Magrathea Telecom NTS API

This document describes how to connect to and operate the Account Management features of the NTSAPI.

Contents

You will only be able to access the functions listed within this document if your Magrathea client code is greater than 2000. Client codes below this are for numbering API use only – please contact Magrathea for further information.

Please note that ALL account numbers are the PSTN number WITHOUT the leading ZERO. So for 08700680068 the account number would be 8700680068.

This API allows approved customers of Magrathea to allocate and control account information including the account balance and PIN as well as retrieving CDRs.

The API itself takes the form of a text based TCP/IP API, similar in some respects to SMTP/POP3 etc. All commands are formed in textual ASCII and are responded to with a textual answer.

Each command issued will receive a reply, whether it was a query or an instruction. The first character of this reply indicates whether the command was successful and the rest of the reply is command specific.

A reply that begins with a '0' (zero) indicates success; a reply that begins with anything else (usually the numbers 1 to 9) indicates failure.

Connecting to the API

Connections to the NTS API can be made by anything capable of sending and receiving raw ASCII data.

Connections should be made on port 777 to the machine:
api.magrathea-telecom.co.uk

Connecting from a Linux machine

If you have a Linux box, then you can use telnet from there and can initiate a session using the command:

telnet api.magrathea-telecom.co.uk 777

The same method of connection can be used from virtually all implementations of Unix.

Connecting from a Windows machine

Unfortunately Windows telnet doesn't negotiate line mode with our interface and it therefore doesn't work.

If you need to use Windows then we would recommend you use PuTTY which is a free telnet client and can be downloaded from the author's website:

http://www.chiark.greenend.org.uk/~sgtatham/putty/

To make a connection using PuTTY, start the PuTTY client and at the configuration screen enter the following details:

Host Name: api.magrathea-telecom.co.uk
Protocol: Telnet
Port: 777

Once you have entered the connection details, you should select the 'Terminal' Category (on the left hand side) and ensure that the '*Implicit CR in every LF* checkbox is ticked.

Other connections

It is possible to integrate API access with your website and/or back office systems by simply opening a socket connection and sending and receiving data as raw ASCII.

We have an example available that achieves this from a PHP script which can be easily modified and included with your website.

Example API Session

Here is an example session with the API.   For this example, we have made the connection from a Linux machine – the commands and responses when connected to the API are identical regardless of the connection type.

First we must connect to the API

> telnet api.magrathea-telecom.co.uk 777
Trying 213.166.5.75...
Connected to api.magrathea-telecom.co.uk.
Escape character is '^]'.
0 Magrathea NTS GW (ntsapi.c(V0.1) compiled on 13:53:53 Feb 16 2004)

As you can see, the API answers with a banner starting with '0' to show that the connection was successful.

Next we need to log on to the service.

Here, an invalid username and/or password is entered:

AUTH badname badpassword
2 Access denied

The '2 Access denied' reply has a non-zero first character which indicates that the authorisation command was not successful

AUTH xxxxx xxxxx
0 Access granted. Welcome (cl=2000)

This time a valid username/password is entered, the zero first character of the reply indicates success!

Now we'll use a simple example where we check the balance on an account and then add some funds to that account.

First of all, let's check the current balance of an account:

        AQRY 8700680068
        0 8700680068 20.000000 0.000000

The ZERO at the start of the line indicates success.
This is followed by confirmation of the account number we queried and then the current funds balance (which is twenty pounds) and the promotional funds balance (this will always be zero and is for future use).

Now we know what the balance was, let's add some more money

        AADD 8700680068 33.33
        0 Funds change OK

Again, a zero first character indicates that the credit has been added to the account, which we can confirm by once again requesting the balance.

```
AQRY 8700680068
0 8700680068 53.330000 0.000000
```

We can see that the balance has now been increased by the £33.33 we added to the new balance of £53.33.

As we have finished for this session, we just leave the API with:

```
QUIT
0 Many thanks. Goodbye
Connection closed by foreign host.
```

And we are done!

NTSAPI Command Reference

AUTH <username> <password>

This command must be issued before any other commands are processed.

QUIT

Terminates the session

ACRE <prefixed account >

Create a new account. The prefix is one assigned by Magrathea and given to you when you were given access to create accounts. There should be no spaces between this and the number of the account.

    ACRE MYCODE1189000000

AQRY <account>

This provides information about the account, including the balance.
A successful response will show the number queried, the balance (in pounds) and the promotional balance (for future use)

    AQRY 8700680068
    0 8700680068 20.000000 0.000000

AADD < account > <amount>

Increase the funds available on the account by the given amount (UK Pounds).
If successful, the following response will be received:

    AADD 8700680068 10
    0 Funds change OK

ACHG < account > <new funds>

Set the funds available for the specified account to be the new value. The amount is entered in UK Pounds.

    ACHG 8700680068 50
    0 Funds change OK

APIN < account > [pin]

Set a 4 digit pin number on the account. If [pin] is omitted, then any PIN currently on the account is removed.

APIN 8700680068 1234
0 PIN Set/Changed OK

ALINK <account> <parent account>

This command is used to create a link between an account and a parent account. The first parameter indicates the account to be linked (the child account), the second parameter gives the account to which the link should be created (the parent account).
Nested accounts should not be created: you cannot create a link to an account which is currently a child account itself.

ALINK 8700680068 8700680069
0 8700680068 linked to 8700680069

ALINK <account>

When used with only a single parameter, this command retrieves the current linked status of the account.

ALINK 8700680068
0 8700680068 linked to 8700680069

AUNLINK <account>

Remove the link to this account's parent.

AUNLINK 8700680068
0 8700680068 unlinked

AFEAT <account> <feature> [1/0]

The AFEAT command can be used to check, enable or disable a particular feature for an account. Currently the only feature available is 'M' which when enabled allows multiple concurrent calls to be made on the account.

To check the status of the feature:

AFEAT 8700680068 M
0 Feature 'M' is Enabled

To set the feature, add a one(1) or zero(0)
AFEAT 8700680068 M 0
0 Feature 'M' Disabled

CHST <account>

This command retrieves call history on the account for the current and previous days. It returns MULTIPLE lines of data.

Each line will begin with a ZERO, to indicate that it is a call record. The columns returned are:
0 <date> <time> <anumber> <dialled number> <duration> <reason> <debit>

Anumber is the caller id of the party that initated the call.
Dialled number is the number translation that was performed (where the calls are delivered over VoIP this will begin 44998).
Duration is the number of seconds the call was connected
Reason is the termination code – this will be 1 for a normal call, 8 for unanswered. Any value above 1000 indicates the call did not complete successfully.
Debit is the amount the account was debited for the cost of the call (for VoIP routing, this will be zero)

chst 8700680068
0 2005-02-16 16:58:24 207xxxxxxx 449988700680068 173 1 0.000000
0 2005-02-16 15:55:46 207xxxxxxx 449988700680068 506 1 0.000000
0 2005-02-16 15:55:32 207xxxxxxx 449988700680068 0 1001 0.000000
0 2005-02-16 14:31:47 199xxxxxxx 449988700680068 1026 1 0.000000
0 2005-02-16 12:05:52 192xxxxxxx 449988700680068 698 1 0.000000
0 2005-02-16 21:40:32 271xxxxxxx 44207043xxxx 1261 1 1.900000
9 No more rows

When all call records have been returned, the following response is sent:

> 9 No more rows

In this case this is not a failure but simply a way of indicating that there are no more rows of data to send.

If there are no call records available then the response will be:

> 9 No call history