SafeNet Authentication Service
WSDL BSIDCA API Developer Guide
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Preface

Audience

This document is intended for personnel responsible for maintaining your organization’s security infrastructure. It is assumed that the users of this document are proficient with security concepts.

All products manufactured and distributed by Gemalto are designed to be installed, operated, and maintained by personnel who have the knowledge, training, and qualifications required to safely perform the tasks assigned to them. The information, processes, and procedures contained in this document are intended for use by trained and qualified personnel only.

Support Contacts

If you encounter a problem while installing, registering, or operating this product, refer to the documentation. If you cannot resolve the issue, contact your supplier or Gemalto Customer Support.

Gemalto Customer Support operates 24 hours a day, 7 days a week. Your level of access to this service is governed by the support plan arrangements made between Gemalto and your organization. Please consult this support plan for further information about your entitlements, including the hours when telephone support is available to you.

Customer Support Portal

The Customer Support Portal, at https://supportportal.gemalto.com, is a where you can find solutions for most common problems. The Customer Support Portal is a comprehensive, fully searchable database of support resources, including software and firmware downloads, release notes listing known problems and workarounds, a knowledge base, FAQs, product documentation, technical notes, and more. You can also use the portal to create and manage support cases.

NOTE: You require an account to access the Customer Support Portal. To create a new account, go to the portal and click on the REGISTER link.
# Telephone Support

If you have an urgent problem, or cannot access the Customer Support Portal, you can contact Customer Support by telephone. Calls to Customer Support are handled on a priority basis.

<table>
<thead>
<tr>
<th>Region</th>
<th>Telephone number (Subject to change. An up-to-date list is maintained on the Customer Support Portal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>+1-410-931-7520</td>
</tr>
<tr>
<td>Australia</td>
<td>1800.020.183</td>
</tr>
<tr>
<td>China</td>
<td>North: 10800-713-1971 South: 10800-1301-932</td>
</tr>
<tr>
<td>France</td>
<td>0800-912-857</td>
</tr>
<tr>
<td>Germany</td>
<td>0800-181-6374</td>
</tr>
<tr>
<td>India</td>
<td>000.800.100.4290</td>
</tr>
<tr>
<td>Israel</td>
<td>180-931-5798</td>
</tr>
<tr>
<td>Italy</td>
<td>800-786-421</td>
</tr>
<tr>
<td>Japan</td>
<td>0066 3382 1699</td>
</tr>
<tr>
<td>Korea</td>
<td>+82 2 3429 1055</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0800.022.2996</td>
</tr>
<tr>
<td>New Zealand</td>
<td>0800.440.359</td>
</tr>
<tr>
<td>Portugal</td>
<td>800.863.499</td>
</tr>
<tr>
<td>Singapore</td>
<td>800.1302.029</td>
</tr>
<tr>
<td>Spain</td>
<td>900.938.717</td>
</tr>
<tr>
<td>Sweden</td>
<td>020.791.028</td>
</tr>
<tr>
<td>Switzerland</td>
<td>0800.564.849</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0800.056.3158</td>
</tr>
<tr>
<td>United States</td>
<td>(800) 545-6608</td>
</tr>
</tbody>
</table>
Custom Attributes

DataLayer.Entity.RadiusAttribute

**Class:** RadiusAttribute

*Summary:* This class defines RADIUS attribute related data.

<table>
<thead>
<tr>
<th>Data Member</th>
<th>Data Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AttributeName</td>
<td>String</td>
<td>Name of the attribute</td>
</tr>
<tr>
<td>AttributeID</td>
<td>Integer</td>
<td>A unique identifier for the attribute.</td>
</tr>
<tr>
<td>ValueName</td>
<td>String</td>
<td>Value name.</td>
</tr>
<tr>
<td>Value</td>
<td>Byte Array</td>
<td>Actual value in Byte format.</td>
</tr>
<tr>
<td>VendorName</td>
<td>String</td>
<td>Name of the vendor.</td>
</tr>
<tr>
<td>VendorID</td>
<td>Integer</td>
<td>A unique identifier for the vendor.</td>
</tr>
<tr>
<td>LsAuthNodes</td>
<td>Array of Strings</td>
<td>Array of Auth Nodes.</td>
</tr>
<tr>
<td>format</td>
<td>ENUM</td>
<td>The data format for the particular attribute.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The values can be:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>text, // UTF-8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>String, // Binary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ipaddr, // 32 Bit IP Address (IPv4) BE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>integer, // Int 32 BE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>date, // UInt 32 BE Epoch</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ipv6addr, // 16 octets in network byte order</td>
</tr>
</tbody>
</table>
Operations

**SafeNet Authentication Service:** WSDL BSIDCA API Developer Guide

**Document Number:** 007-012470-001, Rev. H, © 2018 Gemalto

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**BSIDCA**

*Summary:* SafeNet Management web API. Used for connecting and managing accounts using operator/ account manager credentials as configured in the console. This web service requires session state to function.

**BSIDCA**


*Summary:* Connects to the BSIDCA. Successfully connecting will establish a management session which will allow you to use the rest of the API. Multiple calls may be required in the case of outer window authentications, challenges or PIN changes.

*Param:* `OperatorEmail`: Operator/Account manager e-mail to connect with.

*Param:* `OTP`: OTP or Password to connect with.

*Param:* `challenge`: Challenge message passed out if the return code requires one.

*Param:* `validationCode`: Optional e-mail validation code if the operator in use has not had their e-mail address validated.

*Returns:*

- **AUTH_FAILURE** Authentication Failed
- **AUTH_SUCCESS** Authentication Success
- **CHALLENGE** A challenge has been returned in the challenge argument. Call this function again with the response in the OTP argument.
- **SERVER_PIN_PROVIDED** The server has initiated a PIN change. Your new PIN is in the challenge argument. Authenticate again using this new PIN.
- **USER_PIN_CHANGE** You are required call this function again providing a new PIN.
- **OUTER_WINDOW_AUTH** Your token is out of sync. You must call this function again with the next OTP.
- **CHANGE_STATIC_PASSWORD** You must call this function again and provide a new static password.
- **STATIC_CHANGE_FAILED** Password change failed.
- **PIN_CHANGE_FAILED** PIN change failed.
BSIDCA

PingConnection()
* Summary: Checks the server to see if you have a valid session.
* Returns: True if you have a valid connection

BSIDCA

* Summary: Activates a suspended token and optionally forces a PIN change/resets the current PIN.
* Param: serial: Token serial number to activate
* Param: changePinOnFirstUse: True if the user is required to change their PIN during the next authentication.
* Param: newPIN: Optional argument to set a new PIN for the token.
* Param: organization: Account
* Returns: pinSuccess Activating the token and setting new PIN for the token has successfully completed.
deletestaticFail Cannot delete assigned static password, so activating token has failed.
newpinFail Activating the token was successful, but setting new PIN for the token has failed.
fail Activating the token has failed for an unknown reason.
success The token has been activated.
tokenNotFound
tokenNotAssigned

BSIDCA

AssignToken(System.String,System.String,System.String)
* Summary: Assigns a token to a user.
* Param: userName: User to assign the token to.
* Param: serial: Serial of the token to assign.
* Param: organization: Account
* Returns: Success Fail
AlreadyHasCustomCR The user already has a challenge response token that is incompatible with the token you are trying to assign.
AlreadyHasSMSCR The user already has a challenge response SMS token that is incompatible with the token you are trying to assign.
ConflictingToken The user already has a token that is not compatible with the token you are trying to assign.
BSIDCA

GetSimpleAuthMetrics(System.String,System.String,System.String)
* Summary: Gets the total successes and fails for a user/token.
* Param: userName: User name
* Param: serial: Token serial
* Param: organization: Account
* Returns:
  Integer array that contains { totalPasses, totalFailures, total }

BSIDCA

GetTokensByOwner(System.String,System.String)
* Summary: Gets a list of serial numbers of all tokens assigned to a user.
* Param: userName: User name
* Param: organization: Account
* Returns:
  Token serial numbers.

BSIDCA

* Summary: Gets a table of tokens based on the provided search criteria.
* Param: state: Required token state. (Optional)
* Param: type: Required token type. (Optional)
* Param: serial: Serial number. (Wildcards supported, optional)
* Param: container: Container the tokens are in. (Optional)
* Param: startRecord: First record to return.
* Param: pageSize: Number of records to return after first.
* Returns:
  Table of token information. Columns are:
  
  Serial
  state (as Text)
  stateSetDate
  userid (if assigned)
  orgName
  type (as Text)
  container
  rented (boolean)
  hardwareInit (boolean, true if it can be initialized in the console)
assignable (boolean, true if the token can be directly assigned without enrollment)

ice (boolean, true if the tokens is an ICE MP)

stateInt (token state as an int. Directly maps to the token state input of this function)

BSIDCA


* Summary: Gets the token number of tokens that match the given filter. Used with GetTokens to assist with determining the number of tokens you want returned.
* Param: state: Required token state. (Optional)
* Param: type: Required token type. (Optional)
* Param: serial: Serial number. (Wildcards supported, optional)
* Param: container: Container the tokens are in. (Optional)
* Returns: Number of tokens that match the search criteria.

BSIDCA

GetTokenFile(System.String, System.String, System.String@)

* Summary: Gets a token file. Used for issuing MP tokens that are assigned to users. NOTE: Calling this function will re-initialize the MP on the server.
* Param: serial: Serial number of the token to download.
* Param: organization: Account
* Param: fileName: Will return the name that the file should have. If so desired, another name can be used, but the extension must be kept.
* Returns: Token file.

To be used, the user will require the initial PIN (or transport PIN for tokens with no PIN).

BSIDCA

GetToken(System.String, System.String)

* Summary: Get a token.
* Param: serial: Serial number of the token.
* Param: organization: Account
* Returns: The token object
**BSIDCA**

GetFixSerial(System.String, System.String, System.String)

* **Summary:** Converts a user input serial number into a server serial number using any custom type tokens that a user has as a reference point. Used when asking a user to input a serial number into a self service style web page.
* **Param:** userName: User Name of the user that is using the self service style page.
* **Param:** serial: The serial as input by the user.
* **Param:** organization: Account
* **Returns:**

  The serial number as formatted to match any custom token the user has.

**BSIDCA**


* **Summary:** Move tokens from one container to another. Assigned tokens can not be moved.
* **Param:** serials: List of serial numbers to be moved to the new container.
* **Param:** newContainer: Container to move the tokens to.
* **Param:** organization: Account
* **Returns:**

  List of results, one per token, in the same order as the list of serials provided.
  Values are:

  Moved
  CantMoveOwned (Token is assigned and cannot be moved.)
  Failed

**BSIDCA**


* **Summary:** Suspends a user's token and optionally assigns a temporary static password.
* **Param:** serial: Serial of the token to suspend
* **Param:** selection: Action you are taking: No_Static_Password, Accept_LDAP_Password (Direct LDAP Only), Set_Temp_Static_Password
* **Param:** comment: Message to attach to the token.
* **Param:** tempPassword: Temporary password if Set_Temp_Static_Password was specified.
* **Param:** changePasswordOnFirstUse: True to force the user to change the password on first use.
* **Param:** organization: Account
* **Param:** passwordExpiryInMinutes: Number of minutes the password will be valid for. 0 for no expiry.
* **Returns:**

**BSIDCA**

GetTokenTemplateForToken(System.String, System.String)

* **Summary:** Get the template settings for a token.
* **Param:** serial: Serial number of the token.
* **Param:** organization: Account
* **Returns:**

  Token template that describes the function of the token.
BSIDCA


* Summary: Import a BTK file of tokens. Can optionally apply the server side PIN settings to all tokens with no PIN. Can optionally overwrite all existing tokens of the same serial number.

  * Param: **btkFileContents**: The contents of the BTK file.
  * Param: **mergeServerSidePINSettings**: True to use the current token template server PIN settings for all tokens that have no PIN in the BTK file.
  * Param: **overwriteExistingTokens**: True to overwrite any tokens that already exist with the same serial number.
  * Param: **destinationContainer**: The container to import into.
  * Param: **organization**: Account

* Returns:
  List of import results. One row per token that was in the BTK file.
  Each import result contains:
    Serial
    TypeName (Name of the token type)
  Result
    Added New token was added
    Updated Existing token was updated
    Failed Token could not be loaded
    Purged Existing token was deleted and the replacement token could not be added.
    AlreadyExists This token already exists in the system and overwrite was false.

BSIDCA

**RemoveToken** (System.String, System.String)

* Summary: Remove a token from the system. This only applies to hardware tokens that you own.

  * Param: **serial**: Serial of the token to remove.
  * Param: **organization**: Account

* Returns:
  True if successful

BSIDCA

**GetServerPINPolicy** (System.String)

* Summary: Get the server side PIN policy for tokens.

  * Param: **organization**: Account

* Returns:
  Server PIN Policy

BSIDCA

**GetTokenChallenge** (System.String, System.String, System.String, System.String)

* Summary: Gets a challenge to use for resyncing a token.

  * Param: **serial**: Serial number of the token.
  * Param: **userName**: User the token is assigned to.
  * Param: **organization**: Account
  * Param: **state**: The challenge state.

* Returns:
  Challenge String
BSIDCA


* Summary: Resyncs a token against a given challenge. For Timebased, OATH or SecurID tokens, pass in one OTP in the challenge, and the next OTP in the OTP. This does not work for RADIUS tokens.
* Param: serial: Serial of the token to resync.
* Param: userName: User the token is assigned to.
* Param: challenge: Challenge for quicklog tokens. First OTP for time based, OATH or SecurID tokens.
* Param: OTP: OTP for quicklog tokens. Second OTP for time based, OATH or SecurID tokens.
* Param: organization: Account
* Returns:
  success
  fail
  error

BSIDCA


* Summary: Function to test tokens. If the return code is not success or failure, all subsequent calls must include the state that was returned from the first call. Note that this API call is meant for testing purposes only, and not intended for regular production authentications. The Management API is not provided with the same level of service availability as authentication services.
* Param: userName: User name to test.
* Param: organization: Account
* Param: serial: Serial number of the token to test.
* Param: OTP: OTP to test.
* Param: state: Request state. Use null on new tests. If presented with a challenge/PIN change/outer window, you must pass back the value that was returned on the first call.
* Param: challenge: Challenge message for return values that require it.
* Returns:
  AUTH_FAILURE Authentication Failed
  AUTH_SUCCESS Authentication Success
  CHALLENGE A challenge has been returned in the challenge argument. Call this function again with the response in the OTP argument.
  SERVER_PIN_PROVIDED The server has initiated a PIN change. Your new PIN is in the challenge argument. Authenticate again using this new PIN.
  USER_PIN_CHANGE You are required call this function again providing a new PIN.
  OUTER_WINDOW_AUTH Your token is out of sync. You must call this function again with the next OTP.
  CHANGE_STATIC_PASSWORD You must call this function again and provide a new static password.
  STATIC_CHANGE_FAILED Password change failed.
PIN_CHANGE_FAILED  PIN change failed.

BSIDCA
GetChallengeImage(System.String,System.String)
* **Summary:** Returns a JPG image for custom token challenges (if applicable).
* **Param:** userName: User to get the challenge for.
* **Param:** organization: Account
* **Returns:**
  A JPG image if the user has a token that returns challenge images.

BSIDCA
* **Summary:** Revoke a token from a user.
* **Param:** serial: Serial number of the token. (Serial of "0" for static passwords)
* **Param:** userName: User to revoke the token from.
* **Param:** comment: Message to attach to the token.
* **Param:** revokeMode: One of: ReturntoInventory_Initialized, ReturntoInventory_NotInitialized, Faulty, Lost
* **Param:** revokeStaticPassword: True to also revoke the user's static password.
* **Param:** organization: Account
* **Returns:**
  successRevokeTemp  Successfully revoked a static password
  failRevokeTemp    Failed to revoke a static password
  BothSuccess      Revoked the token and removed the static password
  SuccessFail      Revoked the token but failed to revoke the static password
  Success          Revoked the token
  Fail             
  LastAuth         User is an operator or account manager. Their last authentication method cannot be removed.

BSIDCA
* **Summary:** Set a token’s server side PIN, optionally requiring a PIN change.
* **Param:** serial: Serial of the token to set the PIN for
* **Param:** newPIN: The new PIN
* **Param:** changeOnFirstUse: True if the user much change it on first use
* **Param:** comment: Comment to attach to the token
* **Param:** notifySMSUsers: True if you want to notify an SMS token user that their PIN has changed
* **Param:** organization: Account
* Returns:

  success
  fail
  complexityFail  New PIN to set does not meet the server side PIN complexity requirements.
  error

BSIDCA
  GetRandomTokenPIN(System.String)
  * Summary: Get a random server side PIN that complies with the current server side PIN policy.
  * Param: organization: Account
  * Returns:
    The random PIN

BSIDCA
  RequestSMS(System.String,System.String,System.String)
  * Summary: Used to request that a new SMS message be sent to a user. This requires their PIN for validation.
  * Param: userName: User the SMS is for
  * Param: PIN: PIN of the SMS token
  * Param: organization: Account
  * Returns:
    True if an SMS message has been sent

BSIDCA
  AddUser(DataLayer.Entity.User,System.String)
  * Summary: Adds a new user to the given organization. User name must be unique in the organization to which it is added.
  * Param: user: User object to add
  * Param: organization: Account
  * Returns:
    True if the user was added.

BSIDCA
  * Summary: Adds a new user with alias to the given organization. User name must be unique in the organization to which it is added.
  * Param: user: User object to add
  * Param: Alias: Alias
  * Param: organization: Account
  * Returns:
    True if the user was added.
BSIDCA
 getUser(System.String, System.String)
* Summary: Gets a user.
* Param: userName: User name of the user to get.
* Param: organization: Account
* Returns:
  The user

BSIDCA
 getUserInOperatorOrganization(System.String)
* Summary: Gets a user in the same organization as the current operator.
* Param: userName: User name of the user to get.
* Returns:
  The user

BSIDCA
 getUserAlias(System.String, System.String)
* Summary: Gets a user's alias.
* Param: userName: User name of the user to get.
* Param: organization: Account
* Returns:
  The user's alias

BSIDCA
* Summary: Gets a table of user information matching the provided filters.
* Param: userName: User Name (Wild card support, optional)
* Param: lastName: Last Name (Wild card support, optional)
* Param: authMethod: Authentication method: Any, Token, Password, External Credentials, Token Or Password, None
* Param: container: Container (Wild card support, optional)
* Param: firstRecord: First record to return
* Param: pageSize: Number of records to return
* Param: organization: Account
* Returns:
  A table with the columns:
  Lastname
  Firstname
  userid
  custom1
  authmethod
  attributes
  authstate
  container
  isDormant
BSIDCA

* Summary: Updates an existing user in the system.
* Param: **userName**: User name of the user to update. If changing the user name, this is the old user name. New user name is in the user object
* Param: **user**: Updated user
* Param: **organization**: Account
* Returns:
  True if updated

BSIDCA

* Summary: Updates an existing user with alias in the system.
* Param: **userName**: User name of the user to update. If changing the user name, this is the old user name. New user name is in the user object
* Param: **user**: Updated user
* Param: **Alias**: Updated use' alias
* Param: **organization**: Account
* Returns:
  True if updated

BSIDCA

**RemoveUser(System.String, System.String, ControlLibrary.TokenControl.revokeSelection, System.String)**
* Summary: Removes an existing user and revokes their tokens.
* Param: **userName**: User name of the user to remove
* Param: **organization**: Account
* Param: **tokenOption**: One of: ReturntoInventory_Initialized, ReturntoInventory_NotInitialized, Faulty, Lost
* Param: **comment**: Message to attach to the tokens that are being revoked
* Returns:
  Deleted
  FailedToDeassignTokens
  FailedToRemoveUser
  UnknownError

BSIDCA

* Summary: Moves user and their tokens to a new container
* Param: **userNames**: User names of all users to move to the new container.
* Param: **newContainer**: Name of an existing container to move the users to.
* Param: **organization**: Account
* Returns:
  True if the users are moved
BSIDCA

**AddGroup** (System.String, System.String, System.String)

* Summary: Add a group to the account
* Param: **groupName**: Group Name
* Param: **description**: Group Description
* Param: **organization**: Account
* Returns: True if added

BSIDCA

**UpdateGroup** (System.String, System.String, System.String, System.String)

* Summary: Update a group in the account. Applies to writable groups only.
* Param: **groupName**: Name of the group as it exists
* Param: **newName**: New name of the group
* Param: **newDescription**: New description of the group
* Param: **organization**: Account
* Returns: True if updated

BSIDCA

**RemoveGroup** (System.String, System.String)

* Summary: Remove a writable group from the account.
* Param: **groupName**: Name of group to remove
* Param: **organization**: Account
* Returns: True if removed

BSIDCA

**GetGroups** (System.String, DataLayer.Entity.GroupKind)

* Summary: Returns a table of the groups in the system.
* Param: **organization**: Account
* Param: **kind**: Read Only, Writable or Both
* Returns:

  A table with the columns:
  
  - Groupname
  - Groupdescription
  - removable

BSIDCA


* Summary: Returns a table of users that are or are not members of a group.
* Param: **groupName**: Name of the group
* Param: **isAMember**: If they are a member or not
* Param: **organization**: Account
* Param: **kind**: Read Only, Writable or Both
* Param: **userName**: User Name filter
* Param: **lastName**: Last Name filter
* Returns:

A table with the columns:
- Firstname
- Lastname
- Username
custom1

**BSIDCA**

String)

* Summary: User becomes a member of the group.
* Param: **userNames**: Names of users to add to group
* Param: **groupName**: Name of group to add users to
* Param: **organization**: Account
* Returns: True if users are members

**BSIDCA**

stem.String)

* Summary: Removes users group membership.
* Param: **userNames**: Users to remove from the group
* Param: **groupName**: Group name to remove membership from
* Param: **organization**: Account
* Returns: True if users have their membership removed

**BSIDCA**

AddContainer(System.String,System.String,System.String)

* Summary: Add a container to the account
* Param: **containerName**: New container Name. Must be unique to the account
* Param: **description**: Container description.
* Param: **organization**: Account
* Returns: True if container added

**BSIDCA**

UpdateContainer(System.String,System.String,System.String,System.String)

* Summary: Update the container
* Param: **containerName**: Container to be updated
* Param: **newName**: New container name
* Param: **newDescription**: New description
* Param: **organization**: Account
* Returns: True if container updated
BSIDCA
RemoveContainer(System.String, System.String)
* Summary: Remove a container from an account
* Param: containerName: Container name to remove
* Param: organization: Account
* Returns: True if container removed

BSIDCA
GetContainers(System.String)
* Summary: Get a table of container information
* Param: organization: Account
* Returns: A table with the columns:
  Container
  description

BSIDCA
GetUsersForContainer(System.String, System.String)
* Summary: Get a table of users in a container
* Param: containerName: Container to return users in
* Param: organization: Account
* Returns: A table with the columns:
  Lastname
  Firstname
  Username
  custom1

BSIDCA
GetRADIUSAttributesForUser(System.String, System.String)
* Summary: Get a list of RADIUS attributes associated with a user. Multi value attributes appear as multiple attributes of the same type/ID with different values.
* Param: userName: User name
* Param: organization: Account
* Returns: RADIUS Attributes

BSIDCA
AddRADIUSAttributeToUser(DataLayer.Entity.RadiusAttribute, System.String, System.String)
* Summary: Add a RADIUS attribute to a user. To add a multi value attribute, add the attribute once for each value of the attribute. To add an attribute specific to auth nodes, assign the alias name within the attribute parameter.
* Param: attribute: RADIUS Attribute to add
* Param: userName: User to add the attribute to
* Param: organization: Account
* Returns: True if attribute was added
BSIDCA

RemoveRADIUSAttributeFromUser(DataLayer.Entity.RadiusAttribute,System.String,System.String)
* Summary: Remove a RADIUS attribute from a user. Exact value and auth node name to remove must be specified.
* Param: attribute: RADIUS attribute to remove
* Param: userName: User name
* Param: organization: Account
* Returns: True if removed

BSIDCA

GetRADIUSAttributesForGroup(System.String,System.String)
* Summary: Get a list of RADIUS attributes associated with a group. Multi value attributes appear as multiple attributes of the same type/ID with different values.
* Param: groupName: Group Name
* Param: organization: Account
* Returns: RADIUS Attributes

BSIDCA

AddRADIUSAttributeToGroup(DataLayer.Entity.RadiusAttribute,System.String,System.String)
* Summary: Add RADIUS attribute to a group. To add a multi value attribute, add the attribute once for each value of the attribute. To add an attribute specific to auth nodes, assign the alias name within the attribute parameter.
* Param: attribute: Attribute to add to the group
* Param: groupName: Group to add attribute to
* Param: organization: Account
* Returns: True if added

BSIDCA

RemoveRADIUSAttributeFromGroup(DataLayer.Entity.RadiusAttribute,System.String,System.String)
* Summary: Remove a RADIUS attribute from a group. Exact value and auth node name to remove must be specified.
* Param: attribute: Attribute to be removed
* Param: groupName: Group to remove the attribute from
* Param: organization: Account
* Returns: True if removed
BSIDCA

GetRADIUSVendors()
* Summary: Gets a list of all vendors for which RADIUS attributes are available.
* Returns: List of vendor names

BSIDCA

GetRADIUSAttributeForVendor(System.String)
* Summary: Get a list of all RADIUS attributes for the vendor.
* Param: vendorName: Vendor to get attributes for
* Returns: List of attributes supported for a vendor

BSIDCA

GetRADIUSAttribute(System.String, System.String)
* Summary: Get a RADIUS attribute by vendor name and attribute name.
* Param: vendorName: Vendor name
* Param: attributeName: Attribute name
* Returns: RADIUS Attribute

BSIDCA

* Summary: Assigns a static password to a user.
* Param: userName: User to assign the password to
* Param: staticPassword: The static password
* Param: changeOnFirstUse: True if the user is required to change the password the first time they authenticate
* Param: revokeDate: Date that the static password will no longer work.
* Param: organization: Account
* Returns: True if assigning the password has succeeded

BSIDCA

RevokeStaticPassword(System.String, System.String)
* Summary: Revokes a user's static password
* Param: userName: User to revoke the password of
* Param: organization: Account
* Returns: True if password revoked
BSIDCA  
* Summary: Provisions a list of users a token of a given class. SMS tokens will be instantly provisioned, all other types will have provisioning tasks added for the users.  
* Param: userNames: Names of the users to provision tokens to  
* Param: tokenClass: The type of token to provision: Software, Oath, SMS, Password, KT, RB, ICE, GOLD, eToken  
* Param: description: Provisioning task description  
* Param: organization: Account  
* Returns:  
List of results. Order is the same as order of user names provided.  
  
FailedToAddToBatch Failed to add user to provisioning task  
EmailSent Success  
SMSSent Success for SMS tokens  
UserHasNoEmail Can't provision to the user as they have no e-mail address  
UserHasNoMobileNumber Can't provision an SMS token, as they have no mobile number  
FailedToSendEmail Failed to send out the e-mail. Check e-mail settings for the account.  
FailedToSendSMS Failed to send out an SMS. Check SMS settings for the account.  
FailedToSendSMS_NoCredits The account does not have enough SMS credits to send the message.  
CouldntGetToken Couldn't find an available SMS or MP token to use for SMS provisioning.  
CouldntAssignToken User could not be assigned an SMS token.  
UserHasActiveToken Cannot provision password as the user has an active token.  

BSIDCA  
* Summary: Provisions a list of users GrIDsure tokens.  
* Param: userNames: Names of the users to provision tokens to  
* Param: description: Provisioning task description  
* Param: organization: Account  
* Returns:  
List of results. Order is the same as order of user names provided
FailedToAddToBatch  Failed to add user to provisioning task

EmailSent  Success

UserHasNoEmail  Can't provision to the user as they have no e-mail address

FailedToSendEmail  Failed to send out the e-mail. Check e-mail settings for the account.

CouldntGetToken  Couldn't find an available SMS or MP token to use for SMS provisioning.

CouldntAssignToken  User could not be assigned an SMS token.

UserHasActiveToken  Cannot provision password as the user has an active token.

BSIDCA
* Summary: Gets a table of information on provisioning tasks
* Param: organization: Account
* Param: startRecord: First record
* Param: numberOfRecords: Number of records
* Returns:
  A table with the columns:
  Tasked
  Operator
  Startdate
  Count
  tokenoption
  stopdate

BSIDCA
* Summary: Gets a table of information on provisioning tasks
* Param: user: The user to get provisioning tasks for
* Param: organization: Account
* Param: startRecord: First record
* Param: numberOfRecords: Number of records
* Returns:
  A table with the columns:
  taskid
  operator
  startdate
  count
  tokenoption
  stopdate
**BSIDCA**

*GetProvisioningTaskCount(System.String)*

*Summary:* Gets the number of provisioning tasks in the organization.

*Param: organization:* Account

*Returns:* 
Number of provisioning tasks in the account

**BSIDCA**

*GetProvisioningTasksForUserCount(System.String,System.String)*

*Summary:* Gets the number of provisioning tasks in the organization.

*Param: user:* User to get task count for

*Param: organization:* Account

*Returns:* 
Number of provisioning tasks in the account

**BSIDCA**

*GetProvisioningTaskDetails(System.Int32,System.String)*

*Summary:* Returns a table of provisioning task details

*Param: taskID:* Task to get details for

*Param: organization:* Account

*Returns:* 
A table with the columns:

userid
username
startdate
stopdate
status
serialnumber
description

**BSIDCA**


*Summary:* Removes an existing provisioning task, optionally sending a notification e-mail to all the users that this affects.

*Param: taskID:* Task ID to remove

*Param: sendNotificationEmail:* True to send a notification e-mail

*Param: organization:* Account

*Returns:*

**BSIDCA**


*Summary:* Removes specific users from a given provisioning task, optionally sending a notification e-mail to them.

*Param: taskID:* Task ID to remove users from

*Param: userNames:* List of user names to remove

*Param: sendNotificationEmail:* True to send a notification e-mail

*Param: organization:* Account

*Returns:* 
True if users are removed
**BSIDCA**


*Summary:* Updates the expiry date of a provisioning task for the given users. Used to extent a provisioning task that users may not have had the time to complete.

*Param:* **taskID**: Task ID to update  
*Param:* **userNames**: List of user names to update the expiry date for  
*Param:* **newStopDate**: The new expiry date  
*Param:* **organization**: Account

*Returns:*

True if the expiry dates were updated

**BSIDCA**

**GetAuthenticationMetrics(System.String, System.String)**

*Summary:* Get authentication metrics.

*Param:* **userName**: Optional user to filter by  
*Param:* **organization**: Account

*Returns:*

A table with 3 rows (Pass, Fail, All) in the columns:

- result
- today
- weektodate
- lastweek
- monthtodate
- lastmonth
- yeartodate
- lastyear

**BSIDCA**


*Summary:* Gets a table of authentication activity.

*Param:* **userName**: User name filter. (Optional)  
*Param:* **organization**: Account  
*Param:* **authResult**: Result filter. (Optional)  
*Param:* **firstRecord**: First record.  
*Param:* **pageSize**: Number of records to retrieve.

*Returns:*

A table with the columns:

- actDate   (Time of the event)  
- username  (User it was for)  
- ActionText (What the request was for)  
- ResultText (Result)  
- Serial  
- sourceIP  (Client IP/Auth Node)  
- agentID  (SAS Agent that was used for authentication)  
- orgName  
- message
BSIDCA


* Summary: Enroll a provisioned token to a user. To begin, call with the enrollment code. Return codes will prompt for more information for next call or end in a terminating state.
* Param: Code: Enrollment code provided to the user; generally part of the URL in the e-mail that we send out.
* Param: Serial: Serial of the token. Only required if prompted by this function to get it from the user.
* Param: hostNumber: Host number for multi host tokens. Provide only if prompted for.
* Param: OTP: OTP to authenticate with. Only required if prompted to authenticate by this function.
* Param: AuthenticationState: Authentication state. Pass in null unless replying to a continue authentication, where you will pass in what you receive.
* Param: AuthenticationChallenge: Challenge message from authentication. See TestToken for details.
* Param: Info: Provides information about the provisioning request; used with the return code to process the next step.
* Param: TokenInfo: Provides a software token and all information pertaining to it. Load the token to continue.
* Param: CustomInfo: Provides information about a custom token including an enrollment image and instructions to present to the user.

* Returns:

<table>
<thead>
<tr>
<th>Error</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error</td>
<td>Process cannot continue. Unexpected input or server issue.</td>
</tr>
<tr>
<td>Success</td>
<td>Enrollment has completed and the user can authenticate with their token.</td>
</tr>
<tr>
<td>CodeDoesNotExist</td>
<td>The code provided cannot be found. Prompt the user to ensure it has been entered correctly, if they entered it manually.</td>
</tr>
<tr>
<td>ProvisioningNotActive</td>
<td>The code entered was found, but it is not available for use at this time.</td>
</tr>
<tr>
<td>NotEnoughTokens</td>
<td>The account does not have enough tokens of the type required to process this enrollment.</td>
</tr>
<tr>
<td>RequiresSerial</td>
<td>A serial number for a hardware token is required. Call again with the serial number.</td>
</tr>
<tr>
<td>InvalidSerial</td>
<td>The serial number provided by the user is not valid for provisioning.</td>
</tr>
<tr>
<td>TokenDoesNotExist</td>
<td>The serial number that has been provided does not exist in the system.</td>
</tr>
<tr>
<td>TokenNotAssignable</td>
<td>A token cannot be assigned to the user. They may have an existing token that is not compatible.</td>
</tr>
<tr>
<td>RequiresAuthentication</td>
<td>Call again with the next OTP from the token.</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>FailedAuthentication</td>
<td>The OTP provided was not valid. Another attempt can be made.</td>
</tr>
<tr>
<td>ContinueAuthentication</td>
<td>A challenge has been provided. Prompt for a response and call again with the response in the OTP field.</td>
</tr>
<tr>
<td>TooManyAttempts</td>
<td>There have been too many failed attempts to authenticate. This provisioning task has been locked.</td>
</tr>
<tr>
<td>OutsideOfTimeWindow</td>
<td>This provisioning task cannot be used at this time.</td>
</tr>
<tr>
<td>SelectSoftwareTarget</td>
<td>Prompt the user to select a token target to install their token to. Targets are available by calling: GetTokenTargets(String code) Select a target by calling: SelectEnrollmentSoftwareType</td>
</tr>
<tr>
<td>SendSMS</td>
<td>You must call SendEnrollmentSMS once for each SMS message in the ProvisioningInfo Info. Default values will be used if not overridden in the call to SendEnrollmentSMS</td>
</tr>
<tr>
<td>SendEMail</td>
<td>You must call SendEnrollmentEMail once for each e-mail message in the ProvisioningInfo Info. Default values will be used if not overridden in the call to SendEnrollmentEMail</td>
</tr>
<tr>
<td>RequiresCustomEnrollment</td>
<td>Present the image and instructions in the CustomInfo and call again with the OTP/Authentication code in the OTP field.</td>
</tr>
<tr>
<td>FailedCustomEnrollment</td>
<td>The custom enrollment information provided was not valid. Another attempt can be made.</td>
</tr>
<tr>
<td>ChoosePassword</td>
<td>Call again with a password in the OTP field. Must meet the requirements in the ProvisioningInfo Info.</td>
</tr>
<tr>
<td>DoesNotMeetRequirements</td>
<td>Password does not meet the requirements in the ProvisioningInfo object. Try</td>
</tr>
</tbody>
</table>
The provisioning code provided is for a locked provisioning task and cannot be used at this time.

ProvisioningExpired

The provisioning code provided is for an expired provisioning task and cannot be used at this time.

ProvisioningCancelled

The provisioning code provided is for a cancelled provisioning task and cannot be used at this time.

ProvisioningCompleted

The provisioning code provided is for an already completed provisioning task and cannot be used at this time.

OutOfBand

The user has been SMS or e-mailed an out of band validation code. Prompt them for this and provide it in the OTP field.

RequiresHost

The user is enrolling a GOLD token and must provide the host number they are attempting to enroll.

OutOfBandNotAvailable

The provisioning task requires out of band validation, but it cannot be processed at this time.

BSIDCA

GetTokenTargets(System.String)

* Summary: This function can be used to get a list of available targets for a software token when prompted to select a token target.
* Param: code: Enrollment code
* Returns:
  List of token targets available for this provisioning code

BSIDCA

GetTokenSubTargets(DataLayer.Entity.Token.TokenTargets, System.String)

* Summary: This function can be used to get a list of available sub targets for the desired software target.
* Param: target: Target to check sub targets for.
* Param: code: Enrollment code
* Returns:
  List of sub targets for a given target type.
BSIDCA

`SelectEnrollmentSoftwareType(System.String, ControlLibrary.Enrollment.SoftwareType, ControlLibrary.Enrollment.ProvisioningInformation®, ControlLibrary.Enrollment.TokenFileInfo)`

* Summary: This function is used to select the kind of deployment to use for software token provisioning.
  - *Param: enrollmentCode:* Enrollment code
  - *Param: type:* The token type to select: iPhone, Android, Blackberry, Windows7Phone, MP, MacOSX
  - *Param: pInfo:* Information about the provision request
  - *Param: tfInfo:* Information about the token if the target you have selected gives you a token file.
  - *Returns:*

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</tr>
<tr>
<td>RequiresAuthentication</td>
<td>Call again with the next OTP from the token.</td>
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<tr>
<td>TokenNotAssignable</td>
<td>A token cannot be assigned to the user. They may have an existing token that is not compatible.</td>
</tr>
</tbody>
</table>
**BSIDCA**

SendEnrollmentSMS(System.String, ControlLibrary.Enrollment.MessageType, System.String, System.String, ControlLibrary.Enrollment.ProvisioningInformation@)

*Summary:* This function is used to send any SMS messages that you were told to send when either selecting the software token type or while processing the enrollment. The message and mobile are optional and defaults will be used if they are not provided.

*Param:* enrollmentCode: Enrollment code

*Param:* type: Message type you were prompted to send

*Param:* message: Optional override of the default message

*Param:* mobileNumber: Optional override of the user’s mobile number if permitted.

*Param:* shortCodeURL: URL is a URL of a web site that the user may be redirected to from their mobile device. If you provide this URL, the page indicated must take a post parameter of ‘sc’ for the short code. This page should then send the contents of the file provided by GetFileForShortCode()

*Param:* pInfo: Information about the provisioning task. May contain a subsequent message to send

*Returns:

Success

Failure

SendSMS Call this function again with the SMS message in the pInfo parameter

SendEMail Call SendEnrollmentEMail with the email message in the pInfo parameter

**BSIDCA**


*Summary:* This function is used to send any email messages that you were told to send when either selecting the software token type or while processing the enrollment. The message and mobile are optional and defaults will be used if they are not provided.

*Param:* enrollmentCode: Enrollment code

*Param:* type: Message type you were prompted to send

*Param:* message: Optional override of the default message

*Param:* mobileNumber: Optional override of the user’s email if permitted.

*Param:* shortCodeURL: URL is a URL of a web site that the user may be redirected to from the email they receive. If you provide this URL, the page indicated must take a post parameter of ‘sc’ for the short code. This page should then send the contents of the file provided by GetFileForShortCode()

*Param:* pInfo: Information about the provisioning task. May contain a subsequent message to send

*Returns:

Success

Failure

SendSMS Call SendEnrollmentSMS with the SMS message in the pInfo parameter

SendEMail Call this function again with the email message in the pInfo parameter
**BSIDCA**

`GetFileForShortCode(System.String, System.String, System.String@)`

*Summary:* This function is used to provide the token files for download for any mobile devices. The short code will be passed as a parameter to the web page that uses this function. The resource URL is the web directory in which support files for mobile tokens (such as the Blackberry JAuthenticator.jar) is located. Pass in null to use the default resource URL.

*Param: shortCode:* Short code that was used when the page was requested

*Param: resourceURL:* web directory in which support files for mobile tokens (such as the Blackberry JAuthenticator.jar) is located. Pass in null to use the default resource URL.

*Param: fileName:* File name for the returned file

*Returns:

File to deliver to the client that is requesting it.

---

**BSIDCA**

`GetSelfEnrollmentPolicy(System.String)`

*Summary:* Get the self enrollment policy that affects the given enrollment request

*Param: enrollmentCode:* Enrollment code

*Returns:

SelfEnrollment Policy

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**BSIDCA**


*Summary:* Adds a user's request to be provisioned a token. Gets added to the pending provisioning request list.

*Param: u:* User requesting the token.

*Param: tokenType:* Token type being requested

*Param: existingUser:* True if user already exists

*Param: message:* Message to the user in case of a failure

*Returns:

True if success

---

**BSIDCA**


*Summary:* Adds a user's request to be provisioned a token. Gets added to the pending provisioning request list.

*Param: u:* User requesting the token.

*Param: subType:* Token sub type being requested

*Param: existingUser:* True if user already exists

*Param: message:* Message to the user in case of a failure

*Returns:

True if success
BSIDCA

UpdateProvisioningRequest(System.Int32, DataLayer.Policy.TokenAuthority)

* Summary: Approves a provisioning request.
* Param: requestID: Request ID to update
* Param: authority: What level to approve the request at.
* Returns:
  True if updated

BSIDCA

DenyProvisioningRequest(System.Int32)

* Summary: Denies a pending provisioning request.
* Param: requestID: Request to deny
* Returns:
  True if denied

BSIDCA

GetPendingProvisioningRequests()

* Summary: Gets a table of all pending provisioning requests for the organization you are logged in to.
* Returns:
  A table with the columns:
  request
  userName
  FirstName
  LastName
  email
  token
  processState
  requestedOn
  newUser
  expiryDate

BSIDCA


* Summary: Gets a table of delegation code information in an account.
* Param: firstRecord: First record
* Param: pageSize: Number of records to return
* Param: organization: Account
* Returns:
  A table with the columns:
  code
  orgToManage
  codeState
  codeDate
  establishedDate
  accountGroup
  canActivate
BSIDCA
CreateDelegationCode(System.String,System.String)
* Summary: Create a new delegation code for external management of another account.
* Param: accountGroup: Account group to add the code in.
* Param: organization: Account
* Returns: The delegation code

BSIDCA
ActivateDelegationCode(System.String,System.String)
* Summary: Activate a delegation code that has been used by another account and is waiting for approval.
* Param: code: The code to activate
* Param: organization: Account
* Returns: True if activated

BSIDCA
RemoveDelegationCode(System.String,System.String)
* Summary: Remove a delegation code and all associated rights from the account.
* Param: code: Code to remove
* Param: organization: Account
* Returns: True if removed

BSIDCA
* Summary: Get a table of all accounts under the account that the current operator belongs to. This list will be automatically filtered for the operator scope.
* Param: organizationFilter: Account Filter
* Param: customFieldFilter: Custom field filter
* Param: firstRecord: First record to return
* Param: pageSize: Number of records to return
* Returns: A table with the columns:
  Orgname
custom1
class
activated
expires
billing
capacity
unused
active

BSIDCA
GetAccount(System.String)
* Summary: Get the account details of a single child account
* Param: organization: Account
* Returns:
**BSIDCA**

**UpdateOrganization** *(DataLayer.Entity.Organization)*

* **Summary:** Update the account details of a child account
* **Param:** organization: Account to update
* **Returns:**

**BSIDCA**

**AddOrganization** *(DataLayer.Entity.Organization, System.String)*

* **Summary:** Add a new organization under the current account. Current account must be a service provider. Note: To set the capacity for a specific organization, call AddOrganization first, and then call AllocateCapacity. The capacity value of organization objects is not used.
* **Param:** organization: New organization to create.
* **Param:** accountGroup: Account group to create the organization in.
* **Returns:**
  
  Success  
  NoOrganizationName  
  ParentNotAServiceProvider  
  ParentNotEnoughCapacity  
  RootOrganizationAlreadyExists  
  NoParent  
  NonExistantParent  
  FailedToAddToDatabase  
  GeneralError

**BSIDCA**

**RemoveOrganization** *(System.String)*

* **Summary:** Remove an existing organization from the system. All tokens and capacity must be de-allocated before being removed.
* **Param:** organization: Name of the organization to remove
* **Returns:**

  Success  
  Fail_HasChildOrganizations  Remove sub accounts first.
  Fail_HasTokens  De-allocate tokens first.
  Fail_IsSystem  Cannot remove required system accounts.
  Fail_HasCapacity  De-allocate capacity first.
  Fail_CouldntRemove  Couldn’t remove the organization from the database.
  Fail_Error  An error occurred while attempting to remove the organization.
**BSIDCA**


**Summary:** Allocate capacity to a child account.

*Param:* quantity: Capacity to allocate

*Param: billingStyle:* Billing style of the allocation: Allocation, Activation, Authentication or Transfer

*Param: toOrganization:* Account to allocate to

*Returns:* True if allocated successfully

**BSIDCA**


**Summary:** Allocate ICE capacity to a child account. ICE tokens will automatically be allocated to the child account if required and available to be allocated.

*Param:* quantity: ICE Capacity to allocate

*Param: billingStyle:* Billing style of the allocation: Allocation, Activation, Authentication or Transfer

*Param: toOrganization:* Account to allocate to

*Returns:* True if allocated successfully

**BSIDCA**


**Summary:** Allocate hardware tokens to a child account. This includes KT, RB and OATH tokens.

*Param:* serials: List of serial numbers to allocate

*Param: tokenType:* Token type of the allocation

*Param: billingStyle:* Billing style of the allocation: Allocation, Activation, Authentication or Transfer

*Param: withCapacity:* True to automatically add license capacity with the tokens

*Param: isSale:* True if this is a sale, false for rental.

*Param: toOrganization:* Account to allocate to

*Returns:* True if allocated successfully

**BSIDCA**


**Summary:** Allocate software tokens to a child account. This is for MP tokens only. (SMS tokens are MP tokens issued to an SMS end point.)

*Param:* quantity: Number of tokens to allocate

*Param: billingStyle:* Billing style of the allocation: Allocation, Activation, Authentication or Transfer

*Param: withCapacity:* True to automatically add license capacity with the tokens

*Param: isSale:* True if this is a sale, false for rental.

*Param: toOrganization:* Account to allocate to

*Returns:* True if allocated successfully
**BSIDCA**


* Summary: Allocate RSA SecurID tokens to a child account.
* Param: **serials**: List of serial numbers to allocate
* Param: **billingStyle**: Billing style of the allocation: Allocation, Activation, Authentication or Transfer
* Param: **withCapacity**: True to automatically add license capacity with the tokens
* Param: **isSale**: True if this is a sale, false for rental.
* Param: **toOrganization**: Account to allocate to
* Returns: True if allocated successfully

**BSIDCA**


* Summary: Allocate GrIDsure tokens to a child account.
* Param: **serials**: List of serial numbers to allocate
* Param: **billingStyle**: Billing style of the allocation: Allocation, Activation, Authentication or Transfer
* Param: **withCapacity**: True to automatically add license capacity with the tokens
* Param: **isSale**: True if this is a sale, false for rental.
* Param: **toOrganization**: Account to allocate to
* Returns: True if allocated successfully

**BSIDCA**


* Summary: Allocate SMS credits to a child account. SMS credits are not only required for SMS tokens, but for all SMS notification generated by the system. If your account has its own SMS configuration, allocation of SMS credits does not require SMS credits.
* Param: **quantity**: Number of credits to allocate
* Param: **billingStyle**: Billing style of the allocation: Allocation, Activation, Authentication or Transfer
* Param: **toOrganization**: Account to allocate to
* Returns: True if allocated successfully

**BSIDCA**


* Summary: Allocate software tokens to a child account. This is for MobilePASS tokens only.
* Param: **quantity**: Number of tokens to allocate
* Param: **billingStyle**: Billing style of the allocation: Allocation, Activation, Authentication or Transfer
* Param: **withCapacity**: True to automatically add license capacity with the tokens
* Param: **isSale**: True if this is a sale, false for rental.
* Param: **toOrganization**: Account to allocate to
* Returns: True if allocated successfully
BSIDCA

DeallocateCapacity(System.Int32, System.String, System.String)

* Summary: De-allocate capacity from a child account.
* Param: quantity: Capacity to de-allocate
* Param: fromOrganization: Account to de-allocate from
* Param: intoContainer: Container to move any tokens into
* Returns: True if de-allocated

BSIDCA

DeallocateICE(System.Int32, System.String, System.String)

* Summary: De-allocate ICE capacity from a child account.
* Param: quantity: Capacity to de-allocate
* Param: fromOrganization: Account to de-allocate from
* Param: intoContainer: Container to move any tokens into
* Returns: True if de-allocated

BSIDCA


* Summary: De-allocate hardware tokens from a child account. This includes KT, RB and OATH tokens.
* Param: serials: List of serials to de-allocate from the child account
* Param: tokenType: Token type to de-allocate
* Param: deallocationState: State to return tokens to: ReturntoInventory_Initiated, ReturntoInventory_NotInitialized, Faulty, Lost
* Param: isSale: True if tokens are being sold back up the chain.
* Param: intoContainer: Container to place the tokens into
* Param: fromOrganization: Account to move tokens from
* Returns: True if tokens are de-allocated

BSIDCA


* Summary: De-allocate software tokens from a child account. This is for MP tokens only. (SMS tokens are MP tokens issued to an SMS end point.)
* Param: quantity: Number of tokens to de-allocate
* Param: deallocationState: State to return tokens to: ReturntoInventory_Initiated, ReturntoInventory_NotInitialized, Faulty, Lost
* Param: withCapacity: True to automatically include capacity
* Param: isSale: True if tokens are being sold back up the chain.
* Param: intoContainer: Container to place the tokens into
* Param: fromOrganization: Account to move tokens from
* Returns: True if tokens are de-allocated
BSIDCA

* Summary: De-allocate RSA SecurID tokens from a child account.
* Param: serials: List of serials to de-allocate from the child account
* Param: isSale: True if tokens are being sold back up the chain.
* Param: intoContainer: Container to place the tokens into
* Param: fromOrganization: Account to move tokens from
* Returns: True if tokens are de-allocated

BSIDCA

* Summary: De-allocate GrIDsure tokens from a child account.
* Param: serials: List of serials to de-allocate from the child account
* Param: isSale: True if tokens are being sold back up the chain.
* Param: intoContainer: Container to place the tokens into
* Param: fromOrganization: Account to move tokens from
* Returns: True if tokens are de-allocated

BSIDCA

DeallocateSMSCredits(System.Int32, System.String)
* Summary: De-allocate SMS credits from a child account.
* Param: quantity: Number of credits to de-allocate
* Param: fromOrganization: Account to take the credits from
* Returns: True if the credits have been de-allocated

BSIDCA

* Summary: De-allocate software tokens from a child account. This is for MobilePASS tokens only.
* Param: quantity: Number of tokens to de-allocate
* Param: isSale: True if tokens are being sold back up the chain.
* Param: intoContainer: Container to place the tokens into
* Param: fromOrganization: Account to move tokens from
* Returns: True if tokens are de-allocated
BSIDCA

* Summary: Adds an operator to a child account. If the account is a service provider, the created operator will have administrator permissions on the account as well.
* Param: user: User to add as an operator. Must be a new user.
* Param: tokenType: The type of token/password to provision to the user.
* Param: modelNumber: Model Number for custom tokens. Gridsure = 10001, SecurID = 10002, RADIUS = 10004
* Param: organization: Account
* Returns:
  - Success
  - UnknownError
  - UserAlreadyExists
  - FailedToCreateUser
  - FailedToProvision
  - EmailAddressAlreadyInUse
  - FailedToSendEnrollmentEmail
  - NotEnoughSMSTokens
  - FailedToSendSMSMessage

BSIDCA

AddAuthNode(BlackShield.BSIDCA.AuthNode, System.String)
* Summary: Adds an auth node to the account. IP addresses associated with the auth node must be system wide unique. Nodes can be used to add realms and provide common authentication points for child accounts.
* Param: node: AuthNode to add
* Param: organization: Account
* Returns:
  - True if added

BSIDCA

RemoveAuthNode(System.String, System.String)
* Summary: Remove an auth node from the account.
* Param: nodeName: Name of the AuthNode to remove
* Param: organization: Account
* Returns:
  - True if removed

BSIDCA

UpdateAuthNode(System.String, BlackShield.BSIDCA.AuthNode, System.String)
* Summary: Update an auth node in the account
* Param: oldName: Name of the auth node to update. If changing the node name, this is it's old name
* Param: node: Updated AuthNode
* Param: organization: Account
* Returns:
  - True if updated
BSIDCA

**GetAuthNodes(System.String)**

*Summary:* Get a table of the auth nodes in the account.

*Param: organization: Account

*Returns:

A table with the columns:

- index
- make
- host
- ipaddress
- status
- freeradius

BSIDCA

**GetAuthNode(System.String,System.String)**

*Summary:* Get an auth node in the account.

*Param: nodeName: Name of the node to get

*Param: organization: Account

*Returns:

AuthNode that was requested if it exists

BSIDCA

**AddShibbolethNode(BlackShield.BSIDCA.ShibbolethNode,System.String,System.String,System.String)**

*Summary:* Adds a Shibboleth service provider.

*Param: node: ShibbolethNode to add

*Param: entityIdString: Metadata that specifies the unique URI identifier of the SAML entity whose metadata is described by the element's contents.

*Param: locationString: Metadata required URI attribute that specifies the location of the endpoint. The allowable syntax of this URI depends on the protocol binding.

*Param: organization: Account

*Returns:

True if added

BSIDCA

**RemoveShibbolethNode(System.String,System.String)**

*Summary:* Removes a Shibboleth service provider.

*Param: node: ShibbolethNode to remove

*Param: relyingId: The URL that the Shibboleth agent uses to communicate with SAS regarding any changes related to the addition or removal of a service provider.

*Param: organization: Account

*Returns:

True if removed
BSIDCA

AddSamlExtension(DataLayer.Entity.SAMLUserExtension,System.String,System.String)
* Summary: Adds a SAML user extension to a user.
* Param: extension: SAML user extension to add
* Param: userName: User Name
* Param: organization: Account
* Returns: True if added

BSIDCA

GetBmcFile(System.String)
* Summary: Get the BMC file for the organization. This file contains the keys that are used to encrypt the data transferred between the Synchronization Agent and SAS.
* Param: organization: Organization name
* Returns: BMC file as binary array if LDAP Sync Server settings are configured, otherwise return null.

BSIDCA

GetPasswordPolicy(System.String)
* Summary: Return the static password policy
* Param: organization: Account
* Returns: PasswordPolicy for the account

BSIDCA

* Summary: Get All report available at a given level to customize. Optionally filter by report class.
* Param: level: Report level
* Param: type:
* Param: startRecord:
* Param: PageSize:
* Param: organization:
* Returns: A table with the columns:
  - reportName
  - reportType
  - description
**BSIDCA**


* **Summary:** Get an available report to edit and save. Note: Report columns and report filter definitions are read only except for the report columns .IsIncluded property.

* **Param:** level: Report level that the report exists at. Subscriber, ServiceProvider

* **Param:** reportName: Name of the report to get

* **Param:** organization: Account

* **Returns:**

  The report if it exists

**BSIDCA**


* **Summary:** Get a table of all previously saved reports.

* **Param:** level: Report level that the report exists at. Subscriber, ServiceProvider

* **Param:** startRecord: First record to return

* **Param:** pageSize: Number of records to return

* **Param:** organization: Account

* **Returns:**

  A table with the columns:

  - reportName
  - reportType
  - description

**BSIDCA**


* **Summary:** Get a previously saved report.

* **Param:** level: Report level that the report exists at. Subscriber, ServiceProvider

* **Param:** reportName: Name of the report

* **Param:** organization: Account

* **Returns:**

  The saved report, if it exists

**BSIDCA**


* **Summary:** Save a customized report. This allows the report to scheduled. All reports must have at least one operator/account manager/external operator. Note: Report columns and report filter definitions are read only except for the report columns .IsIncluded property.

* **Param:** report: Report to save

* **Param:** organization: Account

* **Returns:**

  True if saved
BSIDCA

* Summary: Update a saved report with new information. Note: Report columns and report filter definitions are read only except for the report columns .IsIncluded property.
* Param: report: Report to update
* Param: organization: Account
* Returns: True if the report is updated

BSIDCA

* Summary: Remove a report that had been previously saved.
* Param: level: Report level that the report exists at. Subscriber, ServiceProvider
* Param: reportName: Name of the report to remove
* Param: organization: Account
* Returns: True if removed

BSIDCA

* Summary: Get a table of all report scheduled to run.
* Param: level: Report level that the report exists at. Subscriber, ServiceProvider
* Param: startRecord: First record to return
* Param: pageSize: Number of records to return
* Param: organization: Account
* Returns: A table with the columns:
  - reportName
  - frequency
  - runtime
  - expires

BSIDCA

* Summary: Get a report that was previously scheduled
* Param: level: Report level that the report exists at. Subscriber, ServiceProvider
* Param: reportName: Name of the scheduled report
* Param: organization: Account
* Returns: The scheduled report, if it exists
BSIDCA
* Summary: Schedule a report to run at a given time. Note: Report columns and report filter definitions are read only except for the report columns .IsIncluded property
* Param: report: The report to schedule
* Param: organization: Account
* Returns:
  True if scheduled

BSIDCA
* Summary: Schedule a report to run as soon as possible
* Param: report: Report to schedule
* Param: organization: Account
* Returns:
  True if scheduled

BSIDCA
* Summary: Update a previously scheduled report. Note: Report columns and report filter definitions are read only except for the report columns .IsIncluded property.
* Param: report: Scheduled Report to update
* Param: organization: Account
* Returns:
  True if updated

BSIDCA
* Summary: Remove a scheduled report
* Param: level: Report level that the report exists at. Subscriber, ServiceProvider
* Param: reportName: Name of the report to remove
* Param: organization: Account
* Returns:
  True if removed
BSIDCA


* **Summary:** Get a table of all reports that have been run.
* **Param:** level: Report level that the report exists at. Subscriber, ServiceProvider
* **Param:** startRecord: First record to return
* **Param:** pageSize: Number of records to return
* **Param:** organization: Account
* **Returns:**

A table with the columns:

- reportname
- scheduledTime
- status
- timestamp
- downloadable (True if the operator credentials in use have permission to download)
- removable (True if the operator credentials in use have permission to remove)

BSIDCA


* **Summary:** Remove a finished report from the system. NOTE: The results of this report will no longer be available after removal. The scheduledTime parameter must be a string in "yyyy-MM-ddTHH:mm:ss.fffffffzzzz" format (for example, 2015-07-16T12:18:07.1556784-04:00).
* **Param:** level: Report level that the report exists at. Subscriber, ServiceProvider
* **Param:** reportName: Name of the report to remove
* **Param:** scheduledTime: The time the report ran
* **Param:** organization: Account
* **Returns:**

True if removed

BSIDCA


* **Summary:** Get the results of a report. Returned information is UTF-8 encoded text. Output can be in CSV, TSV, or HTML Table format. The scheduledTime parameter must be a string in "yyyy-MM-ddTHH:mm:ss.fffffffzzzz" format (for example, 2015-07-16T12:18:07.1556784-04:00).
* **Param:** level: Report level that the report exists at. Subscriber, ServiceProvider
* **Param:** reportName: Name of the report to get
* **Param:** scheduledTime: The time the report ran
* **Param:** organization: Account
* **Param:** format: Desired output format: HTML, CSV or TAB (Tab delimited)
* **Returns:**

UTF8 encoded document in the format requested
BSIDCA

GetAccountManagers(System.String)
* Summary: Get a list of account managers in the given account.
* Param: organization: Account
* Returns:
  List of account manager names

BSIDCA

GetOperators(System.String)
* Summary: Get a list of operators in the given account.
* Param: organization: Account
* Returns:
  List of operator names

BSIDCA

GetExternalOperators(System.String)
* Summary: Get a list of eternal operators in the given account.
* Param: organization: Account
* Returns:
  List of external operator. (Account names)

BSIDCA

GetGrIDsurechallenge(System.String, System.String)
* Summary: Get a challenge string for a GrIDsure token. This string must be processed into an image and presented to the user.
* Param: userName: User who is requesting the challenge
* Param: organization: Account
* Returns:
  GrIDsure challenge string

BSIDCA

AuthenticateGrIDsureToken(System.String, System.String, System.String)
* Summary: Authenticate a GrIDsure token
* Param: userName: User with the token
* Param: response: Reponse
* Param: organization: Account
* Returns:
  True if successful
BSIDCA

* Summary: Reset the PIP for a GrIDsure token using an initialization key from getGrIDsureTokenInitKey and the correct response.
* Param: userName: User with the token
* Param: initKey: Initialization key from getGrIDsureTokenInitKey
* Param: response: Response to the initialization key
* Param: organization: Account
* Returns: True if the PIP was reset

BSIDCA

getGrIDsureTokenInitKey(System.String,System.String)
* Summary: Get the initialization Key for a GrIDsure token.
* Param: userName: User with a GrIDsure token
* Param: organization: Account
* Returns: Initialization key

BSIDCA

getGrIDsureToken(System.String,System.String)
* Summary: Get the GrIDsure token for a given user.
* Param: userName: User name
* Param: organization: Account
* Returns: The user's GrIDsure token (if they have one)

BSIDCA

GetTokenRequestTable(System.String)
* Summary: Gets a table of token types that are requestable.
* Param: organization: Account
* Returns:

A table with the columns:
- text
- tokentype
- enable
- subtarget

BSIDCA

* Summary: Request a token.
* Param: userName: User that is requesting the token
* Param: tokenoption: Token type they are requesting
* Param: modelnumber: Model No. for custom tokens: GrIDsure = 10001, SecuriID = 10002, RADIUS = 10004
* Param: MPTarget: MP target if requesting an MP and want to choose now instead of during enrollment. Options: HardDrive, Blackberry, iPhone, Android, WindowsPhone7, MacOSX
* Param: organization: Account
* Returns: Request ID for the token request, or 0 for a failure
BSIDCA

ConfirmRequestToken(System.Int32, System.String, System.String)

* Summary: Mark a token request as confirmed.
* Param: requestID: Request ID to confirm
* Param: userName:
* Param: organization: Account
* Returns: True if confirmed

BSIDCA

RevokeAllSIMTokens(System.String, System.String)

* Summary: Revokes all of a SIM's tokens. NOTE: Only revokes tokens that belong to the given organization or any of their descendants.
* Param: userName: MSISDN to revoke tokens from
* Param: organization: Organization the user is in
* Returns:

BSIDCA

ReprovisionAllSIMTokens(System.String, System.String)

* Summary: Reprovision all of a SIM's tokens. NOTE: Only reprovisions tokens that belong to the given organization or any of their descendants.
* Param: userName: MSISDN to reprovision tokens to.
* Param: organization: Organization the user is in
* Returns:

BSIDCA


* Summary: Gets the base64 activation code for a user's MobilePASS provisioning task.
* Param: userName: User with the task.
* Param: taskID: Task ID for the specific provisioning task.
* Param: organization: Organization the user is in.
* Returns:

BSIDCA

GetEnrollmentURL(System.String, System.Int32, System.String)

* Summary: Gets the self-enrollment URL for a given user's provisioning task.
* Param: userName: User with the task.
* Param: taskID: Task ID for the specific provisioning task.
* Param: organization: Organization the user is in.
* Returns: Self-enrollment URL for the specific provisioning task