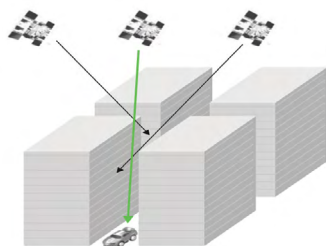


# AssistNow

## u-blox A-GPS services

### The challenge of stand-alone GPS

GPS users expect instant position information. With standard GPS this is often not possible because at least four satellites must be identified, and their complete orbital position data (called Ephemeris) received. Under adverse signal conditions, data downloads from the satellites to the receiver can take minutes, hours or even fail altogether.



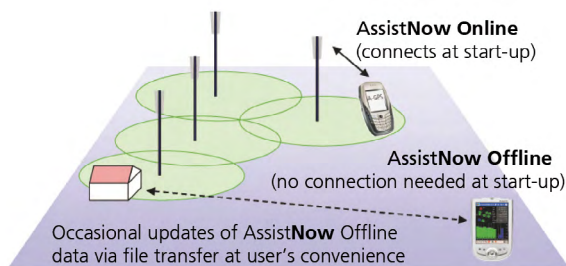
Assisted GPS (A-GPS) accelerates calculation of position by delivering satellite data such as Ephemeris, Almanac, accurate time and satellite status to the GPS receiver via wireless networks or the Internet. This aiding data enables a GPS receiver to compute a position within seconds, even under poor signal conditions.

### AssistNow A-GPS services

AssistNow Online and AssistNow Offline are u-blox' end-to-end A-GPS services for OEM customers and their end users. These services boost GPS acquisition performance for devices with or without network connectivity. AssistNow Online and AssistNow Offline can either be used alone or in combination.

AssistNow A-GPS services require no additional hardware and generate virtually no CPU load. The system is very easy to implement and can be installed and operational within a day.

u-blox wireless modules feature an embedded AssistNow client making integration simple.

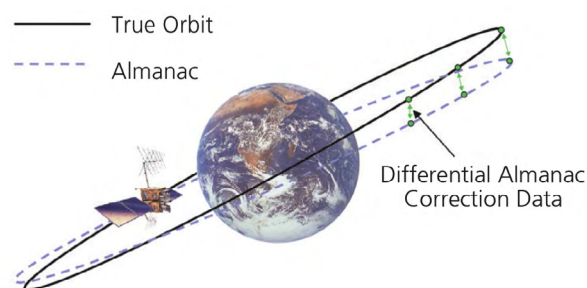


### AssistNow Online

With AssistNow Online, an internet-connected GPS device downloads assistance data from u-blox' AssistNow Online Service at system start-up. The service works on all standard mobile communication networks that support Internet access, including GPRS, UMTS and Wireless LAN. No special arrangements with mobile network operators are needed to enable AssistNow Online, making this solution network operator independent and globally available. u-blox only sends ephemeris data for those satellites currently visible to the mobile device requesting the data, thus minimizing the amount of data transferred.

### AssistNow Offline

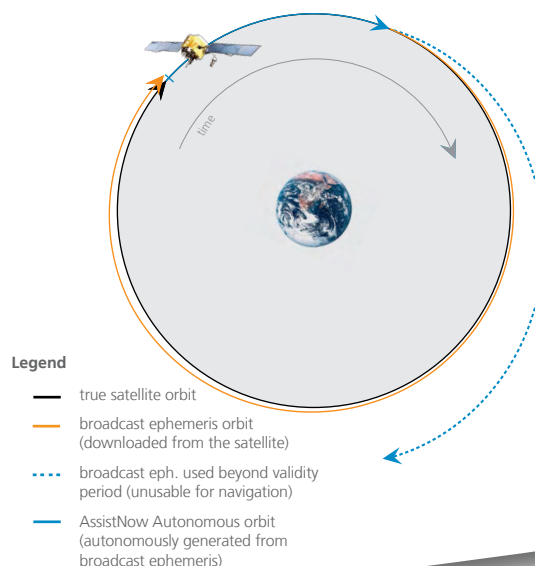
With AssistNow Offline, users download u-blox' Differential Almanac Correction Data from the Internet at their convenience. The correction data is then transferred to the mobile terminal via TCP/IP, serial port, memory card, etc, and can either be stored in the GPS receiver's Flash EPROM (if available) or in the memory of the application processor. Therefore, the service requires no connectivity at system start-up and enables a position fix within seconds, even when no network is available.



u-blox provides correction data valid from 1 to 14 days. The size of these files increases with the length of the prediction period, from as little as 3 kB to 90 kB. Positioning accuracy decreases with the length of the correction data duration, with 1–3 day data providing relatively high accuracy and 10–14 day data progressively less accuracy. Regular updates help to ensure a high level of position accuracy.

### AssistNow Autonomous

AssistNow Autonomous is an embedded feature available free-of-charge that accelerates GPS positioning by capitalizing on the periodic nature of GPS satellite orbits. GPS orbit predictions are directly calculated by the GPS receiver and no external aiding data or connectivity is required. AssistNow Autonomous can be used alone, or together with AssistNow Online or AssistNow Offline for increased positioning speed and accuracy.



## Benefits of AssistNow

- Fast Time-To-First-Fix, even under poor signal conditions
- Global coverage
- Network operator independent
- No additional hardware required
- Free best-effort service
- Guaranteed QoS option for premium customers
- Low CPU load
- Available for all u-blox GPS products
- Easy to install and use
- u-blox wireless modules include an embedded AssistNow client for effortless implementation

## Free and premium service options

AssistNow data is collected by u-blox' global array of satellite receivers, and maintained in real-time on u-blox AssistNow servers accessible via the Internet. For best-effort applications, u-blox provides AssistNow free-of-charge to its customers.

For applications requiring a guaranteed minimum Quality of Service (QoS), u-blox provides AssistNow Premium which provides guaranteed availability based on a service level agreement and 24/7 support.

|                                       | AssistNow Online                                         | AssistNow Offline                                        | AssistNow Autonomous        |
|---------------------------------------|----------------------------------------------------------|----------------------------------------------------------|-----------------------------|
| <b>Data download frequency</b>        | At every startup                                         | Once every 14 days                                       | Never                       |
| <b>Data retrieval at start-up</b>     | Data downloaded from server                              | Pre-downloaded data from local memory                    | Retrieved from local memory |
| <b>Aiding data type</b>               | Ephemeris, almanac, time, health                         | Differential almanac correction data                     | Automatically generated     |
| <b>Data validity period</b>           | 2 - 4 hours                                              | 14 days                                                  | Up to 3 days                |
| <b>Size of downloaded data</b>        | 1 - 3 kB                                                 | 10 kB (1 day) ... 90 kB (14 days)                        | None                        |
| <b>Acquisition (TTFF) performance</b> | As low as 1 second                                       | As low as 5 seconds                                      | As low as 10 seconds        |
| <b>Free service</b>                   | Best-effort                                              | Best effort                                              | Embedded best effort        |
| <b>Premium service</b>                | Guaranteed availability based on service level agreement | Guaranteed availability based on service level agreement | Not applicable              |

## Ordering information

Please contact u-blox to obtain access to the free AssistNow service. This service is available to u-blox OEM customers.

### Legal Notice

u-blox reserves all rights to this document and the information contained herein. Products, names, logos and designs described herein may in whole or in part be subject to intellectual property rights. Reproduction, use, modification or disclosure to third parties of this document or any part thereof without the express permission of u-blox is strictly prohibited.

The information contained herein is provided "as is". No warranty of any kind, either express or implied, is made in relation to the accuracy, reliability, fitness for a particular purpose or content of this document. This document may be revised by u-blox at any time. For most recent documents, please visit [www.u-blox.com](http://www.u-blox.com).

Copyright © 2013, u-blox AG

## Contact us

HQ Switzerland / EMEA  
+41 44 722 7444  
[info@u-blox.com](mailto:info@u-blox.com)

Americas  
+1 703 483 3180  
[info\\_us@u-blox.com](mailto:info_us@u-blox.com)

APAC – Singapore  
+65 6734 3811  
[info\\_ap@u-blox.com](mailto:info_ap@u-blox.com)

China  
+86 10 68 133 545  
[info\\_cn@u-blox.com](mailto:info_cn@u-blox.com)

India  
+91 959 1302 450  
[info\\_in@u-blox.com](mailto:info_in@u-blox.com)

Japan  
+81 3 5775 3850  
[info\\_jp@u-blox.com](mailto:info_jp@u-blox.com)

Korea  
+82 2 542 0861  
[info\\_kr@u-blox.com](mailto:info_kr@u-blox.com)

Taiwan  
+886 2 2657 1090  
[info\\_tw@u-blox.com](mailto:info_tw@u-blox.com)