



AssistNow® Online

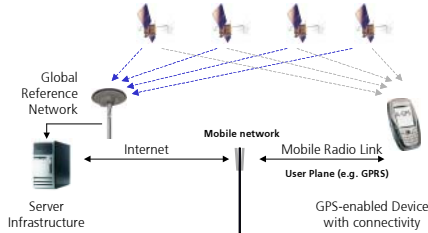
Online A-GPS Solution

Automotive and Mobile Terminal Applications

Preliminary Data

Overview

AssistNow Online is u-blox' end-to-end Assisted GPS (A-GPS) solution that boosts GPS acquisition performance, bringing Time To First Fix (TTFF) down to seconds. The system works by accessing assistance data such as Ephemeris, Almanac and accurate time from our Global Reference Network of globally placed GPS receivers. With A-GPS, the receiver can acquire satellites and provide accurate position data instantly on demand, even under poor signal conditions.



AssistNow Online makes use of User Plane communication and open standards such as TCP/IP. Therefore, it works on all standard mobile communication networks that support Internet access, including GPRS, UMTS and Wireless LAN. No special arrangements need to be made with mobile network operators to enable AssistNow Online.

The server only sends ephemeris data of satellites which are currently visible to the mobile phone requesting the data, thus minimizing the amount of data transferred.

AssistNow Online – Direct Access

In the Direct Access solution, user terminals access the u-blox Root Server directly. This easy-to-install, cost-efficient approach is ideal for companies with a limited number of user terminals.

AssistNow Online – Proxy Access

In the Proxy Access solution, a customer proxy server receives aiding data periodically from u-blox and handles all individual requests from mobile devices locally. Customers can use their communication link of choice for the communication between the user terminals and the server.

This solution ensures total data privacy since all data remains in the customer's own server. The system is fully scalable and is capable of handling countless aiding requests.

Benefits

- **Short Time To First Fix (TTFF)**
- **Robust service, even under poor signal conditions**
- **Works on all u-blox GPS receivers**
- **Always-on service (24 hours a day, 7 days a week)**
- **Cost-efficient; easy to install and to operate**
- **Open standard User-plane communication using like TCP/IP**
- **Network operator independent**

Applications

AssistNow® Online is suitable for a wide spectrum of end products with and without connectivity:

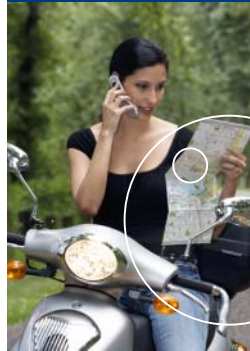
- Mobile phones: Emergency caller solutions and Location Based Services
- Smartphones, PDAs
- Asset tracking devices
- Fleet management and dispatch systems
- Personal and vehicle security solutions
- Professional products
- GPS end product manufacturing: Rapid testing of GPS functionality

Services

	Free Service	Premium Service
Time covered:	Max. 4 hours	Max. 4 hours
Access method	Direct Access	Direct Access Proxy Access

The Free Service offers no service level guarantees regarding availability, response times and bandwidth. Premium Service users are guaranteed a minimum of three updates per day under a service level agreement provided.

*your position
is our focus*



AssistNow Online Framework

The AssistNow Framework comprises the entire assistance data communication chain, from the Global Reference Network to the GPS receiver.

Global Reference Network:

This is the worldwide network of GPS receivers operating 24 hours a day and 7 days a week enduring accurate orbital data of the full constellation is always available. The network's GPS receivers collect the ephemeris and other satellite-related information and pass it on to the u-blox AssistNow Root Server.

AssistNow Online Root Server:

This server, located on u-blox premises, collects the data from the Global Reference Network, creates assistance data and passes it on, either directly to the client's mobile terminal or to the client's proxy server.

AssistNow Online Proxy Server (optional):

The Proxy Server, typically located on customer premises, receives periodic updates of satellite data from the u-blox AssistNow Root Server, ensuring up-to-date information is available and providing aiding requests to user terminals when requested.

AssistNow Online Client:

The AssistNow Client is an application that runs inside the mobile terminal. It issues aiding requests to the AssistNow Root or Proxy Servers and passes the data on to the GPS receiver, effectively boosting TTFF.

Receiver Performance Data

Receivers that support A-GPS	All GPS products containing ANTARIS, ANTARIS 4, u-blox 5
Achievable TTFF	w/o Time sync: 10 ... 25 s w. Time sync: 4 ... 12 s (Synchronization available on request)
Accuracy at first fix	Position 5 ... 10 m CEP
Max. Acquisition Sensitivity	Acquisition: -148 dBm

Interfaces

To u-blox Global Ref. Network	TCP/IP via Internet
To clients	TCP/IP, using wireless link of choice (public or private)
GPS Protocol	UBX Binary Protocol

Support Products

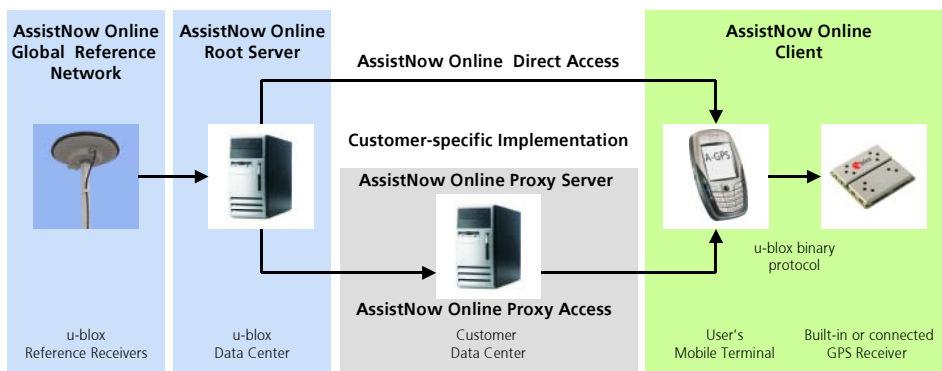
A-GPS Demo with Evaluation Kits	AssistNow Direct Access demo package for u-blox evaluation kits
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Ordering Information

SAS-MS-3-000-0	AssistNow Online – Free Service Direct Access
SAS-MS-0-000-0	AssistNow Online – Premium Service Direct Access
SAS-MS-1-000-0	AssistNow Online – Premium Service Proxy Access

Please contact u-blox to specify the system requirements and to order these AssistNow services.

AssistNow Online Framework



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