Extended Ephemeris Server

**A description on how to access
Vincotech's Extended Ephemeris Server
And download EE files**

Application Note
Version 1.1

Revision History

Rev.	Date	Description
1.0	01-15-10	Release
1.1	02-10-10	Correcting wrong reference on page 6
	mm-dd-yy	

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1 Introduction

This document describes the download of Extended Ephemeris (EE) data files from Vincotech's EE server to another server form where the files are made available to units in the field. The document covers the first part of a complete process of retrieving Extended Ephemeris (EE) data from Vincotech's EE server, transferring them to the units in the field and then finally loading the receiver with the EE data. The following picture gives an overview:
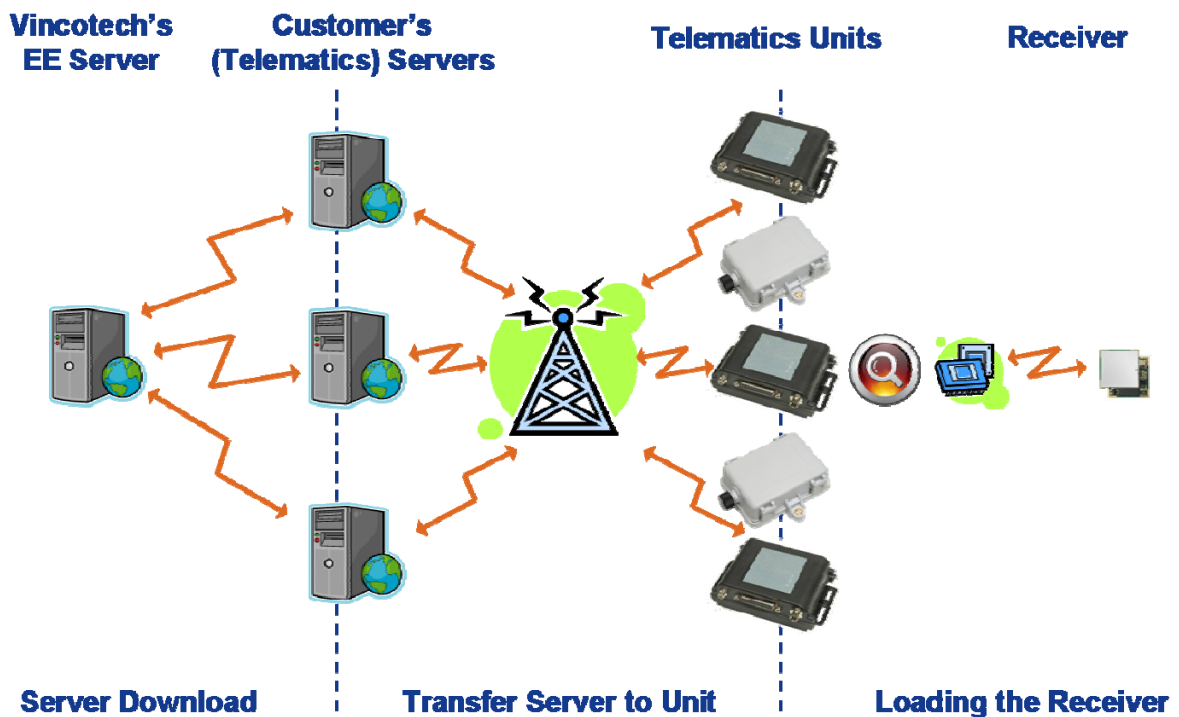

Figure 1: Overview of EE use

The first part "**Server Download**" is described in the following chapters. The second part "**Transfer Server to Unit**" is a custom specific implementation of a file transfer and storage. The overview shows GSM / GPRS as the transfer medium. Typically ftp could be used to transmit the file from a server to a unit in the field. The file can then be stored in flash, SRAM, on an SD card, with or without file system in the unit. Alternative transmission methods could be WLAN or simply via a direct serial (e.g. USB connection). The third part "**Loading the Receiver**" is finally covered by the application note "GPS AppNote EE Receiver Load" of the complete process is described.

2 Vincotech's EE Server

The access to Vincotech's EE server is protected. In order to gain access to the server and therefore the EE data it is necessary to sign an

"**Extended Ephemeris Service Agreement**".

This is available through your sales representative or Vincotech directly (see "5.1 Contact"). With this in place the customer will receive a User Name along with a Password to enable access (see "3 Access Using http").

2.1 Server Access Protocol

Vincotech's EE Server is an http access server. Therefore EE data can be downloaded using any Internet browser or other web download tools like the known free software *Wget* (GNU Wget from GNU Project).

In order to be able to access the server a User Name along with a Password are required.

2.2 EE Files

There are 4 files provided on the server:

- packedDifference.f2p1enc.ee
- packedDifference.f2p3enc.ee
- packedDifference.f2p5enc.ee
- packedDifference.f2p7enc.ee

The figures 1 through 7 in the file names show the length of the prediction period of the EE data, i.e. one through 7 days. File sizes are accordingly from about 10 kByte to about 70kByte.

3 Access Using http

The EE data are located in

http:// 80.237.169.106/ee-data

Registered users can download EE data by accessing the above mentioned URL. On accessing the URL a window for user authentication will pop-up.

Another form to access data without a pop-up window is

http://user:password@80.237.169.106/ee-data.

4 Access Using Command Tool Wget

Besides downloading files manually using an Internet browser, a more sophisticated (and automated) way is to use the *Wget* tool. This can be configured to be executed within a script to access data automatically as a scheduled task.

GNU Wget 1.11.4 is used in the following examples.

4.1 Basic Usage

wget [OPTION] [URL]

---
wget --help
   Print a help message
wget --version
   Display the version of Wget

4.2 HTTP Simple Options

--http-user=user
--http-password=password

Download a file from the location URL using user authentication.
wget http://80.237.169.106/ee-data/filename --http-user=user --http-password=password

or another syntax:
wget http://user:password@80.237.169.106/ee-data/filename

4.3 Proxy Options

--proxy-user=local user
--proxy-password=local-password

First set the URL of the proxy server in the *http_proxy* environment variable.

For a DOS shell command:
set http_proxy=http://<proxy_server:port>

For another shell it could look like:
export http_proxy=http://<proxy_server:port>

Then access the EE server by including the local authentication as well.

```
wget http://80.237.169.106/ee-data/filename --http-user=user
--http-password=password --proxy-user==local_user
--proxy-passwd=local_password


or
wget http://user:password@80.237.169.106/ee-data/filename
--proxy-user==local_user --proxy-passwd=local_password
```

4.4 Recursive Download

GNU Wget is capable of traversing parts of the web in order to download a bunch of files similar if using wildcards.

--r   recursive retrieving
--A   lists of file name suffixes or patterns to be accepted

```
Download all *.ee file from URL:
wget -r -A ee http://user:password@80.237.169.106/ee-data/
```

5 Related Information

5.1 Contact

This manual was created with due diligence. We hope that it will be helpful to the user to get the most out of the GPS module.

Inputs regarding errors or mistaken verbalizations and comments or proposals to Vincotech, Germany, for further improvements are highly appreciated.

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5.2 Related Documents

- GPS AppNote Receiver Load (Vincotech)
- GPS Firmware GSC3 3.6.0 (Vincotech)
- SiRF_Binary_Reference_Manual (SiRF)
- SiRF_NMEA_Reference_Manual (SiRF)
- http://en.wikipedia.org/wiki/Wget
- http://www.gnu.org/software/wget/
- http://www.gnu.org/software/wget/manual/html_node/index.html