The Iridium Satellite Network
Iridium is the only satellite phone provider which offers terminals and services that provide true global coverage as well as function in a myriad of weather and environmental conditions. For this reason, thousands of organizations depend on Iridium satellite phones for highly reliable communications. Whether for daily telecommunications service, extreme conditions, or during and after natural or man-made disasters, users rely on Iridium phones to keep connected.

The reliability of Iridium’s global mobile voice and data communications is a result of their unique constellation design which consists of 66 Low Earth Orbit (LEO) satellites, each weighing 1,412 pounds and orbiting the earth every 100 minutes. Together these 66 LEO satellites create the world’s largest commercial constellation, supported by seven in-orbit spares which aid in Iridium’s dependability. The LEO satellites move in six orbital planes with 11 satellites equally spaced apart, offering a consistent service. Unlike geostationary (GEO) satellites which are 22,000 miles above earth, LEO satellites are only 483 miles above earth. The lower altitude of Iridium’s network provides users with a shorter phone registration time (on the network), a lower latency, and a clearer voice quality compared to some other Mobile Satellite Service (MSS) providers.

Iridium phones can be used from land, ocean, air, and even polar regions, as well as function during and after natural disasters. Iridium makes this possible through their Ka-band intersatellite links (called cross-linking) which allow calls to be routed between LEO satellites before being transferred to a ground station. If for instance, a ground station is destroyed or damaged, Iridium can route call traffic to another ground station via cross-linking.

To be able to place a call successfully, the Iridium satellite phone must have a view to the sky unobstructed by anything solid such as trees, mountains or buildings. It is possible to use Iridium phones indoors or from vehicles with the use of external antennas installed outside the building or vehicle.

NEXT: The Iridium Product Portfolio
PRODUCTS, SERVICES, AND DISTRIBUTION

Iridium phones can make and receive calls as well as send and receive data. Additional features and services include two-way SMS and email, free online messaging, and cost-saving two-stage dialing. All Iridium hardware and services are sold through a distribution network of Iridium Service Providers (ISPs). ISPs set up a dealer/reseller channel and some choose to sell direct to end users and compete with their channel.

Through the Iridium Force program, Iridium licenses their technology - voice transceivers and data modems - to Value-Added Manufacturers (VAMs) and Value-Added Resellers (VARs) who create market-driven products and solutions. These solutions include fixed phones, docking stations, outdoor antennas, tracking devices and complete end-to-end solutions for voice, data, and machine to machine (M2M).

The ISPs are free to select which VAM and VAR solutions they want to sell. Therefore, there may be specific solutions available from one ISP but not another. Regardless of your requirement, there probably is a solution.

IRIDIUM PRODUCTS/SERVICES

- Basic accessories
- Broadband services
- Iridium pilot
- Low-speed data
- Phones
- SMS service
- Voice and data modems
- Voice service
- Wi-Fi devices

PARTNER PRODUCTS/SERVICES

- 800 numbers
- Antennas
- Anti-Piracy phone
- Aviation tracking and reporting
- Aviation units
- Cabling
- Data compression
- Docking stations
- Fixed-site phones
- Hard cases
- Local numbers
- LRIT (long-range identification and tracking)
- M2M devices
- Marine anti-piracy solutions
- Marine units
- One numbers
- Tracking and monitoring solutions
  (many available)
- Tracking devices

As this listing illustrates, the Iridium ecosystem has dozens of solutions that cater to what different organizations need to solve their unique communications problems.

NEXT: The Iridium Phone Line-Up
## IRIDIUM PHONES

### IRIDIUM EXTREME (9575)

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>5.50in (13.97cm)</td>
</tr>
<tr>
<td>Width</td>
<td>2.40in (6.10cm)</td>
</tr>
<tr>
<td>Depth</td>
<td>1.06in (2.69cm)</td>
</tr>
<tr>
<td>Weight</td>
<td>0.45lbs (204.12g)</td>
</tr>
<tr>
<td>Talk Time</td>
<td>Up to 4hrs</td>
</tr>
<tr>
<td>Standby Time</td>
<td>Up to 30hrs</td>
</tr>
</tbody>
</table>

Very tough and rugged phone with more features than anything else on the market. Features include: customizable GPS, online tracking, and one-touch emergency SOS.

### IRIDIUM 9555

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>5.60in (14.22cm) plus 6in (15.24cm) antenna</td>
</tr>
<tr>
<td>Width</td>
<td>2.16in (5.49cm)</td>
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<tr>
<td>Depth</td>
<td>1.20in (3.05cm)</td>
</tr>
<tr>
<td>Weight</td>
<td>0.59lbs (267.62g)</td>
</tr>
<tr>
<td>Talk Time</td>
<td>Up to 3.1hrs</td>
</tr>
<tr>
<td>Standby Time</td>
<td>Up to 30hrs</td>
</tr>
</tbody>
</table>

Convenient and easy to use but also very tough—catering to those in situations where a trusted communication resource is needed.

### IRIDIUM 9505/9505A

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>6.25in (15.88cm)</td>
</tr>
<tr>
<td>Width</td>
<td>2.50in (6.35cm)</td>
</tr>
<tr>
<td>Depth</td>
<td>2.25in (5.72cm)</td>
</tr>
<tr>
<td>Weight</td>
<td>0.83lbs (376.48g)</td>
</tr>
<tr>
<td>Talk Time</td>
<td>Up to 3.6hrs</td>
</tr>
<tr>
<td>Standby Time</td>
<td>Up to 30hrs</td>
</tr>
</tbody>
</table>

Tough, convenient and easily portable for users who are constantly on the move and need a reliable means to communicate with others.

**NEXT: Who Uses Iridium Phones and Why?**
Who uses Iridium and why?

Iridium is a critical resource to hundreds of thousands of important users, users that depend on Iridium to help them in daily operations at critical times of need. Iridium satellite phones are used in a variety of sectors including:

- Adventurers/extreme explorers
- Enterprise
- Foreign governments
- Humanitarian organizations
- Military
- Non-governmental organizations
- Relief organizations
- State and local government
- US federal government

Iridium end-users are very diverse and include markets such as:

- Anyone in a life-threatening situation that needs reliable communication
- Aviation
- Construction
- Emergency workers
- Enterprise
- Forestry
- Globe-trotting individuals
- Government
- Heavy Equipment
- Maritime
- Military
- Mining
- Oil and gas
- Transportation
- US Department of Defense
- Utilities

This white paper is one of the GlobaFone Educational Series. At GlobaFone our goal is to provide you with objective information and education that will enable you to make a good decision when it is time for your organization to buy satellite phones. We do not offer cookie-cutter answers; rather we provide a consultative approach, working with you to find the solution that will support your results. Please feel free to call us for more information and straight-forward discussion about how SatCom can help you.