AT&T Synaptic Storage as a Service℠ Getting Started Guide

Version 3.0

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Welcome!

Thank you ordering **AT&T Synaptic Storage as a Service℠**. This guide provides some basic information you'll need to start using the service, whether you're developing your own application or connecting via software from a third-party provider.

Here's a synopsis of what you'll find in this document.

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Overview

AT&T Synaptic Storage as a Service℠ provides on-demand storage of data objects in consumption based, pay-per-use billing model. The service is accessed using the EMC® Atmos™ application programming interface (API).[1] This API allows you to directly integrate the service with custom applications or off-the-shelf packaged software.

Developers can use the API to connect AT&T Synaptic Storage as a Service to a nearly an unlimited variety of web services applications that they're developing, including the ability to upload and download data objects from virtually any web-enabled device.

Additionally, you can choose from an increasing range of options from third-party providers who have pre-integrated the API with commercially available software, appliances and services. These solutions allow non-developers to get started very quickly—without API coding—to enable popular uses like customer data archiving, backup, image management, file shares and much more.

This document will focus on the basics of how to get started with the service once you've made the decision to either write to the API directly or use a third-party solution to connect to the service. For more information about AT&T Synaptic Storage as a Service or how it can be used with your application environment, please contact your AT&T account representative or sales specialist.

Key Account Information

The following items will be very important for you to record for your account. In addition, you should also safely make note of your portal password, security question and answer, and the Shared Secret associated with each UID you enable.

Host	https://storage.synaptic.att.com/rest
Port	443
Company Name	
Portal User Name	
Subtenant ID	
UID(s)	

[1] The EMC® Atmos™ API is provided under license from EMC. You are required to accept the terms of this license at the time of the creation of your account and comply with those terms when the API is used.

Explanation of Terms

All users will use a common framework of data elements to use the API and access the service. These include:

Subtenant ID – A 32-character, randomly generated alphanumeric code that is associated with each Site ID. This code uniquely identifies your company to the EMC® Atmos™ platform that underlies AT&T Synaptic Storage as a Service. An example Subtenant ID is: *5f8442b515ec402fb4f39ffab8c8179a*

UID – A unique identifier that you can assign for separate applications, organizations or individual users. When your account is first created, you will have one UID by default. Through the portal you have the option to create additional UIDs, allowing you to use separate credentials for authentication and access, as well as to itemize usage for internal charge-back purposes. Default UIDs are typically a derivation of your email address, such as: *nameATdomainDOTcom*

Token ID – A unique combination of your Subtenant ID and UID that consists of combining the two codes together, separated by a slash (/). Using the example Subtenant ID and UID from above, the Token ID would be: *5f8442b515ec402fb4f39ffab8c8179a/nameATdomainDOTcom*

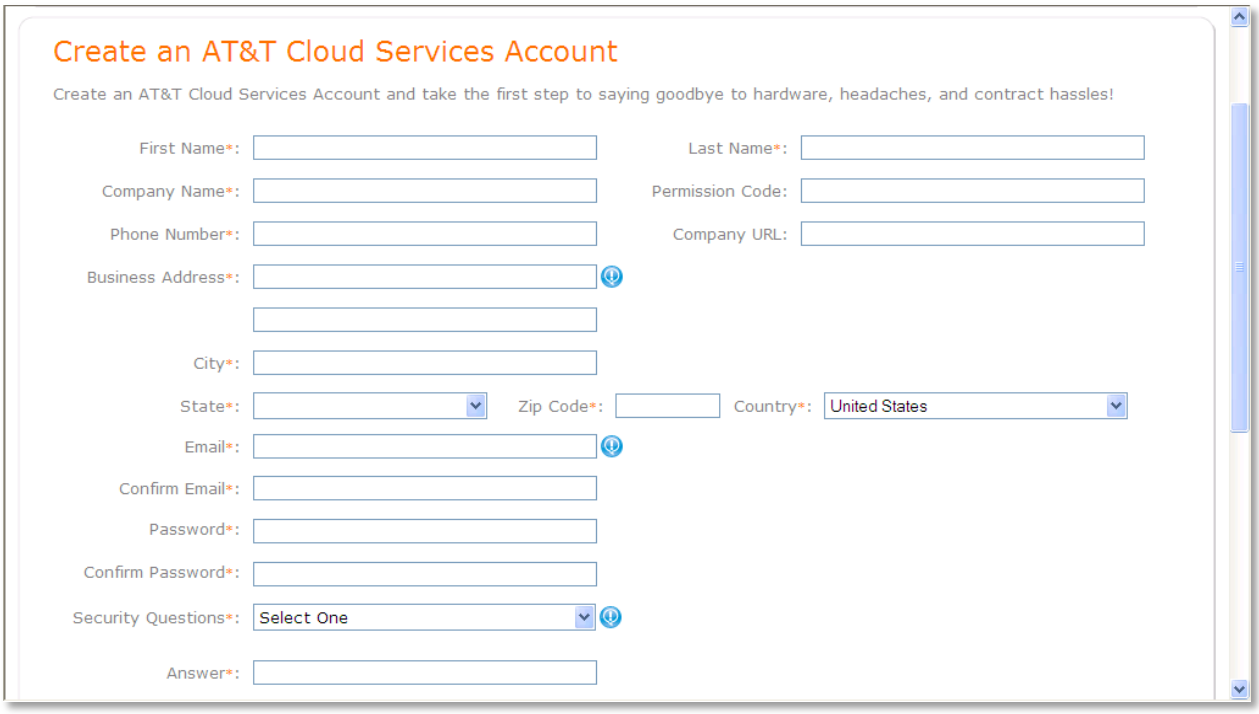
Shared Secret – A random string of 27 characters (base 64) that is uniquely associated with each UID. The shared secret is a 160-bit key that is used to produce a unique, encrypted digital signature for each API request. The signature is a Hash Message Authentication Code (HMAC) that combines various pieces of the message including the Token ID, type of request, date, address and other header information. An example Shared Secret is: *MBqhzSzhZJCQHE9U4RBK9ze3K7U=*

Accessing the Portal

The following are step-by-step instructions on how to log into the AT&T Synaptic Storage as a Service user portal via the AT&T Cloud Services Portal.

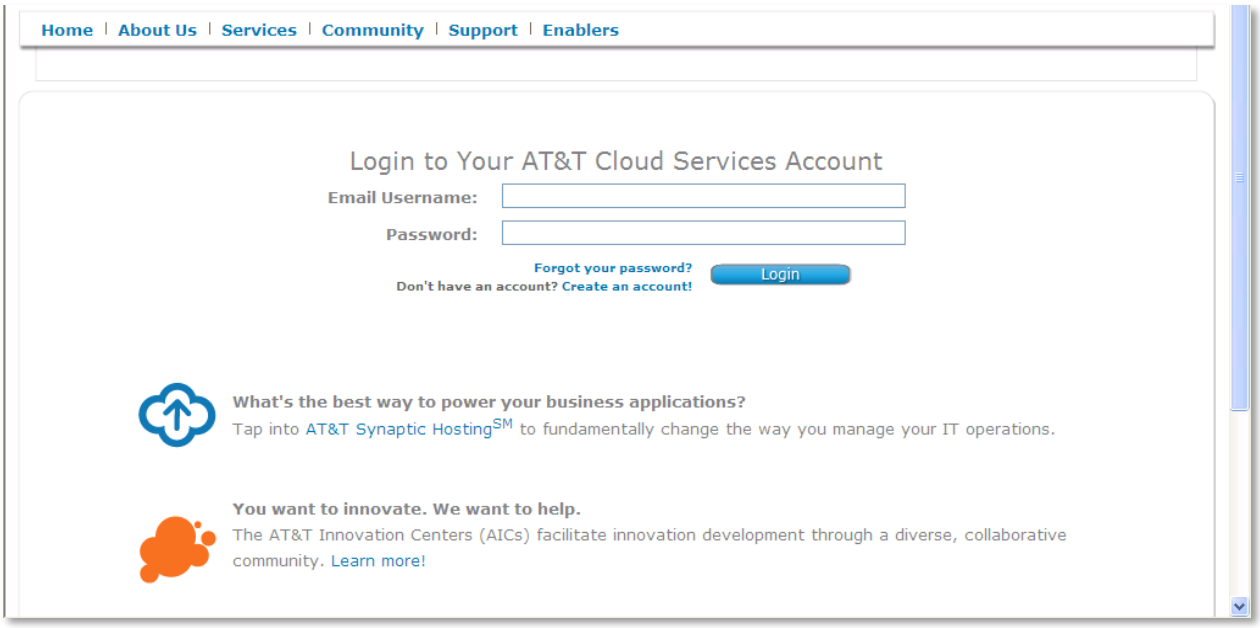
Step 1 – Portal Registration

First, you'll want to ensure that you've created an account and have your user name and password handy.



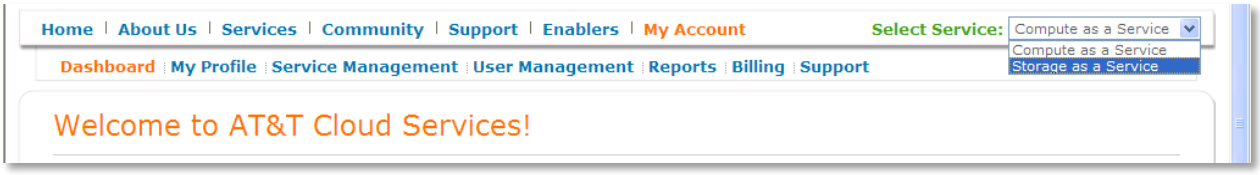
Step 2 – Portal Login

Go to the AT&T Cloud Services Portal at www.synaptic.att.com. Enter your AT&T Cloud Services Portal user name and password in the appropriate fields, and click the 'Log In' button. If you don't remember your user ID or password, help is available from the links provided on the log in page.



Step 3 – Choose Your Service View

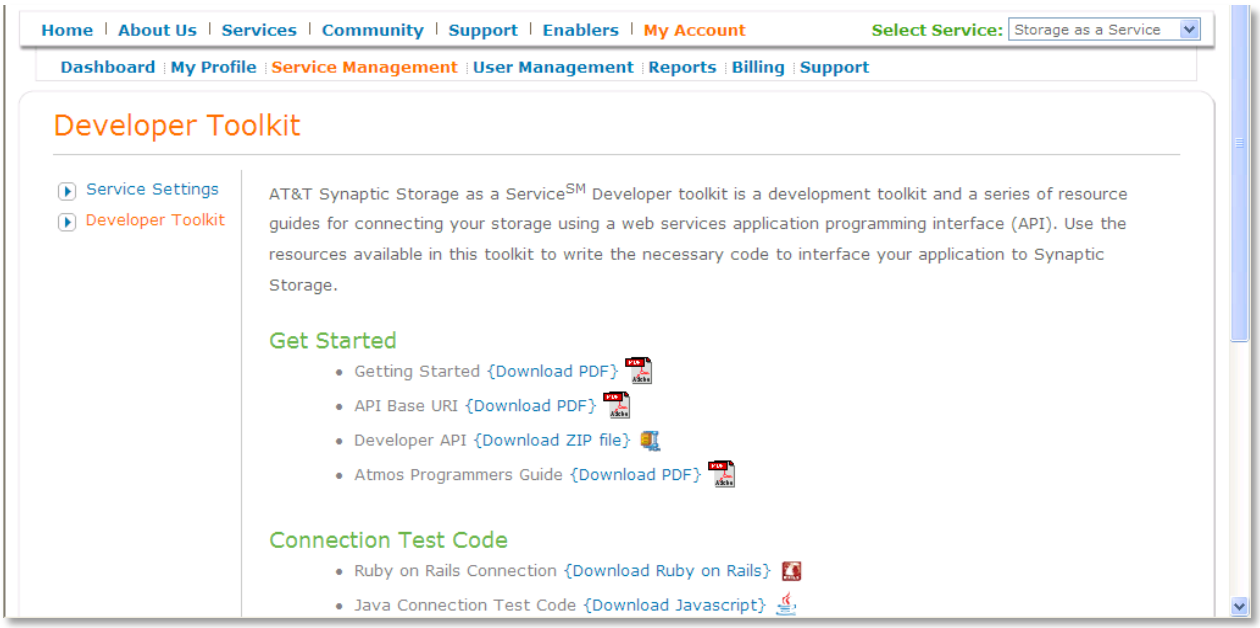
If you've subscribed to both AT&T Synaptic Storage as a Service and AT&T Synaptic Compute as a Service, you'll be presented with the AT&T Synaptic Compute as a Service Welcome Dashboard when you first login. To change the view to Synaptic Storage as a Service, simply click on the "Select Service" drop down field within the top right hand portion of the navigation and select Storage as a Service from the list.



Using the API

If you're an application developer, the **Developer Toolkit** will provide the information and tools you'll need to start using the EMC® Atmos™ API with your application. If you're not an application developer, you'll want to skip the Developer Toolkit and refer instead to the documentation or resources specific to the third-party solution that you're using to connect to the service.[2]

To access the Developer Toolkit, log in to the AT&T Cloud Portal, click on the "Service Management" navigation link. This will bring you to the area of the portal that provides the tools and processes needed to manage your online storage. Click on the "Developer Toolkit" link located in the left-hand navigation bar.



The Developer Toolkit includes these resources:

- Getting Started Guide
- API Base URI
- Developer APIs
- EMC® Atmos™ Programmer's Guide
- Sample Ruby on Rails code
- Sample Java code
- Link to the Developer Discussion Forums

The following are common questions that may arise when first using the EMC® Atmos™ API with AT&T Synaptic Storage as a Service:

[2] Enabler services are provided by the indicated service provider and are not provided by AT&T Inc. or its affiliates. You may be required to enter into a separate agreement or End User License Agreement with the service provider before being able to use it with AT&T Synaptic Storage as a Service. Descriptions of services or products shown on the AT&T Cloud portal website are provided by the indicated provider and are not an endorsement by AT&T. The URL links shown are provided by the service providers indicated. When you click on any of the links shown, you are leaving AT&T's website and will be re-directed to another provider's website, which may be subject to different terms of service or privacy policies. AT&T does not guarantee or warrant that the Enabler software or services offered by the providers listed are error free or that the programs or services work as described.

Developer Hints

How does the policy manager work?
When an object is sent to AT&T Synaptic Storage as a Service platform via an API call (either REST or SOAP), that API call includes transmission of object metadata, not storage policies. Upon receipt of the API request, the EMC® Atmos™ Policy Manager will evaluate the metadata of the object and compare it to any policy triggers that have been set up in the policy selector and assigned to the Subtenant. When the first match is found between the object's specific metadata value and the policy selector of a policy, the object is stored according to the policy specification.

How is the location of the data depot (physical location of the data) chosen?
The location of the data depot is chosen based upon network proximity of the application to the data depots. The host for API requests (https://storage.synaptic.att.com/rest) uses a virtual IP address (VIP) that is dual-homed to the AT&T IDCs hosting the EMC® Atmos™ infrastructure at in both data depots: at IDCs located in Dallas, Texas and Ashburn, Virginia. When an application makes an API call, the IP network will route that request to the nearest data depot based on shortest-path Layer 3 routing from the originating IP address.

How can I control the data depot location?
The data depot location is selected for each object using the network proximity routing methodology described above. Customers cannot specify the primary EMC® Atmos™ location tag via an API call. However, using an AT&T private network connection that terminates at the data depot within a specific data center can provide a means to control the physical data location. For example, if you have a VPN connection into the Dallas data center and your application is located in New York, routing will direct all of your API requests into Dallas. Customers using Internet connectivity may not specify the depot location using this method.

How do I connect to the API from software provided by another vendor?
Please refer to the documentation provided by your software vendor. It's important to note that the vendor may not use the same terminology as AT&T for items such as Subtenant ID, UID, Token ID or Shared Secret. Also, in some cases the software may provide an explicit menu option for AT&T Synaptic Storage as a Service, or you may only find a generic option for EMC® Atmos™. In the latter case, you'll need to change the host name in your software so that it points to the AT&T service.

Navigating the Portal

The AT&T Cloud Services Portal is organized into seven sections:

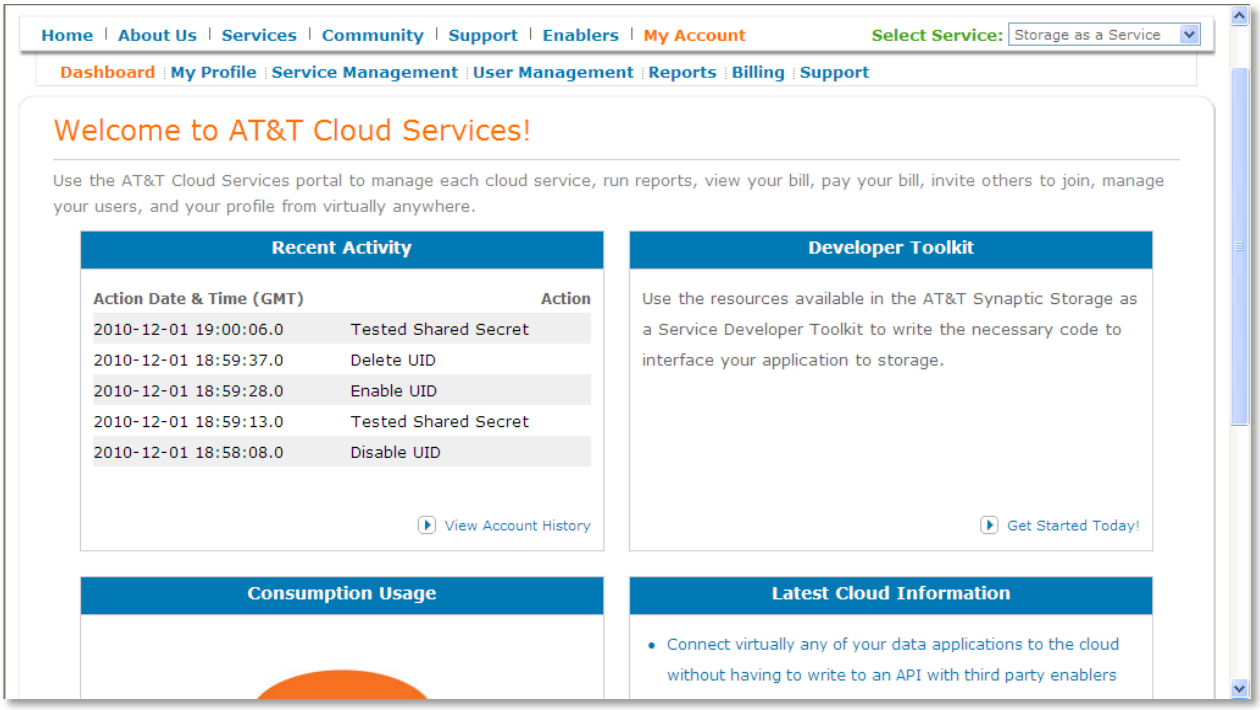
1. (Welcome) Dashboard
2. My Profile
3. Service Management
4. User Management
5. Reports
6. Billing
7. Support

The following sections provide detail about each of these tabs.

1. (Welcome) Dashboard

The Dashboard for AT&T Storage as a Service is a summary dashboard of your service including:

- Recent account activity
- Helpful developer toolkit links
- Consumption usage report link
- Latest AT&T Cloud Information

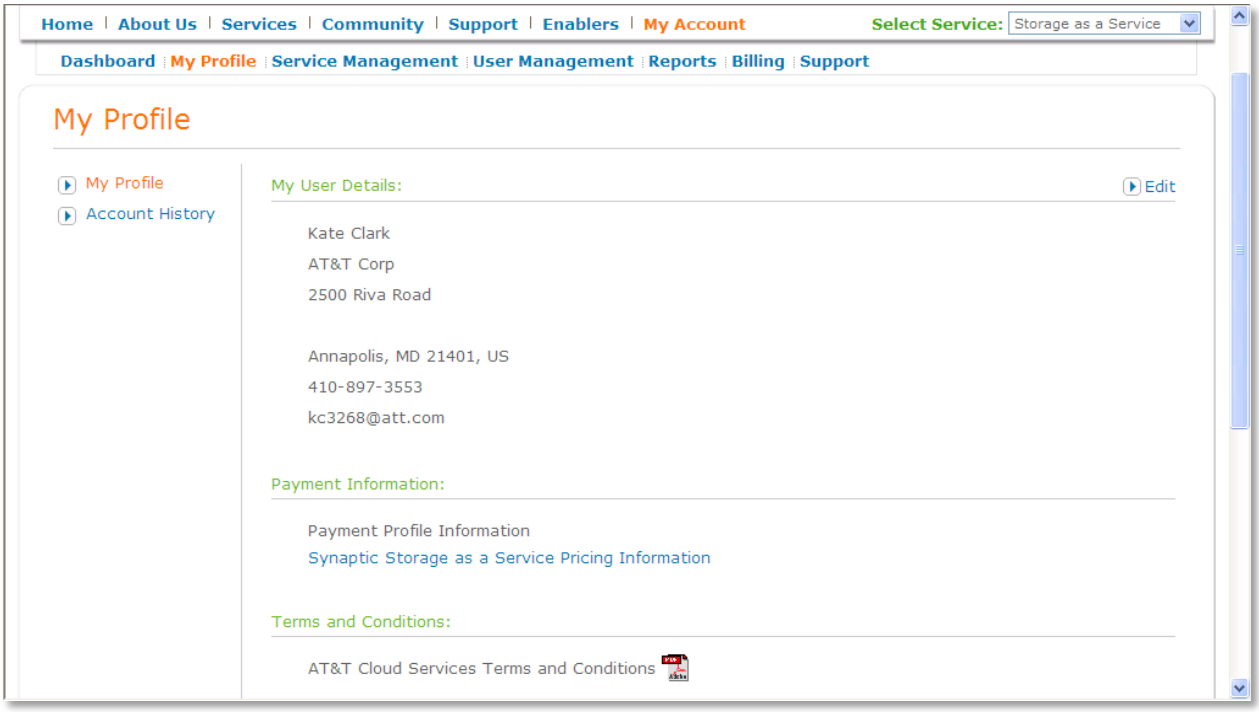


2. My Profile

The My Profile section is your place for managing all of your account information. There are two sub-sections within the My Profile section: My Profile and Account History.

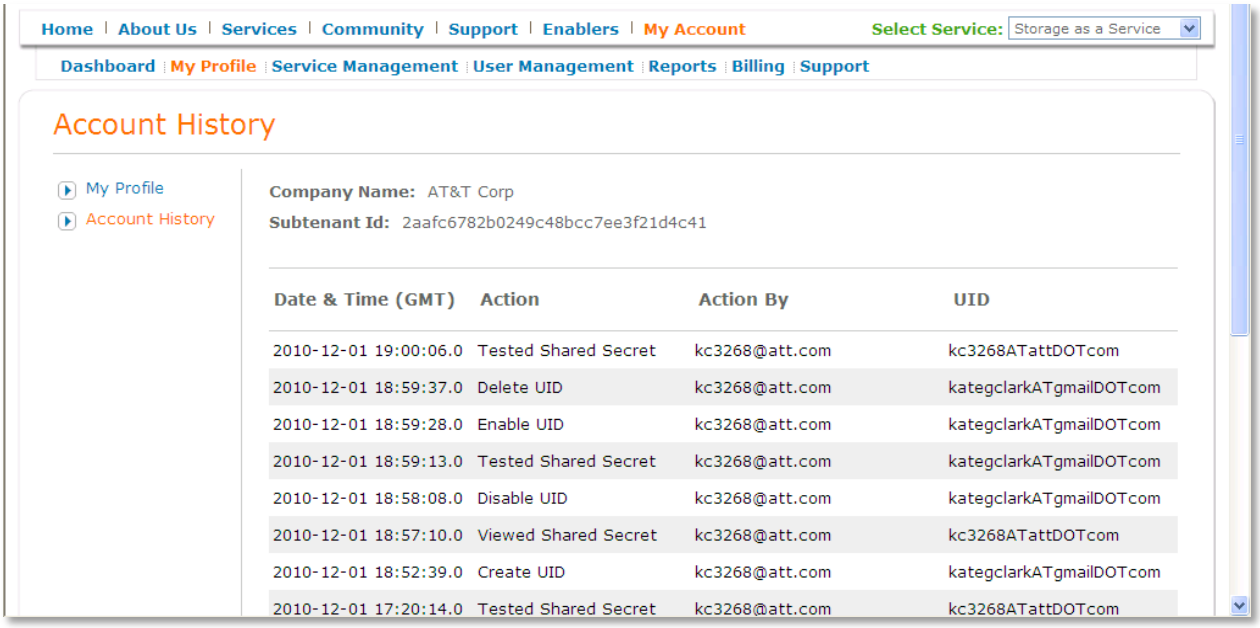
Within the My Profile sub-section you can:

- Manage your user details
- View service pricing information
- Print out a copy of your AT&T Cloud Services Portal terms and conditions agreement
- Reset your password



The Account History sub-section allows you to view your history of AT&T Synaptic Storage as a Service actions based upon UID. The following portal functions are logged and tracked via the Account History tab:

- Login
- Create UID
- Enable UID
- Delete UID
- View Shared Secret
- Reset Shared Secret
- Test Shared Secret



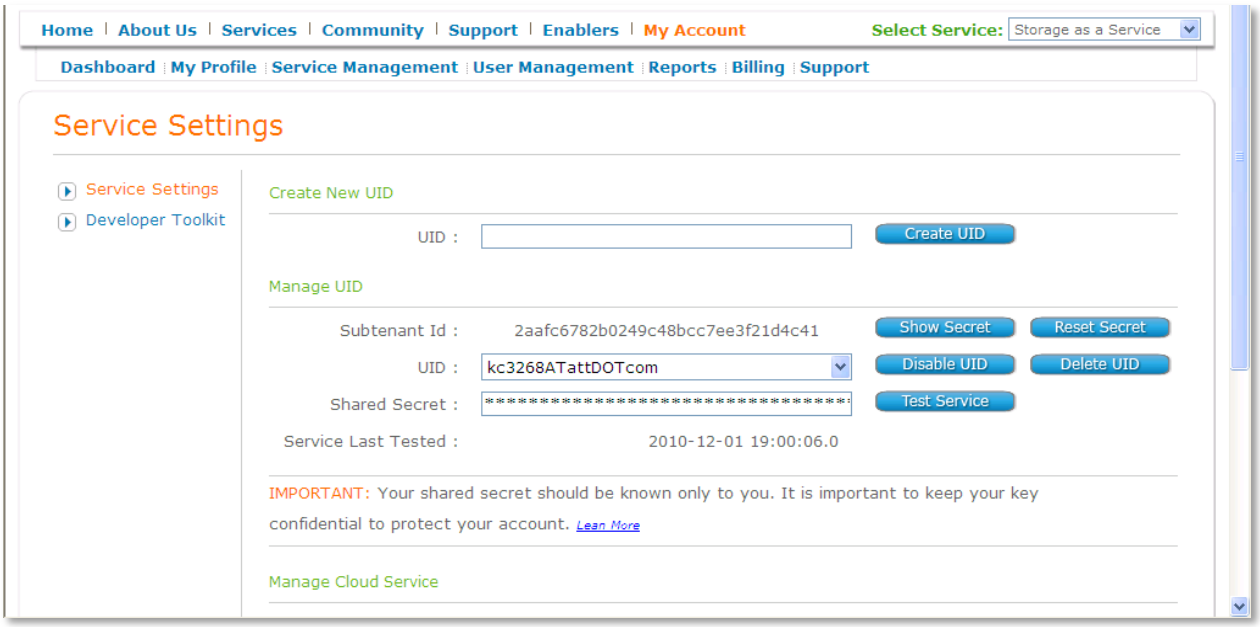
Important! Please note this tab is for actions performed on the AT&T Synaptic Storage as a Service portal only, and should not take the place of your application log or third-party solution.

3. Service Management

The Service Management section gives you the tools you need to manage your AT&T Synaptic Storage as a Service. There are two sub-sections within the My Profile section: Service Settings and Developer Toolkit.

The Service Settings sub-section allows you to create a UID, manage your UID(s), and manage your overall AT&T Cloud Service Portal experience, including:

- Create a new UID (Hint: you can use this for charge back purposes by naming the UID with a 32 alpha/numerical combination) example: Human Resources project 2
- View your Subtenant ID
- View each of the UIDs associated with your Subtenant ID
- Enable or delete each UID
- View your Shared Secret information for each UID
- Test the service
- Disconnect your service or cancel your AT&T Cloud Services account



Click on the **Enable UID** button to enable a UID. When you attempt to enable a UID you must acknowledge a popover window to confirm your choice.

Click on the **Delete UID** button to delete the UID, along with all data associated with that UID.

Please Read this Important Statement about what may happen to data associated with a UID when you select Delete UID.

> **Deleting a UID will delete all data associated with the UID.** Do not delete a UID unless you are certain you have removed all data associated with the UID, you've backed up the data somewhere else, or all the data is safe to permanently

delete. When you attempt to delete a UID you must acknowledge a popover window to confirm the action and that all data for the UID will be deleted.

To **Create a UID,** enter a new email address in the text box and click **Create UID**. After you've created a new UID you can manage it via the Service Management section just like your other UIDs.

Click on the **Show Secret** button to view the Shared Secret associated with a given UID.

Click on the **Test Service** button to verify that your credentials (Subtenant ID, UID and Shared Secret) are operational. The test uses the API to upload a zero-byte object to the AT&T Synaptic Storage as a Service platform and then remove it. This process allows the system to ensure that your credentials are valid and working properly.

Click on the **Reset Secret** button to change the Shared Secret for this UID to a new random string. Please note that if you reset the Shared Secret you must ensure the new Shared Secret is used in the application or third-party software that is connected to AT&T Synaptic Storage as a Service.

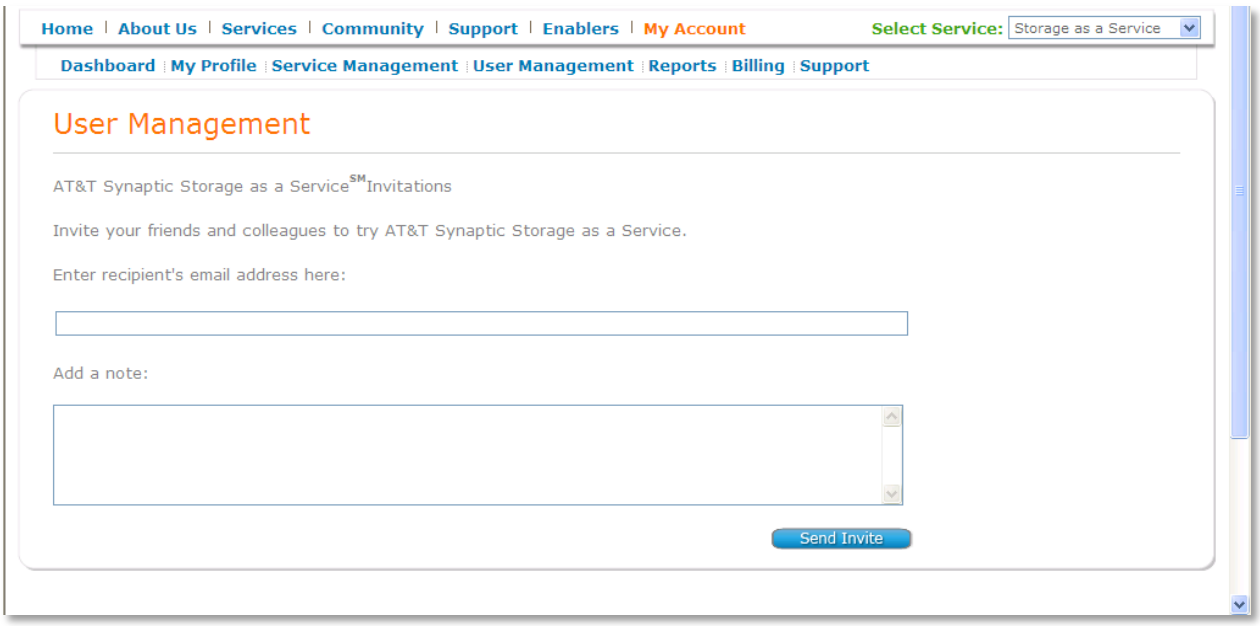
Click on the **Disconnect Service** button to disconnect your entire AT&T Synaptic Storage as a Service. When you attempt to disconnect your service, you must acknowledge a popover window to confirm your choice. Please note: Your AT&T Cloud Services account will still be active but you will no longer be signed up for AT&T Synaptic Storage as a Service.

Click on the **Cancel Account** button to delete your entire AT&T Cloud Services account. When you attempt to cancel your account, you must acknowledge a popoever window to confirm your choice.

The **Developer Toolkit** sub-section will provide the information and tools you'll need to start using the EMC® Atmos™ API with your application. Please see the "Using the API" section above for more details.

4. User Management

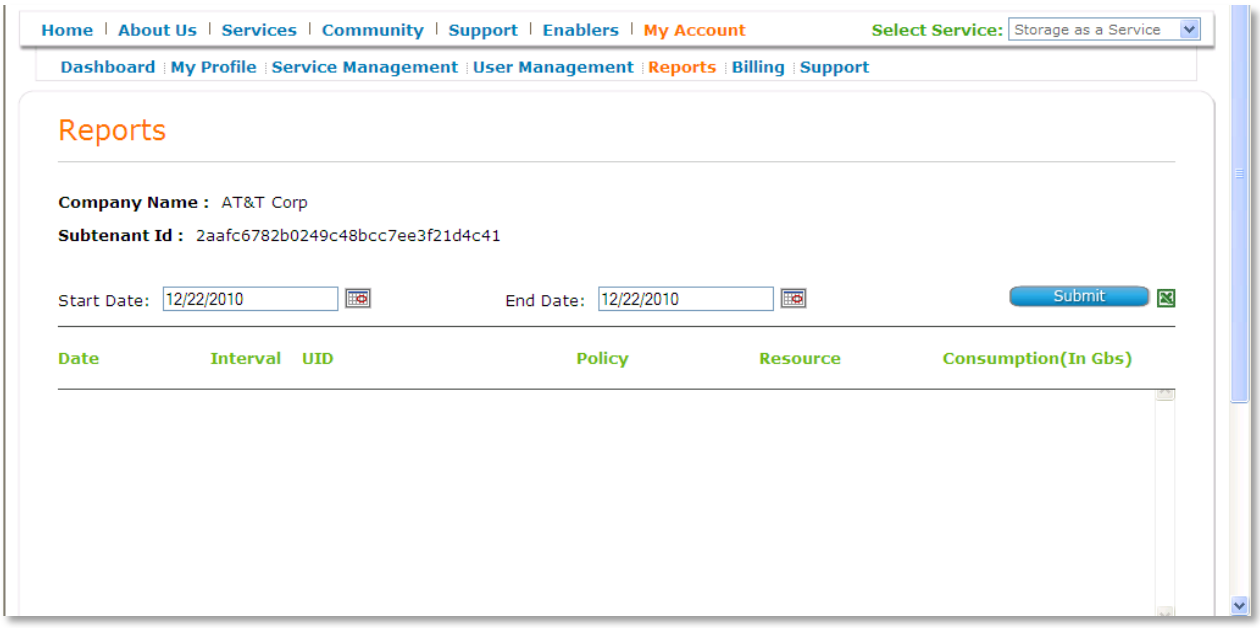
The User Management section gives you the ability to invite other colleagues to learn more about AT&T Cloud Servics and the AT&T Synaptic Storage as a Service offering.



5. Reports

The Reports section allows you to view your consumption based upon your Subtenant ID for a specified time interval.

Enter the Start Date and End Date of the time period that you'd like to view, and then click the Submit button. The resulting consumption report will be displayed in an HTML table on the page. You can also export the report information as an excel file by clicking on the excel icon to the right of the Submit button.



Important! Please note that the consumption report is based upon actual usage as a snapshop at the time of your request. Your billing invoice will show usage consumption for the billing period stated on your invoice.

6. Billing

The Billing section gives you a single location to manage all billing aspects of your AT&T Cloud Services Portal account including the ability to view billing information, pay your bills, and run billing-specific reports – all online!

The View Bill sub-section allows you to view:

- Current and historical billing information
- Your billing account information
- Bill details including:
    - Current and Recurring Charges
    - One-Time and Usage Charges
    - Taxes, Fees and Surcharges
    - Adjustments
    - Payments
    - Discount Summary

The Pay Bill sub-section allows you to:

- Pay your billl online
- See a snapshot of your payment status/history
- Review payment related activities online

The Report Bill sub-section allows you to:

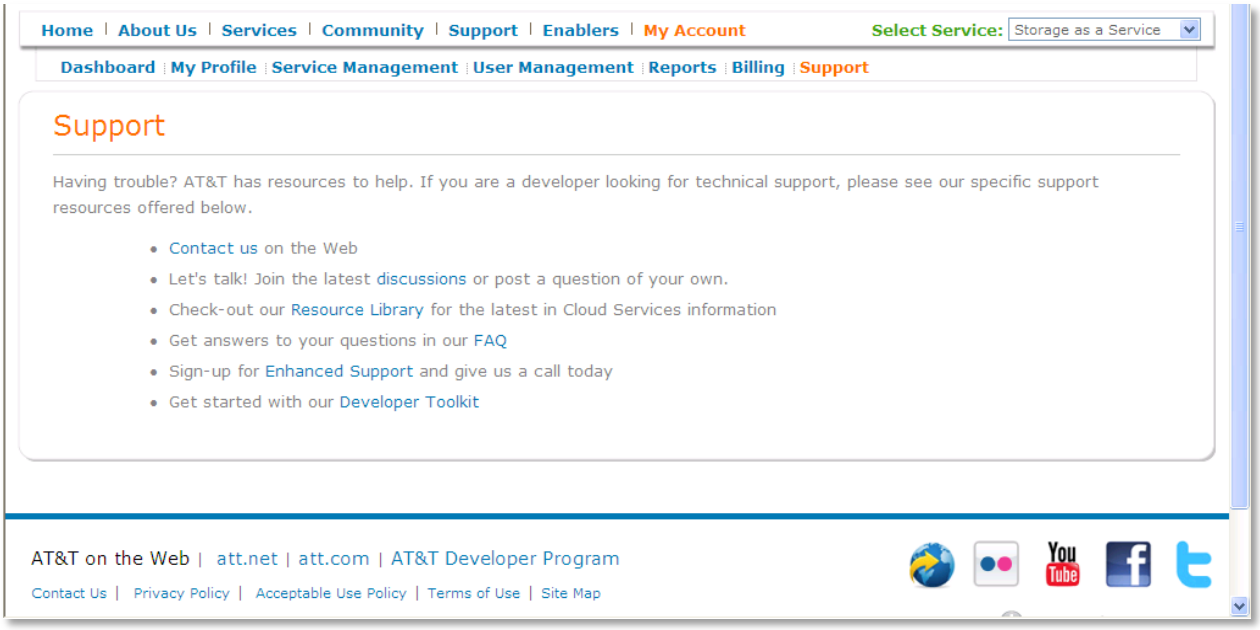
- Save and manage reports
- Download reports including:
    - Available Reports
    - Manage Scheduled Reports
- View charges trending & variance information
- See bill details including:
    - Charges & Credits Details
    - Taxes, Fees and Surcharges
    - Adjustments
    - Payments
    - Discount Summary

7. Support

The Support section provides you with the AT&T Cloud Services Portal resources available to help you, including:

- Link to the contact us online form to access our Cloud Services Portal support team
- Discussion forum links
- Resource library
- AT&T Cloud Services Portal FAQs
- Developer toolkit information

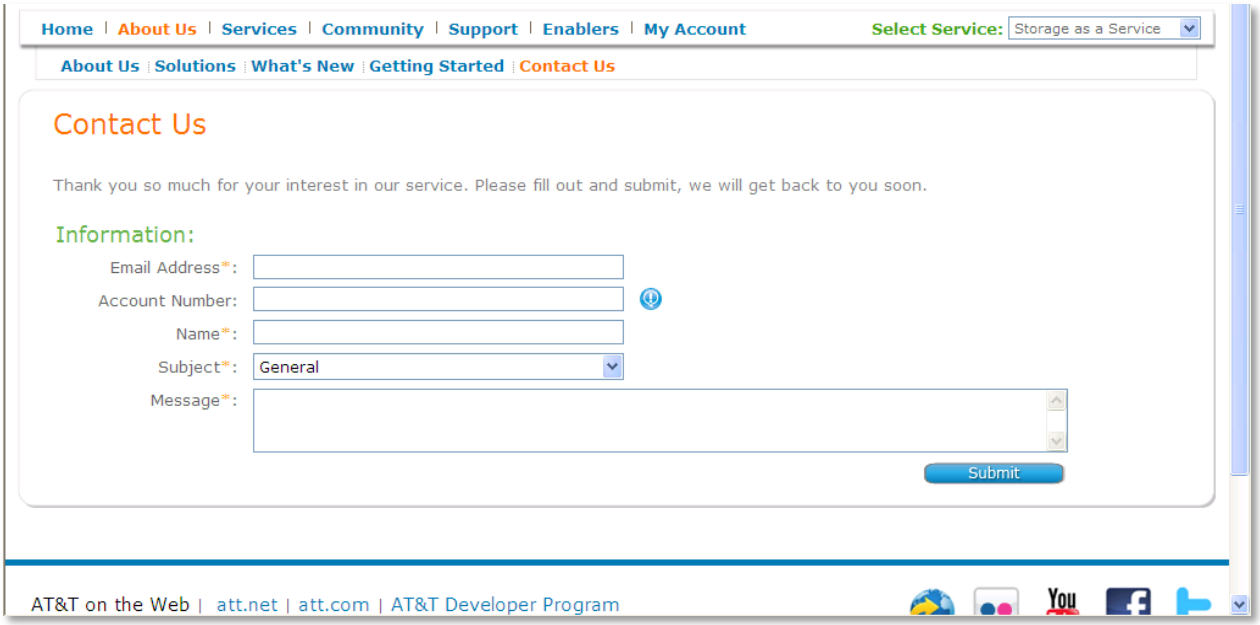
In addition, if you have signed up for the Enhanced Support service, your 1-800# information to call directly into our dedicated Cloud Services Portal support team will be located in the Support section.



Where to Get Help

In addition to the Developer Toolkit, the following resources are available to help you get started with AT&T Synaptic Storage as a Service:

- AT&T Developer Forum Discussions
- AT&T Cloud Services Portal Resource Library
- AT&T Cloud Services Portal FAQ
- Or you can contact our Cloud Services Portal support team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Contact Us
Thank you so much for your interest in our service. Please fill out and submit, we will get back to you soon.
Information:
Email Address*:
Account Number:
Name*:
Subject*:
General
Message*:
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