

Optimize your assets with a network that reaches new heights

Satellite connectivity and services for globally connected IoT devices

Satellite coverage provides increased visibility and control over connected devices across even the most remote geography, with configurations that support industries such as Smart Cities, transportation, asset management, and agriculture. With satellite connectivity and services, you and your customers can now centrally monitor powered and unpowered mobile and fixed assets virtually anywhere.

Advances in technology have made satellite easy to install and cost effective. It is flexible enough to reach remote locations with the ability to switch to cellular when in range (to keep costs down), to work as a network backhaul for existing services, or to deliver a satellite-IP service.

Satellite is quickly becoming the technology of choice for tracking and operations in remote or rural areas, because it is ubiquitous and effective even in extreme environments.



AT&T IoT Connectivity

Satellite Service

When connectivity and tracking are the lifelines of your business, satellite from AT&T has your solution

Many industries benefit from having satellite in their IoT mixes:



Transportation

A shipping company uses “dual-mode” to track inventory across the ocean and through hostile waters. “Dual-mode” enables tracking to automatically use least-cost routing. When cellular service is available, the service will switch to make sure the lowest cellular rates are always used. When out of cellular range, the service automatically switches to satellite to provide seamless inventory tracking.



Agriculture

A farming firm chose satellite as a backhaul solution, as satellite backup easily works with the infrastructure they had in place. The solution gives additional coverage in rural areas, helps support precision farming operations, and enhances their remote office set-up.



Gas and Oil

An oil company explores new sites around the globe. They chose satellite-IP so that they can quickly get “up and running” from almost anywhere in the world. Satellite offers the bandwidth they need to track assets, manage large machinery, send videos for analysis, share large data files with anyone almost anywhere, and more.

Satellite benefits at work

Dual-mode

- Switches to cellular when in range
- Automatically uses lowest rates
- Best for assets on the move

Backhaul

- Site backup
- Large bandwidth
- Local access options

Satellite-IP

- Easy to deploy
- Large bandwidth options
- Disaster recovery

Connectivity across the globe

AT&T works with global satellite providers including:

- Inmarsat
- Iridium Communications
- Orbcomm
- Globalstar
- Thuraya
- 60+ fixed providers worldwide



AT&T IoT Connectivity

Satellite Service

Choose the configuration that works for you

Satellite is always on and available virtually everywhere

Satellite dual-mode



When your assets move in and out of cellular range, this is your solution. Dual-mode satellite enables you to fill any gaps in your cellular coverage while providing seamless switching to satellite coverage and back again.

Dual-mode satellite connects your IoT assets to a cellular network as the primary network and a satellite network as a backup. This provides global coverage that takes advantage of lowest-cost cellular data when it is available and satellite networks when cellular connectivity is not available.

Retrieve data automatically from remote power sub-stations and metering facilities, such as oil and gas supply stations. Reduce development costs and timelines while managing and monitoring mobile assets such as trucks, ships, and containers.

Advantages:

- Low bandwidth = small, low power, low cost terminals
- Efficient transport = low cost
 - Minimal network overhead compared to IP
 - No data charges for acknowledgement or re-transmission
- Highly resilient to network issues; stored data remains available
- Authenticated private data access

Satellite backhaul



You may have a remote location already operating in a local configuration such as cellular, Wi-Fi, or private radio, but you need a link out of that area to headquarters.

Applications include maritime shipping, field communications for Oil & Gas, mining sites, farming, excavation sites, etc. Keep an eye on your assets, gain extra connectivity, or remotely manage your site.

Versatile satellite backhaul arrangements are available for remote location requirements including low bandwidth requirements for SCADA applications and real-time solutions that require higher bandwidth needs.

Advantages:

- Data pipe – Similar to leased line and supports high speed networks
- Real-time (Round trip time <600ms)
- Support remote cellular networks: Voice/Message/Data
- Unlimited data: supports video surveillance
- Supports QoS with guaranteed bandwidth

Satellite-IP



Satellite-IP is a great solution for mobile or fixed remote locations that have high bandwidth demands.

Whether working on an offshore oil rig, a mountain top, a rural farm, or a mining operation, satellite-IP gives you real-time connectivity and larger bandwidth to manage, track, and maintain assets.

Satellite-IP solves for real-time applications that require higher bandwidth needs as well as SCADA low bandwidth requirements.

Advantages:

- IP-based M2M/IoT solution
- Real-time (Round trip time <1 sec)
- Easy to deploy: SIM card based solution
- Shared bandwidth: similar to cellular data
- Usage based model: data volumes in MB/GB



AT&T IoT Connectivity

Satellite Service

There are several satellite options for your unique business needs. Here are three dual-mode examples.



Form Factor	Hybrid satellite and 2G/3G modem	Hybrid satellite and 2G/3G modem	Hybrid satellite and 2G/3G modem
Size	175 x 115 x 45 mm	119.4 x 119.7 x 62.9 mm	115 x 136 x 41 mm
Weight	0.340 kg	0.386 kg	0.54 kg
Interfaces	1x RS232 1x CAN/J1939 4x Analog Inputs 8x Digital Inputs 5x Digital Outputs 1x Wi-Fi Modem	3x RS232 1x CAN/J1939 2x Analog Inputs 8x Digital GPIOs 4x Digital Outputs	22x RS232 1x CAN/J1939 1x RS485 17x Digital/Analog I/Os 1x Accelerometer

Learn more about how AT&T satellite service can benefit your business.



AT&T network

The powerful AT&T network supports integrated systems with a single, highly secure network with nationwide service and redundancies. Take advantage of our progressive and ever-improving network to drive innovation for your business.

Contact:

Email:

Phone:

visit: att.com/loT

