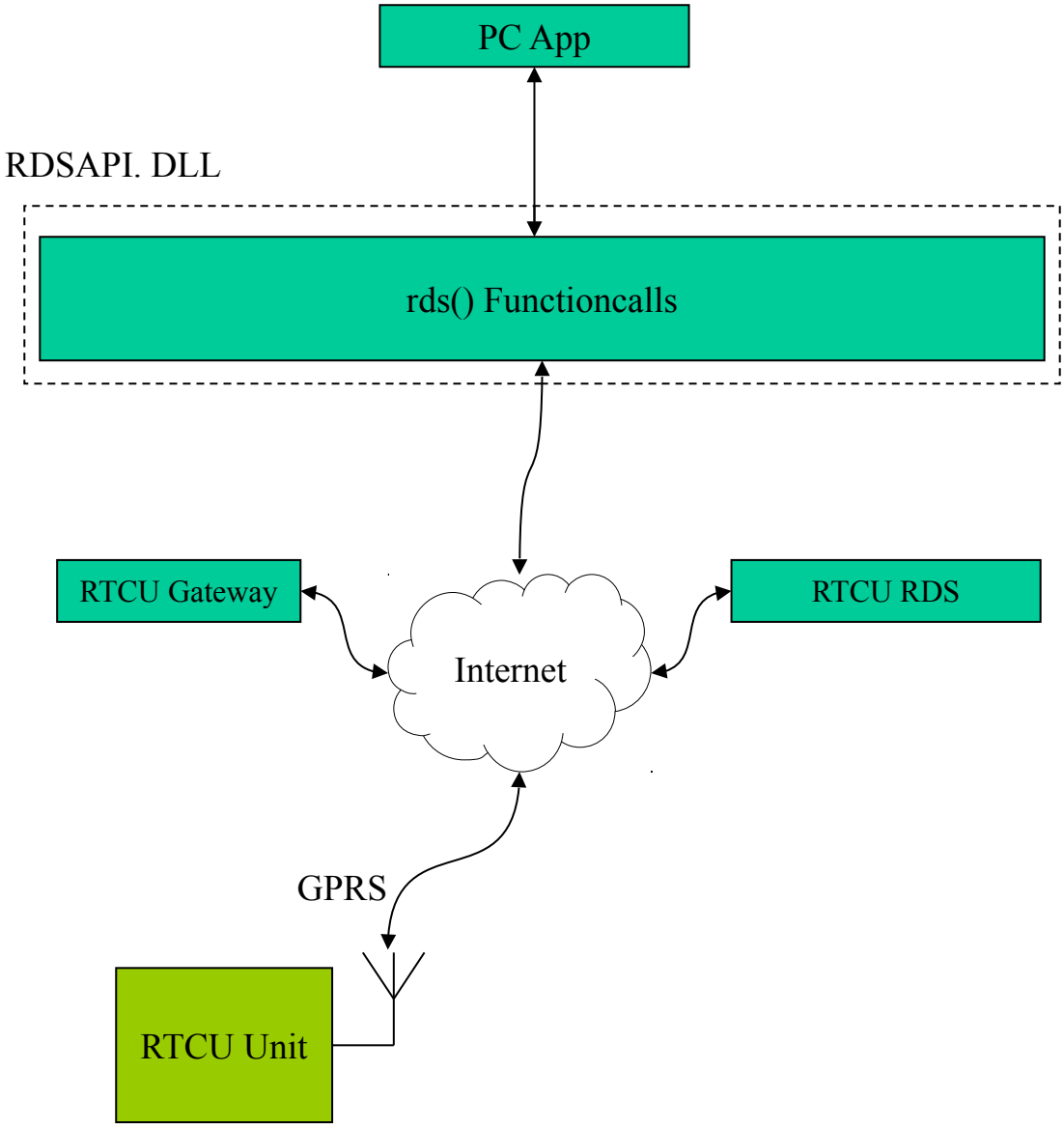
RTCU Deployment Server API

Version 3.00



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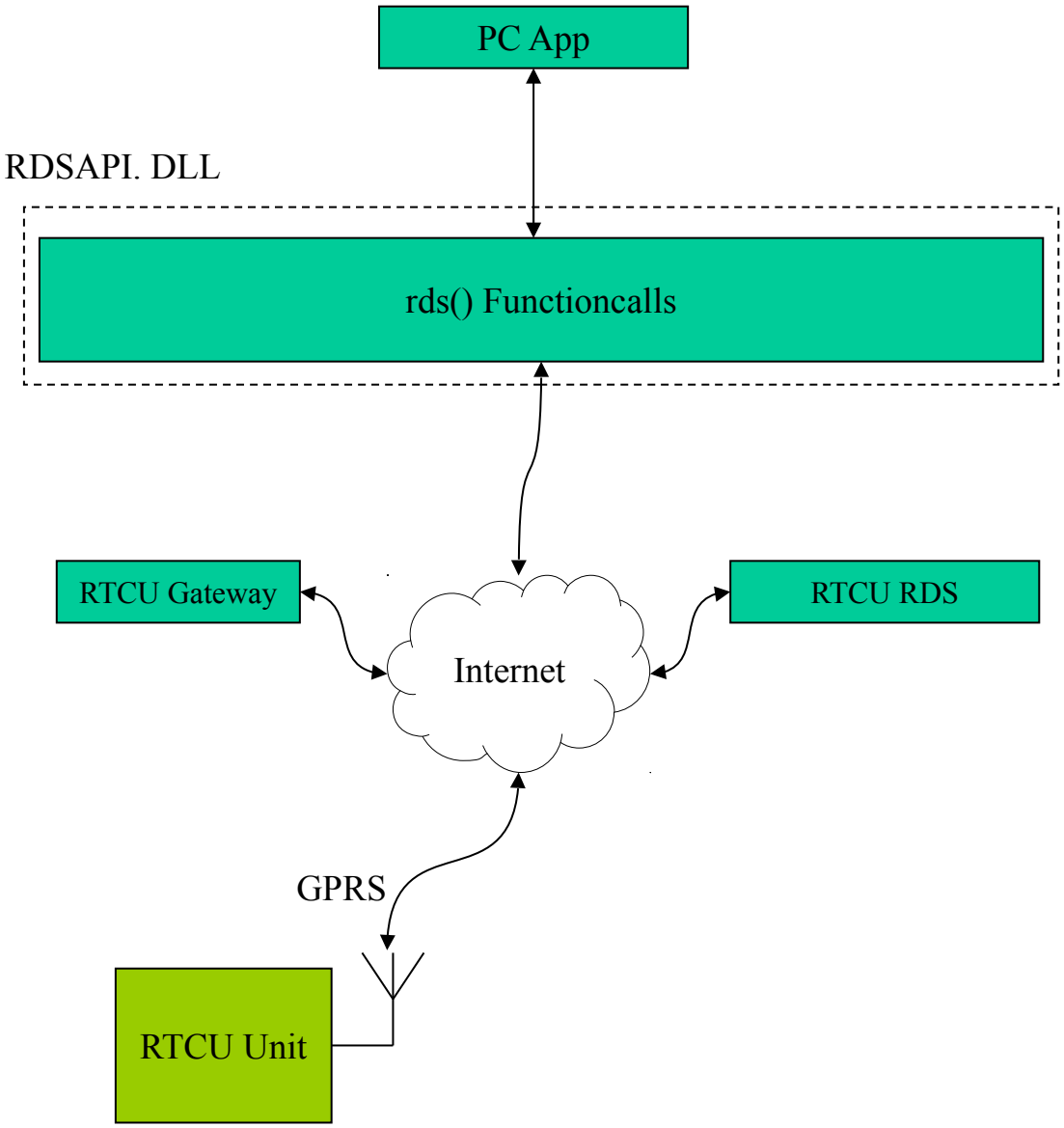
Introduction

This document discusses the library RDSAPI.DLL, which enables you to control the RTCU Deployment Server (RDS) from your own code. The library provides functions to manage profiles and units, providing the same functionality as the RTCU Deployment Server Manager.
The library connects to the RTCU Deployment Server through the RTCU Gateway 2 which is connected to the RTCU units.

Graphical illustration of the system



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Contents of package

The package this document is part of, contains the following:

- RTCU Deployment Server API.pdf This document
- \Library\ The .H, .LIB and .DLL files needed for the RDSAPI library.

In order to use this library, you will need to use Microsoft Visual Studio C++ 2005 or newer.

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Functions in the RDSAPI.DLL library

Server Functions

rdsConnect()

Synopsis int rdsConnect(const char* gw_addr, const unsigned short gw_port, const char* gw_key, const char* rds_key)

Description Opens the connection to the gateway and logs on to the RDS. The connection is opened and managed asynchronously. Use the rdsGetStatus function to determine when the RDSAPI library is connected.
The connection can be closed again by calling rdsDisconnect().

Input

gw_addr	The IP address of the gateway.
gw_port	The IP port of the gateway.
gw_key	The logon key for the gateway.
rds_key	The logon key for the RDS.

Returns

2 Connection is already open

1 Illegal parameter

0 Success

---

rdsDisconnect()

Synopsis void rdsDisconnect(void)

Description Closes the connection to the gateway and the RDS. The connection is closed when the function returns.

Returns None.

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rdsGetStatus()

Synopsis int rdsGetStatus(void)

Description Gets the status of the connection to the server.

Returns One of the following values:

15	Unsupported RDS.
14	Incorrect RDS login password.
13	All monitor slots on the server is in use.
12	RDS not found.
4	Connected to RDS.
3	Connecting to RDS.
2	Connected to gateway.
1	Connecting to gateway.
0	Not connected.

---

rdsGetVersion()

Synopsis int rdsGetVersion(void)

Description Get the version of the RDS API library

Returns The version of the RDSAPI library scaled by 100.

---

rdsGetServerVersion()

Synopsis int rdsGetServerVersion(void)

Description Gets the version of the connected RDS.

Returns The version number of the server multiplied by 100, or -1 if the RDS Server is not connected.

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Callback cbStatus

Synopsis typedef void (*cbStatus)(void* arg, const char* Name, const char Status);

Description Is used when requesting the status of the gateway connections of the server.

Input

arg	A user supplied argument.
Name	The name of the gateway. (Zero terminated ASCII text)
Status	Zero = Not connected, <> zero = Connected

Returns None.

---

rdsGetServerStatus()

Synopsis int rdsGetServerStatus(void* arg, cbStatus cbFunc);

Description Request the server connection status.

Input

arg	A user supplied argument, that is passed with the callback.
cbFunc	Pointer to the function that the RDSAPI will call with the connection status for each gateway.

Returns

Number of gateways the RDS connects to.

-1 Not connected to gateway.

-2 RDS not connected to gateway.

-3 Communication error.

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Log functions

Callback notify_log_data

Synopsis typedef void (*notify_log_data)(void* arg, const time_t timestamp, const char* text);

Description Is called when a log entry is received.

Input

arg	A user supplied argument.
timestamp	The timestamp for the log entry.
text	The text for the log entry. (Zero terminated ASCII text)

Returns None.

Callback notify_log_clear

Synopsis typedef void (*notify_log_clear)(void* arg);

Description Is called when the log is cleared.

Input

arg	A user supplied argument.

Returns None.

---

rdsRegisterLogNotification()

Synopsis void rdsRegisterLogNotification(void* arg, notify_log_data data, notify_log_clear clear)

Description Register callback functions with RDSAPI library, which is then called to notify about log changes.

Input

arg	A user supplied argument, that is included with the notifications.
data	The function to notify when log data is received. (The received log data will be included)
clear	The function to notify when log is cleared.

Returns None.

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rdsLogLoad()

Synopsis int rdsLogLoad(void)

Description Request the RDS log. The callback data registered in rdsRegisterLogNotification() will be called for each entry in the log.

Returns

1	General error.
0	Success.
-1	Not connected to gateway.
-2	RDS not connected to gateway.
-3	Communication error.

rdsLogClear()

Synopsis int rdsLogClear(void)

Description Clears the RDS log.

Returns

0	Success.
-1	Not connected to gateway.
-2	RDS not connected to gateway.
-3	Communication error.

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Profile functions

Struct rdsProfileInfo

Synopsis

```
typedef struct rdsProfileInfo {
   long           id_number;
   char           name[65];
   char           password[21];
   int            flags;
   long           time_start;
   long           time_stop;

   char           app_name[16];
   short          app_ver;
   char           app_file[191];

   short          fw_tgt;
   int            fw_system;
   int            fw_runtime;
   int            fw_monitor;
   char           fw_file[191];

   char           file_file[191];
   char           file_dst[61];

   int            app_newer;
   int            app_older;
   rds_fw_limit_t fw_newer;
   rds_fw_limit_t fw_older;
} rdsProfileInfo;
```

Description Stores the information about a profile

Fields

id_number	id number of the profile. Read only.
name	The name of the profile
password	The password for the units.
flags	Flags for the profile. See table below for possible values.
time_start	The start of the transfer time interval. Seconds since midnight. Use -1 to disable the time limitation.
time_stop	The end of the transfer time interval. Seconds since midnight. Use -1 to disable the time limitation.
app_name	The name of the application.
app_ver	The version number of the application (scaled by 100).

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app_file	The file name of the application.
fw_tgt	The target ID for the firmware
fw_system	The firmware version or the system version (NX32L only)
fw_runtime	The runtime version. (NX32L only)
fw_monitor	The monitor version. (NX32L only)
fw_file	The file name of the firmware
file_file	File name of file to transfer
file_dst	Destination drive for file, e.g. “A:”
app_newer	Application policy: Only newer than
app_older	Application policy: Only older than
fw_newer	Firmware policy: Only newer than
fw_older	Firmware policy: Only older than

Target ID

TARGET_A9	9	A9 / A9i.
TARGET_M10	10	M10.
TARGET_M11	11	M11.
TARGET_MX2	102	MX2 series.
TARGET_DX4MK2	103	DX4i mk2.
TARGET_DX4	104	DX4 series.
TARGET_CX1	105	CX1 series.
TARGET_SX1	106	SX1 series.
TARGET_AX9	109	AX9 series.
TARGET_MX2T	122	MX2 turbo / encore.
TARGET_AX9T	129	AX9 turbo / encore.
TARGET_MX2SOM	192	MX2 SOM.
TARGET_NX400	204	NX-400

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Profile flags

PFLAG_AUTORESET	0x00000001	When set, the RDS will reset the RTCU units when a transfer is completed.
PFLAG_SETPASSWORD	0x00000002	The password in the RTCU units will be set to the value supplied in password.
PFLAG_DEACTIVATE	0x00000004	If set, units that use this profile will not be upgraded.
PFLAG_APP_ENABLE	0x00000008	The update includes an application.
PFLAG_FW_ENABLE	0x00000010	The update includes a firmware
PFLAG_FORCEHALT	0x00000020	The application is halted during the transfer.
PFLAG_TARGETDEFAULT	0x00000040	The profile is the default for the target.
PFLAG_FILE_ENABLE	0x00000080	The update includes a file.
PFLAG_NO_DOWNGRADE_APP	0x00000100	When set, the RDS will not transfer the application if the version in the device is newer than the version in the profile.
PFLAG_NO_DOWNGRADE_FW	0x00000200	When set, the RDS will not transfer the firmware if the version in the device is newer than the version in the profile.
PFLAG_APP_NEWER	0x00000400	When set, the RDS will not transfer the application if the version in the device is older that or equal to the version given in the app_newer parameter.
PFLAG_APP_OLDER	0x00000800	When set, the RDS will not transfer the application if the version in the device is newer that or equal to the version given in the app_older parameter.
PFLAG_FW_NEWER	0x00001000	When set, the RDS will not transfer the firmware if the version in the device is older that or equal to the version given in the fw_newer parameter.
PFLAG_FW_OLDER	0x00002000	When set, the RDS will not transfer the firmware if the version in the device is newer that or equal to the version given in the fw_older parameter.
PFLAG_APP_INFILE	0x40000000	This flag is used by the Monitor Tool to indicate that the user cannot type in the application name and version.

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Struct rdsProfileInfo1

Synopsis

```
typedef struct rdsProfileInfo1 {
   long              size;
   long              id_number;
   char              name[65];
   char              password[21];
   int               flags;
   long              time_start;
   long              time_stop;

   char              file_file[191];
   char              file_dst[61];

   rds_firmware_t    system;
   rds_firmware_t    runtime;
   rds_firmware_t    monitor;
   rds_application_t app;
   rds_folder_t      folder
} rdsProfileInfo;
```

Description Stores the information about a profile

Fields

size	The size of the structure in bytes.
id_number	id number of the profile. Read only.
name	The name of the profile
password	The password for the units.
flags	Flags for the profile. See table below for possible values.
time_start	The start of the transfer time interval. Seconds since midnight. Use -1 to disable the time limitation.
time_stop	The end of the transfer time interval. Seconds since midnight. Use -1 to disable the time limitation.
app	The application information.
folder	The directory synchronization information. (NX32L only)
monitor	The monitor firmware information (NX32L only)
runtime	The runtime firmware information. (NX32L only)
system	The system firmware information.
file_file	The name of the file to transfer
file_dst	Destination drive for file, e.g. “A:”

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Struct rds_firmware_t

Synopsis

```
struct rds_firmware_t {
   int             flags;
   int             target;
   int             system;
   int             runtime;
   int             monitor;
   rds_fw_limit_t  newer;
   rds_fw_limit_t  older;
   char            file[191];
};
```

Description Stores the information about a firmware update.

Fields

flags	Flags for the firmware. See table below for possible values.
target	The target ID for the firmware
system	The firmware version or the system version (NX32L only)
runtime	The runtime version. (NX32L only)
monitor	The monitor version. (NX32L only)
newer	Policy: Only newer than
older	Policy: Only older than
file	The file name of the firmware

Firmware flags

FLAG_ENABLE	0x00000001	Enable the firmware update
FLAG_DOWNGRADE	0x00000002	When set, the RDS will transfer the firmware if the version in the device is newer than the version in the profile.
FLAG_NEWER	0x00000004	IWhen set, the RDS will not transfer the firmware if the version in the device is older that or equal to the version given in the fw_newer parameter.
FLAG_OLDER	0x00000008	When set, the RDS will not transfer the firmware if the version in the device is newer that or equal to the version given in the fw_older parameter.

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Struct rds_application_t

Synopsis

```
struct rds_firmware_t {
   int             flags;
   int             newer;
   int             older;
   int             version;
   char            file[191];
   char            name[16];
};
```

Description Stores the information about the application update.

Fields

flags	Flags for the application. See table below for possible values.
newer	Policy: Only newer than
older	Policy: Only older than
version	The version number of the application (scaled by 100).
file	The file name of the firmware
name	The name of the application.

Application flags

FLAG_ENABLE	0x00000001	Enable the application update
FLAG_DOWNGRADE	0x00000002	When set, the RDS will transfer the application if the version in the device is newer than the version in the profile.
FLAG_NEWER	0x00000004	IWhen set, the RDS will not transfer the firmware if the version in the device is older that or equal to the version given in the fw_newer parameter.
FLAG_OLDER	0x00000008	When set, the RDS will not transfer the application if the version in the device is newer that or equal to the version given in the app_older parameter.

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Struct rds_folder_t

Synopsis

```
struct rds_folder_t {
   int            flags;
   int            media;
   char           folder[191];
};
```

Description Stores the information about the directory synchronization.

Fields

flags	Flags for the directory synchronization. See table below for possible values.
meida	Destination media for synchronization, e.g. 0 for SD-CARD.
folder	The directory which will be synchronized.

Directory synchronization flags

FLAG_ENABLE	0x00000001	Enable the directory synchronization
FLAG_DELETE	0x00000010	When set, the RDS will delete the contents of the directory after it is transferred to the devices.

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Struct rds_fw_limit_t

Synopsis

```
struct rds_fw_limit_t {
   int            system;
   int            runtime;
};
```

Description Stores the version for the firmware 'Only newer than' and 'Only older than' policy.

Fields

system	The firmware version or the system version (NX32L only)
runtime	The runtime version. (only valid for NX32L devices)

Callback notify_profile_data

Synopsis typedef void (*notify_profile_data)(void* arg, const rdsProfileInfo* item);

Description Is called when a profile is changed.

Input

arg	A user supplied argument.
item	Pointer to a structure holding the profile data.

Returns None.

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Callback notify_profile1_data

Synopsis typedef void (*notify_profile1_data)(void* arg, const rdsProfileInfo1* item);

Description Is called when a profile is changed.

Input

arg	A user supplied argument.
item	Pointer to a structure holding the profile data.

Returns None.

Callback notify_profile_deleted

Synopsis typedef void (*notify_profile_deleted)(void* arg, const long ID);

Description Is called when a profile is deleted.

Input

arg	A user supplied argument.
ID	The ID of the profile that have been deleted.

Returns None.

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rdsRegisterProfileNotification()

Synopsis	void rdsRegisterProfileNotification(void* arg, notify_profile_data data, notify_profile_deleted deleted);
Description	Register callback functions with RDSAPI library, which is then called to notify about profile changes.

Input

arg	A user supplied argument, that is included with the notifications.
data	The function to notify when profile data is received. (The received profile data will be included)
deleted	The function to notify when a profile is deleted.

Returns None

rdsRegisterProfile1Notification()

Synopsis	void rdsRegisterProfile1Notification(notify_profile1_data data);
Description	Register callback function with RDSAPI library, which is then called to notify about profile changes.

Input

data	The function to notify when profile data is received. (The received profile data will be included)

Returns None

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rdsProfileLoad()

Synopsis int rdsProfileLoad(void)

Description Request the data of all the profiles on the RDS The callback data registered in rdsRegisterProfileNotification() will be called for each profile.

Returns

1	General error
0	Success.
-1	Not connected to gateway.
-2	RDS not connected to gateway.
-3	Communication error.

rdsProfileCreate()

Synopsis int rdsProfileCreate(rdsProfileInfo* Item);

Description Create a new profile on the RDS.

Input

Item	Pointer to the structure that holds the profile data.

Returns

9	No Application, Firmware and File is selected.
8	Name is missing.
7	Invalid time interval.
6	Invalid firmware parameter.
5	Invalid application parameter.
4	Invalid file parameter
3	Other profile is set as default for target.
2	Other profile with the same name.
1	General error
0	Success.
-1	Not connected to gateway.
-2	RDS not connected to gateway.
-3	Communication error.

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rdsProfile1Create()

Synopsis int rdsProfile1Create(rdsProfileInfo1* Item);

Description Create a new profile on the RDS.

Input

Item	Pointer to the structure that holds the profile data.

Returns

9 No Application, Firmware and File is selected.
8 Name is missing.
7 Invalid time interval.
6 Invalid firmware parameter.
5 Invalid application parameter.
4 Invalid file parameter
3 Other profile is set as default for target.
2 Other profile with the same name.
1 General error
0 Success.
-1 Not connected to gateway.
-2 RDS not connected to gateway.
-3 Communication error.

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UdsProfileDelete()

Synopsis int rdsProfileDelete(long ID);

Description Delete a profile from the RDS.

Input

ID	The ID of the profile.

Returns

2 Profile is in use.
1 Profile is not found.
0 Success.
-1 Not connected to gateway.
-2 RDS not connected to gateway.
-3 Communication error.

rdsProfileGetCount()

Synopsis int rdsProfileGetCount(void);

Description Request the number of profiles on the RDS.

Returns The number of profiles on the RDS Server, or 0 in case of an error.

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rdsProfileEdit()

Synopsis int rdsProfileEdit(rdsProfileInfo* Item);

Description Edit the data of a profile on the RDS.

Input

Item	Pointer to the structure that holds the profile data.

Returns

10	No Application, Firmware and File is selected.
9	Name is missing.
8	Invalid time interval.
7	Invalid firmware parameter.
6	Invalid application parameter.
5	Invalid file parameter.
4	Other profile is set as default for target.
3	Other profile with the same name
1	Profile is not found.
0	Success.
-1	Not connected to gateway.
-2	RDS not connected to gateway.
-3	Communication error.

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rdsProfile1Edit()

Synopsis int rdsProfile1Edit(rdsProfileInfo1* Item);

Description Edit the data of a profile on the RDS.

Input

Item	Pointer to the structure that holds the profile data.

Returns

10	No Application, Firmware and File is selected.
9	Name is missing.
8	Invalid time interval.
7	Invalid firmware parameter.
6	Invalid application parameter.
5	Invalid file parameter.
4	Other profile is set as default for target.
3	Other profile with the same name
1	Profile is not found.
0	Success.
-1	Not connected to gateway.
-2	RDS not connected to gateway.
-3	Communication error.

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Unit functions

Struct rdsUnitInfo

Synopsis

```
typedef struct rdsUnitInfo {
   long           serial_number;
   long           profile_id;
   char           password[21];
   int            flags;
   char           app_name[16];
   short          app_ver;
   short          fw_tgt;
   int            fw_system;
   int            fw_runtime;
   int            fw_monitor;
   char           progress;
   char           gateway;
   short          status;
   time_t         timestamp;
   char           comment[101];
} rdsUnitInfo;
```

Description Stores the information about a unit

Fields

serial_number	serial number of the unit
profile_id	id number of the profile
password	The password for the unit.
flags	Flags for the unit. See table below for values.
app_name	application name. (15 chars + zero terminator)
app_ver	application version (scaled by 100)
fw_tgt	Target ID of the device.
fw_system	firmware version (scaled by 100) or the system version (NX32L)
fw_runtime	The runtime version.(NX32L)
fw_monitor	The monitor version.(NX32L)
progress	transfer progress in percent (%)
gateway	index of the Gateway that the unit is connected to.
status	Status of the unit. See the values in the table below.
timestamp	Time stamp of the last time the unit connected and was completely upgraded.
comment	User defined comment.

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Unit status values

USTATUS_NO_INFO	0	No information has been received from the RTCU unit yet.
USTATUS_NOT_CONNECTED	1	RTCU unit is currently not connected to the RDS.
USTATUS_UP_TO_DATE	2	RTCU unit is up to date. The timestamp is the time for the last reset.
USTATUS_DEACTIVATED_PROFILE	3	The profile in use has been deactivated.
USTATUS_DEACTIVATED	4	The unit has been deactivated.
USTATUS_TRANSFER_IN_QUEUE	5	RTCU unit is not up to date, and a transfer has been queued
USTATUS_TRANSFER_APP	6	RDS is transferring the application to the RTCU unit.
USTATUS_TRANSFER_FW	7	RDS is transferring the firmware to the RTCU unit.
USTATUS_WAIT_FOR_RESET	8	Upload has been completed, and the RDS is waiting for the RTCU unit to reset.
USTATUS_WAIT_FOR_TIME	9	Waiting for upgrade time interval to arrive
USTATUS_TRANSFER_FILE	10	RDS is transferring the generic file to the RTCU unit.
USTATUS_TRANSFER_SYNC	11	RDS is transferring the directory synchronization contents to the RTCU unit.
USTATUS_ERROR_APP	30	The RTCU is not programmable or does not support EIS.
USTATUS_ERROR_FW	31	Firmware is not targeted for the RTCU unit type.
USTATUS_ERROR_FILE_APP	32	RDS could not find the application file.
USTATUS_ERROR_FILE_APP_INVALID	33	File is not a valid application file.
USTATUS_ERROR_FILE_FW	34	RDS could not find the firmware file.
USTATUS_ERROR_FILE_FW_INVALID	35	File is not a valid firmware file.
USTATUS_ERROR_PASSWORD	36	The password in the profile or unit is not identical to the password in the RTCU unit.
USTATUS_ERROR_TRANSFER	37	Version mismatch. Check the profile for typing errors and make sure the application sets the application name and version correctly.
USTATUS_ERROR_FILE_TRANSFER	38	RDS could not transfer the generic file.

Unit flags

UFLAG_DEACTIVATE	0x00010000	If set, the unit will not be upgraded.

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Struct rdsImportUnit

Synopsis

```
typedef struct rdsImportUnit {
   long           serial_number;
   long           profile_id;
   char           flag;
   char           comment[101];
} rdsImportUnit;
```

Description Stores information about a unit to import

Fields

serial_number	serial number of the unit to import
profile_id	id number of the profile for the imported unit
flag	Set to 1 to enable the unit, 0 to disable it.
comment	User defined comment.

Callback notify_unit_data

Synopsis typedef void (*notify_unit_data)(void* arg, const rdsUnitInfo* item);

Description Is called when a unit is changed.

Input

arg	A user supplied argument.
item	Pointer to a structure holding the unit data.

Returns None.

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Callback notify_unit_deleted

Synopsis typedef void (*notify_unit_deleted)(void* arg, const long ID);

Description Is called when a unit is deleted.

Input

arg	A user supplied argument.
ID	The ID of the unit that have been deleted.

Returns None.

rdsRegisterUnitNotification()

Synopsis void rdsRegisterUnitNotification(void* arg, notify_unit_data data, notify_unit_deleted deleted);

Description Register callback functions with RDSAPI library, which is then called to notify about unit changes.

Input

arg	A user supplied argument, that is included with the notifications.
data	The function to notify when unit data is received. (The received unit data will be included)
deleted	The function to notify when a unit is deleted.

Returns None.

rdsUnitLoad()

Synopsis int rdsUnitLoad(void)

Description Request the data of all the units on the RDS The callback data registered in rdsRegisterUnitNotification() will be called for each unit.

Returns

1	General error.
0	Success.
-1	Not connected to gateway.
-2	RDS not connected to gateway.
-3	Communication error.

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rdsUnitCreate()

Synopsis int rdsUnitCreate(const long ID, const long ProfileID, const int flags, const char* Password, const char* Comment);

Description Create a new unit on the RDS.

Input

ID	The ID of the unit.
ProfileID	The ID of the profile used.
flags	The flags of the unit.
Password	Zero terminated ASCII string with the unit password.
Comment	Zero terminated ASCII string with comments about unit.

Returns

3 Invalid parameter.
2 Other unit exists.
1 General error.
0 Success.
-1 Not connected to gateway.
-2 RDS not connected to gateway.
-3 Communication error.

rdsUnitDelete()

Synopsis int rdsUnitDelete(long ID);

Description Delete a unit from the RDS.

Input

ID	The ID of the unit.

Returns

1 Unit is not found
0 Success.
-1 Not connected to gateway.
-2 RDS not connected to gateway.
-3 Communication error.

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rdsUnitEdit()

Synopsis int rdsUnitEdit(const long ID, const long ProfileID, const int flags, const char* Password, const char* Comment);

Description Edit a unit on the RDS.

Input

ID	The ID of the unit.
ProfileID	The ID of the profile used.
flags	The flags of the unit.
Password	Zero terminated ASCII string with the unit password.
Comment	Zero terminated ASCII string with comments about unit.

Returns

2 Invalid parameter.
1 Unit is not found.
0 Success.
-1 Not connected to gateway.
-2 RDS not connected to gateway.
-3 Communication error.

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rdsUnitImport()

Synopsis int rdsUnitImport(const char flags, const int count, rdsImportUnit* items);

Description Import a number of units to the RDS.

Input

flags	Currently have the following flag: RDS_IMPORT_OVERWRITE | 1 | If set, the imported units will overwrite existing units.
count	The number of units in the array.
items	Pointer to an array of structures that hold the units to import.

Returns

3 Invalid parameter.
0 Success.
-1 Not connected to gateway.
-2 RDS not connected to gateway.
-3 Communication error.

rdsUnitReset()

Synopsis int rdsUnitReset(const int count, const long* units);

Description Reset a number of units on the RDS.

Input

count	The number of units in the array.
units	Pointer to an array that hold the unit ids.

Returns

1 No units in array.
0 Success.
-1 Not connected to gateway.
-2 RDS not connected to gateway.
-3 Communication error.

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rdsUnitRefresh()

Synopsis int rdsUnitRefresh(const int count, const long* units);

Description Refresh the information for a number of units on the RDS. Only changed units will cause notifications.

Input

count	The number of units in the array.
units	Pointer to an array that hold the unit ids.

Returns

1 No units in array.
0 Success.
-1 Not connected to gateway.
-2 RDS not connected to gateway.
-3 Communication error.

rdsUnitTransferForceApp()

Synopsis int rdsUnitTransferForceApp(const int count, const long* units);

Description Force an application transfer for a number of units on the RDS.

Input

count	The number of units in the array.
units	Pointer to an array that hold the unit ids.

Returns

1 No units in array.
0 Success.
-1 Not connected to gateway.
-2 RDS not connected to gateway.
-3 Communication error.

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rdsUnitTransferForceFile()

Synopsis int rdsUnitTransferForceFile(const int count, const long* units);

Description Force the transfer of a generic file for a number of units on the RDS.

Input

count	The number of units in the array.
units	Pointer to an array that hold the unit ids.

Returns

1 No units in array.
0 Success.
-1 Not connected to gateway.
-2 RDS not connected to gateway.
-3 Communication error.

rdsUnitTransferForceFw()

Synopsis int rdsUnitTransferForceFw(const int count, const long* units);

Description Force a firmware transfer for a number of units on the RDS.

Input

count	The number of units in the array.
units	Pointer to an array that hold the unit ids.

Returns

1 No units in array.
0 Success.
-1 Not connected to gateway.
-2 RDS not connected to gateway.
-3 Communication error.

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rdsUnitTransferForceRuntime()

Synopsis int rdsUnitTransferForceRuntime(const int count, const long* units);

Description Force a runtime firmware transfer for a number of units on the RDS.
Only available for NX32L.

Input

count	The number of units in the array.
units	Pointer to an array that hold the unit ids.

Returns

1 No units in array.

0 Success.

-1 Not connected to gateway.

-2 RDS not connected to gateway.

-3 Communication error.

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File functions

Callback cbFilename

Synopsis typedef void (*cbFilename)(void* arg, const char* Filename, const int Target, const int System, const int Runtime, const int Monitor, const char* Name);

Description Is called when requesting a list of files. (Both application files, Firmware files and Folders)

Input

arg	A user supplied argument.
Filename	The name of the file or directory. (Zero terminated ASCII text)
Target	The target id of the firmware. -1 is returned for Application and Folder.
System	The version of the file, scaled by 100. -1 is returned for Folder. The system version for NX32L devices.
Runtime	The runtime version. -1 for folders and 0 if not a NX32L device.
Monitor	The monitor version. -1 for folders and 0 if not a NX32L device.
Name	The name of the application. (Zero terminated ASCII text.) An empty string is returned for Firmware and Folder.

Returns None.

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rdsGetFilelist()

Synopsis int rdsGetFilelist(void* arg, cbFilename cbFunc, const int type, const char* Folder);

Description Retrieves a list of files from the RDS.

Input

arg	A user supplied argument, that is passed with the callback.
cbFunc	Pointer to the function that the RDSAPI will call with the files found in the Folder
type	The type of file: 0: Application 1: Firmware 2: Generic file 3: Directory for synchronization
Folder	The path of the sub-directory to query.

Returns

Number of files in the folder

-1 Not connected to gateway.

-2 RDS not connected to gateway.

-3 Communication error.

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