

Iridium Communications Inc.
Form 424B3
May 05, 2014
Table of Contents

Filed Pursuant to Rule 424(b)(3)
Registration No. 333-194869

This preliminary prospectus supplement and the accompanying prospectus relate to an effective registration statement under the Securities Act of 1933, as amended, but the information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and we are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

PROSPECTUS SUPPLEMENT (Subject to Completion)

Dated May 5, 2014

(To Prospectus dated April 11, 2014)

Shares

Iridium Communications Inc.

Common Stock

We are selling _____ shares of our common stock. Our common stock is listed on The Nasdaq Global Select Market under the symbol IRDM. The last reported sale price of our common stock on May 2, 2014 was \$7.63 per share. You are urged to obtain current market data and should not use the market price as of May 2, 2014 as a prediction of the future market price of our common stock.

Concurrently with this offering, pursuant to a separate prospectus supplement, we are offering 500,000 shares of our _____ % series B cumulative perpetual convertible preferred stock, or the preferred stock offering. The preferred stock offering is being made by means of a separate prospectus supplement and not by means of this prospectus supplement. This prospectus supplement is not an offer to sell or a solicitation of an offer to buy any securities being offered in the preferred stock offering. See Prospectus Supplement Summary Recent Developments Concurrent Preferred Stock Offering and Use of Proceeds.

You should consider the risks that we have described in Risk Factors beginning on page S-8 of this prospectus supplement. In addition, see Risk Factors in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2014. You should carefully read and consider these risk factors before you invest in our securities.

	Per Share	Total
Public offering price		
Underwriting discount		
Proceeds, before expenses, to us		

The underwriters have also been granted an option to purchase up to an additional _____ shares from us at the public offering price, less the underwriting discount, within 30 days from the date of this prospectus supplement to cover overallocments, if any. If the underwriters exercise the option in full, the total discount will be \$ _____ and the total net proceeds, before expenses, to us will be \$ _____.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the common shares to purchasers on or before May _____, 2014.

Joint Book-Running Managers

RAYMOND JAMES

DEUTSCHE BANK SECURITIES

WILLIAM BLAIR

The date of this prospectus supplement is May _____, 2014.

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering of common stock and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus dated April 11, 2014, including the documents incorporated by reference therein, provides more general information. Generally, when we refer to this prospectus, we are referring to both this prospectus supplement and the accompanying prospectus. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or in any document incorporated by reference that was filed with the U. S. Securities and Exchange Commission, or SEC, before the date of this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date for example, a document incorporated by reference in the accompanying prospectus the statement in the document having the later date will modify or supersede the earlier statement.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference in this prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

You should rely only on the information contained in or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we have authorized for use in connection with this offering. We have not, and the underwriters have not, authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and in any free writing prospectus that we have authorized for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering, in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus supplement titled *Where You Can Find More Information* and *Incorporation of Certain Information by Reference*.

Unless otherwise mentioned or unless the context requires otherwise, all references in this prospectus supplement to Iridium, we, us, our or similar references mean Iridium Communications Inc. and its consolidated subsidiaries.

This prospectus supplement, the accompanying prospectus and the information incorporated herein and therein by reference include trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus supplement or the accompanying prospectus are the property of their respective owners.

Table of Contents

FORWARD-LOOKING STATEMENTS

This prospectus, the documents we have filed with the SEC that are incorporated by reference herein and any free writing prospectus that we have authorized for use in connection with this offering contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. These statements relate to future events or to our future operating or financial performance and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performances or achievements expressed or implied by the forward-looking statements. Forward-looking statements may include, but are not limited to, statements about or relating to:

expectations concerning revenues, margins and results of operations;

our capital requirements and needs for additional financing;

our ability and the ability of our distributors to develop new offerings and enhance existing products;

expected future sources of revenue and capital;

future payments under loan and lease obligations;

the timing for deployment and expected capabilities of Iridium NEXT;

retaining key personnel and recruiting additional key personnel; and

the potential impact of recent accounting pronouncements on our financial position or results of operations. Such forward-looking statements involve risks and uncertainties, including, but not limited to:

our dependence on increased demand for mobile satellite services;

our dependence on the success of our subsidiary, Aireon LLC, which is our primary hosted payload customer;

our ability to obtain additional financing on acceptable terms, if at all;

our receipt and access to funds under our credit facility and continued compliance with its covenants;

our ability to develop and successfully deploy Iridium NEXT;

potential infringement or misuse by us of the intellectual property rights of third parties;

activities and decisions of, and economic conditions affecting, current and future strategic relationships, particularly those with the U.S. government; and

the timeliness and accuracy of information filed with the SEC by third parties.

In some cases, you can identify forward-looking statements by terms such as may, will, should, could, would, plans, anticipates, believes, estimates, projects, predicts, potential and similar expressions intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We discuss many of these risks in greater detail in Part II, Item 1A of our Quarterly Report on Form 10-Q for the quarter ended March 31, 2014, filed with the SEC on May 1, 2014 and the other reports we file with the SEC. Also, these forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement.

Table of Contents

You should read this prospectus supplement, the accompanying prospectus, the documents we have filed with the SEC that are incorporated by reference and any free writing prospectus that we have authorized for use in connection with this offering completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

Unless required by law, we undertake no obligation to update or revise any forward-looking statements to reflect new information or future events or developments. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements.

S-iii

Table of Contents

PROSPECTUS SUPPLEMENT SUMMARY

*This summary highlights certain information about us, this offering and selected information contained elsewhere in or incorporated by reference into this prospectus supplement or the accompanying prospectus. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in our common stock. For a more complete understanding of our company and this offering, we encourage you to read and consider carefully the more detailed information in this prospectus supplement and the accompanying prospectus, including the information incorporated by reference in this prospectus supplement and the accompanying prospectus, and the information included in any free writing prospectus that we have authorized for use in connection with this offering, including the information under the heading *Risk Factors* in this prospectus supplement beginning on page S-8, as well as the risks described in Part II, Item 1A of our Quarterly Report on Form 10-Q for the quarter ended March 31, 2014, filed with the SEC on May 1, 2014 and the other reports we file with the SEC.*

Iridium Communications Inc.

Our Business

We are the second largest provider by revenue of mobile voice and data communications services via satellite, and the only commercial provider of communications services offering true global coverage. Our satellite network provides communications services to regions of the world where existing wireless or wireline networks do not exist or are limited, including remote land areas, open ocean, the polar regions and regions where the telecommunications infrastructure has been affected by political conflicts or natural disasters.

We provide voice and data communications services to businesses, the U.S. and foreign governments, non-governmental organizations and consumers via our constellation of 66 in-orbit satellites, in-orbit spares and related ground infrastructure. We utilize an interlinked mesh architecture to route traffic across our satellite constellation using radio frequency crosslinks between satellites. This unique architecture minimizes the need for local ground facilities to support the constellation, which facilitates the global reach of our services and allows us to offer services in countries and regions where we have no physical presence.

Our commercial end user base, which we view as our primary growth engine, is diverse and includes markets such as emergency services, maritime, government, utilities, oil and gas, mining, recreation, forestry, heavy equipment, construction and transportation. Many of our end users view our products and services as critical to their daily operations and integral to their communications and business infrastructure. For example, multinational corporations in various sectors use our services for business telephony, e-mail and data transfer services, including telematics, and to provide mobile communications services for employees in areas inadequately served by terrestrial networks. Ship crews and passengers use our services for ship-to-shore calling as well as to send and receive e-mail and data files, and to receive electronic media, weather reports, emergency bulletins and electronic charts. Shipping operators use our services to manage operations on board ships and to transmit data, such as course, speed and fuel stock. Aviation end users use our services for air-to-ground telephony and data communications for position reporting, emergency tracking, weather information, electronic flight bag updates and fleet information.

The U.S. government, directly and indirectly, has been and continues to be our largest single customer, generating \$74.7 million in service and engineering and support service revenue, or 19% of our total revenue, for the year ended December 31, 2013, and \$19.9 million in service and engineering and support service revenue, or 20% of our total revenue, for the quarter ended March 31, 2014. This does not include revenue from the sale of equipment that may be ultimately purchased by U.S. or non-U.S. government agencies through third-party distributors, or airtime services purchased by U.S. or non-U.S. government agencies that are provided through

S-1

Table of Contents

our commercial gateway, as we lack visibility into these activities and the related revenue. In October 2013, we entered into a new multi-year, fixed-price contract with the U.S. government to provide satellite airtime services for unlimited usage for an unlimited number of U.S. Department of Defense, or DoD, and other federal government subscribers, with a total contract value of \$400 million over its five-year term.

Our voice and data products are used for numerous primary and backup communications solutions, including logistical, administrative, morale and welfare, tactical and emergency communications. In addition, our products are installed in ground vehicles, ships, rotary-wing and fixed-wing aircraft and are used for command-and-control and situational awareness purposes.

Our Competitive Strengths

Attractive and growing markets. We believe that the mobile satellite services industry will continue to experience growth driven by the increasing awareness of the need for reliable mobile voice and data communications services, the lack of coverage by terrestrial wireless systems of most of the earth's surface, and the continued development of innovative, lower cost technology and applications integrating mobile satellite products and services. Only satellite providers can offer global coverage, and the satellite industry is characterized by significant financial, technological and regulatory barriers to entry.

True global coverage. Our network provides true global coverage, which none of our competitors, whether low earth orbit, or LEO, satellite networks or geostationary, or GEO, satellite networks can offer. Our network of 66 operational satellites relies on an interlinked mesh architecture to transmit signals from satellite to satellite, which reduces the need for multiple local ground stations around the world and facilitates the global reach of our services. GEO satellites orbit above the earth's equator, limiting their visibility of far northern or southern latitudes and polar regions. LEO satellites from operators like Globalstar, Inc. and ORBCOMM Inc. use an architecture commonly referred to as bent pipe, which requires voice and data transmissions to be immediately routed to ground stations in the same region and can only provide real-time service when they are within view of a ground station, limiting coverage to areas near where they have been able to license and locate ground infrastructure. The LEO design of our satellite constellation produces minimal transmission delays compared to GEO systems due to the shorter distance our signals have to travel. Additionally, LEO systems typically have smaller antenna requirements and are less prone to signal blockage caused by terrain than GEO satellite networks. As a result, we believe that we are well-positioned to capitalize on the growth in our industry from end users who require reliable, easy-to-use communications services in all locations.

Innovations for a broad range of markets at lower costs. The specialized needs of our global end users span many markets, including emergency services, maritime, aviation, government, utilities, oil and gas, mining, recreation, forestry, heavy equipment, construction and transportation. We sell our products and services to commercial end users exclusively through a wholesale distribution network of service providers, value-added resellers, or VARs, and value-added manufacturers, or VAMs, which often specialize in a particular line of business. Our distributors use our products and services to develop innovative and integrated communications solutions for their target markets, often combining our products with other technologies, such as GPS and terrestrial wireless technology. In addition to promoting innovation, our wholesale distribution model allows us to capitalize on the research and development expenditures of our

distributor partners, while lowering overall customer acquisition costs and mitigating some risks, such as consumer relationship risks. By partnering with these distributors to develop new products, services and applications, we believe we create additional demand for our products and services and expand our target markets at a lower cost than would a more direct marketing model. We believe our distribution network can continue to grow with us and increase our market penetration.

S-2

Table of Contents

Strategic relationship with the U.S. government. The U.S. government is our largest single customer, and we have had a relationship with the DoD since our inception. We believe the DoD views our Netted Iridium[®], machine-to-machine, or M2M, devices, encrypted handset and other products as mission-critical services and equipment. The DoD has made significant investments in a dedicated gateway on a U.S. government site to provide operational security and allow DoD handset users to communicate securely with other U.S. government communications equipment. This gateway is only compatible with our satellite network. In October 2013, we entered into a new five-year, fixed-price contract with the U.S. government to provide satellite airtime services for unlimited usage for an unlimited number of DoD and other federal government subscribers, with a total contract value of \$400 million.

Our Business and Growth Strategies

Leverage our largely fixed-cost infrastructure by growing our service revenue. Our business model is characterized by high capital costs, primarily incurred every 10 to 15 years, in connection with designing, building and launching new generations of our satellite constellation. However, the incremental cost of providing service to additional end users is relatively low. We believe that service revenue will be our largest source of future growth and profits, and we intend to focus on growing both our commercial and government service revenue in order to leverage our largely fixed-cost infrastructure. In particular, we believe that M2M services, where we are engaging large, global enterprises as long-term customers for telematics solutions, represent an opportunity for service revenue growth.

Accelerate the development of personal communications capabilities. Iridium Force[®] is our strategy for the development of personal mobile satellite communications: allowing users to connect to our network in more ways, including from devices such as smartphones, tablets and laptops; making our technology more accessible and cost-effective for our distribution partners to integrate by licensing our core technologies; integrating location-based services for location-specific applications and personal security capabilities; and providing rugged, dependable devices and services. As part of this strategy, in February 2014 we announced our plans for Iridium GO![™], a personal satellite connectivity device, or a global satellite Wi-Fi hotspot, that will allow the use of smartphones and tablets over our network. We expect this device to be available in the second quarter of 2014.

Continue to expand our distribution network. We believe our wholesale distribution network lowers our costs and risks, and we plan to continue to selectively expand our network of service providers, VAMs and VARs. We expect that our current and future value-added partners will continue to develop customized products, services and applications targeted to the land-based handset, maritime, aviation, M2M and government markets. We believe these markets represent an attractive opportunity for continued subscriber growth. We also expect to continue to expand our sales and distribution efforts geographically by seeking authorization to operate and engaging distribution partners in additional countries.

Continued growth in services provided to the DoD. In October 2013, we executed a new five-year Enhanced Mobile Satellite Services, or EMSS, contract with the Defense Information Systems Agency, or DISA. Under the terms of this new agreement, we provide Iridium airtime and airtime support to U.S. government and other authorized customers, including voice, low and high speed data, paging, and Distributed Tactical Communication, or netted, services. The service fees we will receive under the EMSS contract are fixed and

increase from \$64 million and \$72 million in the first two years to \$88 million in each of the next three years. In addition, other services we are developing, such as future broadcast capabilities, provide us with opportunities to offer new products and services to the DoD for an additional fee.

S-3

Table of Contents

Develop the Iridium NEXT constellation. We are developing our next-generation satellite constellation, Iridium NEXT, which will replace our existing constellation with a more powerful satellite network while maintaining backward compatibility with our current system and end-user devices. Iridium NEXT will maintain our current system's key attributes, including use of an interlinked mesh architecture and the capability to upload new software, while providing new and enhanced capabilities, such as higher data speeds and increased capacity. We believe Iridium NEXT's increased capabilities will expand our target markets by enabling us to develop and offer a broader range of products and services, including a wider array of cost-effective and competitive broadband data services. We completed the critical design review phase of the development of Iridium NEXT in 2013, and we expect to proceed to full-scale production in late 2014 or early 2015 in anticipation of our first launch scheduled for 2015.

Continue to develop AireonSM and other hosted payloads, including Iridium PRIMESM. Iridium NEXT is designed to host secondary payloads. These secondary payloads have the potential to begin generating cash flows and revenue during the construction phase of Iridium NEXT and the potential to generate recurring service revenue once Iridium NEXT is launched. Our primary hosted payload customer is Aireon LLC, or Aireon, which is a joint venture between us and four air navigation service providers, NAV CANADA, Enav S.p.A.(Italy), or Enav, Naviair (Denmark) and the Irish Aviation Authority Limited, or IAA. Aireon is developing an automatic dependent surveillance-broadcast, or ADS-B, receiver to be hosted on Iridium NEXT, to provide a global air traffic surveillance service, which Aireon plans to offer to air navigation service providers, including our co-investors in Aireon and other air navigation service providers, particularly the U.S. Federal Aviation Administration, or the FAA. We expect Aireon to enter into a contract with the FAA as early as 2015. We have allocated the remaining hosted payload space on the original 81 Iridium NEXT satellites to Harris Corporation, which is building the Aireon payload. In addition, in September 2013, we announced Iridium PRIME, which will allow customers to host payloads on stand-alone satellites following deployment of our original 81 satellites, giving them greater volume, weight, power and data capacity than previously available on Iridium NEXT satellites, as well as flexibility of launch schedule, while holding costs down compared to an independent satellite development effort.

Recent Developments*Credit Facility Amendment*

On May 2, 2014, we entered into a supplemental agreement with Société Générale, as COFACE Agent under our COFACE Facility Agreement dated October 4, 2010, as amended and restated on August 1, 2012 and further amended on July 26, 2013 and October 30, 2013, which we refer to as the Original Credit Facility.

The Original Credit Facility, as amended and restated by the supplemental agreement, which we collectively refer to as our Credit Facility, includes revised financial covenant levels to reflect changing business conditions since the date of the previous amendment and restatement of the Original Credit Facility. The Credit Facility also delays, until 2017, a portion of the contributions that we were scheduled to make during 2014, 2015 and 2016 to the debt service reserve account that we are required to maintain under the Credit Facility. The Credit Facility delays \$22 million of our 2014 contributions, \$22 million of our 2015 contributions and \$32 million of our expected 2016 contributions, for a total of \$76 million.

The supplemental agreement became operative upon its execution on May 2, 2014, but requires us to raise at least \$217.5 million through the sale of equity securities by July 31, 2014, with net proceeds of at least \$200 million, in order for the amendment to become effective. The supplemental agreement allows us to raise

S-4

Table of Contents

up to \$150 million of the total in convertible preferred equity, with remainder to be raised through sales of common equity. There are no other conditions to the effectiveness of the amendment.

Registered Direct Offering

On May 2, 2014, we entered into a stock purchase agreement pursuant to which we have agreed to issue 7,692,308 shares of our common stock directly to certain Baron funds at a price of \$6.50 per share for aggregate gross proceeds of \$50,000,002. We currently anticipate that the closing of the sale of the shares under the stock purchase agreement will take place on or about May 5, 2014.

We intend to use the proceeds from this direct offering for general corporate purposes, which may include capital expenditures, including development and deployment of the Iridium NEXT system, working capital and general and administrative expenses.

Under the stock purchase agreement, if, during the period commencing on May 3, 2014 and ending on July 31, 2014 (the 90-day period following the date of the stock purchase agreement), or the protection period, we issue or sell either (i) convertible securities with an exercise or conversion price lower than \$7.9625, or (ii) common stock at an issue price lower than \$6.50, in either case other than options or other securities issued under our 2009 Stock Incentive Plan or our 2012 Equity Incentive Plan, then we are obligated to deliver, within ten calendar days of the end of the protection period, to each purchaser in the direct offering in the same proportion as the number of shares purchased by such purchaser in the direct offering, additional shares determined in accordance with the formula set forth in the stock purchase agreement, or protection shares; provided, however, that the number of protection shares to be delivered: (x) collectively to the purchasers under the stock purchase agreement shall not, when aggregated with the number of shares purchased in the direct offering, be greater than 9.99% of all issued and outstanding shares of common stock at the time of delivery of the protection shares, and (y) shall not, in the aggregate, exceed the limit at which the approval of our stockholders would be required under rules of The Nasdaq Global Select Market.

Aireon

On February 14, 2014, Iridium Satellite LLC, or Iridium Satellite, and Aireon entered into a Second Amended and Restated Limited Liability Company Agreement of Aireon, or the Aireon LLC Agreement, with NAV CANADA, Enav, Naviair, IAA and wholly owned subsidiaries of NAV CANADA, Enav and Naviair.

The Aireon LLC Agreement provides for the purchase by these investors of preferred membership interests to be issued by Aireon in multiple tranches for an aggregate purchase price of \$270 million. Each tranche is subject to the satisfaction of various operational, commercial, regulatory and financial conditions. NAV CANADA's subsidiary made its first tranche investment of \$15 million in November 2012, and its second tranche investment of \$40 million in July 2013, and has scheduled tranches of \$65 million in 2014, \$15 million in 2015 and \$15 million in 2017. The other ANSP investors made their first tranche investment of an aggregate of \$50 million in February 2014, with scheduled tranches of an additional \$25 million in 2014, \$33 million in 2015 and \$12 million in 2017. Following the completion of these investments, Aireon will be required, if and when funds are available, to redeem a portion of our equity interest in Aireon for a cash payment of \$120 million, which we anticipate in 2018. After the redemption, NAV CANADA's subsidiary will hold a 51.0% interest in Aireon, the other ANSP investors or their subsidiaries will collectively hold a 24.5% interest and we will retain the remaining 24.5% interest.

In addition to the \$120 million redemption payment described above, Aireon has agreed to pay us \$200 million in hosting fees for the integration and launch of Aireon's payloads on the Iridium NEXT satellites, as well as ongoing cumulative data service fees of nearly \$300 million through approximately 2030. Payment of the hosting fees may be

delayed, and payment of the data service fees may be reduced, if Aireon is not successful

S-5

Table of Contents

in executing commercial agreements with sufficient future ANSP customers. The hosting and data service fees and redemption, totaling over \$600 million, are in addition to the value of the 24.5% equity interest we will retain in Aireon.

NAV CANADA, Enav, Naviair, IAA and NATS, the ANSP of the United Kingdom, have also entered into commercial agreements with Aireon to be customers of the Aireon service.

New U.S. Government contract

The U.S. government, directly and indirectly, has been and continues to be our largest single customer, generating \$74.7 million in service and engineering and support service revenue, or 19% of our total revenue, for the year ended December 31, 2013, and \$19.9 million in service and engineering and support service revenue, or 20% of our total revenue, for the quarter ended March 31, 2014. This does not include revenue from the sale of equipment that may be ultimately purchased by U.S. or non-U.S. government agencies through third-party distributors, or airtime services purchased by U.S. or non-U.S. government agencies that are provided through our commercial gateway, as we lack visibility into these activities and the related revenue. In October 2013, we entered into a new multi-year, fixed-price contract with the U.S. government to provide satellite airtime services for an unlimited number of U.S. Department of Defense, or DoD, and other federal government subscribers. The fixed-price rates in each of the five contract years, which span from October 22 through the following October 21, are \$64 million and \$72 million in years one and two, respectively, and \$88 million in each of the years three through five. These amounts do not include revenue that we may earn from the sale of equipment or additional services, such as gateway assistance, to the DoD and other federal government agencies by third-party distributors.

Concurrent Preferred Stock Offering

Concurrently with this offering of common stock, we are offering 500,000 shares of our % Series B Cumulative Perpetual Convertible Preferred Stock, or the series B preferred stock (and the common stock issuable from time to time upon conversion of the series B preferred stock), which we refer to as the preferred stock offering, for aggregate gross proceeds of \$125 million. The preferred stock offering is being conducted as a separate public offering by means of a separate prospectus supplement. While this offering and the preferred stock offering are not contingent upon each other, we may decide not to proceed with either offering if one of the offerings cannot be completed. We cannot assure you that either or both of the offerings will be completed. If either offering is not completed or the aggregate gross proceeds received in the offerings are less than expected, we will still need to raise the remainder of the equity capital required by the credit facility amendment discussed above. See Description of Capital Stock Series B Cumulative Convertible Perpetual Preferred Stock for a description of the series B preferred stock.

Corporate Information

We were initially formed in 2007 as GHL Acquisition Corp., a special purpose acquisition company. We acquired all the outstanding equity in Iridium Holdings LLC, or Iridium Holdings, in a transaction accounted for as a business combination on September 29, 2009. On September 29, 2009, we changed our name to Iridium Communications Inc. The address of our corporate headquarters is 1750 Tysons Blvd., Suite 1400, McLean, Virginia 22102. Our general telephone number at that address is (703) 287-7400, and our website is located at www.iridium.com. The information on, or that can be accessed through, our website is not incorporated by reference in this prospectus supplement, and you should not consider it to be a part of this prospectus supplement or the accompanying prospectus.

S-6

Table of Contents

The Offering

Issuer	Iridium Communications Inc.
Common stock offered by us	shares
Overallotment option	shares
Common stock to be outstanding immediately after this offering	shares (or shares if the underwriters exercise their option to purchase additional shares in full)
Use of proceeds	We intend to use the net proceeds from this offering for general corporate purposes, including working capital and capital expenditures. See Use of Proceeds on page S-10 of this prospectus supplement.
Risk factors	Investing in our common stock involves significant risks. See Risk Factors on page S-8 of this prospectus supplement.
Listing	Our common stock is listed on The Nasdaq Global Select Market under the symbol IRDM.

The number of shares of our common stock to be outstanding immediately after this offering as shown above is based on 76,838,663 shares outstanding as of April 30, 2014, plus the 7,692,308 shares issued in our registered direct offering and the shares to be issued in this offering (or shares if the underwriters exercise their option to purchase additional shares in full) and excludes as of that date:

10,602,200 shares of common stock issuable upon conversion of our 7.00% Series A Cumulative Convertible Perpetual Preferred Stock, or our series A preferred stock;

up to shares of our common stock that would be issuable upon conversion of our series B preferred stock issued in the preferred stock offering, assuming conversion at the conversion rate of per \$250 in liquidation preference of the Series B Preferred Stock, which is % over the price at which our common stock is being offered pursuant to this prospectus supplement, and subject to anti-dilution, make-whole and other adjustments;

277,021 shares of common stock issuable upon the exercise of warrants outstanding, having a weighted-average exercise price of \$11.50 per share;

6,911,522 shares of common stock issuable upon the exercise of stock options outstanding, having a weighted average exercise price of \$7.67 per share;

2,246,540 shares of common stock issuable upon the vesting and settlement of restricted stock units outstanding; and

an aggregate of 3,813,934 shares of common stock reserved for future issuance under our equity compensation plan.

Except as otherwise indicated, all information in this prospectus supplement assumes no exercise by the underwriters of their overallotment option.

S-7

Table of Contents

RISK FACTORS

An investment in our common stock involves a high degree of risk. Before deciding whether to invest in our common stock, you should consider carefully the risks described below, as well as those described in Part II, Item 1A of our Quarterly Report on Form 10-Q for the quarter ended March 31, 2014, filed with the SEC on May 1, 2014, together with other information in this prospectus, the information and documents incorporated by reference and any free writing prospectus that we have authorized for use in connection with this offering. If any of these risks actually occurs, our business, financial condition, results of operations or cash flows could be seriously harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment.

The market price of our common stock may be volatile.

The trading price of our common stock may be subject to substantial fluctuations. Factors affecting the trading price of our common stock may include:

failure in the performance of our current or future satellites or a delay in the launch of Iridium NEXT;

failure of Aireon to successfully develop and market its service;

failure to comply with the terms of the Credit Facility;

failure to maintain our ability to make draws under the Credit Facility;

actual or anticipated variations in our operating results, including termination or expiration of one or more of our key contracts, or a change in sales levels under one or more of our key contracts;

sales of a large number of shares of our common stock or the perception that such sales may occur;

dilutive effect of outstanding stock options;

changes in financial estimates by industry analysts, or our failure to meet or exceed any such estimates, or changes in the recommendations of any industry analysts that elect to follow our common stock or the common stock of our competitors;

actual or anticipated changes in economic, political or market conditions, such as recessions or international currency fluctuations;

actual or anticipated changes in the regulatory environment affecting our industry;

changes in the market valuations of our competitors;

low trading volume; and

announcements by our competitors regarding significant new products or services or significant acquisitions, strategic partnerships, divestitures, joint ventures or other strategic initiatives.

The trading price of our common stock might also decline in reaction to events that affect other companies in our industry even if these events do not directly affect us. If our stock, the market for other stocks in our industry, or the stock market in general experiences a loss of investor confidence, the trading price of our common stock could decline for reasons unrelated to our business, financial condition or results of operations.

We do not expect to pay dividends on our common stock in the foreseeable future.

We do not currently pay cash dividends on our common stock and, because we currently intend to retain all cash we generate to fund the growth of our business and the Credit Facility restricts the payment of dividends, we do not expect to pay dividends on our common stock in the foreseeable future.

Table of Contents

Our common stock ranks junior to the series A preferred stock, and will rank junior to the series B preferred stock, with respect to dividends and amounts payable in the event of our liquidation.

Our common stock ranks junior to the series A preferred stock, and will rank junior to the series B preferred stock, in each case with respect to the payment of dividends and amounts payable in the event of our liquidation, dissolution or winding-up. This means that, unless accumulated dividends have been paid or set aside for payment on all outstanding shares of series A preferred stock and series B preferred stock for all past completed dividend periods, no dividends may be declared or paid on our common stock. Likewise, in the event of our voluntary or involuntary liquidation, dissolution or winding-up, no distribution of our assets may be made to holders of our common stock until we have paid to holders of the series A preferred stock and series B preferred stock the applicable liquidation preference plus in each case accrued and unpaid dividends.

Our stockholders will experience substantial additional dilution upon the conversion of the currently outstanding series A preferred stock or the series B preferred stock to be issued pursuant to our concurrent preferred stock offering and upon exercise of our outstanding warrants.

The issuance of shares of our common stock upon conversion of the currently outstanding series A preferred stock or the series B preferred stock to be sold pursuant to the preferred stock offering and upon exercise of our outstanding warrants would be substantially dilutive to the outstanding shares of common stock. Any dilution or potential dilution may cause our stockholders to sell their shares, which would contribute to a downward movement in the stock price of our common stock.

Sales of our common stock through this or other equity offerings could trigger a limitation on our ability to use our net operating losses and tax credits in the future.

The Tax Reform Act of 1986 limits the annual use of net operating loss and tax credit carryforwards in certain situations where changes occur in stock ownership of a company. In the event we have a change in ownership, as defined, the annual utilization of such carryforwards could be limited. This or other equity issuances could trigger a limitation on our ability to use our net operating losses and tax credits in the future under Sections 382 and 383 of the Internal Revenue Code as enacted by the Tax Reform Act of 1986.

Management will have broad discretion as to the use of the proceeds from this offering, and we may not use the proceeds effectively.

As noted under Use of Proceeds, we intend to use the net proceeds from this offering and the preferred stock offering for general corporate purposes, including working capital and capital expenditures. As a result, our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. Our failure to apply these funds effectively could have a material adverse effect on our business and cause the price of our common stock to decline.

Table of Contents**USE OF PROCEEDS**

We estimate that the net proceeds from the sale of the _____ shares of common stock that we are offering will be approximately \$ _____ million, or approximately \$ _____ million if the underwriters exercise in full their option to purchase up to _____ additional shares of common stock, after deducting the underwriting discount and estimated offering expenses payable by us.

In addition, we estimate that the net proceeds we will receive from our concurrent preferred stock offering will be approximately \$ _____ million, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. While this offering and the preferred stock offering are not contingent upon each other, we may decide to not proceed with either offering if one of the offerings cannot be completed. We cannot assure you that either or both of the offerings will be completed. If either offering is not completed or the aggregate proceeds received in the offerings are less than expected, we will still need to raise the remainder of the equity capital required by the credit facility amendment discussed under Prospectus Supplement Summary Recent Developments Credit Facility Amendment.

We intend to use the net proceeds from this offering and from the concurrent offering of series B preferred stock for general corporate purposes, which may include capital expenditures, including development and deployment of the Iridium NEXT system, working capital and general and administrative expenses.

Pending application of the net proceeds as described above, we intend to invest the net proceeds in a variety of capital preservation instruments, including direct or guaranteed obligations of the U.S. government, certificates of deposit and money market funds, in accordance with our investment policy.

PRICE RANGE OF COMMON STOCK

Our common stock is currently listed on The Nasdaq Global Select Market under the symbol IRDM. The following table sets forth, for the quarters indicated, the quarterly high and low sales prices of our common stock as reported on The Nasdaq Global Select Market.

	Common Stock	
	High	Low
Quarter Ended March 31, 2012	\$ 9.50	\$ 7.13
Quarter Ended June 30, 2012	9.15	8.16
Quarter Ended September 30, 2012	9.73	6.88
Quarter Ended December 31, 2012	7.83	5.25
Quarter Ended March 31, 2013	7.34	5.90
Quarter Ended June 30, 2013	7.85	5.98
Quarter Ended September 30, 2013	9.22	6.35
Quarter Ended December 31, 2013	6.91	5.37
Quarter Ended March 31, 2014	7.95	5.95

On May 2, 2014, the closing price of our common stock was \$7.63. As of April 30, 2014, there were 64 holders of record of our common stock.

DIVIDEND POLICY

We have not paid any dividends on our common stock to date. We are currently restricted from declaring, making or paying dividends on our common stock pursuant to our Credit Facility, and we do not anticipate that we will declare any dividends on our common stock in the foreseeable future.

S-10

Table of Contents**SELECTED HISTORICAL AND CONSOLIDATED FINANCIAL AND OPERATING DATA**

The following selection of historical data as of and for the quarters ended March 31, 2014 and 2013 was derived from our unaudited financial statements. The following selection of historical data as of and for the years ended December 31, 2013, 2012, 2011, 2010, and 2009 was derived from our audited financial statements. The selected financial data below should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements and the accompanying notes incorporated by reference in this prospectus supplement from our Quarterly Report on Form 10-Q for the quarter ended March 31, 2014 and Annual Report on form 10-K for the year ended December 31, 2013, or our 2013 Form 10-K. The selected financial data is our historical data and is not necessarily indicative of our future results of operations. The operating results for interim periods are not necessarily indicative of operating results for the entire year.

Statement of Operations Data (a)	For the Quarter Ended March 31,		For the Year Ended December 31,				
	2014	2013	2013	2012	2011	2010	2009
(In thousands, except per share amounts)							
Revenue:							
Services	\$ 73,430	\$ 68,787	\$ 292,092	\$ 273,491	\$ 262,322	\$ 236,351	\$ 53,014
Subscriber equipment	20,157	17,331	73,303	93,866	94,709	90,184	17,293
Engineering and support services	4,445	3,071	17,254	16,163	27,276	21,638	5,682
Total revenue	\$ 98,032	\$ 89,189	\$ 382,649	\$ 383,520	\$ 384,307	\$ 348,173	\$ 75,989
Total operating expenses	\$ 69,688	\$ 63,851	\$ 272,755	\$ 278,446	\$ 307,306	\$ 310,813	\$ 89,164
Operating income (loss)	\$ 28,344	\$ 25,338	\$ 109,894	\$ 105,074	\$ 77,001	\$ 37,360	\$ (13,175)
Net income (loss)	\$ 16,543	\$ 14,934	\$ 62,517	\$ 64,631	\$ 41,035	\$ 19,941	\$ (42,239)
Comprehensive income (loss)	\$ 16,759	\$ 14,847	\$ 62,185	\$ 64,499	\$ 40,720	\$ 20,009	\$ (42,217)
Weighted average shares outstanding basic	77,082	76,768	76,909	74,239	72,164	70,289	53,964
Weighted average shares outstanding diluted	87,711	87,397	87,511	78,182	73,559	72,956	53,964
Net income (loss) attributable to common per share basic	\$ 0.19	\$ 0.17	\$ 0.72	\$ 0.85	\$ 0.57	\$ 0.28	\$ (0.78)
Net income (loss) attributable to common per share diluted	\$ 0.19	\$ 0.17	\$ 0.71	\$ 0.83	\$ 0.56	\$ 0.27	\$ (0.78)

Balance Sheet Data	As of March 31,		As of December 31,				
	2014	2013	2013	2012	2011	2010	2009
(In thousands)							
Total current assets	\$ 361,482	\$ 383,234	\$ 369,558	\$ 367,166	\$ 227,242	\$ 208,729	\$ 220,937
Total assets	\$ 2,363,457	\$ 1,976,575	\$ 2,309,796	\$ 1,916,341	\$ 1,374,186	\$ 1,047,449	\$ 826,396
Total long-term liabilities	\$ 1,300,138	\$ 965,059	\$ 1,268,802	\$ 951,131	\$ 576,278	\$ 258,692	\$ 107,844
Total stockholders' equity	\$ 956,311	\$ 891,852	\$ 939,495	\$ 876,558	\$ 702,018	\$ 654,916	\$ 629,621

Cash Flow Data	For the Quarter Ended March 31,		For the Year Ended December 31,				
	2014	2013	2013	2012	2011	2010	2009

(In thousands)

Cash provided by (used in):							
Operating activities	\$ 42,465	\$ 57,196	\$ 183,048	\$ 174,023	\$ 183,461	\$ 151,438	\$ 23,168
Investing activities	\$ (52,661)	\$ (90,934)	\$ (485,836)	\$ (443,542)	\$ (359,337)	\$ (242,086)	\$ 354,537
Financing activities	\$ 8,338	\$ (15,370)	\$ 234,712	\$ 387,571	\$ 192,310	\$ 63,402	\$ (230,656)

- (a) The years ended December 31, 2013, 2012, 2011 and 2010 reflect the results of a full year of operations. On September 29, 2009, we acquired, directly and indirectly, all the outstanding equity of Iridium Holdings, and the data presented in the table above for the year ended December 31, 2009 reflects the results of post-acquisition activities for three months ended December 31, 2009. The year ended December 31, 2009 included a \$34.1 million change in the fair value of warrants due to our determination that the exchange agreements entered into with the holders of 26.8 million warrants in connection with the acquisition of Iridium Holdings were derivative instruments. We conducted no material operating activities for the periods prior to the acquisition of Iridium Holdings in September 2009.

S-11

Table of Contents

DESCRIPTION OF CAPITAL STOCK

As of the date of this prospectus supplement, our amended and restated certificate of incorporation, or our Restated Certificate, authorizes us to issue 300,000,000 shares of common stock, par value \$0.001 per share, and 2,000,000 shares of preferred stock, par value \$0.0001 per share. As of April 30, 2014, 76,838,663 shares of common stock were outstanding and 1,000,000 shares of preferred stock were outstanding.

The following summary description of our capital stock is based on the provisions of our Restated Certificate, as well as our Amended and Restated Bylaws, or Bylaws, and the applicable provisions of the General Corporation Law of the State of Delaware, or DGCL. This information is qualified entirely by reference to the applicable provisions of our Restated Certificate, Bylaws and the DGCL. For information on how to obtain copies of our Restated Certificate and Bylaws, which are exhibits to the registration statement of which this prospectus is a part, see [Where You Can Find Additional Information](#).

Common Stock

The holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of stockholders. The holders of our common stock do not have cumulative voting rights in the election of directors. Subject to preferences that may be applicable to any outstanding shares of preferred stock, the holders of common stock are entitled to receive ratably such dividends as may be declared by our board of directors out of legally available funds. Upon our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preferences of any outstanding shares of preferred stock. Holders of common stock have no preemptive rights and no right to convert their common stock into any other securities. There are no redemption or sinking fund provisions applicable to our common stock.

Additional shares of authorized common stock may be issued, as authorized by our board of directors from time to time, without stockholder approval, except as may be required by applicable stock exchange requirements.

The rights of the holders of our common stock are subject to, and may be adversely affected by, the rights of holders of shares of any preferred stock that we may designate and issue in the future.

\$11.50 Warrants. As of March 31, 2014, there were 277,021 \$11.50 warrants outstanding. Each warrant entitles the holder to purchase from us one share of our common stock at an exercise price of \$11.50 per share.

We may redeem each of the \$11.50 warrants at a price of \$0.01 upon 30 days prior notice, provided that the warrants are exercisable and the registration statement covering the common stock issuable upon exercise of the warrants remains effective and available. In addition, redemption can only be made if the closing price of our common stock is at least \$18.00 per share for any 20 trading days within a 30-trading-day period ending on the third day prior to the date on which notice of redemption is given. We maintain an effective registration statement covering the resale of the \$11.50 warrants and the shares of common stock acquired upon exercise of the \$11.50 warrants. If a registration statement is not effective at the time of exercise, holders of the \$11.50 warrants will not be entitled to exercise the warrants, and in no event (whether in the case of a registration statement not being effective or otherwise) will we be required to net cash settle any such warrant exercise. Consequently, the \$11.50 warrants may expire unexercised and unredeemed. The number of shares of common stock issuable upon the exercise of each \$11.50 Warrant is subject to adjustment from time to time upon the occurrence of specified events. The \$11.50 warrants expire in February 2015.

Preferred Stock

Pursuant to our Restated Certificate, our board of directors has the authority, without further action by the stockholders (unless such stockholder action is required by applicable law or stock exchange listing rules), to designate and issue up to 2,000,000 shares of preferred stock in one or more series, to establish from time to time

S-12

Table of Contents

the number of shares to be included in each such series, to fix the designations, powers, preferences, privileges and relative participating, optional or special rights and the qualifications, limitations or restrictions thereof, including dividend rights, conversion rights, voting rights, terms of redemption and liquidation preferences, any or all of which may be greater than the rights of the common stock, and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

The board of directors, without stockholder approval, can issue preferred stock with voting, conversion or other rights that could adversely affect the voting power and other rights of the holders of common stock. Preferred stock could be issued quickly with terms designed to delay or prevent a change in control of our company or make removal of management more difficult. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of the common stock and may adversely affect the voting power of holders of common stock and reduce the likelihood that common stockholders will receive dividend payments and payments upon liquidation.

Series A Cumulative Convertible Perpetual Preferred Stock. In the fourth quarter of 2012, we issued 1,000,000 shares of 7.00% Series A Cumulative Convertible Perpetual Preferred Stock, or our series A preferred stock, in a private offering. We received proceeds of \$96.5 million from the sale of the series A preferred stock, net of the aggregate \$3.5 million in initial purchaser discount and additional offering costs. The remaining 1,000,000 authorized shares of preferred stock remain undesignated and unissued as of as of the date of this prospectus supplement, although we expect to designate 500,000 shares of series B preferred stock in connection with the preferred stock offering.

The series A preferred stock ranks, with respect to dividend rights and rights upon our voluntary or involuntary liquidation, dissolution or winding up, senior to our common stock and will rank pari passu with respect to our series B preferred stock.

If we are liquidated, dissolved or wound up, holders of shares of the series A preferred stock will be entitled to receive a liquidation preference of \$100 per share, plus any accrued and unpaid dividends (whether or not authorized or declared) up to but excluding the date of payment, before any payment is made to holders of our common stock and any other class or series of capital stock ranking junior to the series A preferred stock as to liquidation rights. We may only issue equity securities ranking senior to the series A preferred stock with respect to dividend rights and rights upon our liquidation, dissolution and winding-up if we obtain the affirmative vote of the holders of at least two-thirds of the outstanding series A preferred stock together with each other class or series of preferred stock ranking on parity with the series A preferred stock with respect to the payment of dividends and the distribution of assets upon our liquidation, dissolution or winding up and upon which like voting rights are conferred.

Holders of series A preferred stock are entitled to receive cumulative cash dividends on the shares of series A preferred stock when, as and if declared, quarterly in arrears on each March 15, June 15, September 15 and December 15, at a rate of 7% per annum of the \$100 liquidation preference per share of series A preferred stock (equivalent to an annual rate of \$7.00 per share of series A preferred stock). The series A preferred stock does not have a stated maturity date and is not subject to any sinking fund or mandatory redemption provisions.

Holders of series A preferred stock may convert some or all of their outstanding shares of series A preferred stock initially at a conversion rate of 10.6022 shares of common stock per \$100 liquidation preference, which is equivalent to an initial conversion price of \$9.43 per share of common stock (subject to adjustment in certain events). Except as otherwise provided, the series A preferred stock will be convertible only into shares of our common stock.

On or after October 3, 2017, we may, at our option, cause some or all of the shares of series A preferred stock to be automatically converted into common stock at the then prevailing conversion rate, subject to certain conditions.

S-13

Table of Contents

On or prior to October 3, 2017, in the event of certain specified fundamental changes, holders of shares of series A preferred stock will have a special right to convert some or all of such shares of series A preferred stock on the fundamental change conversion date into the greater of (i) a number of shares of our common stock equal to the conversion rate then in effect plus a make-whole premium and (ii) a number of shares of our common stock equal to the lesser of (a) the liquidation preference of the series A preferred stock divided by the market value of our common stock on the effective date of such fundamental change and (b) 25.4453 (subject to adjustment in the same manner as the conversion rate); provided that the number of shares issuable upon conversion will not exceed 19.9% of our outstanding common stock at the time of the original offering, unless we have obtained stockholder approval in accordance with the rules of The Nasdaq Global Select Market. In certain circumstances, we may, at our option, elect to cash settle any conversions in connection with a fundamental change.

Holders of shares of series A preferred stock will generally have no voting rights. However, if we are in arrears on dividends on the series A preferred stock for six or more quarterly periods, whether or not consecutive, holders of shares of series A preferred stock (voting together as a class with the holders of all other classes or series of preferred stock upon which like voting rights have been conferred and are exercisable, including the series B preferred stock) will be entitled to vote at a special meeting called by at least 25% of such holders or at our next annual meeting and each subsequent annual meeting of stockholders for the election of two additional directors to serve on our board of directors until all unpaid dividends with respect to the series A preferred stock and any other such class or series of preferred stock have been paid or declared and a sum sufficient for the payment thereof set aside for payment, provided that the election of any such directors will not cause us to violate the corporate governance requirements of The Nasdaq Global Select Market (or any other exchange or automated quotation system on which our securities may be listed or quoted). In addition, we may not make certain material and adverse changes to any rights, preferences, privileges or voting powers of the series A preferred stock without the affirmative vote of the holders of at least two-thirds of the outstanding shares of the series A preferred stock together with the holders of all other shares of any class or series of preferred stock ranking on parity with the series A preferred stock with respect to the payment of dividends and distribution of assets upon our liquidation that are entitled to similar voting rights. Notwithstanding the foregoing, if any such change materially and adversely affects the rights, preferences, privileges or voting power of the series A preferred stock disproportionately relative to other series of preferred stock on parity with the series A preferred stock, the affirmative vote of the holders of at least two-thirds of the series A preferred stock is required.

Series B Cumulative Convertible Perpetual Preferred Stock. Concurrently with this offering of common stock, we are offering 500,000 shares of our % Series B Cumulative Perpetual Convertible Preferred Stock, or the series B preferred stock (and the common stock issuable from time to time upon conversion of the series B preferred stock), which we refer to as the preferred stock offering, for aggregate gross proceeds of \$125 million. The preferred stock offering is being conducted as a separate public offering by means of a separate prospectus supplement. While this offering and the preferred stock offering are not contingent upon each other, we may decide not to proceed with either offering if one of the offerings cannot be completed. We cannot assure you that either or both of the offerings will be completed. If either offering is not completed, we will still need to raise the equity capital required by the credit facility amendment discussed under Prospectus Supplement Summary Recent Developments Credit Facility Amendment.

The series B preferred stock will rank, with respect to dividend rights and rights upon our voluntary or involuntary liquidation, dissolution or winding up, senior to our common stock and will rank *pari passu* with respect to our series A preferred stock.

If we are liquidated, dissolved or wound up, holders of shares of the series B preferred stock will be entitled to receive a liquidation preference of \$250 per share, plus any accrued and unpaid dividends (whether or not authorized or declared) up to but excluding the date of payment, before any payment is made to holders of our common stock and

any other class or series of capital stock ranking junior to the series B preferred stock as to liquidation rights. We may only issue equity securities ranking senior to the series B preferred stock with respect

S-14

Table of Contents

to dividend rights and rights upon our liquidation, dissolution and winding-up if we obtain the affirmative vote of the holders of at least two-thirds of the outstanding series B preferred stock together with each other class or series of preferred stock ranking on parity with the series B preferred stock with respect to the payment of dividends and the distribution of assets upon our liquidation, dissolution or winding up and upon which like voting rights are conferred.

Holders of series B preferred stock will be entitled to receive cumulative cash dividends on the shares of series B preferred stock when, as and if declared, quarterly in arrears on each March 15, June 15, September 15 and December 15, beginning on June 15, 2014, at a rate of % per annum of the \$250 liquidation preference per share of series B preferred stock (equivalent to an annual rate of \$ per share of series B preferred stock). The series B preferred stock will not have a stated maturity date and will not be not subject to any sinking fund or mandatory redemption provisions.

Holders of series B preferred stock will be able convert some or all of their outstanding shares of series B preferred stock initially at a conversion rate of shares of common stock per \$250 liquidation preference, which is equivalent to an initial conversion price of \$ per share of common stock (subject to adjustment in certain events). Except as otherwise provided, the series B preferred stock will be convertible only into shares of our common stock.

On or after , 2019, we will be able to, at our option, cause some or all of the shares of series B preferred stock to be automatically converted into common stock at the then prevailing conversion rate, subject to certain conditions.

On or prior to , 2019, in the event of certain specified fundamental changes, holders of shares of series B preferred stock will have a special right to convert some or all of such shares of series B preferred stock on the fundamental change conversion date into the greater of (i) a number of shares of our common stock equal to the conversion rate then in effect plus a make-whole premium and (ii) a number of shares of our common stock equal to the lesser of (a) the liquidation preference of the series B preferred stock divided by the market value of our common stock on the effective date of such fundamental change and (b) (subject to adjustment in the same manner as the conversion rate). In certain circumstances, we may, at our option, elect to cash settle any conversions in connection with a fundamental change.

Holders of shares of series B preferred stock will generally have no voting rights. However, if we are in arrears on dividends on the series B preferred stock for six or more quarterly periods, whether or not consecutive, holders of shares of series B preferred stock (voting together as a class with the holders of all other classes or series of preferred stock upon which like voting rights have been conferred and are exercisable, including the series A preferred stock) will be entitled to vote at a special meeting called by at least 25% of such holders or at our next annual meeting and each subsequent annual meeting of stockholders for the election of two additional directors to serve on our board of directors until all unpaid dividends with respect to the series B preferred stock and any other such class or series of preferred stock have been paid or declared and a sum sufficient for the payment thereof set aside for payment, provided that the election of any such directors will not cause us to violate the corporate governance requirements of The Nasdaq Global Select Market (or any other exchange or automated quotation system on which our securities may be listed or quoted). In addition, we may not make certain material and adverse changes to any rights, preferences, privileges or voting powers of the series B preferred stock without the affirmative vote of the holders of at least two-thirds of the outstanding shares of the series B preferred stock together with the holders of all other shares of any class or series of preferred stock ranking on parity with the series B preferred stock with respect to the payment of dividends and distribution of assets upon our liquidation that are entitled to similar voting rights. Notwithstanding the foregoing, if any such change materially and adversely affects the rights, preferences, privileges or voting power of the series B preferred stock disproportionately relative to other series of preferred stock on parity with the series B

preferred stock, the affirmative vote of the holders of at least two-thirds of the series B preferred stock is required.

S-15

Table of Contents

Future Preferred Stock. Our board of directors will fix the designations, voting powers, preferences and rights of each series, as well as the qualifications, limitations or restrictions thereof, of the preferred stock of each series that we offer under this prospectus and applicable prospectus supplements in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of that series of preferred stock. This description will include:

the title and stated value;

the number of shares we are offering;

the liquidation preference per share;

the purchase price per share;

the dividend rate per share, dividend period and payment dates and method of calculation for dividends;

whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;

our right, if any, to defer payment of dividends and the maximum length of any such deferral period;

the procedures for any auction and remarketing, if any;

the provisions for a sinking fund, if any;

the provisions for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights;

any listing of the preferred stock on any securities exchange or market;

whether the preferred stock will be convertible into our common stock or other securities of ours, including depositary shares and warrants, and, if applicable, the conversion period, the conversion price, or how it will be calculated, and under what circumstances it may be adjusted;

whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange period, the exchange price, or how it will be calculated, and under what circumstances it may be adjusted;

voting rights, if any, of the preferred stock;

preemption rights, if any;

restrictions on transfer, sale or other assignment, if any;

whether interests in the preferred stock will be represented by depositary shares;

a discussion of any material or special United States federal income tax considerations applicable to the preferred stock;

the relative ranking and preferences of the preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs;

any limitations on issuances of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock being issued as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and

any other specific terms, rights, preferences, privileges, qualifications or restrictions of the preferred stock. The General Corporation Law of the State of Delaware, the state of our incorporation, provides that the holders of preferred stock will have the right to vote separately as a class (or, in some cases, as a series) on an

Table of Contents

amendment to our Restated Certificate if the amendment would change the par value or, unless our Restated Certificate provided otherwise, the number of authorized shares of the class or change the powers, preferences or special rights of the class or series so as to adversely affect the class or series, as the case may be. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

Antitakeover Effects of Provisions of Charter Documents and Delaware Law

Charter Documents. Our Restated Certificate and Bylaws include a number of provisions that may have the effect of deterring hostile takeovers or delaying or preventing changes in control or management of our company. The Restated Certificate provides that all stockholder action must be effected at a duly called meeting of stockholders and not by a consent in writing. Further, our Bylaws limit who may call special meetings of the stockholders. Our Restated Certificate does not include a provision for cumulative voting for directors. Under cumulative voting, a minority stockholder holding a sufficient percentage of a class of shares may be able to ensure the election of one or more directors. Finally, our Bylaws establish procedures, including advance notice procedures, with regard to the nomination of candidates for election as directors and stockholder proposals. These and other provisions of our Restated Certificate and Bylaws and Delaware law could discourage potential acquisition proposals and could delay or prevent a change in control or management of our company.

Delaware Takeover Statute. We are subject to Section 203 of the DGCL, which regulates acquisitions of some Delaware corporations. Section 203 generally prohibits a publicly held Delaware corporation from engaging in a business combination with an interested stockholder for a period of three years following the date of the transaction in which the person became an interested stockholder, unless:

the board of directors of the corporation approved the business combination or the other transaction in which the person became an interested stockholder prior to the date of the business combination or other transaction;

upon consummation of the transaction that resulted in the person becoming an interested stockholder, the person owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding shares owned by persons who are directors and also officers of the corporation and shares issued under employee stock plans under which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

on or subsequent to the date the person became an interested stockholder, the board of directors of the corporation approved the business combination and the stockholders of the corporation authorized the business combination at an annual or special meeting of stockholders by the affirmative vote of at least 66-2/3% of the outstanding stock of the corporation not owned by the interested stockholder.

Section 203 of the DGCL defines a business combination to include any of the following:

any merger or consolidation involving the corporation and the interested stockholder;

Edgar Filing: Iridium Communications Inc. - Form 424B3

any sale, transfer, pledge or other disposition of 10% or more of the corporation's assets or outstanding stock involving the interested stockholder;

subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any of its stock to the interested stockholder;

any transaction involving the corporation that has the effect of increasing the proportionate share of its stock owned by the interested stockholder; or

the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

S-17

Table of Contents

In general, Section 203 defines an interested stockholder as any person who, together with the person's affiliates and associates, owns, or within three years prior to the determination of interested stockholder status did own, 15% or more of a corporation's voting stock.

Section 203 of the DGCL could depress our stock price and delay, discourage or prohibit transactions not approved in advance by our board of directors, such as takeover attempts that might otherwise involve the payment to our stockholders of a premium over the market price of our common stock.

Transfer Agent And Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, and its address is 6201 15th Street, Brooklyn, NY 11219. The transfer agent for any series of preferred stock that we may offer under this prospectus will be named and described in the prospectus supplement for that series.

Listing on The Nasdaq Global Select Market

Our common stock is listed on The Nasdaq Global Select Market under the symbol IRDM.

We intend to list our series B preferred stock on The Nasdaq Global Select Market under the symbol IRDM.B.

Table of Contents**UNDERWRITING**

We and the underwriters for the offering named below have entered into an underwriting agreement with respect to the common stock being offered. Subject to the terms and conditions of the underwriting agreement, each underwriter has severally agreed to purchase from us the number of shares of our common stock set forth opposite its name below. Raymond James & Associates, Inc. is the representative of the underwriters.

Underwriter	Number of Shares
Raymond James & Associates, Inc.	
Deutsche Bank Securities Inc.	
William Blair & Company, L.L.C.	
 Total	

The underwriting agreement provides that the obligations of the underwriters are subject to certain conditions precedent and that the underwriters have agreed, severally and not jointly, to purchase all of the shares sold under the underwriting agreement if any of these shares are purchased, other than those shares covered by the overallotment option described below. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the underwriters against specified liabilities, including liabilities under the Securities Act, and to contribute to payments the underwriters may be required to make in respect thereof.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel and other conditions specified in the underwriting agreement. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Overallotment option to purchase additional shares

We have granted to the underwriters an option to purchase up to _____ additional shares of common stock at the public offering price, less the underwriting discount. This option is exercisable for a period of 30 days. The underwriters may exercise this option solely for the purpose of covering overallotments, if any, made in connection with the sale of common stock offered hereby. To the extent that the underwriters exercise this option, the underwriters will purchase additional shares from us in approximately the same proportion as shown in the table above.

Discounts and commissions

The following table shows the public offering price, underwriting discount and proceeds, before expenses, to us. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

	Per Share	Without Overallotment	Total With Overallotment
Public offering price	\$	\$	\$
Underwriting discount			
Proceeds, before expenses, to us			

We estimate that the total expenses of the offering, excluding the underwriting discount, will be approximately \$, which amount includes up to \$ that we have agreed to reimburse the

S-19

Table of Contents

underwriters for their fees and expenses, and such expenses are payable by us. Pursuant to Financial Industry Regulatory Authority, or FINRA, interpretations, total underwriter compensation will not exceed 8% of the gross proceeds of this offering.

The underwriters propose to offer the shares of common stock to the public at the public offering price set forth on the cover of this prospectus supplement. The underwriters may offer the shares of common stock to securities dealers at the public offering price less a concession not in excess of \$ _____ per share. If all of the shares are not sold at the public offering price, the underwriters may change the offering price and other selling terms.

Discretionary accounts

The underwriters do not intend to confirm sales of the shares to any accounts over which they have discretionary authority.

Price stabilization, short positions and penalty bids

In connection with this offering, the underwriters may engage in stabilizing transactions, overallotment transactions, syndicate covering transactions, penalty bids and purchases to cover positions created by short sales.

Stabilizing transactions permit bids to purchase shares of common stock so long as the stabilizing bids do not exceed a specified maximum, and are engaged in for the purpose of preventing or retarding a decline in the market price of the common stock while the offering is in progress.

Overallotment transactions involve sales by the underwriters of shares of common stock in excess of the number of shares the underwriters are obligated to purchase. This creates a syndicate short position which may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase in the overallotment option. In a naked short position, the number of shares involved is greater than the number of shares in the overallotment option. The underwriters may close out any short position by exercising their overallotment option and/or purchasing shares in the open market.

Syndicate covering transactions involve purchases of common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared with the price at which they may purchase shares through exercise of the overallotment option. If the underwriters sell more shares than could be covered by exercise of the overallotment option and, therefore, have a naked short position, the position can be closed out only by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that after pricing there could be downward pressure on the price of the shares in the open market that could adversely affect investors who purchase in the offering.

Penalty bids permit the representative to reclaim a selling concession from a syndicate member when the common stock originally sold by that syndicate member is purchased in stabilizing or syndicate covering transactions to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock in the open market may be higher than it would otherwise be in the absence of these transactions. Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of our common stock. These transactions may be effected on The Nasdaq Global Select Market, in the over-the-counter market or otherwise and, if commenced, may be discontinued at any time.

S-20

Table of Contents

Lock-up agreements

Pursuant to certain lock-up agreements, we and our executive officers and directors, have agreed, subject to certain exceptions, not to offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of or announce the intention to otherwise dispose of, or enter into any swap, hedge or similar agreement or arrangement that transfers, in whole or in part, the economic consequence of ownership of, directly or indirectly, or make any demand or request or exercise any right with respect to the registration of, or file with the SEC a registration statement under the Securities Act relating to, any common stock or securities convertible into or exchangeable or exercisable for any common stock without the prior written consent of Raymond James & Associates, Inc. and Deutsche Bank Securities Inc., for a period of 90 days after the date of the pricing of this offering. The 90-day restricted period will be automatically extended if (i) during the last 17 days of the 90-day restricted period we issue an earnings release or material news or a material event relating to us occurs or (ii) prior to the expiration of the 90-day restricted period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 90-day restricted period, in either of which case the restrictions described above will continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release or the public announcement of the material news or the occurrence of the material event, as applicable, unless Raymond James & Associates, Inc. and Deutsche Bank Securities Inc. waive, in writing, such extension.

This lock-up provision applies to common stock and to securities convertible into or exchangeable or exercisable for common stock. The exceptions to the lock-up for executive officers and directors are: (a) transactions relating to shares of common stock or other securities acquired in open market transactions after the completion of this offering; (b) the transfer of shares of common stock or any securities convertible into or exercisable or exchangeable for common stock (i) as a bona fide gift to an immediate family member of the executive officer or director or to a trust formed for the benefit of an immediate family member, (ii) by will or intestate succession or (iii) by bona fide gift to a charity or educational institution; (c) the transfer of shares of common stock or any securities convertible into shares of common stock to us to cover tax withholding obligations; and (d) the establishment of a written trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of shares of common stock; provided that such plan either existed prior to the date of the lock-up agreements or does not provide for the transfer of shares during the restricted period. The exceptions to the lock-up for us are: (a) the sale of shares of common stock in this offering and the preferred stock offering; (b) common stock issued pursuant to employee benefit plans, qualified stock option plans or other employee compensation plans existing on the date hereof or pursuant to currently outstanding options, warrants or rights and described in this prospectus supplement or the accompanying prospectus; (c) common stock issued upon conversion of our series A preferred stock, (d) common stock issued upon the exercise of our \$11.50 warrants, (e) shares of common stock issued in under the stock purchase agreement entered into in connection with our registered direct offering and (f) transactions relating to shares of common stock or other securities acquired in open market transactions after the completion of the offering.

United Kingdom

Each underwriter has represented and agreed that:

- (a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000, or FSMA, received by it in connection with the issue or sale of the shares of our common stock in circumstances in which Section 21(1) of the FSMA does not apply to us; and

S-21

Table of Contents

- (b) it has complied and will comply with all applicable provisions of FSMA with respect to anything done by it in relation to shares of our common stock in, from or otherwise involving the United Kingdom.

Switzerland

This prospectus supplement does not constitute an issue prospectus pursuant to Article 652a or Article 1156 of the Swiss Code of Obligations and the securities will not be listed on the SIX Swiss Exchange. Therefore, this prospectus supplement may not comply with the disclosure standards of the listing rules (including any additional listing rules or prospectus schemes) of the SIX Swiss Exchange. Accordingly, the securities may not be offered to the public in or from Switzerland, but only to a selected and limited circle of investors who do not subscribe to the securities with a view to distribution. Any such investors will be individually approached by the underwriters from time to time.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive, each, a Relevant Member State, an offer to the public of any shares of our common stock may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of any shares of our common stock may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

- (a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- (b) to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives for any such offer; or
- (c) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of shares of our common stock shall result in a requirement for the publication by us or any underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an offer to the public in relation to any shares of our common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of our common stock to be offered so as to enable an investor to decide to purchase any shares of our common stock, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression Prospectus Directive means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State, and the expression 2010 PD Amending Directive means Directive 2010/73/EU.

Electronic offer, sale and distribution of shares

A prospectus in electronic format may be made available on the websites maintained by one or more of the underwriters or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The representative may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders.

Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations. Other than the prospectus in electronic format, the information on these websites is not part of this prospectus supplement, the accompanying prospectus or the registration statement of which the accompanying prospectus forms a part, has not been approved or endorsed by us or any underwriter in its capacity as underwriter, and should not be relied upon by investors.

S-22

Table of Contents

Other relationships

Certain of the underwriters are also underwriters for our concurrent offering of the series B preferred stock. In addition, certain of the underwriters and their affiliates have provided, and may in the future provide, various investment banking, commercial banking and other financial services for us and our affiliates for which they have received, and may in the future receive, customary fees.

S-23

Table of Contents

LEGAL MATTERS

The validity of the common stock offered by this prospectus supplement and the accompanying prospectus will be passed upon for us by Cooley LLP, Reston, Virginia. Milbank, Tweed, Hadley & McCloy LLP, New York, New York, is counsel for the underwriters in connection with this offering. Milbank, Tweed, Hadley & McCloy LLP has from time to time acted as counsel for us in certain matters.

EXPERTS

The consolidated financial statements of Iridium Communications Inc. appearing in Iridium Communications Inc.'s Annual Report on Form 10-K for the year ended December 31, 2013, and the effectiveness of Iridium Communications Inc.'s internal control over financial reporting as of December 31, 2013, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their reports thereon, included therein, and are incorporated by reference in this prospectus supplement. Such consolidated financial statements are incorporated herein by reference in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement we filed with the SEC. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. You should rely only on the information contained in this prospectus or incorporated by reference. We have not authorized anyone else to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of the securities offered by this prospectus.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy the registration statement, as well as any other document filed by us with the SEC, at the SEC's Public Reference Room at 100 F Street NE, Washington, D.C. 20549. You can also request copies of these documents by writing to the SEC and paying a fee for the copying cost. You may obtain information on the operation of the Public Reference Room by calling the SEC at (800) SEC-0330. The SEC maintains a website that contains reports, proxy statements and other information regarding issuers that file electronically with the SEC, including Iridium. The address of the SEC website is www.sec.gov.

We maintain a website at www.iridium.com. Information contained in or accessible through our website does not constitute a part of this prospectus.

Table of Contents

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The SEC file number for the documents incorporated by reference in this prospectus is 001-33963. The documents incorporated by reference into this prospectus contain important information that you should read about us.

The following documents are incorporated by reference into this document:

our Annual Report on Form 10-K for the fiscal year ended December 31, 2013 and filed with the SEC on March 4, 2014;

Amendment No. 1 to our Annual Report on Form 10-K/A for the fiscal year ended December 31, 2013 (other than information furnished rather than filed) and filed with the SEC on March 28, 2014;

our definitive proxy statement on Schedule 14A (other than information furnished rather than filed) filed with the SEC on April 9, 2014;

our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2014 and filed with the SEC on May 1, 2014;

our Current Reports on Form 8-K (other than information furnished rather than filed) filed with the SEC on February 18, 2014, March 3, 2014, April 4, 2014 and May 5, 2014; and

the description of our common stock, which is registered under Section 12 of the Exchange Act, in our registration statement on Form 8-A, filed with the SEC on September 23, 2009, including any amendments or reports filed for the purpose of updating such description.

We also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the initial filing of this prospectus supplement but prior to the termination of the offering. These documents include periodic reports, such as Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits which are specifically incorporated by reference into such documents. Requests should be directed to: Iridium Communications Inc., Attn: Investor Relations, 1750 Tysons Boulevard, Suite 1400, McLean, Virginia 22102, telephone: (703) 287-7400.

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference into this document will be deemed to be modified or superseded for purposes of the document to the extent that a statement

contained in this document or any other subsequently filed document that is deemed to be incorporated by reference into this document modifies or supersedes the statement.

S-25

Table of Contents

PROSPECTUS

\$225,000,000

Common Stock

Preferred Stock

Debt Securities

Warrants

From time to time, we may offer up to \$225,000,000 of any combination of the securities described in this prospectus. We may also offer securities as may be issuable upon conversion, redemption, repurchase, exchange or exercise of any securities registered hereunder, including any applicable antidilution provisions.

This prospectus provides a general description of the securities we may offer. Each time we offer securities, we will provide specific terms of the securities offered in a supplement to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference, before you invest in any of the securities being offered.

This prospectus may not be used to consummate a sale of any securities unless accompanied by a prospectus supplement.

Our common stock is traded on The Nasdaq Global Select Market under the symbol IRDM. On March 26, 2014, the last reported sales price of our common stock was \$7.44 per share. The applicable prospectus supplement will contain information, where applicable, as to any other listing on The Nasdaq Global Select Market or any securities market or other exchange of the securities, if any, covered by the prospectus supplement.

We will sell these securities directly to investors, through agents designated from time to time or to or through underwriters or dealers, on a continuous or delayed basis. For additional information on the methods of sale, you should refer to the section entitled Plan of Distribution in this prospectus. If any agents or underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such agents or underwriters and any applicable fees, commissions, discounts or over-allotment options will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading Risk Factors contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is April 11, 2014.

Table of Contents

TABLE OF CONTENTS

<u>ABOUT THIS PROSPECTUS</u>	i
<u>SUMMARY</u>	1
<u>RISK FACTORS</u>	5
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	5
<u>RATIO OF EARNINGS TO FIXED CHARGES AND RATIO OF EARNINGS TO COMBINED FIXED CHARGES AND PREFERRED STOCK DIVIDENDS</u>	6
<u>USE OF PROCEEDS</u>	6
<u>DESCRIPTION OF CAPITAL STOCK</u>	6
<u>DESCRIPTION OF DEBT SECURITIES</u>	11
<u>DESCRIPTION OF WARRANTS</u>	18
<u>LEGAL OWNERSHIP OF SECURITIES</u>	20
<u>PLAN OF DISTRIBUTION</u>	24
<u>LEGAL MATTERS</u>	26
<u>EXPERTS</u>	26
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	26
<u>INCORPORATION OF CERTAIN INFORMATION BY REFERENCE</u>	26
<u>DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITY</u>	27

Table of Contents

ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, utilizing a shelf registration process. Under this shelf registration process, we may sell any combination of the securities described in this prospectus in one or more offerings up to a total dollar amount of \$225,000,000. This prospectus provides you with a general description of the securities we may offer.

Each time we sell securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in any documents that we have incorporated by reference into this prospectus. You should read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the heading **Incorporation of Certain Information By Reference**, before investing in any of the securities offered.

THIS PROSPECTUS MAY NOT BE USED TO CONSUMMATE A SALE OF SECURITIES UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

You should rely only on the information that we have provided or incorporated by reference in this prospectus, any applicable prospectus supplement and any related free writing prospectus that we may authorize to be provided to you. We have not authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus, any applicable prospectus supplement or any related free writing prospectus that we may authorize to be provided to you. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus, any applicable prospectus supplement or any related free writing prospectus. This prospectus, any applicable supplement to this prospectus or any related free writing prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus, any applicable supplement to this prospectus or any related free writing prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

You should not assume that the information contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus, any applicable prospectus supplement or any related free writing prospectus is delivered, or securities are sold, on a later date.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading **Where You Can Find More Information**.

Table of Contents

SUMMARY

This summary highlights selected information from this prospectus and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus, the applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our securities discussed under the heading **Risk Factors** contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part.

Unless the context indicates otherwise, as used in this prospectus, the terms **Iridium**, **the Company**, **we**, **us** and **our** refer to Iridium Communications Inc., a Delaware corporation, and its subsidiaries. We use **Iridium®**, **Netted Iridium®**, **Iridium Force®**, **Iridium OpenPort®**, **Iridium Extreme®**, **Iridium Pilot®**, **AireonSM** and **Iridium PRIMESM** and the Iridium logo as trademarks in the United States and other countries. All other trademarks or trade names referred to in this prospectus are the property of their respective owners.

Our Company

We are the second largest provider by revenue of mobile voice and data communications services via satellite, and the only commercial provider of communications services offering true global coverage. Our satellite network provides communications services to regions of the world where existing wireless or wireline networks do not exist or are limited, including remote land areas, open ocean, the polar regions and regions where the telecommunications infrastructure has been affected by political conflicts or natural disasters.

We provide voice and data communications services to businesses, the U.S. and foreign governments, non-governmental organizations and consumers via our constellation of 66 in-orbit satellites, in-orbit spares and related ground infrastructure. We utilize an interlinked mesh architecture to route traffic across our satellite constellation using radio frequency crosslinks between satellites. This unique architecture minimizes the need for local ground facilities to support the constellation, which facilitates the global reach of our services and allows us to offer services in countries and regions where we have no physical presence.

Our commercial end user base, which we view as our primary growth engine, is diverse and includes markets such as emergency services, maritime, government, utilities, oil and gas, mining, recreation, forestry, heavy equipment, construction and transportation. Many of our end users view our products and services as critical to their daily operations and integral to their communications and business infrastructure. For example, multinational corporations in various sectors use our services for business telephony, e-mail and data transfer services, including telematics, and to provide mobile communications services for employees in areas inadequately served by terrestrial networks. Ship crews and passengers use our services for ship-to-shore calling as well as to send and receive e-mail and data files, and to receive electronic media, weather reports, emergency bulletins and electronic charts. Shipping operators use our services to manage operations on board ships and to transmit data, such as course, speed and fuel stock. Aviation end users use our services for air-to-ground telephony and data communications for position reporting, emergency tracking, weather information, electronic flight bag updates and fleet information.

The U.S. government, directly and indirectly, has been and continues to be our largest single customer, generating \$74.7 million in service and engineering and support service revenue, or 19% of our total revenue, for the year ended December 31, 2013. This does not include revenue from the sale of equipment that may be ultimately purchased by U.S. or non-U.S. government agencies through third-party distributors, or airtime

Table of Contents

services purchased by U.S. or non-U.S. government agencies that are provided through our commercial gateway, as we lack visibility into these activities and the related revenue. In October 2013, we entered into a new multi-year, fixed-price contract with the U.S. government to provide satellite airtime services for an unlimited number of U.S. Department of Defense, or DoD, and other federal government subscribers, with a total contract value of \$400 million over its five-year term.

The DoD owns and operates a dedicated gateway in Hawaii that is only compatible with our satellite network. The U.S. armed services, State Department, Department of Homeland Security, Federal Emergency Management Agency, or FEMA, Customs and Border Protection, and other U.S. government agencies, as well as other nations' governmental agencies, use our voice and data services for a wide variety of applications. Our voice and data products are used for numerous primary and backup communications solutions, including logistical, administrative, morale and welfare, tactical and emergency communications. In addition, our products are installed in ground vehicles, ships, rotary-wing and fixed-wing aircraft and are used for command-and-control and situational awareness purposes. Our satellite network provides increased network security to the DoD because traffic is routed across our satellite constellation before being brought down to earth through the dedicated, secure DoD gateway, thus providing additional levels of protection. Since our network was launched in the mid-1990s, the DoD has made significant investments to build and upgrade its dedicated gateway and to purchase our handsets and voice and data devices, all of which are only compatible with our satellite network. In addition, the DoD continues to invest directly and indirectly in additional services on our network such as Distributed Tactical Communications Services, which we refer to as Netted Iridium.

We sell our products and services to commercial end users exclusively through a wholesale distribution network, encompassing 75 service providers, more than 190 value-added resellers, or VARs, and 55 value-added manufacturers, which create and sell Iridium-based technology either directly to the end user or indirectly through other service providers, VARs or dealers. These distributors often integrate our products and services with other complementary hardware and software and have developed a broad suite of applications using our products and services to target specific lines of business. We expect that demand for our services will increase as more applications are developed and deployed that utilize our technology.

At December 31, 2013, we had approximately 664,000 billable subscribers worldwide, representing a 9% increase compared to December 31, 2012. Total revenue decreased slightly from \$383.5 million in 2012 to \$382.6 million in 2013.

Our principal executive offices are located at 1750 Tysons Boulevard, Suite 1400, McLean, Virginia 22102, and our main telephone number is (703) 287-7400. Our website is located at <http://www.iridium.com>. We do not incorporate by reference into this prospectus the information on, or accessible through, our website, and you should not consider it as part of this prospectus.

The Securities We May Offer

We may offer shares of our common stock and preferred stock, various series of debt securities and warrants to purchase any of such securities, with a total value of up to \$225,000,000 from time to time under this prospectus, together with any applicable prospectus supplement and any related free writing prospectus, at prices and on terms to be determined by market conditions at the time of the offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

designation or classification;

aggregate principal amount or aggregate offering price;

Table of Contents

maturity, if applicable;

original issue discount, if any;

rates and times of payment of interest or dividends, if any;

redemption, conversion, exchange or sinking fund terms, if any;