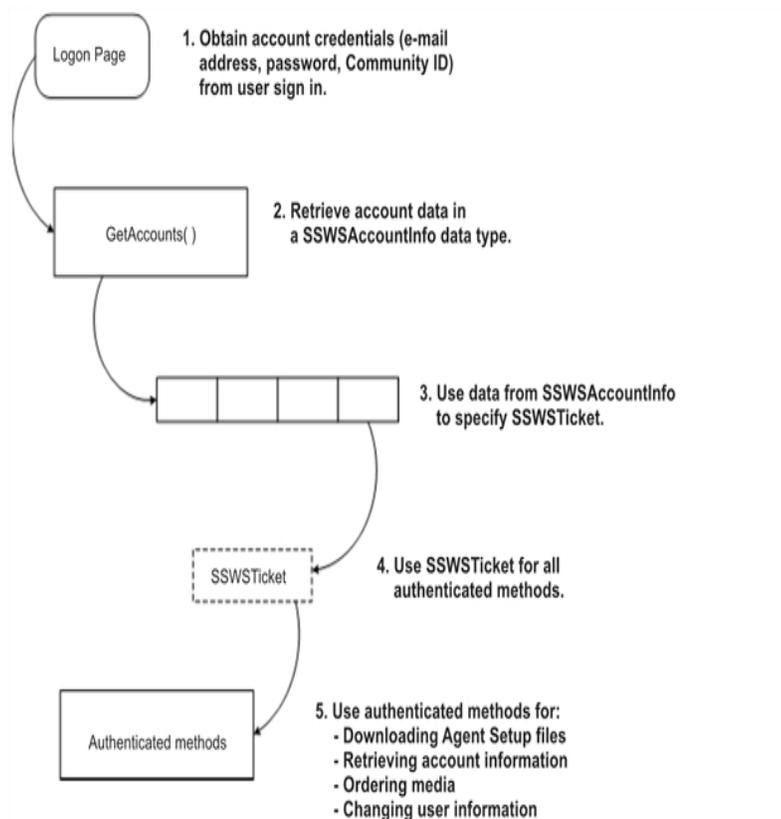
Description

The e-mail addressees associated with accounts are not unique. To allow users to perform various functions such as download the Agent Setup files or change their profile information after they sign in, the Account Management application must be able to authenticate users.

By passing the users' account credentials (e-mail address, password, and community ID) to the `GetAccounts` method, you can obtain the information required to create an authentication ticket (the `SSWSTicket` data type). The authentication ticket allows users to access and manage their accounts.

Sequence

The following figure is example of the sequence to obtain the information for user or technician authentication from an account with native or enterprise directory Connected Backup credentials.



Methods

For information about methods that you can use to configure sign in, see [Application sign in, on the previous page](#).

Code examples

This example uses the `GetAccounts` and the `GetAccountInfo` methods to obtain information to allow a user to sign in to a Web-based Account Management application.

Lines of code in `bold` text highlight data types or methods from the API.

```
import java.net.URL;  
  
import javax.xml.rpc.ServiceException;  
  
import org.apache.axis.AxisFault;  
  
import com.ironmountain.sswsapi.SSWAPIServiceLocator;  
import com.ironmountain.sswsapi.SSWAPIServiceSoap_PortType;  
import com.ironmountain.sswsapi.SSWAccountInfo;  
import com.ironmountain.sswsapi.SSWSTicket;  
  
/**
```

```
* Example sign in to the SSWS API
*/

public final class LoginSSWSAPI {

    /**
     * Get the SOAP Service stub from the given URL.
     *
     * Notice that we need to maintain the session and the combination of Apache
     * Axis with a Web Service hosted by IIS as an ATL Web Service, requires
     * that the "sendMultiRefs" flag be sent as false.
     *
     * @param sswsapiUrl URL to connect to
     * @return Implementation of SOAP Service stub
     * @throws ServiceException
     */
    private static SSWSAPIServiceSoap_PortType getSoapService(final URL sswsapiUrl)
throws ServiceException {
        SSWSAPIServiceLocator locator = new SSWSAPIServiceLocator();
        locator.setMaintainSession(true);
        locator.getEngine().setOption("sendMultiRefs", Boolean.FALSE);
        final SSWSAPIServiceSoap_PortType soapService = locator.getSSWSAPIServiceSoap
(sswsapiUrl);
        return soapService;
    }

    /**
     * We have gotten an SOAP exception returned from AXIS. Extract the SSWS
     * return code from the exception if possible.
     * @param e AxisFault
     * @return SSWS API error code
     */
    private static int getApiReturnCode(AxisFault e) throws AxisFault {
        int soapErrorCode = -1;
        // Retrieve the error code if available
        if (e.getFaultDetails().length == 1) {
            String soapErrorDetailText = e.getFaultDetails()[0].getFirstChild
().getNodeValue();
            System.out.println("SSWS API Error Code: " + soapErrorDetailText + "
returned.");
            soapErrorCode = Integer.parseInt(soapErrorDetailText);
        } else {
            System.out.println("Unexpected error format. Incorrect number
of fields in the SOAP Fault" + " <detail> tag means it is not a valid SSWSAPI
return code.");
        }

        // Rethrow because we don't know what to do with the exception.
        throw e;
    }

    // Retrieve additional info. (NOTE: this is not translated, so
    // should be used for debugging only)
    String faultReasonText = e.getFaultReason();
}
```

```
        if (faultReasonText != null) {
            System.out.println("Additional info returned: " + faultReasonText);
        }
        return soapErrorCode;
    }

    /**
     * @param args - [url] [communityID] [emailAddress] [password]
     */
    public static void main(String[] args) {
        try {
            final URL sswsapiUrl;
            final int communityID;
            final String emailAddress;
            final String password;

            // 1. Read in command line arguments
            if (args.length == 0) {
                System.out.println("Attempting to log in with bad account
information");
                sswsapiUrl = new URL
("http://localhost:80/sswsapi/sswsapi.dll?Handler=Default");
                communityID = 1;
                emailAddress = "bogusEmail";
                password = "arbitraryPassword";
            } else if (args.length == 4) {
                sswsapiUrl = new URL(args[0]);
                communityID = Integer.parseInt(args[1]);
                emailAddress = args[2];
                password = args[3];
            } else {
                sswsapiUrl = null;
                communityID = 1;
                emailAddress = null;
                password = null;
                System.out.println("Usage: LoginSSWSAPI [url] [communityID]
[emailAddress] [password]");
                System.exit(2);
            }

            // 2. Instantiate a SOAP service stub using Apache Axis.
            final SSWSAPIServiceSoap_PortType soapService =
getSoapService(sswsapiUrl);

            // 3. Get the list of accounts which match the email / password
            // combination, and the root community. This is expected to fail.
            int soapErrorCode = 0;
            SSWSAccountInfo[] accountInfoArray = null;
            try {
                System.out.println("Retrieving all accounts for email address: " + emailAddress);
                accountInfoArray = soapService.getAccounts(communityID, emailAddress, password);
            } catch (AxisFault e) {
                soapErrorCode = getApiReturnCode(e);
            }
        }
    }
}
```

```
        if (soapErrorCode == 3 /* INVALID_LOGIN */) {
            System.out.println("An invalid login attempt has been made.");
            System.exit(0);
        }
        System.out.println(accountInfoArray.length + " accounts returned.");

// 4. Try to get account info for the first account returned.
if (accountInfoArray.length > 0) {
    String accountNumber = accountInfoArray[0].getAccountNumber();
    System.out.println("Trying to get account status information for account: "
+ accountNumber);

    SSWSTicket ticket = new SSWSTicket(
        0 /* Customer authentication type */,
        communityID,
        accountNumber,
        "" /* internal use field */,
        password,
        0 /* internal use field */,
        0 /* internal use field */
    );

    SWSAccountInfo accountInfo = null;
    try {
        accountInfo = soapService.getAccountInfo(ticket);
    } catch (AxisFault e) {
        soapErrorCode = getApiReturnCode(e);
    }

    if (soapErrorCode != 0 /* SUCCESS */) {
        System.out.println("Failure to get account info
for account: " + accountNumber);
        System.exit(0);
    }

    String statusCode = accountInfo.getBsAccountStatus();
    if (statusCode.compareToIgnoreCase("A") == 0) {
        System.out.println("The account is active.");
    } else if (statusCode.compareToIgnoreCase("H") == 0) {
        System.out.println("The account is on hold.");
    } else if (statusCode.compareToIgnoreCase("C") == 0) {
        System.out.println("The account has been cancelled.");
    } else {
        System.out.println("Unknown account status.");
    }

    if (accountInfo.isVersion80rHigher() == false) {
        System.out.println("Account agent version < 8.0.
Some SSWS API activity may be unavailable.");
    }
}
```

```
        if (accountInfo.isLDAP() == true) {
            System.out.println("Account is LDAP.
Profile data will be read-only.");
        }
    }

    System.exit(0);
} catch (Exception e) {
    e.printStackTrace(System.out);
    System.exit(1);
}
}
```

Recommendations

Recommended content for the Sign In page

The items you display on your Sign In page depend on the type of user account:

- For an account that uses native or enterprise directory credentials:
 - **Email address text box.** Users enter the e-mail address stored in their profiles.
 - **Password text box.** Users enter the password stored in their profiles.
 - **Link to instructions to request a forgotten password.** Typically, a technician needs to reset the password for the user.
 - **Link to your Support Contact page.** Users might need assistance to sign in to the application.
- For an account that uses single sign-on (SSO) credentials:
 - **SSO Sign In page.** Display the SSO Sign In page from the third-party identity provider (IdP) that supports the community in which the user account resides. Users enter the IdP-specific account credentials.
 - **Link to your Support Contact page.** Users might need assistance to sign in to the application.

Recommendation for navigation bars

You might not want to display the left or bottom navigation bars until after the user signs in to the application. Until your application authenticates the user's account credentials, you do not want the user to view account information.

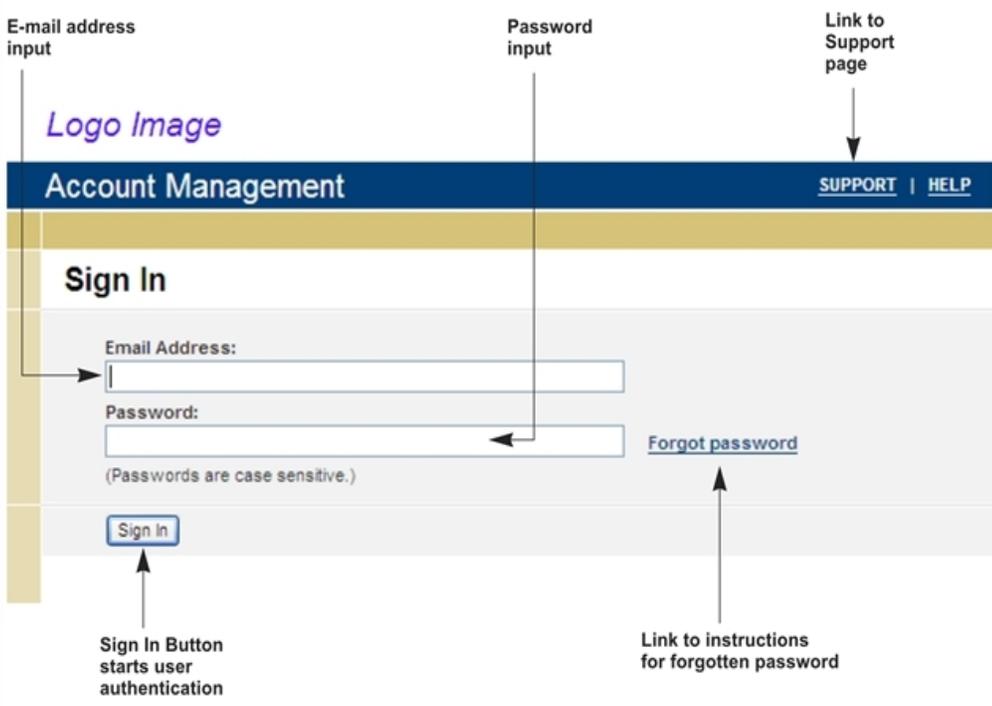
To ensure that users end their sessions properly, you might want to include a **Sign Out** link on one of your navigation bars.

Recommendations for signing out

When users click a **Sign Out** link, you might want to display a page that confirms that the session ended successfully. Or, you might want to redisplay the **Sign In** page to allow users to sign in again.

Sample Sign In page

The following illustration shows an example of a **Sign In** page:



Chapter 6: Registration and download

This chapter contains recommendations for registration and Agent Setup file download operations.

- [Registration operation, below](#)
- [Registration code example, on the next page](#)
- [Download operation, on page 37](#)
- [Download code example, on page 37](#)
- [Recommendations, on page 41](#)

Registration operation

Description

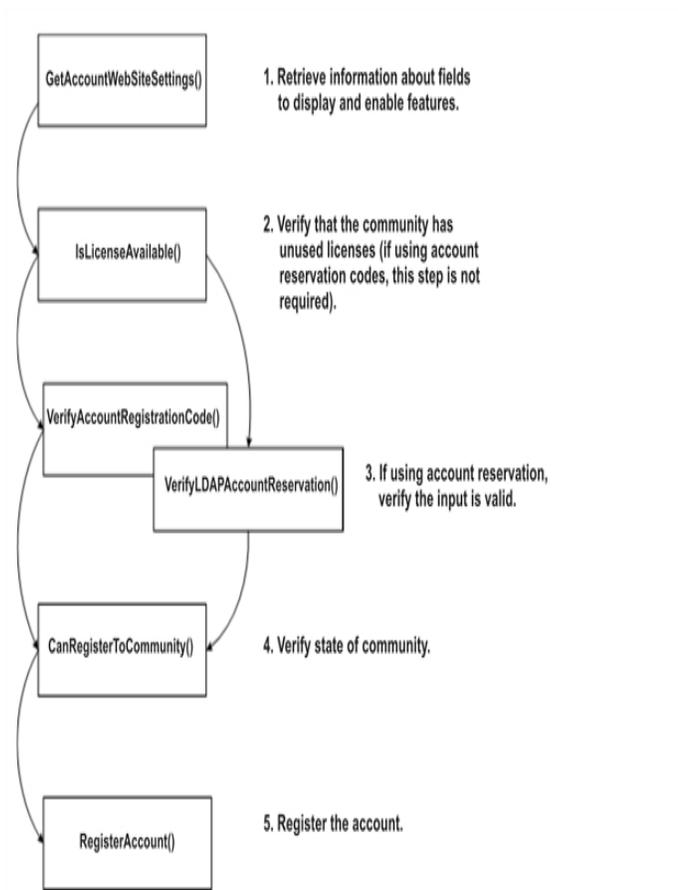
Registration allows users to register an account in a community in the Data Center. After a user registers an account, the user can download the Agent Setup file, install the Agent, and back up files.

You can use the following types of registration:

- **Open registration.** A user with either native or enterprise directory credentials enters their e-mail address and password during registration.
- **SSO registration.** A user with single sign-on (SSO) credentials enters their credentials into the third-party identity provider (IdP) SSO Sign In page that the Account Management WebSite (AMWS) displays. The IdP that authenticates the account returns an OAuth token that AMWS uses to create the account.
- **Native account reservation.** A technician creates one or more account reservation codes in Support Center. The user enters the account reservation code during reservation.
- **Enterprise directory reservation.** If the community where the account is registered is mapped to an enterprise directory, the user enters the enterprise directory user name and password during registration.
- **SSO reservation.** If the community where the account is registered is configured to use single sign-on, the user enters their SSO account credentials. After the IdP authenticates the credentials, the reserved account is associated with the SSO user.

Sequence

The following figure shows a sample design a sequence for registration:



Methods

For information about the methods that you can use to configure registration, see [Registration and download, on the previous page](#)

Registration code example

Description

The following example shows how you can use the Account Management Web Service API to allow a user to register a new account. This example shows how to create the datatypes that contain the registration information that a user supplies, and how to use the `RegisterAccount` method to register the account.

Code example

```
import java.net.URL;  
  
import javax.xml.rpc.ServiceException;
```

```
import org.apache.axis.AxisFault;

import com.ironmountain.sswsapi.SSWSAPIServiceLocator;
import com.ironmountain.sswsapi.SSWSAPIServiceSoap_PortType;
import com.ironmountain.sswsapi.SSWSAddressInfo;
import com.ironmountain.sswsapi.SSWSContactInfo;
import com.ironmountain.sswsapi.SSWSNameInfo;
import com.ironmountain.sswsapi.SSWSProfileInfo;

public class RegisterAccountSSWSAPI {

    /**
     * Get the SOAP Service stub from the given URL.
     *
     * Notice that we need to maintain the session and the combination of Apache
     * Axis with a Web Service hosted by IIS as an ATL Web Service, requires
     * that the "sendMultiRefs" flag be sent as false.
     *
     * @param sswsapiUrl
     *         URL to connect to
     * @return Implementation of SOAP Service stub
     * @throws ServiceException
     */
    private static SSWSAPIServiceSoap_PortType getSoapService(final URL sswsapiUrl)
throws ServiceException {
        SSWSAPIServiceLocator locator = new SSWSAPIServiceLocator();
        locator.setMaintainSession(true);
        locator.getEngine().setOption("sendMultiRefs", Boolean.FALSE);
        final SSWSAPIServiceSoap_PortType soapService = locator.getSSWSAPIServiceSoap
(sswsapiUrl);
        return soapService;
    }

    /**
     * We have gotten an SOAP exception returned from AXIS. Extract the SSWS
     * return code from the exception if possible.
     *
     * @param e -
     *         AxisFault
     * @return - SSWS API error code
     */
    private static int getApiReturnCode(AxisFault e) throws AxisFault {
        int soapErrorCode = -1;
        // Retrieve the error code if available
        if (e.getFaultDetails().length == 1) {
            String soapErrorDetailText = e.getFaultDetails()[0].getFirstChild()
.getNodeValue();
            System.out.println("SSWS API Error Code: " + soapErrorDetailText + "
returned.");
            soapErrorCode = Integer.parseInt(soapErrorDetailText);
        } else {
            System.out.println("Unexpected error format. Incorrect number of
```

```
fields in the SOAP Fault"
    + " <detail> tag means it is not a valid SSWSAPI return code.");

    // Rethrow because we don't know what to do with the exception.
    throw e;
}

// Retrieve additional info. (NOTE: this is not translated, so
// should be used for debugging only)
String faultReasonText = e.getFaultReason();
if (faultReasonText != null) {
    System.out.println("Additional info returned: " + faultReasonText);
}

return soapErrorCode;
}

/**
 * New account registration example.
 *
 * @param args - [url] [communityID] [configID] [emailAddress] [password]
 */
public static void main(String[] args) {
    try {
        final URL sswsapiUrl;
        final int communityID;
        final int configID;
        final String emailAddress;
        final String password;

        // 1. Read in command line arguments
        if (args.length == 0) {
            System.out.println("Attempting to register with default
information");

            sswsapiUrl = new URL
("http://localhost:80/sswsapi/sswsapi.dll?Handler=Default");
            communityID = 1;
            configID = 5;
            emailAddress = "bogusEmail";
            password = "youllNeverGuessMe";
        } else if (args.length == 5) {
            sswsapiUrl = new URL(args[0]);
            communityID = Integer.parseInt(args[1]);
            configID = Integer.parseInt(args[2]);
            emailAddress = args[3];
            password = args[4];
        } else {
            sswsapiUrl = null;
            communityID = 1;
            configID = 5;
            emailAddress = null;
            password = null;
            System.out.println("Usage: RegisterAccountSSWSAPI [url]
```

```
[communityID] [configID] [emailAddress] [password]");
        System.exit(2);
    }

    // 2. Instantiate a SOAP service stub using Apache Axis.
    final SSWSAPIServiceSoap_PortType soapService =
getSoapService(sswsapiUrl);

    // 3. Construct example registration information
    final SSWSAddressInfo addressInfo = new SSWSAddressInfo("address1", "address2",
"address3", "city", "state", "zip", "country");

    final SSWSContactInfo contactInfo = new SSWSContactInfo("telephone", "extension",
emailAddress, "location", "mailStop", addressInfo);

    final SSWSNameInfo nameInfo = new SSWSNameInfo("firstName", "middleName",
"lastName");

    final SSWSProfileInfo profileInfo = new SSWSProfileInfo("companyName",
"department",
"costCenter", "employeeID", contactInfo, "customFieldValue", nameInfo);

    // 4. Register an account with this registration info
    int soapErrorCode = 0;
    int accountNumber = -1;
    try {
        System.out.println("Registering account");
        accountNumber = soapService.registerAccount(communityID,
configID,
emailAddress, /* Username */
password,
profileInfo);
    } catch (AxisFault e) {
        soapErrorCode = getApiReturnCode(e);
    }

    // 5. Check return code to ensure nothing bad happened
    if (soapErrorCode != 0 /* SUCCESS */) {
        System.out.println("Registration has failed.");
        System.exit(0);
    }

    System.out.println("Registration has succeeded. Account " +
accountNumber + " has been created.");
    System.exit(0);
    } catch (Exception e) {
        e.printStackTrace(System.out);
        System.exit(1);
    }
}
}
```

Download operation

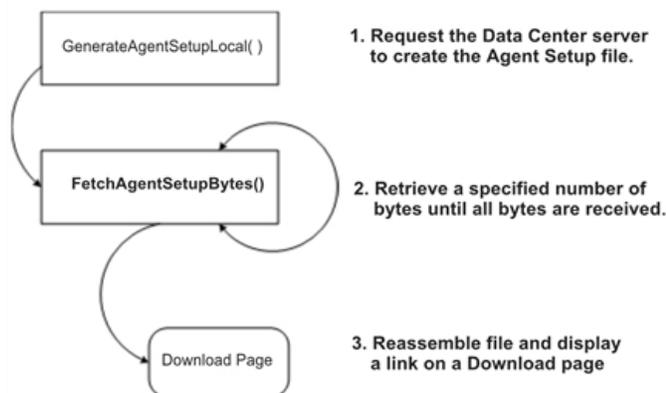
Description

The download operations enable your application to request a customized Agent Setup file for the registered account. The Agent Setup file includes an account number and the community ID.

To control the performance of the download, you can call the `FetchAgentSetupBytes` method multiple times and then reassemble the file after you download the bytes.

Sequence

The following figure shows an example of the sequence that you can use to download the Agent Setup file:



Methods

For information about the methods that you can use to configure download operations, see [Registration and download, on page 32](#).

Download code example

Description

The following example shows how you can use the Account Management Web Service API to allow a user to sign in to the Account Management Service and download an Agent Setup file for an account recovery.

This example shows how to create a `SSWSTicket` data type, use the `GenerateSetup` method to generate an Agent Setup file, and use the `FetchAgentSetupBytes` method to download the file.

Code example

```
import java.io.BufferedOutputStream;
import java.io.File;
import java.io.FileOutputStream;
import java.io.IOException;
import java.net.URL;

import javax.xml.rpc.ServiceException;

import org.apache.axis.AxisFault;

import com.ironmountain.sswsapi.AgentDownloadInfo;
import com.ironmountain.sswsapi.SSWSAPIServiceLocator;
import com.ironmountain.sswsapi.SSWSAPIServiceSoap_PortType;
import com.ironmountain.sswsapi.SSWSTicket;

/**
 * Example sign in to the Account Management WebSite and download an Agent Setup file
 */

public final class AgentDownloadSSWSAPI {

    /**
     * Get the SOAP Service stub from the given URL.
     *
     * Notice that we need to maintain the session and the combination of Apache
     * Axis with a Web Service hosted by IIS as an ATL Web Service, requires
     * that the "sendMultiRefs" flag be sent as false.
     *
     * @param sswsapiUrl
     *         URL to connect to
     * @return Implementation of SOAP Service stub
     * @throws ServiceException
     */
    private static SSWSAPIServiceSoap_PortType getSoapService(final URL sswsapiUrl) throws
        ServiceException {
        SSWSAPIServiceLocator locator = new SSWSAPIServiceLocator();
        locator.setMaintainSession(true);
        locator.getEngine().setOption("sendMultiRefs", Boolean.FALSE);
        final SSWSAPIServiceSoap_PortType soapService = locator.getSSWSAPIServiceSoap(sswsapiUrl);
        return soapService;
    }

    /**
     * We have gotten an SOAP exception returned from AXIS. Extract the SSWS
     * return code from the exception if possible.
     *
     * @param e -
     *         AxisFault
     * @return - SSWS API error code
     */
}
```

```
private static int getApiReturnCode(AxisFault e) throws AxisFault {
    int soapErrorCode = -1;
    // Retrieve the error code if available
    if (e.getFaultDetails().length == 1) {
        String soapErrorDetailText = e.getFaultDetails()[0].getFirstChild()
        .getNodeValue();
        System.out.println("SSWS API Error Code: " + soapErrorDetailText + " returned.");
        soapErrorCode = Integer.parseInt(soapErrorDetailText);
    } else {
        System.out.println("Unexpected error format. Incorrect number of
fields in the SOAP Fault" + " <detail> tag means it is not a valid SSWSAPI return code.");
        // Rethrow because we don't know what to do with the exception.
        throw e;
    }

    // Retrieve additional info. (NOTE: this is not translated, so
// should be used for debugging only)
    String faultReasonText = e.getFaultReason();
    if (faultReasonText != null) {
        System.out.println("Additional info returned: " + faultReasonText);
    }

    return soapErrorCode;
}

/**
 * @param args
 */
public static void main(String[] args) {
    try {
        final URL sswsapiUrl;
        final int communityID;
        final String password;
        final String accountNumber;
        final String outputDirectory;

        // 1. Read in command line arguments

        if (args.length == 0) {
            System.out.println("Attempting to sign in with bad account
information");

            sswsapiUrl = new URL("http://localhost:80/sswsapi/sswsapi.dll?Handler=Default");
            communityID = 1;
            password = "groggie";
            accountNumber = "101000001";
            outputDirectory = "C://Temp/";
        } else if (args.length == 5) {
            sswsapiUrl = new URL(args[0]);
            communityID = Integer.parseInt(args[1]);
            password = args[2];
            accountNumber = args[3];
            outputDirectory = args[4];
        } else {
            sswsapiUrl = null;
        }
    }
}
```

```
        communityID = 1;
        password = null;
        accountNumber = null;
        outputDirectory = null;
        System.out.println("Usage: AgentDownloadSSWSAPI [url]
[communityID] [password] [accountNumber] [msiOutputDir]");
        System.exit(2);
    }

    // 2. Instantiate a SOAP service stub using Apache Axis.

    final SSWSAPIServiceSoap_PortType soapService =
getSoapService(sswsapiUrl);

    // 3. Build a sign in ticket object to store the authentication
information

    SSWSTicket ticket = new SSWSTicket(0, communityID, accountNumber, "", password, 0,
0);

    // 4. Generate the agent setup on the datacenter

    AgentDownloadInfo downloadInfo = null;
    int soapErrorCode = 0;
    try {
        System.out.println("Generating agent setup");
        downloadInfo = soapService.generateAgentSetup(ticket, false);
    } catch (AxisFault e) {
        soapErrorCode = getApiReturnCode(e);
    }

    if (soapErrorCode == 3 /* INVALID_LOGIN */) {
        System.out.println("Invalid sign in information was supplied.");
        System.exit(0);
    }

    // 5. Transfer the agent setup to the SOAP server

    final long size = downloadInfo.getSize().longValue();
    int start = 0;
    try {
        final File fObj = new File(outputDirectory + "tmp.msi");
        if (!fObj.exists()) {
            fObj.createNewFile();
        }
        BufferedOutputStream f = new BufferedOutputStream(
new FileOutputStream(outputDirectory + "tmp.msi"));
        int count = 1024 * 1024;
        while (start < size) {
            final int start1 = start;
            final int count1 = count;
            try {
                byte fileBuffer[] = soapService.
```

```
fetchAgentSetupBytes(ticket, downloadInfo,
                    start1, count1);
Integer.toString(fileBuffer.length)
Integer.toString(start));
                    System.out.println("Fetched " +
                    + " bytes starting from " +
                    f.write(fileBuffer);
                } catch (AxisFault e) {
                    soapErrorCode = getApiReturnCode(e);
                }
                start += count;
            }
            f.flush();
            f.close();
            System.out.println("Agent download retrieve complete: "
+ fObj.toString());
        } catch (IOException e) {
            System.out.println("RegistrationCompletePage::getSetupBuffer:
Failed to write fetched bytes to the setup file. " + e.getMessage());
        }
    } catch (Exception e) {
        e.printStackTrace(System.out);
        System.exit(1);
    }
}
```

Recommendations

Recommended content

When you design your registration and download pages, consider the following recommendations:

- Include the fields that you want a new user to complete before the user is able to download an account. You can get the Website Settings from Support Center (using the `GetAccountWebSiteSettings` method) to determine which standard fields to display and their state (read-only, editable, or required), or you can create your own profile fields. For an example of a Registration page, see [Sample Registration page, on the next page](#).
- After registration is complete, display a Confirmation page with the account information. This helps users know the state of the registration and whether they are ready to go to the next step in the process. For an example of a Registration Confirmation page, see [Sample Registration Confirmation page, on the next page](#).
- After registration is complete, your application must contact the Data Center with a request to generate an Agent Setup file for the registered user. Use the `GenerateAgentSetupLocal` method. While the file generation is in progress, display a progress page so that the user is aware that work is in progress.
- Include a procedure that describes how to download the Agent Setup file. Design these instructions for your target audience. For example, a less-experienced audience needs more detailed instructions

than a more technical or experienced audience. For an example of a Download page, see [Sample Download page, on the next page.](#)

Sample Registration page

The following illustration shows an example of a registration page:

The screenshot shows a web form for account registration. At the top, there is a blue header with 'Account Management' and 'SUPPORT | HELP'. Below this is a yellow navigation bar with '1. REGISTER' and '2. DOWNLOAD and INSTALL'. The main title is 'Registration - Enter Registration Information'. The form is divided into sections: 'Name' with fields for first, middle, and last name; 'Sign-In Information' with fields for email address, password, and confirm password, accompanied by two warning icons and messages; and 'Contact Information' with fields for company, country (dropdown), address lines 1-3, city, state (dropdown), zip code, and phone number. At the bottom, there are 'Continue' and 'Cancel' buttons, and a copyright notice: '© Copyright 1996 - 2018 Micro Focus or one of its affiliates.'

Sample Registration Confirmation page

The following illustration shows an example of a registration confirmation page.

The screenshot shows a web page titled "Account Management" with a navigation bar containing "SUPPORT" and "HELP". Below the navigation bar is a breadcrumb trail: "1. REGISTER" and "2. DOWNLOAD and INSTALL". The main heading is "Registration Complete". The text below reads: "Your backup account is registered. You can download the Agent software and install it on your computer now." A section titled "Backup Account Information" contains the following details: Account number: 10101-34554, Name: Miranda Johnson, and Email address: mjohnson@mycompany.com. Below this information is a link to "Print this information for your records." At the bottom of the section are two buttons: "Print" and "Download Software".

Sample Download page

The following illustration shows an example of a download page.

The screenshot shows a web page titled "Account Management" with a navigation bar containing "SUPPORT" and "HELP". Below the navigation bar is a breadcrumb trail: "1. REGISTER" and "2. DOWNLOAD and INSTALL". The main heading is "Download Instructions". A section titled "Downloading with Internet Explorer" contains the following text: "If you are using Internet Explorer, do the following to download and install the Agent:" followed by a list of three steps: 1. To start the download, click **Begin Download**. 2. Click **Save** in the File Download box to save the Agent Installer to your Desktop. 3. When the download completes, click **Open** in the Download Complete dialog to run the installer. A second section titled "Downloading with Other Browsers" contains the text: "If you are using any browser other than Internet Explorer, save the Agent Installer to an easy-to-find location, such as your Desktop. Double-click the file to start the installation." At the bottom of the page is a button labeled "Begin Download".

Chapter 7: Account management

This chapter contains recommendations for account management operations.

- [Order media operation, below](#)
- [Display operations, on page 49](#)
- [Change setting operations, on page 52](#)

Order media operation

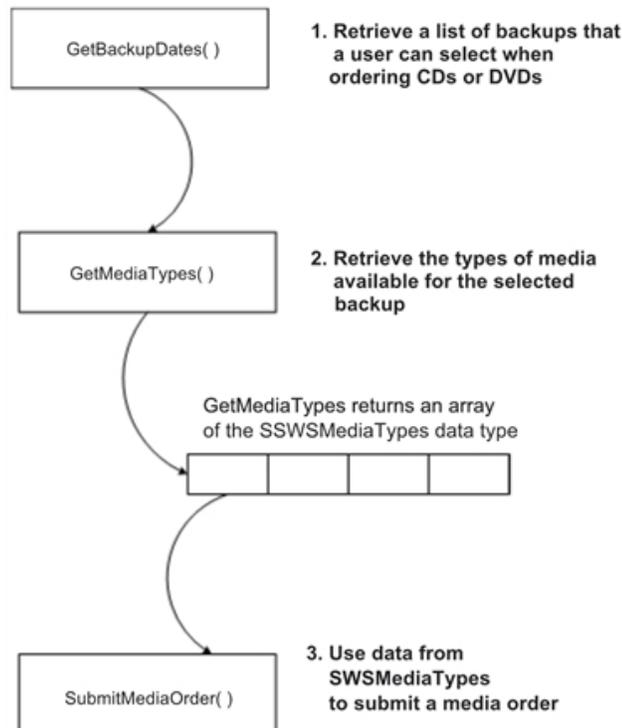
Description

To order media for a selected backup, you need a sequence that requires communication with the Data Center server.

After your application submits an order, the Data Center sends these requests to the Data Bundler application. After the DataBundler application creates the image, you can burn it to a CD or DVD. Users can access the Agent user interface on the media and retrieve the files in the backup image.

Sequence

The following figure shows a sequence that you can use to order media for a backup account image:



Methods

For information about the methods that you can use to order media, see [Management operations, on page 102](#).

Code example

The following code example shows how to use the `GetAccounts`, `GetBackupDates`, `GetMediaTypes`, and `SubmitMediaOrder` methods to order a specific set of backed-up files on CDs.

```
import java.net.URL;

import javax.xml.rpc.ServiceException;

import org.apache.axis.AxisFault;

import com.ironmountain.sswsapi.SSWSAPIServiceLocator;
import com.ironmountain.sswsapi.SSWSAPIServiceSoap_PortType;
import com.ironmountain.sswsapi.SSWSAccountInfo;
import com.ironmountain.sswsapi.SSWSBackupDateInfo;
import com.ironmountain.sswsapi.SSWSMediaType;
import com.ironmountain.sswsapi.SSWSTicket;

/**
 * Example sign in to the Account Management WebSite
 */

public final class OrderMediaSSWSAPI {

    /**
     * Get the SOAP Service stub from the given URL.
     *
     * Notice that we need to maintain the session and the combination of Apache
     * Axis with a Web Service hosted by IIS as an ATL Web Service, requires
     * that the "sendMultiRefs" flag be sent as false.
     *
     * @param sswsapiUrl URL to connect to
     * @return Implementation of SOAP Service stub
     * @throws ServiceException
     */
    private static SSWSAPIServiceSoap_PortType getSoapService(final URL sswsapiUrl) throws
    ServiceException {
        SSWSAPIServiceLocator locator = new SSWSAPIServiceLocator();
        locator.setMaintainSession(true);
        locator.getEngine().setOption("sendMultiRefs", Boolean.FALSE);
        final SSWSAPIServiceSoap_PortType soapService = locator.getSSWSAPIServiceSoap(sswsapiUrl);
        return soapService;
    }

    /**
     * We have gotten an SOAP exception returned from AXIS. Extract the SSWS
     * return code from the exception if possible.
     */
}
```

```
* @param e - AxisFault
* @return - SSWS API error code
*/
private static int getApiReturnCode(AxisFault e) throws AxisFault {
    int soapErrorCode = -1;
    // Retrieve the error code if available
    if (e.getFaultDetails().length == 1) {
        String soapErrorDetailText = e.getFaultDetails()[0].getFirstChild().getNodeValue();
        System.out.println("SSWS API Error Code: " + soapErrorDetailText + " returned.");
        soapErrorCode = Integer.parseInt(soapErrorDetailText);
    } else {
        System.out.println("Unexpected error format. Incorrect number of fields in the SOAP Fault"
            + " <detail> tag means it is not a valid SSWSAPI return code.");
        // Rethrow because we don't know what to do with the exception.
        throw e;
    }

    // Retrieve additional info. (NOTE: this is not translated, so
    // should be used for debugging only)
    String faultReasonText = e.getFaultReason();
    if (faultReasonText != null) {
        System.out.println("Additional info returned: " + faultReasonText);
    }

    return soapErrorCode;
}

/**
 * Entry point for OrderMediaSSWSAPI example
 * @param args - [url] [communityID] [emailAddress] [password]
 */
public static void main(String[] args) {
    try {
        final URL sswsapiUrl;
        final int communityID;
        final String emailAddress;
        final String password;
        final String shippingLabel = "My Company\n555 Somewhere St\nCity, State
PostalCode";

        // 1. Read in command line arguments

        if (args.length == 0) {
            System.out.println("Attempting to sign in with bad account information");
            sswsapiUrl = new URL
("http://localhost:80/sswsapi/sswsapi.dll?Handler=Default");
            communityID = 1;
            emailAddress = "bogusEmail";
            password = "arbitraryPassword";
        } else if (args.length == 4) {
            sswsapiUrl = new URL(args[0]);
            communityID = Integer.parseInt(args[1]);
        }
    }
}
```

```
        emailAddress = args[2];
        password = args[3];
    } else {
        sswsapiUrl = null;
        communityID = 1;
        emailAddress = null;
        password = null;
        System.out.println
("Usage: LoginSSWSAPI [url] [communityID] [emailAddress] [password]");
        System.exit(2);
    }

    // 2. Instantiate a SOAP service stub using Apache Axis.

    final SSWSAPIServiceSoap_PortType soapService = getSoapService(sswsapiUrl);

    // 3. Get the list of accounts which match the email / password
    // combination, and the root community. This is expected to fail.

    int soapErrorCode = 0;
    SSWSAccountInfo[] accountInfoArray = null;
    try {
        System.out.println("Retrieving all accounts for email address: " +
            emailAddress);
        accountInfoArray = soapService.getAccounts(communityID, emailAddress,
            password);

    } catch (AxisFault e) {
        soapErrorCode = getApiReturnCode(e);
    }

    if (soapErrorCode == 3 /* INVALID_LOGIN */) {
        System.out.println("An invalid sign in attempt has been made.");
        System.exit(0);
    }

    System.out.println(accountInfoArray.length + " accounts returned.");

    if (accountInfoArray.length > 0) {

        // 4. Try to get backup dates for the first account returned.

        String accountNumber = accountInfoArray[0].getAccountNumber();
        System.out.println("Trying to get backup dates for account: " + accountNumber);
        SSWSTicket ticket = new SSWSTicket(0 /* Customer authentication type */,
            communityID,
            accountNumber,
            "" /* Leave technician ID field null for user authentication. */,
            password,
            0 /* field only valid for technician password hashes */,
            0 /* field only valid for technician password hashes */
        );
    }
}
```

```
        SSWSBackupDateInfo[] backupDates = null;
        try {
            backupDates = soapService.getBackupDates(ticket);
        } catch (AxisFault e) {
            soapErrorCode = getApiReturnCode(e);
        }

        if (soapErrorCode == 8 /* NO_DATA */) {
            System.out.println("No backup dates for account: " + accountNumber);
            System.exit(0);
        } else if (soapErrorCode != 0 /* SUCCESS */) {
            System.out.println("Failure to get backup dates for account: " + accountNumber);
            System.exit(0);
        }

        System.out.println(backupDates.length + " dates returned.");

// 5. Get the available media types we can order

        SSWSMediaType[] mediaTypes = null;
        try {
            mediaTypes = soapService.getMediaTypes(ticket,
                backupDates[0].getTBackupTimeInMSec());
        } catch (AxisFault e) {
            soapErrorCode = getApiReturnCode(e);
        }

// 6. Try to order media from the first backup date

        try {
            soapService.submitMediaOrder(ticket,
                mediaTypes[0].getIMediaId(),
                shippingLabel,
                1, /* Use fixed shipping priority */
                password,
                backupDates[0].getTBackupTimeInMSec());
        } catch (AxisFault e) {
            soapErrorCode = getApiReturnCode(e);
        }

        if (soapErrorCode != 0 /* SUCCESS */) {
            System.out.println("Failure to submit media order.");
            System.exit(0);
        }

        System.out.println("Media order submitted.");
    }

    System.exit(0);
} catch (Exception e) {
    e.printStackTrace(System.out);
    System.exit(1);
}
}
```

}

Sample Application pages

The following illustration shows an example of the pages in an Order Media wizard that uses the Account Management Web Service API:

Order CDs and DVDs

Order a CD or DVD set that contains a copy of each file in your backup set as of a selected backup date. The status of a backup is indicated in the following list.

If you select a backup date configured for full backup, you will receive a DVD set. If you select a backup date configured for incremental backup, you will receive a CD set.

Order CDs and DVDs

* Indicates required fields.

Step 1: Choose Backup Date

Available backup dates:

- Wed, 2/20/13, 8:00
- Tue, 2/19/13, 8:00
- Fri, 2/15/13, 8:00
- Wed, 2/13/13, 8:00
- Tue, 2/12/13, 8:00
- Mon, 2/11/13, 8:00
- Sun, 2/10/13, 5:00
- Fri, 2/8/13, 8:12
- Thu, 2/7/13, 8:12
- Wed, 2/6/13, 8:00

Hide incomplete backup dates

Step 2: Choose Media Type

DVD (Estimated number of discs in order:1)

CD (Estimated number of discs in order:3)

NOTE: The Media creation process can produce a number of discs that differs from the displayed estimate. The number of discs in the shipped media order is the correct number of discs for the order.

Step 3: Set Media Password

Save this password in a secure location. After you click **Submit Order**, you cannot recover the password.

* Media Password:

* Confirm Media Password:

Step 4: Provide a Shipping Label

* Shipping Label

Ship to this address:

Miranda Johnson
123 Main Street
Anytown, MA 01234

Ship to new address:

Full Name:

Address Line 1:

Address Line 2:

Next > Cancel

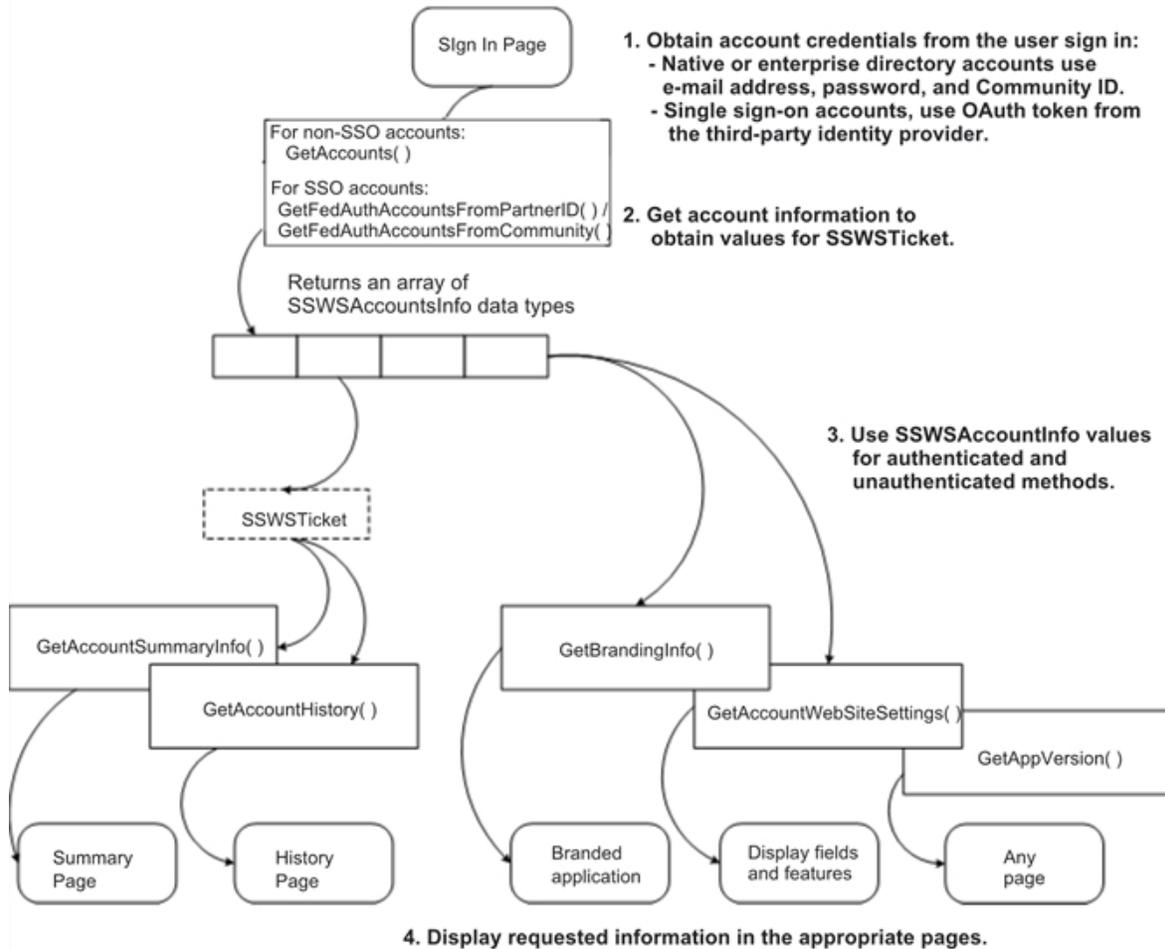
Display operations

Description

You can use the Account Management Web Service API to change the appearance of your application, to change the fields and features in your application, or to display specific types of status and history information.

Sequence

The following figure shows an example of how to use the Account Management Web Service API to change the appearance of your application.



Methods

For information about the methods that you can use to display information in your application, see [Display operations, on page 107](#).

Code example

The following example shows how to use the `GetAppVersion` method to connect to a Data Center server and obtain the software version of the installed software. This example shows how to perform the following tasks:

Determine the URL to use to connect to the Data Center server.

Instantiate a SOAP service stub using Apache Axis.

Call a display method to display the version of the software installed on the Data Center server.

```
import com.ironmountain.sswsapi.SWSAPIServiceLocator;
import com.ironmountain.sswsapi.SWSAPIServiceSoap_PortType;
import java.net.URL;

import javax.xml.rpc.ServiceException;

/**
 * Connect to SWSAPI service and report the service version.
 *
 * We presume Apache Axis has been used to generate a stub for the
 * sswsapi.wsdl file supplied with the Data Center. In this case,
 * the package of the generated files is com.ironmountain.sswsapi.
 *
 * This example calls the getAppVersion() call which returns the
 * API service version string.
 */

public final class PingSWSAPI {

    /**
     * Get the SOAP Service stub from the given URL.
     *
     * Notice that we need to maintain the session and the combination of Apache
     * Axis with a Web Service hosted by IIS as an ATL Web Service, requires that
     * the "sendMultiRefs" flag be sent as false.
     *
     * @param sswsapiUrl URL to connect to
     * @return Implementation of SOAP Service stub
     * @throws ServiceException
     */
    private static SWSAPIServiceSoap_PortType getSoapService(final URL sswsapiUrl) throws
    ServiceException {
        SWSAPIServiceLocator locator = new SWSAPIServiceLocator();
        locator.setMaintainSession(true);
        locator.getEngine().setOption("sendMultiRefs", Boolean.FALSE);
        final SWSAPIServiceSoap_PortType soapService = locator.getSWSAPIServiceSoap(sswsapiUrl);
        return soapService;
    }

    /**
     * Talk to the SWS SOAP Service and print out the version.
     *
     * @param args URL to connect to
     */
    public static void main(final String[] args) {
        try {

            // 1. Determine the URL to connect to. By default connect to the localhost
            // service implementation.

            final URL sswsapiUrl;
            if (args.length == 0) {
```

```
        sswsapiUrl = new URL
("http://localhost:80/sswsapi/sswsapi.dll?Handler=Default");
    } else if (args.length == 1) {
        sswsapiUrl = new URL(args[0]);
    } else {
        sswsapiUrl = null;
        System.out.println("Usage: PingSSWSAPI [url]");
        System.exit(2);
    }

    // 2. Instantiate a SOAP service stub using Apache Axis.

    System.out.println("Connecting to SSWSAPI: " + sswsapiUrl);
    final SSWSAPIServiceSoap_PortType soapService =
getSoapService(sswsapiUrl);

    // 3. Call a method on the remote service. In this simple case we show
    // the current version string for the service.

    System.out.println("SSWSAPI Service Version " +
soapService.getAppVersion());
    System.exit(0);
} catch (Exception e) {
    e.printStackTrace(System.out);
    System.exit(1);
}
}
}
```

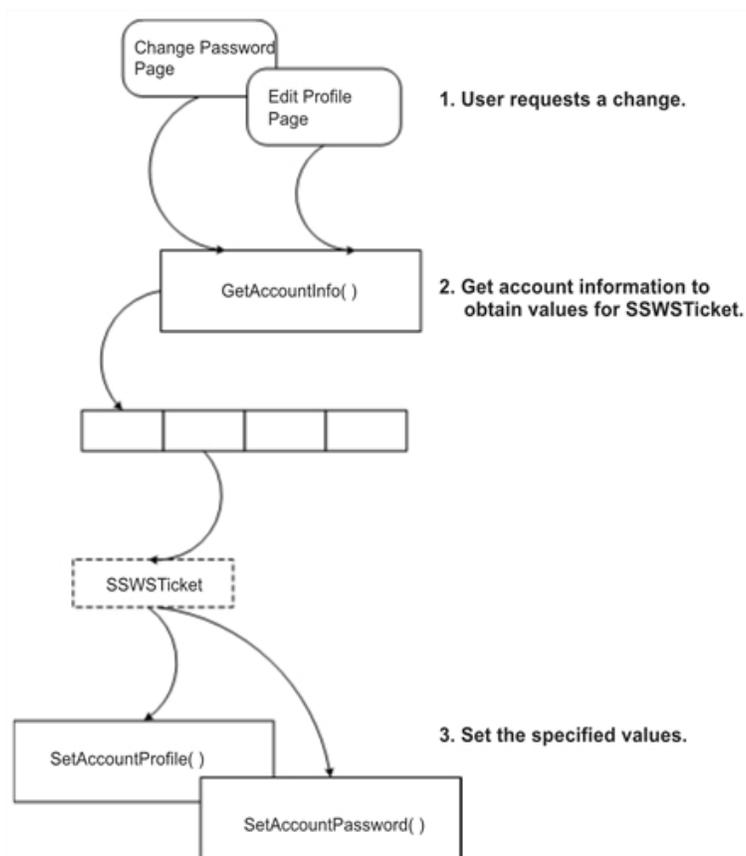
Change setting operations

Description

You can use the Account Management Web Service API to change the values stored in a user's profile and to reset the user's password.

Sequence

The following figure shows an example of how to use Account Management Web Service methods to change passwords and profile settings:



Methods

For information about the methods that you can use to change the settings that are stored in your application, see [Management operations, on page 102](#).

Code example

The following example shows how to use `setAccountProfile` and `setAccountPassword` to change the values in a user's profile:

```
SSWSAccountInfo accountInfo = service.getAccountInfo(ticket);  
SSWSProfileInfo profileInfo = accountInfo.getProfileInfo();  
profileInfo.setDepartment("Finance");  
profileInfo.setCostCenter("Finance-Cost-Center");  
profileInfo.getContactInfo().setTelephone("555-5555");  
service.setAccountProfile(ticket, profileInfo);  
service.setAccountPassword(ticket, "paSSw0rd");
```

Chapter 8: Retrieval

This chapter contains recommendations for the retrieval operations.

- [Retrieve operation, below](#)

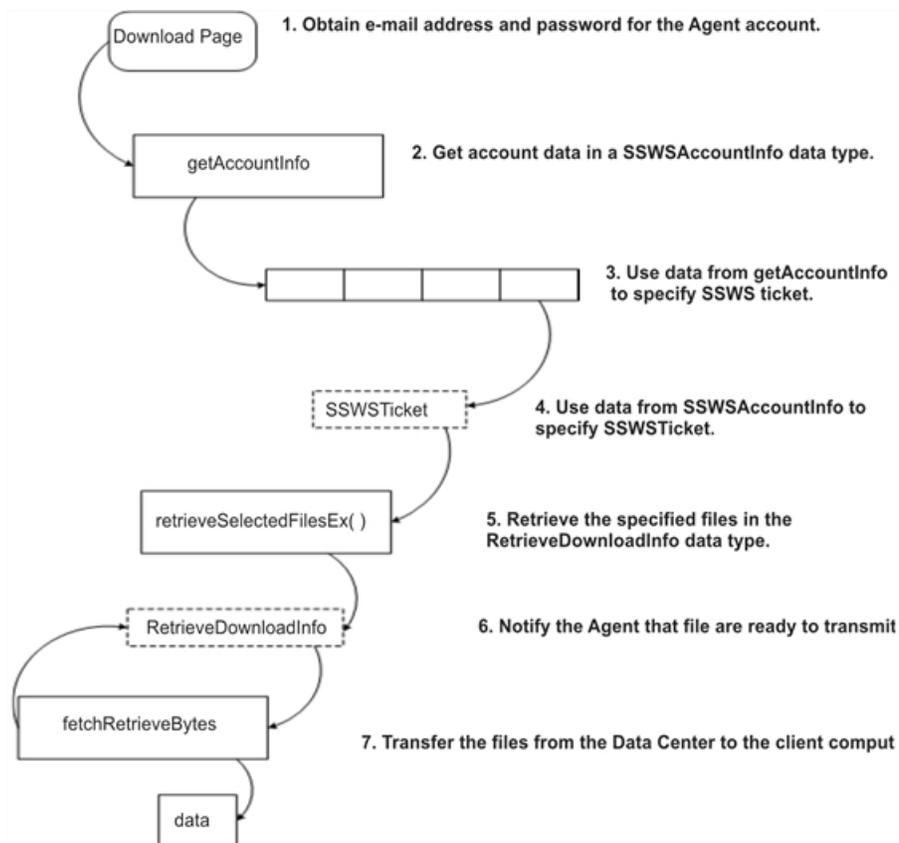
Retrieve operation

Description

Retrieval allows users to retrieve files that the Agent has backed up to the Data Center.

Sequence

The following figure is example of the sequence to retrieve backed up files from the Data Center.



Methods

For information about methods that you can use to retrieve backed up files from the Data Center, see [Retrieve operations, on page 114](#).

Code example

This example uses the `retrieveSelectedFileEx` and the `fetchRetrieveBytes` methods to retrieve backed up files from the Data Center.

```
RetrieveDownloadInfo downloadInfo = (RetrieveDownloadInfo)
service.retrieveSelectedFilesEx(ticket,
fileRevisionsToRetrieve,
new
org.apache.axis.types.UnsignedInt(downloadType),
getLocale());

// setup the file where the downloaded data will be written

BufferedOutputStream f = new BufferedOutputStream(
new FileOutputStream(destinationFileName));
long size = downloadInfo.getSize().longValue();
int start = 0;
final int count = 1024 * 1024;

// read the data in chunks

while (start < size) {
byte[] buffer = service.fetchRetrieveBytes(ticket,downloadInfo, start, count);
f.write(buffer);
start += count;
}f.flush();
f.close();
```

Data types and errors

This chapter describes the data types that the Account Management Web Services API uses.

- [Overview](#), on the next page
- [AccountProfileField](#), on the next page
- [AccountWebSiteSettings](#), on page 58
- [AccountWebSiteSettings2](#), on page 60
- [AccountWebsiteSettings3](#), on page 63
- [AgentDownloadInfo](#), on page 66
- [RegistrationInfo](#), on page 66
- [RetrieveDownloadInfo](#), on page 67
- [RetrieveFileInfo](#), on page 67
- [RetrieveInfo](#), on page 67
- [RetrieveInfo2](#), on page 68
- [SSWSAccountHistory](#), on page 68
- [SSWSAccountInfo](#), on page 69
- [SSWSAccountSummaryInfo](#), on page 71
- [SSWSAddressInfo](#), on page 71
- [SSWSBackupDateInfo](#), on page 72
- [SSWSBackupDateInfoWithoutSizes](#), on page 72
- [SSWSBrandingInfo](#), on page 73
- [SSWSBrandingInfo2](#), on page 74
- [SSWSContactInfo](#), on page 74
- [SSWSFileRevision](#), on page 75
- [SSWSFileRevision2](#), on page 75
- [SSWSFileRevision3](#), on page 76
- [SSWSMediaType](#), on page 77
- [SSWSNameInfo](#), on page 78
- [SSWSProfileInfo](#), on page 78
- [SSWSTicket](#), on page 79
- [Returned errors](#), on page 80

Overview

About the data types

The types element in the Web Services Description Language (WSDL) file encloses data type definitions that the Account Management Web Services API methods use to exchange messages.

All of the data types in the Account Management Web Services API are complexTypes.

About error codes and events

For a description of the errors that the methods in the Account Management Web Services API can return, see [Returned errors, on page 80](#).

Additionally, you can view errors in the system event log on the server where you installed the standard Account Management Website. You must install the standard Website to be able to access the Account Management Web Services API.

AccountProfileField

Description

This complexType contains the attributes of the fields in the profile. This data type specifies the length, default value, and attributes (whether the field is visible, editable, or required) for each value stored in the profile. These values determine how fields are displayed in an Account Management application.

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|--------------|--|-------------|
| fieldName | The name of the field in the profile. | wsdl_string |
| defaultValue | The default value to display for the field. | wsdl_string |
| fieldLength | The length of the field. | wsdl_int |
| visible | Whether the field is visible to users. | wsdl_bool |
| editable | Whether users can edit the default values. | wsdl_bool |
| required | Whether users are required to supply a value for this field. | wsdl_bool |

AccountWebSiteSettings

Description

This data type contains the settings that apply to the Account Management Website Profile page for the Agent configuration.

For more recent versions of this data type, see [AccountWebSiteSettings2](#), on page 60 and [AccountWebsiteSettings3](#), on page 63.

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|------------------|--|---|
| firstName | The first name of the user associated with the account. | AccountProfileField, on the previous page |
| middleName | The middle name of the user associated with the account. | AccountProfileField, on the previous page |
| lastName | The last name of the user associated with the account. | AccountProfileField, on the previous page |
| email | The e-mail address associated with the account. Typically, users need an e-mail address to sign in to the Account Management Website | AccountProfileField, on the previous page |
| country | The country portion of the address associated with the account. | AccountProfileField, on the previous page |
| addressLineOne | The first line of the street address associated with the account. | AccountProfileField, on the previous page |
| addressLineTwo | The second line of the street address associated with the account. | AccountProfileField, on the previous page |
| addressLineThree | The third line of the street address associated with the account. | AccountProfileField, on the previous page |
| city | The city associated with the user's address. | AccountProfileField, on the previous page |
| state | The state associated with the user's address. | AccountProfileField, on the previous page |

| Element | Description | Type |
|---------------------------------|--|---|
| postalCode | The ZIP code or postal code associated with the user's address. | AccountProfileField, on page 57 |
| company | The name of the company associated with the user. | AccountProfileField, on page 57 |
| department | The name of the department associated with the user. | AccountProfileField, on page 57 |
| location | The location of the company associated with the user. | AccountProfileField, on page 57 |
| mailStop | The mail stop address associated with the user. | AccountProfileField, on page 57 |
| costCenter | The cost center identifier associated with the user. | AccountProfileField, on page 57 |
| employeeId | The employee identifier associated with the user. | AccountProfileField, on page 57 |
| phoneNumber | The telephone number associated with the user. | AccountProfileField, on page 57 |
| extension | The telephone extension number associated with the user. | AccountProfileField, on page 57 |
| customFieldLabel | The name of a custom field. | AccountProfileField, on page 57 |
| customField | The value for the custom field. | AccountProfileField, on page 57 |
| supportInfo | The text for the Support contact information. | wsdl_string |
| permitAsianCharacters | Whether to display Asian characters when users enter them in the profile. | wsdl_bool |
| showEula | Whether an End User License Agreement is displayed when users register their accounts. | wsdl_bool |
| promptForAccountReservationCode | Whether the system prompts users to enter an account reservation code when registering their accounts. | wsdl_bool |
| allowUserToOrderMedia | Whether users can order backed-up files on media, such as CDs or DVDs. | wsdl_bool |

| Element | Description | Type |
|--------------------------|---|-----------|
| allowRetrieveUsingMyRoam | Whether the account includes permission to use MyRoam in the Account Management Website to retrieve files using a Web browser. | wsdl_bool |
| allowManageAccountLink | Whether there is a link in the Agent Tools menu to the Account Management application. | wsdl_bool |
| healAllowed | <p>DEPRECATED: The Heal feature has been deprecated.</p> <p>To ensure API methods that use this data type function correctly, set this element to False.</p> | wsdl_bool |

AccountWebSiteSettings2

Description

This data type contains the settings that apply to the Account Management Website Profile page for the Agent configuration.

This data type replaces [AccountWebSiteSettings](#), on page 58. For a more recent version of this data type, see [AccountWebsiteSettings3](#), on page 63.

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|------------|--|--|
| firstName | The first name of the user associated with the account. | AccountProfileField , on page 57 |
| middleName | The middle name of the user associated with the account. | AccountProfileField , on page 57 |
| lastName | The last name of the user associated with the account. | AccountProfileField , on page 57 |
| email | The e-mail address associated with the account. Typically, users need an e-mail address to sign in to the Account Management Website | AccountProfileField , on page 57 |

| Element | Description | Type |
|------------------|--|---|
| country | The country portion of the address associated with the account. | AccountProfileField, on page 57 |
| addressLineOne | The first line of the street address associated with the account. | AccountProfileField, on page 57 |
| addressLineTwo | The second line of the street address associated with the account. | AccountProfileField, on page 57 |
| addressLineThree | The third line of the street address associated with the account. | AccountProfileField, on page 57 |
| city | The city associated with the user's address. | AccountProfileField, on page 57 |
| state | The state associated with the user's address. | AccountProfileField, on page 57 |
| postalCode | The ZIP code or postal code associated with the user's address. | AccountProfileField, on page 57 |
| company | The name of the company associated with the user. | AccountProfileField, on page 57 |
| department | The name of the department associated with the user. | AccountProfileField, on page 57 |
| location | The location of the company associated with the user. | AccountProfileField, on page 57 |
| mailStop | The mail stop address associated with the user. | AccountProfileField, on page 57 |
| costCenter | The cost center identifier associated with the user. | AccountProfileField, on page 57 |
| employeeId | The employee identifier associated with the user. | AccountProfileField, on page 57 |
| phoneNumber | The telephone number associated with the user. | AccountProfileField, on page 57 |
| extension | The telephone extension number associated with the user. | AccountProfileField, on page 57 |
| customFieldLabel | The name of a custom field. | AccountProfileField, on page 57 |
| customField | The value for the custom field. | AccountProfileField, on page 57 |

| Element | Description | Type |
|---------------------------------|---|-------------|
| supportInfo | The text for the Support contact information. | wsdl_string |
| permitAsianCharacters | Whether Asian characters are displayed when users enter them in the profile. | wsdl_bool |
| showEula | Whether an End User License Agreement is displayed when users register their accounts. | wsdl_bool |
| promptForAccountReservationCode | Whether the system prompts users to enter an account reservation code when registering their accounts. | wsdl_bool |
| allowUserToOrderMedia | Whether users can order backed-up files on media, such as CDs or DVDs. | wsdl_bool |
| allowRetrieveUsingMyRoam | Whether the account includes permission to use MyRoam in the Account Management Website to retrieve files using a Web browser. | wsdl_bool |
| allowManageAccountLink | Whether there is a link in the Agent Tools menu to the Account Management application. | wsdl_bool |
| healAllowed | <p>DEPRECATED: The Heal feature has been deprecated.</p> <p>To ensure API methods that use this data type function correctly, set this element to <code>False</code>.</p> | wsdl_bool |
| productCode | <p>The types of products in the configuration. This element has the following values:</p> <ul style="list-style-type: none"> • 0. PC account • 2. Mac account | wsdl_int |
| isLegacy | Whether the configuration contains legacy accounts. Legacy accounts are versions earlier than 8.x. | wsdl_bool |
| agentType | The types of Agents in the | wsdl_int |

| Element | Description | Type |
|---------|--|------|
| | configuration. This element has the following values: <ul style="list-style-type: none">• -1. Invalid• 0. PC or Mac | |

AccountWebsiteSettings3

Description

This data type contains the settings that apply to the Account Management Website Profile page for the Agent configuration.

This data type replaces [AccountWebSiteSettings2, on page 60](#).

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|------------------|--|---|
| firstName | The first name of the user associated with the account. | AccountProfileField, on page 57 |
| middleName | The middle name of the user associated with the account. | AccountProfileField, on page 57 |
| lastName | The last name of the user associated with the account. | AccountProfileField, on page 57 |
| email | The e-mail address associated with the account. Typically, users need an e-mail address to sign in to the Account Management Website | AccountProfileField, on page 57 |
| country | The country portion of the address associated with the account. | AccountProfileField, on page 57 |
| addressLineOne | The first line of the street address associated with the account. | AccountProfileField, on page 57 |
| addressLineTwo | The second line of the street address associated with the account. | AccountProfileField, on page 57 |
| addressLineThree | The third line of the street address associated with the account. | AccountProfileField, on page 57 |

| Element | Description | Type |
|---------------------------------|--|---|
| city | The city associated with the user's address. | AccountProfileField, on page 57 |
| state | The state associated with the user's address. | AccountProfileField, on page 57 |
| postalCode | The ZIP code or postal code associated with the user's address. | AccountProfileField, on page 57 |
| company | The name of the company associated with the user. | AccountProfileField, on page 57 |
| department | The name of the department associated with the user. | AccountProfileField, on page 57 |
| location | The location of the company associated with the user. | AccountProfileField, on page 57 |
| mailStop | The mail stop address associated with the user. | AccountProfileField, on page 57 |
| costCenter | The cost center identifier associated with the user. | AccountProfileField, on page 57 |
| employeeId | The employee identifier associated with the user. | AccountProfileField, on page 57 |
| phoneNumber | The telephone number associated with the user. | AccountProfileField, on page 57 |
| extension | The telephone extension number associated with the user. | AccountProfileField, on page 57 |
| customFieldLabel | The name of a custom field. | AccountProfileField, on page 57 |
| customField | The value for the custom field. | AccountProfileField, on page 57 |
| supportInfo | The text for the Support contact information. | wSDL_string |
| permitAsianCharacters | Whether to display Asian characters when users enter them in the profile. | wSDL_bool |
| showEula | Displays an End User License Agreement when users register their accounts. | wSDL_bool |
| promptForAccountReservationCode | Prompts users to enter an account reservation code when registering | wSDL_bool |

| Element | Description | Type |
|--------------------------|---|-----------|
| | their accounts. | |
| allowUserToOrderMedia | Allows users to order backed-up files on media, such as CDs or DVDs. | wsdl_bool |
| allowRetrieveUsingMyRoam | Allows users to use the MyRoam in the Account Management Website to retrieve files using a Web browser. | wsdl_bool |
| allowManageAccountLink | Displays a link to your Account Management application in the Agent Tools menu. | wsdl_bool |
| healAllowed | <p>DEPRECATED: The Heal feature has been deprecated.</p> <p>To ensure API methods that use this data type function correctly, set this element to <code>False</code>.</p> | wsdl_bool |
| productCode | <p>The types of products in the configuration. This element has the following values:</p> <ul style="list-style-type: none"> • 0. PC account • 2. Mac account | wsdl_int |
| isLegacy | Indicates whether the configuration includes legacy Agents. Legacy Agents are version 7.x and earlier. | wsdl_bool |
| agentType | <p>Uses the following values to indicate the types of Agents in the configuration:</p> <ul style="list-style-type: none"> • -1. Invalid • 0. PC or Mac | wsdl_int |
| prohibitMSIDownload | <p>Indicates to the configuration grants users permission to allowed to download the AgentSetup.msi file.</p> <p>If the configuration does not grant</p> | wsdl_bool |

| Element | Description | Type |
|---------|--|------|
| | users permission to download the AgentSetup.msi file, the methods for downloading the MSI file fail. | |

AgentDownloadInfo

Description

This complexType includes information about the size of the Agent Setup file that the Data Center generated for a registered user.

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|---------|--|------------|
| size | The size of the Agent Setup file. | wSDL_ulong |
| code | Unique identifier for the Agent Setup file created for download. | wSDL_int |

RegistrationInfo

Description

This complexType contains information about the community and configuration to which a user registers.

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|------------------|---|----------|
| community_id | The community to which the user registers | wSDL_int |
| configuration_id | The configuration to which the user registers | wSDL_int |

RetrieveDownloadInfo

Description

This complexType contains information about files specified for retrieval.

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|---------------|--|------------|
| size | The size of the retrieved data | wsdl_ulong |
| code | The unique identifier of the retrieval operation | wsdl_int |
| numfileserror | Whether the retrieval was successful | wsdl_int |

RetrieveFileInfo

Description

This complexType contains information about a retrieved file.

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|----------|--|-------------|
| Size | The size, in bytes, of the retrieved file | wsdl_ulong |
| Code | The unique identifier of the retrieval operation | wsdl_int |
| FileName | The name of the retrieved file | wsdl_string |

RetrieveInfo

Description

This complexType contains information about the size, in bytes, of retrieved data.

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|----------|--------------------------------|------------|
| size | The size of the data retrieved | wsdl_ulong |
| numfiles | The number of files retrieved | wsdl_int |

RetrieveInfo2

Description

This complexType contains information about the size, in bytes, of retrieved data.

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|-------------------|--|------------|
| size | The size of retrieved data | wsdl_ulong |
| numFiles | The number of files retrieved | wsdl_int |
| numBundles | The number of bundles retrieved | wsdl_int |
| numFilesInBundles | The number of files contained in the bundles retrieved | wsdl_int |

SSWSAccountHistory

Description

This complexType contains information retrieved from the Agent History.

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|----------------------|--|-----------------------|
| ActivationTimeInMSec | The time when the account became active. | wsdl_utc_time_in_msec |

| Element | Description | Type |
|------------------------------|---|-----------------------|
| StorageLimitInBytes | The storage limit, in bytes, for the user's backup account. | wsdl_long |
| LastBackupTimeInMSec | The time of the last backup. | wsdl_utc_time_in_msec |
| BackupSetSizeInBytes | The number of bytes saved in the last backup. | wsdl_long |
| TotalBackupsInMonth | The number of backups in the last 30 days. | wsdl_int |
| NumFilesProtected | The total number of files in the last backup. | wsdl_int |
| MyRoamRetrieveTimeInMSec | The date of the last MyRoam retrieval. If MyRoam has never been used to retrieve files for the account, the value is 0. | wsdl_utc_time_in_msec |
| NumMyRoamFiles | The number of files fetched by the last MyRoam retrieval. | wsdl_int |
| MyRoamRestoreRetrieveInBytes | The size, in bytes, of the last MyRoam retrieval. | wsdl_long |
| OrderMediaTimeInMSec | The time of the last media order. | wsdl_utc_time_in_msec |
| OrderMediaSizeInBytes | The size, in bytes, of the last media order. | wsdl_long |
| OrderMediaQuantity | Number of CDs or DVDs required for the last media order. | wsdl_int |
| OrderMediaType | An integer enumerator representing the media type: 0. CD 1. DVD | wsdl_int |

SSWSAccountInfo

Description

This complexType contains information about the account, where the account is registered, the Agent software version, whether the community is mapped to an enterprise directory, the profile information, and the account status.

You can use this data type to retrieve the information needed to construct the [SSWSAddressInfo](#), on [page 71](#) data type.

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|------------------|---|---|
| AccountNumber | The account number. | wSDL_string |
| CommunityId | The numeric identifier associated with the community where the account will register. If you do not know the community ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the community. Support Center displays the ID in the Community Status section of the Status tab in the right pane. | wSDL_int |
| ConfigurationId | The numeric identifier of the Agent configuration being used. If you do not know the configuration ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the configuration. Support Center displays the ID at the bottom of the Edit tab in the right pane. | wSDL_int |
| ProductCode | The types of products in the configuration. This element has the following values: <ul style="list-style-type: none"> • 0. PC account • 2. Mac account | wSDL_int |
| Version8OrHigher | Whether the Agent is version 8.0 or higher. | wSDL_bool |
| LDAP | Whether the account is registered in a community that is mapped to an enterprise directory. | wSDL_bool |
| FedAuth | Whether the account is registered in a community that is configured for single sign-on (SSO). | wSDL_bool |
| ComputerName | The name of the computer associated with the account. | wSDL_string |
| ProfileInfo | The information stored in the user's profile. | SSWSProfileInfo, on page 78 |
| bsAccountStatus | The current status of the account (canceled, on hold, or active). | wSDL_string |
| FedAuthUserID | The SSO user ID. | wSDL_string |

SSWSAccountSummaryInfo

Description

This complexType contains information about the time of the last backup and the time when the account registered to a community.

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|---------------------|---|-----------------------|
| LastBackupTime | The time of the last backup. | wSDL_utc_time_in_msec |
| AccountRegistration | The time when the account registered and became active. | wSDL_utc_time_in_msec |

SSWSAddressInfo

Description

This complexType contains the address information stored in the user's profile. Typically, a user supplies this information during registration.

This data type is contained in the [SSWSContactInfo, on page 74](#) data type. The SSWSContactInfo data type is contained in the [SSWSAccountInfo, on page 69](#) data type.

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|----------|---------------------------------|-------------|
| Address1 | The first line in the address. | wSDL_string |
| Address2 | The second line in the address. | wSDL_string |
| Address3 | The third line in the address. | wSDL_string |
| City | The name of the city. | wSDL_string |
| Zip | The postal or ZIP code. | wSDL_string |
| Country | The name of the country. | wSDL_string |

SSWSBackupDateInfo

Description

This complexType contains information about the date, status, and size of a specific backup.

Elements

This data type contains the following elements:

| Element | Description | Type |
|-------------------|---|-----------------------|
| tDate | The date of the backup. Enter the value 0 to request all versions of backups. | wSDL_utc_time_in_msec |
| iStatus | A status enumeration for the backup date: <ul style="list-style-type: none">• 0. EVENTSTATUS_CANCELLED• 1. EVENTSTATUS_COMPLETED• 2. EVENTSTATUS_COMPLETEDWITHWARNINGS• 3. EVENTSTATUS_COMPLETEDWITHERRORS• 4. EVENTSTATUS_INCOMPLETE | wSDL_int |
| bHealable | DEPRECATED: The Heal feature has been deprecated. To ensure API methods that use this data type function correctly, set this element to <code>False</code> . | wSDL_bool |
| lMediaSizeInBytes | The size, in bytes, of the specified backup. | wSDL_long |

SSWSBackupDateInfoWithoutSizes

Description

This complexType contains information about the date and status of a specific backup.

Elements

This data type contains the following elements:

| Element | Description | Type |
|-----------|--|-----------------------|
| Date | The date of the backup. Enter the value 0 to request all versions of backups. | wsdl_utc_time_in_msec |
| Status | A status enumeration for the backup date: <ul style="list-style-type: none"> • 0. EVENTSTATUS_CANCELLED • 1. EVENTSTATUS_COMPLETED • 2. EVENTSTATUS_COMPLETEDWITH WARNINGS • 3. EVENTSTATUS_COMPLETEDWITHERRORS • 4. EVENTSTATUS_INCOMPLETE | wsdl_int |
| bHealable | DEPRECATED: The Heal feature has been deprecated. To ensure API methods that use this data type function correctly, set this element to <code>False</code> . | wsdl_bool |

SSWSBrandingInfo

Description

This complexType contains information about the product name and the images used to rebrand Support Center, the Agent, or the Account Management application.

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|-------------|--|-------------------|
| ProductName | The product name to use in place of the default product name. | wsdl_string |
| blobImage | A binary large object (BLOB) that contains the images to use in place of the default images. | wsdl_base64Binary |

SSWSBrandingInfo2

Description

This complexType contains information about the product name and the images used to rebrand Support Center, the Agent, and the Account Management application.

This data type replaces [SSWSBrandingInfo, on the previous page](#).

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|------------------|--|-------------------|
| ProductName | The product name to use in place of the default product name. | wsdl_string |
| blobImage | A binary large object (BLOB) that contains the images to use in place of the default images. | wsdl_base64Binary |
| PoweredBy | Whether the application displays the powered by Micro Focus logo in the application header | wsdl_bool |
| IsImageAvailable | Whether a custom image is available for the application header | wsdl_bool |

SSWSContactInfo

Description

This complexType includes contact information that is displayed in a page that provides instructions about contacting Support.

The [SSWSAccountInfo, on page 69](#) data type includes this data type.

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|-----------|---|-------------|
| Telephone | The telephone number to use for contacting Support. | wsdl_string |

| Element | Description | Type |
|-------------|---|---|
| Extension | The telephone extension number associated with the telephone number. | wsdl_string |
| Email | The email address for the Support organization. | wsdl_string |
| Location | The location of the Support organization. | wsdl_string |
| MailStop | The mail stop associated with the location of the Support organization. | wsdl_string |
| AddressInfo | The street address for the Support organization. | SSWSAddressInfo, on page 71 |

SSWSFileRevision

Description

This complexType identifies the version of the backup from which you want to retrieve data.

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|---------------------|--|-----------------------|
| tdate | The date of the backup set. Enter the value 0 to request all versions of backups. | wsdl_utc_time_in_msec |
| mdate | The date that the file was modified. | wsdl_utc_time_in_msec |
| path | The location of the file. | wsdl_string |
| filename | The name of the file. | wsdl_string |
| size | The file size in bytes. | wsdl_ulong |
| availableForRestore | Whether the Agent can retrieve the file. For example, the Agent cannot retrieve PST files. | wsdl_bool |

SSWSFileRevision2

Description

This complexType identifies the version of the backup from which you want to retrieve data.

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|---------------------|--|-----------------------|
| tdate | The date of the backup set. Enter the value 0 to request all versions of backups. | wsdl_utc_time_in_msec |
| mdate | The date that the file was modified. | wsdl_utc_time_in_msec |
| path | The location of the file. | wsdl_string |
| filename | The name of the file. | wsdl_string |
| size | The file size in bytes. | wsdl_ulong |
| availableForRestore | Whether the Agent can retrieve the file. For example, the Agent cannot retrieve PST files. | wsdl_bool |
| hidden | Whether the file is a hidden file. | wsdl_bool |
| extensionHidden | Whether the file extension is hidden. | wsdl_bool |
| package | Whether the file is a package folder. This element applies only to Mac. | wsdl_bool |
| inPackage | Whether the file is contained in a package. This element applies only to Mac. | wsdl_bool |

SSWSFileRevision3

Description

This complexType identifies the version of the backup from which you want to retrieve data.

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|---------|--|-----------------------|
| tdate | The date of the backup. Enter the value 0 to request all versions of backups. | wsdl_utc_time_in_msec |

| Element | Description | Type |
|---------------------|--|-----------------------|
| mdate | The date that the file was modified. | wsdl_utc_time_in_msec |
| path | The location of the file. | ALTSOAP_BLOB |
| filename | The name of the file. | ALTSOAP_BLOB |
| size | The file size in bytes. | wsdl_ulong |
| availableForRestore | Whether the Agent can retrieve the file. For example, the Agent cannot retrieve PST files. | wsdl_bool |
| hidden | Whether the file is a hidden file. | wsdl_bool |
| extensionHidden | Whether the file extension is hidden. | wsdl_bool |
| package | Whether the file is a package folder. This element applies only to Mac. | wsdl_bool |
| inPackage | Whether the file is contained in a package. This element applies only to Mac. | wsdl_bool |

SSWSMediaType

Description

This complexType contains information about the type of media request for backed-up files and the number of disks required for the requested files.

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|------------------|--|----------|
| MediaId | An integer enumerator representing the media type: <ul style="list-style-type: none"> • 0. CD • 1. DVD | wsdl_int |
| NumMediaRequired | The number of disks (CDs or DVDs) required to store the selected backup image. | wsdl_int |

SSWSNameInfo

Description

This complexType contains information about the name of a user associated with an account. Typically, this information is included in data structure that uses the [SSWSAccountInfo](#), on page 69 data type.

Elements

This data type contains the following elements:

| Element | Description | Type |
|------------|--|-------------|
| FirstName | The first name of the user associated with the account. | wSDL_string |
| MiddleName | The middle name of the user associated with the account. | wSDL_string |
| LastName | The last name of the user associated with the account. | wSDL_string |

SSWSProfileInfo

Description

This complexType contains the editable information stored in a user's profile.

Elements

This data type contains the following elements

| Element | Description | Type |
|-------------|--|-------------|
| CompanyName | The name of a company associated with the user of the account. | wSDL_string |
| Department | The department name associated with the user. | wSDL_string |
| CostCenter | A cost center identifier associated with the user. | wSDL_string |
| EmployeeID | An employee identifier associated with the user. | wSDL_string |

| Element | Description | Type |
|--------------------|---|--|
| ContactInfo | A structure that contains the contact information. | SSWSContactInfo, on page 74 |
| CustomerFieldValue | The value for a custom field. | wsdl_string |
| NameInfo | A structure that contains the name associated with the account. | SSWSNameInfo, on the previous page |

SSWSTicket

Description

This complexType contains information about a specific type of user, technician, or end-user. In most cases, use this data type for end-user authentication. Technician authentication is typically required to gain access to the standard Account Management Website from Support Center.

Elements

The following table lists the elements in this data type:

| Element | Description | Type |
|---------------|---|-------------|
| TicketType | This enumeration identifies the type of user: <ul style="list-style-type: none"> • 0.User. This value is reserved for use by Micro Focus. • 1. Technician. | wsdl_int |
| CommunityID | The numeric identifier associated with a community. Use a value of -1 for the default community ID, otherwise use the actual number for the community. If you do not know the community ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the community. Support Center displays the ID in the Community Status section of the Status tab in the right pane. | wsdl_int |
| AccountNumber | The 10-digit account number. Account numbers have a format of: nnnnn-nnnnn | wsdl_string |
| TechID | A technician ID. If you are using the SSWSTicket data type for user authentication, this value is ignored. | wsdl_string |
| Password | Either: <ul style="list-style-type: none"> • A user or technician password, if the user account or technician ID | wsdl_string |

| Element | Description | Type |
|---------------|--|----------|
| | <p>has native or enterprise directory credentials.</p> <ul style="list-style-type: none"> OAuth token, if the user account or technician ID has single sign-on credentials. <p>If you are using the <code>SSWSTicket</code> data type for technician authentication, this value is ignored.</p> | |
| PasswordHash1 | <p>A hashed password. This parameter is reserved for use by Micro Focus.</p> <p>If you are using the <code>SSWSTicket</code> data type for user authentication, this value is ignored.</p> | wsdl_int |
| PasswordHash2 | <p>A hashed password. This parameter is reserved for use by Micro Focus.</p> <p>If you are using the <code>SSWSTicket</code> data type for user authentication, this value is ignored.</p> | wsdl_int |

Returned errors

Event log errors

In addition to the error codes that the Account Management Web Service methods return, you can also obtain additional information by checking the event log on the server where the Account Management Web Service API is installed.

Error codes 2 through 8

The following table describes the error codes from 2 through 8 that a method can return if it is not successful:

| Code | Error | Description |
|------|---------------|--|
| 2 | NO_CONNECTION | The method could not establish a connection to the Data Center server. |
| 3 | INVALID_LOGIN | The credentials used to sign in to another application are invalid. |
| 4 | LOCKED | The account is locked after three unsuccessful sign in attempts. |
| 5 | FAILURE | A request failed. |
| 6 | IN_PROGRESS | A request is in progress. |

| Code | Error | Description |
|------|-------------------|---|
| 7 | INVALID_ARGUMENTS | An invalid argument was specified in the method. The error returns a string indicating which argument is invalid. |
| 8 | NO_DATA_FOUND | A request for data resulted in no data matching the specified criteria being found. |

Error codes 9 through 16

The following table describes the error codes from 9 through 16 that a method can return if it is not successful:

| Code | Error | Description |
|------|------------------------------|--|
| 9 | INVALID_COMMUNITY | The specified community does not exist or was specified incorrectly. |
| 10 | INVALID_CONFIGURATION | The specified Agent configuration does not exist in the specified community. |
| 11 | REG_TICKET_INVALID | The specified account reservation code does not exist or was specified incorrectly. |
| 12 | REG_TICKET_INUSE | The specified account reservation code is currently in use; a new account cannot register using this code. |
| 13 | COMMUNITY_ISNOT_LDAP | The specified community is not mapped to an enterprise directory. |
| 14 | COMMUNITY_ISNOT_TICKETED | The specified community does not use account reservation codes. |
| 15 | LDAPSERVER_UNREACHABLE | The enterprise directory server was not available. |
| 16 | CANT_INITIALIZE_LDAP_ACCOUNT | The method could not set the initial settings for an account registered in a community that is mapped to an enterprise direction. It could not create the account object. Typically, the cause of the error is the method could not connect to the database on the Data Center server or it could not read the master encryption key. |

Error codes 17 through 24

The following table describes the error codes from 17 through 24 that a method can return if it is not successful:

| Code | Error | Description |
|------|-------------------------|---|
| 17 | INVALID_LDAP_USER | The specified user name is not a valid enterprise directory user name. |
| 18 | NO_LICENSE_TO_REGISTER | The specified community does not have any available for licenses, new accounts cannot register in this community. |
| 19 | REGISTRATION_DISABLED | Registration for the specified community is disabled, new accounts cannot register in this community. Accounts using existing account reservation codes CAN register in this community. |
| 20 | INVALID_PASSWORD | The specified password does not match the password associated with the account. |
| 21 | REG_TICKET_INVALID_LDAP | The community where the account will register requires an account reservation code but the community does not have a ticket that matches the enterprise directory user name. |
| 22 | CHANGE_LOGIN_PASSWORD | The sign in was successful, however, the account password has expired. The user must reset the password. |
| 23 | ACCOUNT_LOCKED | The account is currently locked because a user entered incorrect account credentials multiple times. |
| 24 | ACCOUNT_PRE80 | The specified account is a Legacy PC account. |

Error codes 25 through 35

The following table describes the error codes from 25 through 35 that a method can return if it is not successful:

| Code | Error | Description |
|------|---------------------------|--|
| 25 | NO_ORDER_MEDIA_PERMISSION | The technician does not have permission to request backed up files on media in Support Center. |
| 26 | NO_ORDER_MEDIA_ALLOWED | The order media feature is not enabled for an account. |
| 27 | AMBIGUOUS_LOGIN_RESULT | For accounts registered in a community that is mapped to an enterprise directory, the account is locked or the sign in is invalid. The method is unable to determine the actual issue. |
| 28 | INVALID_TICKET_TYPE | One of the values in the SSWSTicket data type is invalid. Often, this error indicates an invalid value for the iTicketType element. |

| Code | Error | Description |
|------|---|--|
| 29 | CANCELLED_ACCOUNT | The account is canceled. |
| 30 | NO_MODIFY_ACCOUNT_AGENTCONFIGURATION_PERMISSION | The operation failed because the option to change the account configuration is disabled for the technician. |
| 31 | NO_ACCESS_ACCOUNT_DATA_PERMISSION | The technician does not have permission to access the user's account. |
| 32 | NO_CAPACITY | The Data Transfer API / AMWS API is busy performing other functions and cannot service the request at this time. |
| 33 | INVALID_PARTNER_ID | The SSO provider ID is invalid. |
| 34 | INVALID_FEDAUTH_ACCOUNT | The SSO account is invalid. Unable to retrieve the user ID from the OAuth token. |
| 35 | NO_ACCOUNT_FOUND_FOR_FEDAUTHUSER | Unable to find the SSO account for the specified SSO user ID. |

Chapter 10: Registration operations

This chapter describes the methods for account registration operations.

- [Overview](#), below
- [GetCommunityType](#), below
- [GetRegistrationInfo](#), on the next page
- [IsLicenseAvailable](#), on the next page
- [IsLDAPCommunity](#), on page 86
- [VerifyLDAPAccountRegistration](#), on page 87
- [VerifyAccountRegistrationCode](#), on page 88
- [CanRegisterToCommunity](#), on page 89
- [RegisterAccount](#), on page 90
- [VerifyAccountReservationCode](#), on page 91
- [VerifyAccountReservationCodeEx](#), on page 92

Overview

The registration operations control the tasks required to register an account when a user accesses your Account Management application. For information about the registration operation, see [Registration and download](#), on page 32.

GetCommunityType

Description

This method determines the authentication mechanism for a given community. This method is unauthenticated because it is part of the registration process.

Parameters

You can specify the following input parameters:

| Parameter | Description | Type |
|-------------|---|----------|
| CommunityID | Specifies the ID of the community for which you want to determine the authentication mechanism. | wSDL_int |

Return Value

This method returns an integer enumeration that indicates the community type:

- **0.** Indicates the community not mapped to an enterprise directory or configured for single sign-on (SSO).
- **1.** Indicates the community is mapped to an enterprise directory.
- **2.** Indicates the community is configured for SSO.

For a list of possible errors, see [Returned errors, on page 80](#).

GetRegistrationInfo

Description

This method calls the registration session from an encrypted registration URL.

Parameters

You can specify the following input parameters:

| Parameter | Description | Type |
|-----------------|---|-------------|
| RegistrationURL | Contains encrypted information about the configuration in which the user registers. | wSDL_string |

Return Value

This method returns information in the [RegistrationInfo, on page 66](#) data type.

For a list of possible errors, see [Returned errors, on page 80](#).

IsLicenseAvailable

Description

This method determines the license availability for a given community. This method is an unauthenticated method.

Input Parameters

This method uses the following parameters:

| Parameter | Description | Type |
|-------------|---|----------|
| CommunityID | The numeric identifier associated with the community where the account will register. If you do not know the community ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the community. Support Center displays the ID in the Community Status section of the Status tab in the right pane. | wsdl_int |

Return Values

This method returns a boolean result that indicates whether the specified community contains an available license:

- A result of true or 1 indicates the community contains an available license.
- A result of false or 0 indicates the community does not contain an available license.

Typically, you use this method during registration of an account.

For a list of possible errors, see [Returned errors, on page 80](#).

IsLDAPCommunity

Description

This method returns information that indicates whether the specified community is mapped to an enterprise directory. If a community is mapped to an enterprise directory, users must use their enterprise directory user names to sign in to your Account Management application and access their account information.

This method is an unauthenticated method.

Parameters

This method uses the following parameters:

| Parameter | Description | Type |
|-------------|--|----------|
| CommunityID | The numeric identifier associated with the community where the account will register If you do not know the community ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the community. Support Center displays the ID in the Community Status section of the Status tab in the right pane. | wsdl_int |

Return Values

This method returns a boolean value that indicates whether the specified community is mapped to an enterprise directory:

- A result of true or 1 indicates the community is mapped to an enterprise directory.
- A result of false or 0 indicates the community is not mapped to an enterprise directory.

For a list of possible errors, see [Returned errors, on page 80](#).

VerifyLDAPAccountRegistration

Description

This method validates that the supplied user name is a member of the enterprise directory community. If the community is using account reservation, the enterprise directory user name is also compared to the reserved account IDs in the system.

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|-----------------|--|-------------|
| | <p>The numeric identifier associated with the community where the account will register.</p> <p>If you do not know the community ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the community. Support Center displays the ID in the Community Status section of the Status tab in the right pane.</p> | wsdl_int |
| ConfigurationId | <p>The numeric identifier associated with the configuration the account will use.</p> <p>If you do not know the configuration ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the configuration. Support Center displays the ID at the bottom of the Edit tab in the right pane.</p> | wsdl_int |
| Username | LDAP user name to verify. | wsdl_string |
| Password | LDAP password to verify. | wsdl_string |

Return Value

This method returns a boolean result indicating whether the specified users is a valid LDAP user name:

- A result of true or 1 indicates the user name is a valid LDAP user name.
- A result of false or 0 indicates the user name is not a valid LDAP user name.

Typically, you use this method during registration of an account.

For a list of possible errors, see [Returned errors, on page 80](#).

VerifyAccountRegistrationCode

Description

This method compares the supplied account reservation code to the reserved account codes in the system. The case for the account reservation code is ignored.

Parameters

You can specify the following input parameters:

| Parameter | Description | Type |
|-----------------|---|-----------------|
| CommunityID | The numeric identifier associated with the community where the account will register. If you do not know the community ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the community. Support Center displays the ID in the Community Status section of the Status tab in the right pane. | wsdl_ int |
| ConfigurationID | The numeric identifier associated with the configuration the account will use. If you do not know the configuration ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the configuration. Support Center displays the ID at the bottom of the Edit tab in the right pane. | wsdl_ int |
| Ticket | The account reservation code to verify. | wsdl_ string |

Return Value

This method returns a boolean result indicating whether the specified account reservation code is valid:

- A result of true or 1 indicates the account reservation code is valid.
- A result of false or 0 indicates the account reservation code is not valid.

Typically, you use this method during registration of an account.

For a list of possible errors, see [Returned errors, on page 80](#).

CanRegisterToCommunity

Description

This method determines if registration to a specified community is possible. The ability to use the community for registration is based on licenses availability and, if the community is not using account reservation codes, the community's registration status.

This method is an unauthenticated method.

Parameters

Specify the following input parameters:

| Parameter | Description | Type |
|-----------------|---|----------|
| CommunityID | The numeric identifier associated with the community where the account will register. If you do not know the community ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the community. Support Center displays the ID in the Community Status section of the Status tab in the right pane. | wsdl_int |
| ConfigurationID | The numeric identifier associated with the configuration the account will use. If you do not know the configuration ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the configuration. Support Center displays the ID at the bottom of the Edit tab in the right pane. | wsdl_int |

Return Value

This method returns a boolean result indicating whether account can register in the specified community:

- A result of true or 1 indicates that accounts can register in the specified community.
- A result of false or 0 indicates that accounts cannot register in the specified community.

Typically, you use this method during registration of an account.

For a list of possible errors, see [Returned errors, on page 80](#).

RegisterAccount

Description

This method registers a new account in a specified community using a specified configuration. This method does the following:

- Verifies that an unused license is available in the community.
- If the community is mapped to an enterprise directory, verifies the user credentials.
- If the community is configured for single sign-on (SSO), verifies that the SSO Service Provider that services Connected Backup can use the OAuth token to retrieve the user ID from the identity provider. If successful, it uses the SSO user ID to register the account.
- If the community uses account reservation codes, verifies that the supplied code is not in use.
- Registers an account and sets the account credentials if the account is not registering in a community mapped to an enterprise directory.

Parameters

You can specify the following input parameters:

| Parameter | Description | Type |
|-----------------|---|--------------|
| CommunityID | The numeric identifier associated with the community where the account will register. If you do not know the community ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the community. Support Center displays the ID in the Community Status section of the Status tab in the right pane. | wsdl_integer |
| ConfigurationID | The numeric identifier associated with the configuration the account will use. If you do not know the configuration ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the configuration. Support Center displays the ID at the bottom of the Edit tab in the right pane. | wsdl_integer |
| Username | The user name for account reservation registration. If registering an account in a community that is mapped to an enterprise directory, this value is the enterprise directory user name. If registering an account in a community configured for SSO, | wsdl_string |

| Parameter | Description | Type |
|-------------|--|---|
| | the value of this parameter is ignored. | |
| Password | One of the following: <ul style="list-style-type: none"> For accounts with native or enterprise directory credentials, the password associated with the account. For accounts with SSO credentials, the OAuth token. | wsdl_string |
| AccountInfo | All of the account information in the <code>SSWSProfile</code> data type. | SSWSProfileInfo , on page 78 |

Return Value

This method returns an integer that represents the account number assigned to the new account.

For a list of possible errors, see [Returned errors, on page 80](#).

VerifyAccountReservationCode

Description

This method compares a specified account reservation code to the codes for reserved accounts in the Data Center. For a more complete version of this method, see [VerifyAccountReservationCodeEx, on the next page](#). For best practice, use the most complete version.

Parameters

You can specify the following input parameters:

| Parameter | Description | Type |
|-----------------|---|--------------|
| CommunityID | The numeric identifier associated with the community where the account will register. If you do not know the community ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the community. Support Center displays the ID in the Community Status section of the Status tab in the right pane. | wsdl_integer |
| ConfigurationID | The numeric identifier associated with the configuration the account will use. | wsdl_integer |

| Parameter | Description | Type |
|-----------|---|-------------|
| | If you do not know the configuration ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the configuration. Support Center displays the ID at the bottom of the Edit tab in the right pane. | |
| Ticket | The reservation code that you want to verify. | wSDL_string |

Return Value

This method returns a boolean result that indicates whether the specified reservation code is valid:

- A result of true or 1 indicates the account reservation code is valid.
- A result of false or 0 indicates the account reservation code is not valid.

Typically, you use this method during registration of an account.

For a list of possible errors, see [Returned errors, on page 80](#).

VerifyAccountReservationCodeEx

Description

This method compares the specified account reservation code to the codes for reserved accounts in the Data Center. If a reservation code exists, this method retrieves information about the account associated with the reservation code.

Parameters

You can specify the following input parameters:

| Parameter | Description | Type |
|-----------------|---|--------------|
| CommunityID | The numeric identifier associated with the community where the account will register. If you do not know the community ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the community. Support Center displays the ID in the Community Status section of the Status tab in the right pane. | wSDL_integer |
| ConfigurationID | The numeric identifier associated with the configuration the account will use. | wSDL_integer |

| Parameter | Description | Type |
|-----------|---|-------------|
| | If you do not know the configuration ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the configuration. Support Center displays the ID at the bottom of the Edit tab in the right pane. | |
| Ticket | The reservation code that you want to verify. | wSDL_string |

Return Value

If there is a reservation code in the Data Center for an account, this method returns an array of [SSWSAccountInfo, on page 69](#) data types.

Typically, you use this method during registration of an account.

For a list of possible errors, see [Returned errors, on page 80](#).

Chapter 11: Download operations

This chapter describes the available methods for download operations.

- [Overview, below](#)
- [GenerateAgentSetup, below](#)
- [GenerateAgentSetupLocal, below](#)
- [FetchAgentSetupBytes, on page 96](#)

Overview

The download operations control the tasks required to download an Agent Setup file from your Account Management application. You can control the download by downloading a set number of bytes multiple times until you have downloaded all of the bytes.

GenerateAgentSetup

DEPRECATED:

The `GenerateAgentSetup` method has been deprecated.

GenerateAgentSetupLocal

Description

The method requests the Data Center server to generate an Agent Setup file in a location that you specify. To use this method, you must have valid authentication information in the form of an `SSWSTicket` object.

This method uses information from a `SSWSTicket` data type.

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|---|--|
| AuthenticationInfo | Contains the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |
| IsReinstall | Specifies whether this operation is a new installation or a reinstallation for an existing account. | wsdl_bool |

| Parameter | Description | Type |
|-----------|---|-------------|
| destPath | <p>Specifies where to put the AgentSetup.msi file.</p> <p>This value must be a shared network drive on a server that is accessible from both the server that host the AMWS API and the one that hosts your application.</p> <p>NOTE: Do not specify a location on the same server that hosts the AMWS API.</p> | wSDL_string |

Return Value

This method returns a result that indicates if the Agent Setup file creation succeeded.

For a list of possible errors, see [Returned errors, on page 80](#).

Code Example

```
/**  
 * Generates agent setup on disk at a specified location.  
 *  
 * @param AuthenticationInfo - [in] Account / User sign in info  
 * @param IsReinstall - [in] Whether or not to make a reinstall MSI or not  
 * @param destPath - [in] Where to put the agent setup MSI  
 * @return S_OK if operation succeeds, E_FAIL otherwise  
 */  
  
HRESULT GenerateAgentSetupLocal(/*in*/ SSWSTicket AuthenticationInfo,  
/*in*/ wSDL_bool IsReinstall,  
/*in*/ wSDL_string destPath);
```

Usage

This section provides a high-level overview of how to use the GenerateAgentSetupLocal method.

1. Create a shared network drive where the GenerateAgentSetupLocal method will place the AgentSetup.msi file that it creates.

The shared drive must be accessible by the following servers:

- The server that will host your custom application that calls the GenerateAgentSetupLocal method
- The server that hosts the AMWS API

NOTE:

To ensure that the GenerateAgentSetupLocal method works correctly, do not

create the shared drive on the server that hosts the AMWS API.

2. Create an application that uses the `GenerateAgentSetupLocal` method.

When you define the method's parameter values, use the shared network drive you just created as the value of the `destPath` parameter. You can specify this value as either:

- a direct path to the shared network drive

For example: `\\myServer\DCGeneratedFiles`

- a mapped network drive, if you mapped a drive on the AMWS API server to it

For example: `G:\DCGeneratedFiles`

3. Run your application, which creates an `AgentSetup.msi` file in the shared folder.
4. Move the resulting `AgentSetup.msi` file from the shared network drive to another location.

NOTE:

The `GenerateAgentSetupLocal` method cannot create a new `AgentSetup.msi` file if one already exists in the location you specify for the `destPath` parameter.

Therefore, if you plan to generate additional `AgentSetup.msi` files in the same location, be sure to move the previously generated file before you generate the next one.

FetchAgentSetupBytes

DEPRECATED:

The `FetchAgentSetupBytes` method has been deprecated.

Chapter 12: Sign-in operations

This chapter describes the available methods for sign in operations.

- [Overview, below](#)
- [GetAccounts, below](#)
- [GetFedAuthAccountsFromCommunity, on the next page](#)
- [GetFedAuthAccountsFromPartnerID, on page 99](#)
- [GetIDPURLForCommunity, on page 99](#)
- [GetIDPURLForPartnerId, on page 100](#)
- [SetLoginInformation, on page 100](#)
- [VerifyTechAccountAccess, on page 101](#)

Overview

To ensure that users are able to access only their account information, require them to sign in to your application. You can use the account credentials to determine what information to display and which features to enable for specific users.

GetAccounts

Description

This method retrieves account information associated with specified account credentials.

This method is an unauthenticated method.

Parameters

This method uses the following parameters:

| Parameter | Description | Type |
|-------------|--|----------|
| CommunityID | Either: <ul style="list-style-type: none">• -99, to retrieve all accounts that the user owns, regardless of community.• The numeric identifier for the community where the user's accounts are registered. If you do not know the community ID, you can use Support | wSDL_int |

| | | |
|----------|---|-------------|
| | Center to determine it. In the left pane of Support Center, click the node that represents the community. Support Center displays the ID in the Community Status section of the Status tab in the right pane. | |
| Email | The email address associated with the account. | wSDL_string |
| Password | The password associated with the account. | wSDL_string |

Return Value

This method returns an array of [SSWSAccountInfo, on page 69](#) data types and the number of elements in the array.

For a list of possible errors, see [Returned errors, on page 80](#). Also see [Application sign in, on page 25](#).

GetFedAuthAccountsFromCommunity

Description

This method retrieves a list of accounts for a specific single sign-on user in a given SSO community. This method is an unauthenticated method.

Parameters

This method uses the following parameters:

| Parameter | Description | Type |
|-------------|---|-------------|
| CommunityID | The numeric identifier for the community where the accounts are registered. If you do not know the community ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the community. Support Center displays the ID in the Community Status section of the Status tab in the right pane. | wSDL_int |
| AuthToken | The OAuth token from the SSO Service Provider. | wSDL_string |

Return Value

This method returns an array of [SSWSAccountInfo, on page 69](#) data types and the number of elements in the array.

For a list of possible errors, see [Returned errors, on page 80](#). Also see [Application sign in, on page 25](#).

GetFedAuthAccountsFromPartnerID

Description

This method retrieves a list of accounts for a specific single sign-on user that is associated with a given SSO provider ID. This method is an unauthenticated method.

Parameters

This method uses the following parameters:

| Parameter | Description | Type |
|-----------|--|-------------|
| PartnerID | The SSO Provider ID. | wsdl_string |
| AuthToken | The OAuth token from the SSO Service Provider. | wsdl_string |

Return Value

This method returns an array of [SSWSAccountInfo, on page 69](#) data types and the number of elements in the array.

For a list of possible errors, see [Returned errors, on page 80](#). Also see [Application sign in, on page 25](#).

GetIDPURLForCommunity

Description

This method retrieves the URL of the third-party identity provider's SSO Sign In page for a given community. This method is an unauthenticated method.

Parameters

This method uses the following parameters:

| Parameter | Description | Type |
|-------------|--|----------|
| CommunityId | The numeric identifier of the community configured for single sign-on (SSO). | wsdl_int |

Return Value

This method returns a wsdl_string that contains the URL of the SSO Sign In page of the identity provider for the given community. For example:

```
https://myserver.com:9031/as/authorization.oauth2?PartnerIdpId=myPartnerID&client_
id=CB_Web&
redirect_uri=https://sswshostname/fed_auth_validation.jsp&
response_type=token
```

Before you use this string as the URL to the SSO Sign In page, replace the substring `https://sswshostname/fed_auth_validation.jsp` with the URL to your Web application that will embed this page.

For a list of possible errors, see [Returned errors, on page 80](#). Also see [Application sign in, on page 25](#).

GetIDPURLForPartnerId

Description

This method retrieves the URL of the third-party identity provider's SSO Sign In page for a given SSO provider ID. This method is an unauthenticated method.

Parameters

This method uses the following parameters:

| Parameter | Description | Type |
|-----------|----------------------|-------------|
| PartnerID | The SSO provider ID. | wsdl_string |

Return Value

This method returns a `wsdl_string` that contains the URL of the SSO Sign In page of the identity provider for the given community. For example:

```
https://myserver.com:9031/as/authorization.oauth2?PartnerIdpId=myPartnerID&client_
id=CB_Web&
redirect_uri=https://sswshostname/fed_auth_validation.jsp&
response_type=token
```

Before you use this string as the URL to the SSO Sign In page, replace the substring `https://sswshostname/fed_auth_validation.jsp` with the URL to your Web application that will embed this page.

For a list of possible errors, see [Returned errors, on page 80](#). Also see [Application sign in, on page 25](#).

SetLoginInformation

Description

This method sets sign in information for a specified user.

Parameters

This method uses the following parameters:

| Parameter | Description | Type |
|--------------------|---|--|
| AuthenticationInfo | Specifies the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |
| EmailAddress | The email address associated with the account. | wsdl_string |
| Password | The password associated with the account. | wsdl_string |

Return Value

None.

VerifyTechAccountAccess

Description

This method validates the supplied technician credentials and whether the technician has permission to manage a specific account. To access a user's account, the technician must have the **Access Users' Data** permission enabled in Support Center.

This method is an authenticated method. For an example how to use this method, [Application sign in, on page 25](#).

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|---|--|
| AuthenticationInfo | Specifies the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |

Return Value

This method returns a boolean result that indicates whether the technician account credentials are valid.

For a list of possible errors, see [Returned errors, on page 80](#).

Chapter 13: Management operations

This chapter describes methods to submit a request for backup sets on media and to change user information.

- [Overview, below](#)
- [GetAccountInfo, below](#)
- [GetMediaTypes, on the next page](#)
- [SubmitMediaOrder, on the next page](#)
- [SetConfiguration, on page 104](#)
- [SetAccountPassword, on page 105](#)
- [SetAccountProfile, on page 105](#)

Overview

The management operations allow you to perform the following tasks:

- Submit a request for an image of a specific backup to the Data Bundler™ application.
- Change information typically stored in a user's information. This information includes all of the data that a user enters during registration. The profile operations also allow users to change the passwords that they use when they sign in to your Account Management application.

GetAccountInfo

Description

This method retrieves profile information for a specified account.

This method is an authenticated method. For a code example that uses this method, see [Account management, on page 44](#).

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|---|--|
| AuthenticationInfo | Specifies the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |

Return Value

This method returns the [SSWSAccountInfo, on page 69](#) data type.

For a list of possible errors, see [Returned errors, on page 80](#).

GetMediaTypes

Description

This method retrieves the media types available for the specified backup, CD or DVD.

This method is an authenticated method. For a code example that uses this method, see [Order media operation, on page 44](#).

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|---|--|
| AuthenticationInfo | Specifies the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |
| BackupDate | The date of the backup being requested. | wsdl_utc_time_in_msec |

Return Value

This method returns an array of [SSWSMediaType, on page 77](#) data types and the number of elements in the array. This data type includes the type of media available for the account (CD or DVD) and the number of disks required for the data backed up at the specified backup date.

For a list of possible errors, see [Returned errors, on page 80](#).

SubmitMediaOrder

Description

This method submits a request for an image of a specific backup to the DataBundler application.

This method is an authenticated method. For a code example that uses this method, see [Order media operation, on page 44](#).

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|---|--|
| AuthenticationInfo | Specifies the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |
| MediaType | The type of media you want to order. 0=CD 1=DVD. | wSDL_int |
| ShippingLabel | The text to use on the shipping label. | wSDL_string |
| ShippingPriority | The shipping priority. | wSDL_int |
| MediaPassword | A password associated with the backup image on the media. Users must use this password to retrieve data from the media. | wSDL_string |
| BackupDate | The date of the requested backup. | wSDL_utc_time_in_msec |

Return Value

This method does not return any values. If successful, it submits the order to the DataBundler application.

For a list of possible errors, see [Returned errors, on page 80](#).

SetConfiguration

Description

This method changes the Agent configuration for the specified account. This method is an authenticated method.

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|---|--|
| AuthenticationInfo | Specifies the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |
| ConfigurationId | Specifies the ID of the new configuration. | wSDL_int |

Return Value

This method does not return any values. If successful, it changes the configuration for the specified account.

For a list of possible errors, see [Returned errors, on page 80](#).

SetAccountPassword

Description

This method enables you to change the password associated with a specific account. This method has no effect on passwords stored in enterprise directories. You must change those passwords in the enterprise directory.

This method is an authenticated method.

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|---|--|
| AuthenticationInfo | Specifies the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |
| NewPassword | The new password for the account. | wSDL_string |

Return Value

This method does not return values. If the method is successful, it sets the password to the new value.

For a list of possible errors, see [Returned errors, on page 80](#).

SetAccountProfile

Description

The method supplies information that changes the values in a user's profile. This method has no effect on information stored in an enterprise directory. You must change those values in the enterprise directory.

This method is an authenticated method.

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|---|--|
| AuthenticationInfo | Specifies the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |
| ProfileData | Specifies the information you want to change in the profile. | SSWSBackupDateInfo, on page 72 |

Returns

This method does not return values. If the method is successful, it changes the profile data to the new values specified in this method.

For a list of possible errors, see [Returned errors, on page 80](#).

Chapter 14: Display operations

This chapter describes the methods that affect the display of your Account Management application.

- [Overview, below](#)
- [GetAppVersion, below](#)
- [GetAccountSummaryInfo, on the next page](#)
- [GetAccountHistory, on the next page](#)
- [GetAccountWebSiteSettings, on page 109](#)
- [GetAccountWebSiteSettings2, on page 110](#)
- [GetAccountWebSiteSettings3, on page 111](#)
- [GetBrandingInfo, on page 111](#)
- [GetBackupDates, on page 112](#)
- [GetBackupDatesWithoutSizes, on page 113](#)

Overview

The display operations affect the appearance of your Account Management application. The available methods allow you to retrieve and use the different settings configured for a community in Support Center. Depending on how you develop your application pages, you can choose to use or ignore the information you retrieve.

GetAppVersion

Description

This method retrieves the application version to display on an application page.

This method is an unauthenticated method. For an example of how to use a display method, see [Display operations, on page 49](#).

Parameters

This method does not use input parameters.

Return Value

This method returns the version of the Account Management Website in a format of x.x.x.x. It retrieves this information from the Registry database on the Data Center server.

For a list of possible errors, see [Returned errors, on page 80](#).

GetAccountSummaryInfo

Description

This method retrieves information that you can use to display information on an account Summary page.

This method is an authenticated method. For an example of how to use a display method, see [Display operations, on page 49](#).

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|---|--|
| AuthenticationInfo | Contains the information needed to identify the account and authenticate the user | SSWSTicket, on page 79 |

Return Value

This method returns the information in a [SSWSAccountSummaryInfo, on page 71](#) data type.

For a list of possible errors, see [Returned errors, on page 80](#).

GetAccountHistory

Description

This method retrieves the information about the backups associated with the account, when the account became active, the storage limits associated with the account, and orders for backup images on media.

This method is an authenticated method. For an example of how to use a display method, see [Display operations, on page 49](#).

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|---|--|
| AuthenticationInfo | Contains the information needed to identify the account and authenticate the user | SSWSTicket, on page 79 |

Return Value

This method returns the information in a [SSWSAccountHistory, on page 68](#) data type.

For a list of possible errors, see [Returned errors, on page 80](#).

GetAccountWebSiteSettings

Description

This method returns the Website Settings configured in Support Center for a specified community configuration. The Website Settings determine which fields to display and which features to enable in your Account Management application.

This method is an unauthenticated method. For an example of how to use a display method, see [Display operations, on page 49](#).

For a more complete version of this method, see [GetAccountWebSiteSettings3, on page 111](#). For best practice, use the most complete version.

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|-----------------|---|--------------|
| CommunityID | The numeric identifier associated with the community. If you do not know the community ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the community. Support Center displays the ID in the Community Status section of the Status tab in the right pane. | wsdl_ int |
| ConfigurationID | The numeric identifier associated with the configuration. If you do not know the configuration ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the configuration. Support Center displays the ID at the bottom of the Edit tab in the right pane. | wsdl_ int |

Return Value

This method returns information in the [AccountWebSiteSettings, on page 58](#) data type.

For a list of possible errors, see [Returned errors, on page 80](#).

GetAccountWebSiteSettings2

Description

This method returns the Website Settings for a community and configuration. The Website Settings determine which fields to display and which features to enable in your Account Management application.

This method is an unauthenticated method. For an example of how to use a display method, see [Display operations, on page 49](#).

For a more complete version of this method, see [GetAccountWebSiteSettings3, on the next page](#). For best practice, use the most complete version.

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|-----------------|---|--------------|
| CommunityID | The numeric identifier associated with the community. If you do not know the community ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the community. Support Center displays the ID in the Community Status section of the Status tab in the right pane. | wsdl_ int |
| ConfigurationID | The numeric identifier associated with the configuration. If you do not know the configuration ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the configuration. Support Center displays the ID at the bottom of the Edit tab in the right pane. | wsdl_ int |

Return Value

This method returns information in the [AccountWebSiteSettings2, on page 60](#) data type.

For a list of possible errors, see [Returned errors, on page 80](#).

GetAccountWebSiteSettings3

Description

This method returns the Website Settings for a community and configuration. The Website Settings determine which fields to display and which features to enable in your Account Management application.

This method is an unauthenticated method. For an example of how to use a display method, see [Display operations, on page 49](#).

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|-----------------|---|--------------|
| CommunityID | The numeric identifier associated with the community. If you do not know the community ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the community. Support Center displays the ID in the Community Status section of the Status tab in the right pane. | wsdl_ int |
| ConfigurationID | The numeric identifier associated with the configuration. If you do not know the configuration ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the configuration. Support Center displays the ID at the bottom of the Edit tab in the right pane. | wsdl_ int |

Return Value

This method returns information in the [AccountWebsiteSettings3, on page 63](#) data type.

For a list of possible errors, see [Returned errors, on page 80](#).

GetBrandingInfo

Description

This method retrieves the product name and image required to rebrand the Account Management application with a different product name and logo.

This method is an unauthenticated method. For an example of how to use a display method, see [Display operations, on page 49](#).

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------|---|-----------------------|
| CommunityID | The numeric identifier associated with the community where the account will register. If you do not know the community ID, you can use Support Center to determine it. In the left pane of Support Center, click the node that represents the community. Support Center displays the ID in the Community Status section of the Status tab in the right pane. | wSDL_int |
| LastDownload | The time when branding information was downloaded previously. | wSDL_utc_time_in_msec |

Return Value

This method returns information in the [SSWSBrandingInfo, on page 73](#) data type.

For a list of possible errors, see [Returned errors, on page 80](#).

GetBackupDates

Description

This method retrieves the backup dates for a specific account. Use this method to display a list of backup dates associated with an account and the status of each backup that occurred at that date.

This method is an authenticated method. For an example of how to use a display method, see [Display operations, on page 49](#).

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|---|--|
| AuthenticationInfo | Specifies the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |

Return Value

This method returns an array of [SSWSBackupDateInfo, on page 72](#) data types and the number of elements in the array.

For a list of possible errors, see [Returned errors, on page 80](#).

GetBackupDatesWithoutSizes

Description

This method retrieves the backup dates for a specific account. Use this method to display a list of backup dates associated with an account without information about the status of the backups.

This method is an authenticated method. For an example of how to use a display method, see [Display operations, on page 49](#).

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|---|--|
| AuthenticationInfo | Specifies the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |

Return Value

This method returns an array of [SSWSBackupDateInfoWithoutSizes, on page 72](#) data types and the number of elements in the array.

For a list of possible errors, see [Returned errors, on page 80](#)

Chapter 15: Retrieve operations

This chapter describes the methods for retrieve operations.

- [Overview, below](#)
- [FetchRetrieveBytes, below](#)
- [FetchSingleFile, on the next page](#)
- [FindFiles, on page 116](#)
- [FindFiles2, on page 117](#)
- [GetFileList, on page 117](#)
- [GetFileList2, on page 118](#)
- [GetFilesCountForFolder, on page 119](#)
- [GetFoldersForTdate, on page 120](#)
- [GetFoldersForTdate2, on page 121](#)
- [GetMyRoamState, on page 122](#)
- [GetRetrieveSize, on page 122](#)
- [GetRetrieveSize2, on page 123](#)
- [IsMyRoamLicensed, on page 124](#)
- [RetrieveSelectedFiles, on page 124](#)
- [RetrieveSelectedFilesEx, on page 125](#)

Overview

The retrieve operations control the tasks required to retrieve backed up files from the Data Center.

FetchRetrieveBytes

Description

This method retrieves a group of files. To use this method, you must have valid authentication information in the form of an SSWSTicket object.

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|--|--|
| AuthenticationInfo | Contains the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |
| DownloadInfo | Contains the information returned by the download. | RetrieveDownloadInfo, on page 67 |
| ByteStart | Specifies the starting point at which to fetch bytes. | wsdl_int |
| ByteCount | Specifies the number of bytes to fetch. | wsdl_int |

Return Value

This method returns an array of bytes.

For a list of possible errors, see [Returned errors, on page 80](#).

FetchSingleFile

Description

This method retrieves a single file from the Data Center without sending it to a compressed ZIP folder. To use this method, you must have valid authentication information in the form of an SSWSTicket object.

This method is an authenticated method. For sample code that uses this method, see [Registration and download, on page 32](#).

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|---|--|
| AuthenticationInfo | Contains the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |
| RetrieveFileInfo | Specifies whether this operation is a new installation or a reinstallation for an existing account. | RetrieveFileInfo, on page 67 |
| ByteStart | Specifies the starting point at which to fetch bytes. | wsdl_int |
| ByteCount | Specifies the number of bytes to fetch. | wsdl_int |

Return Value

This method returns an array of bytes.

For a list of possible errors, see [Returned errors, on page 80](#).

FindFiles

Description

This method finds the list of files or folders from a specified path that match a specified pattern for a specified backup date. To use this method, you must have valid authentication information in the form of an SSWSTicket object.

This method is an authenticated method. For sample code that uses this method, see [Registration and download, on page 32](#).

For a more complete version of this method, see [FindFiles2, on the next page](#). For best practice or to retrieve files from Mac accounts, use the most complete version.

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|--|--|
| AuthenticationInfo | Contains the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |
| tdate | Specifies the date of the backup. Enter the value 0 to request all versions of backups. | wsdl_utc_time_in_msec |
| SearchString | Specifies the pattern that you want the files to match. | wsdl_string |
| FolderPathName | Specifies the path to the folder in which you want to search. | wsdl_string |

Return Value

This method returns an array of [SSWSFileRevision, on page 75](#) data types.

For a list of possible errors, see [Returned errors, on page 80](#).

FindFiles2

Description

This method finds the list of files or folders from a specified path that match a specified pattern for a specified backup date. To use this method, you must have valid authentication information in the form of an SSWSTicket object.

To retrieve files from Mac accounts, you must use this method instead of [FindFiles](#), on the previous page.

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|--|---|
| AuthenticationInfo | Contains the information needed to identify the account and authenticate the user. | SSWSTicket , on page 79 |
| tdate | Specifies the date of the backup. Enter the value 0 to request all versions of backups. | wsdl_utc_time_in_msec |
| SearchString | Specifies the pattern that you want the files to match. | wsdl_string |
| FolderPathName | Specifies the path to the folder in which you want to search. | wsdl_string |

Return Value

This method returns the [SSWSFileRevision3](#), on page 76 data type.

For a list of possible errors, see [Returned errors](#), on page 80.

GetFileList

Description

This method returns a list of files for a specified folder and a specified backup date.

This method is an authenticated method. For sample code that uses this method, see [Registration and download](#), on page 32.

For a more complete version of this method, see [GetFileList2](#), on the next page. For best practice or to retrieve files for a Mac account, use the most complete version.

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|--|--|
| AuthenticationInfo | Specifies the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |
| tdate | Specifies the date of the backup. Enter the value 0 to request all versions of backups. | wsdl_utc_time_in_msec |
| FolderPathName | Specifies the name and location of the folder from which you want to get files. | wsdl_string |
| Start | Specifies the starting point of a range of files to include in the list. For example, a Start of 1 and a Range of 5 instructs the method to return the list in batches of five files. A Start of 0 with a Range of 0 returns the entire list. | wsdl_int |
| Range | Specifies the ending point of a range of files to include in the list. For example, a Start of 1 and a Range of 5 instructs the method to return the list in batches of five files. A Start of 0 with a Range of 0 returns the entire list. | wsdl_int |

Return Value

This method returns an array of [SSWSFileRevision, on page 75](#) data types.

GetFileList2

Description

This method gets a list of the files in a specified folder for a specified backup date. To use this method, you must have valid authentication information in the form of an SSWSTicket object.

To retrieve files from Mac accounts, you must use this method instead of [GetFileList, on the previous page](#).

This method is an authenticated method. For sample code that uses this method, see [Registration and download, on page 32](#).

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|--|--|
| AuthenticationInfo | Contains the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |
| tdate | Specifies the date of the backup. Enter the value 0 to request all versions of backups. | wsdl_utc_time_in_msec |
| FolderPathName | Specifies the path to the folder in which you want to search. | wsdl_int |
| Start | Specifies the starting point of a range of files to include in the list. For example, a Start of 1 and a Range of 5 instructs the method to return the list in batches of five files. A Start of 0 with a Range of 0 returns the entire list. | wsdl_int |
| Range | Specifies the ending point of a range of files to include in the list. For example, a Start of 1 and a Range of 5 instructs the method to return the list in batches of five files. A Start of 0 with a Range of 0 returns the entire list. | wsdl_int |

Return Value

This method returns the [SSWSFileRevision3, on page 76](#) data type.

For a list of possible errors, see [Returned errors, on page 80](#).

GetFilesCountForFolder

Description

The method returns the total number of files and subfolders for the specified folder for the specified backup date. To use this method, you must have valid authentication information in the form of an

SSWSTicket object.

This method is an authenticated method. For sample code that uses this method, see [Registration and download, on page 32](#).

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|--|--|
| AuthenticationInfo | Contains the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |
| tdate | Specifies the date of the backup. Enter the value 0 to request all versions of backups. | wsdl_utc_time_in_msec |
| FolderPathName | Specifies the folder from which you want to get the file count. | wsdl_string |

Return Value

This method returns an integer that represents the number of files in the specified folder

For a list of possible errors, see [Returned errors, on page 80](#).

GetFoldersForTdate

Description

This method gets the list of folder for the specified account for the specified backup date. To use this method, you must have valid authentication information in the form of an SSWSTicket object.

This method is an authenticated method. For sample code that uses this method, see [Registration and download, on page 32](#).

For a more complete version of this method, see [GetFoldersForTdate2, on the next page](#). For best practice or to retrieve files for a Mac account, use the most complete version.

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|--|--|
| AuthenticationInfo | Contains the information needed to identify the account and authenticate the | SSWSTicket, on page 79 |

| Parameter | Description | Type |
|-----------|--|-----------------------|
| | user. | |
| tdate | Specifies the date of the backup. Enter the value 0 to request all versions of backups. | wsdl_utc_time_in_msec |

Return Value

This method returns an array of [SSWSFileRevision](#), on page 75 data types and an integer that represents the number elements in the array.

For a list of possible errors, see [Returned errors](#), on page 80.

GetFoldersForTdate2

Description

This method gets the list of folder for the specified account for the specified backup date. To use this method, you must have valid authentication information in the form of an SSWSTicket object.

To retrieve files from Mac accounts, you must use this method instead of [GetFoldersForTdate](#), on the [previous page](#).

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|--|---|
| AuthenticationInfo | Contains the information needed to identify the account and authenticate the user. | SSWSTicket , on page 79 |
| tdate | Specifies the date of the backup. Enter the value 0 to request all versions of backups. | wsdl_utc_time_in_msec |

Return Value

This method returns an array of [SSWSFileRevision3](#), on page 76 data types and an integer that represents the number of elements in the array.

For a list of possible errors, see [Returned errors](#), on page 80.

GetMyRoamState

Description

This method indicates whether the specified user has permissions to use MyRoam.

This method is an authenticated method. For sample code that uses this method, see [Registration and download, on page 32](#).

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|--|--|
| AuthenticationInfo | Contains the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |

Return Value

This method returns the following boolean results:

- TRUE = MyRoam is allowed
- FALSE = MyRoam is not allowed

For a list of possible errors, see [Returned errors, on page 80](#).

GetRetrieveSize

Description

This method gets the total size and count of files that the user can retrieve with MyRoam.

This method is an authenticated method. For sample code that uses this method, see [Registration and download, on page 32](#).

For a more complete version of this method, see [GetRetrieveSize2, on the next page](#). For best practice, use the most complete version.

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|---|--------------------------------|
| AuthenticationInfo | Contains the information needed to identify | SSWSTicket, on |

| Parameter | Description | Type |
|-----------|---|--|
| | the account and authenticate the user. | page 79 |
| sizeIn | Specifies the number of files in the file list. This parameter does not pertain if you use Java. It pertains only if you use C++. | wsdl_int |
| FileList | Specifies the file list to verify. | SSWSFileRevision, on page 75 |

Return Value

This method returns the [RetrievalInfo, on page 67](#) data type.

For a list of possible errors, see [Returned errors, on page 80](#).

GetRetrieveSize2

Description

This method gets the total size and count of files that the user can use MyRoam to retrieve.

This method is an authenticated method. For sample code that uses this method, see [Registration and download, on page 32](#).

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|---|---|
| AuthenticationInfo | Contains the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |
| sizeIn | Specifies the number of files in the file list. This parameter does not pertain if you use Java. It pertains only if you use C++. | wsdl_int |
| FileList | Specifies the file list to verify. | SSWSFileRevision2, on page 75 |

Return Value

This method returns the [RetrievalInfo2, on page 68](#) data type.

For a list of possible errors, see [Returned errors, on page 80](#).

IsMyRoamLicensed

Description

This method verifies whether MyRoam is licensed for a specified user.

This method is an authenticated method. For sample code that uses this method, see [Registration and download, on page 32](#).

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|--|--|
| AuthenticationInfo | Contains the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |

Return Value

This method returns the following boolean values:

- **TRUE**. Licensed
- **FALSE**. Not licensed

For a list of possible errors, see [Returned errors, on page 80](#).

RetrieveSelectedFiles

Description

This method retrieves a specified set of files and sends the files to a compressed ZIP folder.

This method is an authenticated method. For sample code that uses this method, see [Registration and download, on page 32](#).

For a more complete version of this method, see [RetrieveSelectedFilesEx, on the next page](#). For best practice, use the most complete version.

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|---|--------------------------------|
| AuthenticationInfo | Contains the information needed to identify | SSWSTicket, on |

| Parameter | Description | Type |
|-----------|---|---|
| | the account and authenticate the user. | page 79 |
| size | Specifies the number of files in the file list. This parameter does not pertain if you use Java. It pertains only if you use C++. | wsdl_int |
| FileList | Specifies the files to retrieve. | SSWSFileRevision3, on page 76 |

Return Value

This method returns an array of [RetrieveDownloadInfo, on page 67](#) data types.

For a list of possible errors, see [Returned errors, on page 80](#).

RetrieveSelectedFilesEx

Description

This method retrieves a specified set of files and sends the files to a compressed ZIP folder.

This method is an authenticated method. For sample code that uses this method, see [Registration and download, on page 32](#).

Parameters

This method uses the following input parameters:

| Parameter | Description | Type |
|--------------------|---|---|
| AuthenticationInfo | Contains the information needed to identify the account and authenticate the user. | SSWSTicket, on page 79 |
| sizeIn | Specifies the number of files in the file list. This parameter does not pertain if you use Java. It pertains only if you use C++. | wsdl_int |
| FileList | Specifies the files to retrieve. | SSWSFileRevision3, on page 76 |
| flags | Specifies the format in which to deliver the files. You can use the following flags: <ul style="list-style-type: none">• 0 = zip• 1 = self-extracting executable | wsdl_uint |
| locale | Specifies the language of the installer | wsdl_string |

| Parameter | Description | Type |
|-----------|--|------|
| | program. You can specify the standard locale string for any of the languages that Connected Backup supports (for example jp = Japanese). This parameter is ignored if you specify 0 for flags. | |

Return Value

This method returns an array of [RetrieveDownloadInfo, on page 67](#) data types.

For a list of possible errors, see [Returned errors, on page 80](#).

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Feedback on Account Management Web Services Development (Micro Focus Connected Backup 8.11)

Add your feedback to the email and click **Send**.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to swpdl.ConnectedBackup.DocFeedback@microfocus.com.

We appreciate your feedback!