UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

RIOT BLOCKCHAIN, INC.
(Exact name of registrant as specified in its charter)

Nevada
(State or other jurisdiction of incorporation or organization)

84-1553387
(I.R.S. Employer Identification Number)

202 6th Street, Suite 401
Castle Rock, CO 80104
(303) 794-2000

(Address, including zip code, and telephone number, including area code, of registrant’s principal executive offices)

Jeffrey G. McGonegal
Chief Financial Officer
Riot Blockchain, Inc.
202 6th Street, Suite 401
Castle Rock, CO 80104
(303) 794-2000

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:
William Jackman
General Counsel
Riot Blockchain, Inc.
202 6th Street, Suite 401
Castle Rock, CO 80104
(303) 794-2000

Scott Y. MacTaggart
Donald G. Martin
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3993 Howard Hughes Parkway, Suite 600
Las Vegas, NV 89169
(702) 474-2610

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box: ☐

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box: ☒
If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following and list the Securities Act registration statement number of the earlier effective registration statement for the same offering: □

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering:

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(c) under the Securities Act, check the following box: ☑

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box:

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

| Large accelerated filer | □ |
| Non-accelerated filer | ☑ |
| Accelerated filer | □ |
| Smaller reporting company | ☑ |
| Emerging growth company | □ |

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. □

**CALCULATION OF REGISTRATION FEE**

<table>
<thead>
<tr>
<th>Title of Each Class of Securities to be Registered</th>
<th>Amount to be Registered(1)</th>
<th>Proposed Maximum Offering Price per Share(2)</th>
<th>Proposed Maximum Aggregate Offering Price(2)</th>
<th>Amount of registration fee(2)</th>
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</thead>
<tbody>
<tr>
<td>Common stock, no par value per share</td>
<td>11,800,000</td>
<td>$31.80</td>
<td>$375,240,000</td>
<td>$40,939</td>
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</table>

(1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the “Securities Act”), the shares of common stock, no par value per share, of Riot Blockchain, Inc. (the “Registrant”) being registered hereunder include such indeterminate number of shares as may be issuable as a result of stock splits, stock dividends or similar transactions.

(2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) under the Securities Act, based on the average of the high and low sales prices of shares of the Registrant’s common stock on August 19, 2021, as reported on the Nasdaq Capital Market.
EXPLANATORY NOTE

On May 26, 2021, Riot Blockchain, Inc. ("we," "us," and "our") completed the acquisition of all of the issued and outstanding equity interests in Whinstone US, Inc. ("Whinstone") pursuant to the stock purchase agreement, dated as of April 8, 2021, we entered into with Northern Data AG (collectively, with its permitted assignees, transferees, pledgees, distributees, donees or successors, the "Selling Stockholder") and Whinstone (the "Whinstone Acquisition"). As part of the consideration for the Whinstone Acquisition, we issued 11,800,000 shares of our common stock to the Selling Stockholder on May 26, 2021, and, in connection with the closing of the Whinstone Acquisition, we entered into a shareholder agreement with the Selling Stockholder, dated as of May 26, 2021 (the "Shareholder Agreement"). Pursuant to the terms of the Shareholder Agreement, we have agreed, among other things, to register the 11,800,000 shares of our common stock issued to the Selling Stockholder at closing of the Whinstone Acquisition. Accordingly, we are filing this automatic registration statement on Form S-3 pursuant to General Instruction I.D. of Form S-3 to register these 11,800,000 shares of our common stock for resale by the Selling Stockholder pursuant to the prospectus accompanying this registration statement, or by other selling stockholders identified in a future prospectus supplement.

You should rely only on the information contained or incorporated by reference in the prospectus included in this registration statement, and any applicable prospectus supplement or related free writing prospectus, or in any post-effective amendment to this registration statement or in any amendment to this registration statement. No dealer, salesperson or any other person is authorized to give any information or to represent anything not contained in the prospectus included in this registration statement, any applicable prospectus supplement or related free writing prospectus. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. The information contained in the prospectus included in this registration statement speaks only as of the date of the prospectus and the information incorporated by reference in the prospectus speaks only as of its date, unless the information specifically indicates that another date applies. We are not offering to sell any securities described under this registration statement and will not receive any proceeds from the sale or other disposition of our securities under this registration statement by the Selling Stockholder.
This prospectus relates to the potential offer and resale by the Selling Stockholder identified in this prospectus, Northern Data AG, and its permitted assignees, transferees, pledgees, distributees, donees or successors, (each also a “Selling Stockholder” for purposes of this prospectus), of up to 11,800,000 shares of our common stock (the “shares”). On May 26, 2021, we issued the shares to the Selling Stockholder as part of the consideration we paid to acquire Whinstone. We are registering these shares pursuant to certain registration rights granted to the Selling Stockholder under the Shareholder Agreement in connection with the Whinstone Acquisition. For information regarding the Selling Stockholder, please see the section entitled “Selling Stockholder” on page 11 of this prospectus.

We are not offering any shares for sale under this prospectus, and we will not receive any proceeds from sales of the shares by the Selling Stockholder under this prospectus. The Selling Stockholder will not make an offer of the shares in any jurisdiction where it is unlawful.

The Selling Stockholder may sell the shares covered by this prospectus in a number of different ways and at varying prices. The Selling Stockholder may offer the shares from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices, as determined by the Selling Stockholder from time to time. Our registration of the shares covered by this prospectus does not mean the Selling Stockholder will offer or sell any of the shares. To the extent required, we will provide the specific terms of transactions in the shares that may be offered by the Selling Stockholder under this prospectus by providing supplements, including free writing prospectuses, to this prospectus. You should read this prospectus and any applicable supplement carefully before you invest. We have agreed to pay all costs, expenses and fees relating to the registration of the shares for resale by the Selling Stockholder pursuant to this prospectus, including the reasonable fees and disbursements of one counsel to the Selling Stockholder. The Selling Stockholder, however, will pay any fees, discounts, concessions or commissions of any underwriters, broker-dealers or agents, and any certain other expenses incurred in connection with the sale or other disposition of the shares by the Selling Stockholder. For more information about how the Selling Stockholder may sell the shares, please read the section entitled “Plan of Distribution” beginning on page 12 of this prospectus.

Our common stock is traded on the Nasdaq Capital Market under the symbol “RIOT.” On August 19, 2021, the last reported sales price for shares of our common stock was $32.08 per share. As of August 19, 2021, there were 95,948,232 shares of our common stock issued and outstanding.

Investing in our common stock involves a high degree of risk. Before making any investment decision regarding the shares, you should read and carefully consider the risks described in the section entitled “Risk Factors” on page 8 of this prospectus and any applicable prospectus supplement or free writing prospectus, as well as those disclosed in subsequent Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and the other filings we subsequently make with the SEC. See “Where You Can Find More Information” and “Incorporation of Certain Documents By Reference.”

Neither the SEC nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful, adequate or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is August 24, 2021.
<table>
<thead>
<tr>
<th>Table of Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABOUT THIS PROSPECTUS</td>
<td>3</td>
</tr>
<tr>
<td>CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS</td>
<td>3</td>
</tr>
<tr>
<td>PROSPECTUS SUMMARY</td>
<td>6</td>
</tr>
<tr>
<td>ABOUT RIOT BLOCKCHAIN</td>
<td>6</td>
</tr>
<tr>
<td>THE OFFERING</td>
<td>7</td>
</tr>
<tr>
<td>RISK FACTORS</td>
<td>8</td>
</tr>
<tr>
<td>DESCRIPTION OF CAPITAL STOCK</td>
<td>8</td>
</tr>
<tr>
<td>SELLING STOCKHOLDER</td>
<td>11</td>
</tr>
<tr>
<td>USE OF PROCEEDS</td>
<td>11</td>
</tr>
<tr>
<td>PLAN OF DISTRIBUTION</td>
<td>12</td>
</tr>
<tr>
<td>LEGAL MATTERS</td>
<td>14</td>
</tr>
<tr>
<td>EXPERTS</td>
<td>14</td>
</tr>
<tr>
<td>WHERE YOU CAN FIND MORE INFORMATION</td>
<td>14</td>
</tr>
<tr>
<td>INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE</td>
<td>14</td>
</tr>
</tbody>
</table>
ABOUT THIS PROSPECTUS

This prospectus forms a part of and is being filed with an automatic registration statement on Form S-3 that we filed with the SEC as a “well-known seasoned issuer,” as defined in Rule 405 under the Securities Act of 1933, as amended (the “Securities Act”), using a “shelf” registration process to register 11,800,000 shares of our common stock, no par value per share, pursuant to which the Selling Stockholder may, from time to time or at one time, offer and sell or otherwise dispose of the shares for its own account in one or more offerings. To the extent we are required, we will provide a prospectus supplement, including a free writing prospectus, to describe such offerings in greater detail, which may supplement and/or amend the information contained in this prospectus.

You should carefully read the entire prospectus, any applicable prospectus supplement, and any related free writing prospectus, including the risks of investing in our securities discussed herein under the heading “Risk Factors” and under similar headings in the 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 forms a part. The information contained in this prospectus speaks only as of the date of this prospectus and the information incorporated by reference in this prospectus speaks only as of its date, unless the information specifically indicates that another date applies. Our business, financial condition, results of operations and prospects may have changed since such dates. Neither the delivery of this prospectus nor any sale made under it implies that there has been no change in our affairs or that the information is correct as of any other date. We encourage you to consult your own counsel, accountant and other advisors for legal, tax, business, financial and related advice regarding an investment in our common stock. Please read the sections entitled “Where You Can Find More Information” and “Incorporation of Certain Documents by Reference” on page 14 of this prospectus.

You should rely only on the information contained or incorporated by reference in this prospectus and any applicable prospectus supplement or related free writing prospectus, or in any post-effective amendment to the registration statement or in any amendment to this prospectus. No dealer, salesperson or any other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or related free writing prospectus. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you.

No action is being taken in any jurisdiction outside the United States to permit a public offering of the common stock or possession or distribution of this prospectus in that jurisdiction. Persons who come into possession of this prospectus in jurisdictions outside the United States are required to inform themselves about and to observe any restrictions as to the offering and the distribution of this prospectus applicable to that jurisdiction.

As used in this prospectus, the terms “Riot Blockchain,” the “Company,” “we,” “us,” and “our” refer to Riot Blockchain, Inc., a Nevada corporation, and its consolidated subsidiaries, unless the context requires otherwise. References in this prospectus to the “Whinstone Acquisition” refer to the acquisition of Whinstone US, Inc. (“Whinstone”) pursuant to that certain stock purchase agreement, dated as of April 8, 2021 (the “Stock Purchase Agreement”), we entered into with Northern Data AG (collectively, with its permitted assignees, transferees, pledgees, distributees, donees or successors, the “Selling Stockholder”) and Whinstone, which closed on May 26, 2021. References in this prospectus to the “Shareholder Agreement” refer to the that certain shareholder agreement, dated as of May 26, 2021, that we entered into with the Selling Stockholder in connection with the closing of the Whinstone Acquisition.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein contain forward-looking statements that involve risks and uncertainties, as well as assumptions that may not materialize or prove to be correct, which could cause our results to differ materially from those expressed in or implied by such forward-looking statements. All statements other than statements of historical fact are statements that could be deemed forward-looking statements, including, but not limited to, statements concerning: our plans, strategies and objectives for future operations; new equipment, systems, technologies, services or developments; future economic conditions, performance or outlook; future political conditions; the outcome of contingencies; potential acquisitions or divestitures; the value of Bitcoin awards in our mining operation; expected cash flows or capital expenditures; our beliefs or expectations; activities, events or developments that we intend, expect, project, believe or anticipate will or may occur in the future; and assumptions underlying any of the foregoing. Forward-looking statements may be identified by their use of forward-looking terminology, such as “believes,” “expects,” “may,” “should,” “would,” “intends,” “plans,” “estimates,” “anticipates,” “projects” and similar words or expressions. You should not place undue reliance on these forward-looking statements, which reflect our management’s opinions only as of the date of filing of this prospectus and are not guarantees of future performance or actual results. Forward-looking statements are made in reliance on the safe harbor provisions of Section 27A of the Securities Act, Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and the U.S. Private Securities Litigation Reform Act of 1995. The following are some of the factors we believe could cause our actual results to differ materially from our historical results or our current expectations or projections:

• our strategic decision to concentrate on and make capital investments in cryptocurrency mining ties the success of our business to the success of the major cryptocurrencies we mine, particularly Bitcoin, as well as the success of cryptocurrencies, generally;
• our cryptocurrency mining operations are subject to unique industry risks, including, among others, risks associated with the need for significant electrical power, intense competition for new miners, cybersecurity and increased world-wide competition for a fixed supply of Bitcoin rewards, which could have a material adverse effect on our business;

• our present use of a third-party co-location arrangement for our mining operation at Coinmint, LLC;

• we depend on our ability to mine cryptocurrencies, particularly Bitcoin, at a value above our cost to mine them; however, the historical volatility in the market prices of these cryptocurrencies significantly impairs our ability to accurately predict their future prices and, therefore, our future revenues;

• strategic transactions, including mergers, acquisitions, investments and divestitures in other cryptocurrency- and blockchain-focused companies, involve significant risks and uncertainties that could adversely affect our business, financial condition, results of operations, cash flows and equity;

• we may fail to realize the anticipated benefits of the Whinstone Acquisition, or those benefits may take longer to realize than expected, as we encounter unforeseen difficulties integrating its operations into our own;

• we will need to raise additional capital to fund our business objectives, goals and strategies; however, volatility in the trading price of shares of our common stock may make it difficult or impossible for us to raise the necessary capital;

• our reputation and ability to do business may be impacted by the improper conduct of our employees, agents or business partners;

• we have a small executive management team and board of directors, and it may be difficult for us to replace a departing member of our management team or board;

• we have a history of operating losses and we may be unable to sustain profitability;

• we participate in markets that are often subject to uncertain economic conditions, which makes it difficult to estimate growth in our markets and, as a result, future income and expenditures;

• our operations could be materially and adversely impacted by a natural disaster or other significant disruption;

• we cannot predict the consequences of future geo-political events, but they may adversely affect the markets in which we operate, our ability to insure against risks, our operations or our profitability;

• we could be negatively impacted by a security breach, through cyber-attack, cyber intrusion, insider threats or otherwise, or other significant disruption of our IT networks and related systems;

• disputes with our suppliers, or their inability to perform or timely deliver new miners, parts or services, could adversely affect our expectations regarding future deployment of our miners;

• we face certain significant risk exposures and potential liabilities that may not be covered adequately by insurance or indemnity;

• our ability to successfully defend litigation brought against us; and

• COVID-19 and its impact on supply chains could have a material adverse effect on our business operations, financial condition, results of operations, cash flows and equity, as well as those of our transaction partners, including the overseas manufacturers of our miners.
Additional details and discussions concerning some of the various risks, factors and uncertainties that could cause future results to differ materially from those expressed or implied in our forward-looking statements are set forth in this prospectus under the heading “Risk Factors” on page 8 of this prospectus, and under Part I, Item 1A. “Risk Factors” in our most recent Annual Report on Form 10-K, as updated, supplemented, and amended by our subsequent disclosures contained in the reports and other filings we make with the SEC. For more information on these filings and the other disclosures incorporated by reference into this prospectus, please see the sections herein entitled “Incorporation of Certain Documents by Reference” and “Where You Can Find More Information” on page 14 of this prospectus. The risks, factors and uncertainties disclosed herein and in our other filings are not exhaustive. Additional risks and uncertainties not known to us or that we currently believe not to be material may adversely impact our business, financial condition, results of operations and cash flows. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. Should any risks or uncertainties develop into actual events, these developments could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Accordingly, you should read this prospectus completely and with the understanding that our actual future results may be materially different from what we expect. The forward-looking statements contained in this prospectus speak only as of the date of this prospectus and the forward-looking statements incorporated by reference in this prospectus speak only as of their date and, unless otherwise required by applicable securities laws, the Company disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. All forward-looking statements attributable to us are expressly qualified by these cautionary statements.
PROSPECTUS SUMMARY

This summary highlights selected information from this prospectus and does not contain all of the information that you should consider in making your investment decision. You should carefully read the entire prospectus, any applicable prospectus supplement and related free writing prospectus, including the risks of investing in our securities discussed under the heading “Risk Factors” in this prospectus below, and those contained in any applicable prospectus supplement and related free writing prospectus, and under similar headings in the 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 forms a part.

ABOUT RIOT BLOCKCHAIN

We are a leading cryptocurrency mining company operating in North America, focused on supporting the Bitcoin blockchain through the operation of our fleet of next generation cryptocurrency mining computers (known as “miners”) and, through our wholly owned subsidiary, Whinstone, operation of a commercial data center facility in Rockdale, Texas that is focused on providing co-location services in the cryptocurrency space (the “Whinstone Facility”). Our strategic focus is on maximizing our mining power (known as “hash rate”) and efficiency by acquiring and deploying large numbers of next-generation miners that are more energy-efficient than legacy miners previously deployed in the industry. We operate a fleet of “Antminers” manufactured by Bitmain Technologies Limited (“Bitmain”) to mine Bitcoin. We expect to operate a miner fleet of over 80,000 Antminers after all deliveries under our purchase agreements with Bitmain have been fulfilled, which are expected to be completed in the fourth fiscal quarter of 2022, according to anticipated delivery schedules in our purchase agreements with Bitmain. Once all of these Antminers are fully deployed, our fleet is expected to achieve a hash rate capacity in excess of 7.7 Exahash per second (EH/s) and to consume approximately 257 Megawatts (MW) of energy that is expected to result in an overall hashrate efficiency of 33 joules per terahash (J/TH), which we believe would make our fleet one of the largest and most efficient Bitcoin mining fleets in North America and in the industry. Our miners are deployed in our self-mining operation at the Whinstone Facility in Rockdale, Texas and, pursuant to the mining co-location services agreement we entered into with Coinmint, LLC (“Coinmint”), at Coinmint’s Massena, New York data center facility.

The Company is also exploring innovative cryptocurrency mining technologies and other strategic initiatives as part of a continual effort to maximize the energy efficiency and cost effectiveness of its cryptocurrency mining activities.

Whinstone Acquisition

On May 26, 2021, we completed the Whinstone Acquisition pursuant to the Stock Purchase Agreement, dated as of April 8, 2021, we entered into with Northern Data (the Selling Stockholder identified in this prospectus) and Whinstone. In connection with the closing of the Whinstone Acquisition, we issued the 11,800,000 shares covered by this prospectus to Northern Data as part of the consideration paid for the Whinstone Acquisition, and we entered into the Shareholder Agreement, dated as of May 26, 2021, with Northern Data, which provides for, among other things, certain standstill restrictions, voting obligations and registration rights. Pursuant to the Shareholder Agreement, we have agreed, among other things, to register the shares issued to Northern Data and to maintain the registration statement on Form S-3 to which this prospectus relates, effective and in compliance with the Securities Act and useable for the resale of the shares until such time as there are no shares remaining to be sold pursuant to this prospectus. Accordingly, we are filing this prospectus and the automatic registration statement on Form S-3 to which it relates pursuant to the registration rights granted to Northern Data and its permitted assignees, transferees, pledgees, distributees, donees or successors, under the Shareholder Agreement.

The foregoing description of the Stock Purchase Agreement and the Shareholder Agreement are not complete and are qualified in their entirety by reference to the Stock Purchase Agreement and the Shareholder Agreement filed as exhibits to the registration statement of which this prospectus forms a part. The representations, warranties and covenants made in such agreements were made solely for the benefit of the parties to such agreements, including, in some cases, for the purpose of allocating risk among the parties thereto, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were made only as of the date of such agreements or a specific date as described in such agreement. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

Whinstone Facility

Whinstone, our wholly owned subsidiary, owns and operates the Whinstone Facility, a commercial data center located in Rockdale, Texas, which is among the largest Bitcoin mining and hosting facilities in North America. The Whinstone Facility provides third-party hosting services to other companies, including other cryptocurrency mining companies, through co-location services agreements, and also provides us with a self-owned facility where we can deploy our miners and carry out future strategic expansion initiatives.
As of the date of this prospectus, the Whinstone Facility has 300 MW of developed electricity power capacity, and an additional 450 MW of capacity under development, for total electricity power capacity of 750 MW once completed. The Whinstone Facility is located on a 100-acre site hosting Bitcoin mining customers and Riot’s self-mining in three buildings totaling 190,000 square feet, with additional buildings under development to expand our total capacity to 750 MW. The site is subject to a long-term lease agreement, with electricity provided via a long-term power supply agreement.

We expect the expanded Whinstone Facility to be completed by the end of 2022 and to include four additional buildings totaling approximately 240,000 square feet of finished space, with sufficient developed electricity power capacity to support an estimated 112,000 Antminer model S19j miners. We believe this expansion of the Whinstone Facility will provide sufficient capacity to enable us to deploy a significant quantity of our miners (including our current deployed fleet and those expected to be delivered in future shipments) in a self-hosted facility, while allowing Whinstone to continue to operate and grow its existing data center hosting business. We believe deploying our miners at the expanded Whinstone Facility has many advantages for our mining operations, including allowing us to operate our miners without incurring third-party co-location services fees and to do so at the fixed low energy costs available to the Whinstone Facility under its long-term power supply agreement. We also anticipate this expansion of the Whinstone Facility will provide space for third-party Miner co-location services and for other enterprise-level data center hosting services.

**Corporate Information**

Our principal executive offices are located at 202 6th Street, Suite 401, Castle Rock, CO 80104, and our telephone number is (303) 794-2000. Our website address is www.riotblockchain.com. The information contained on, or accessible through, our website is not part of this prospectus.

**THE OFFERING**

<table>
<thead>
<tr>
<th>Number of Shares of Common Stock, No Par Value per Share, Outstanding Prior to and After this Offering(1):</th>
<th>95,948,232</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Shares of Common Stock, No Par Value per Share, Being Offered by the Selling Stockholder:</td>
<td>11,800,000</td>
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</tbody>
</table>

(1) As of August 19, 2021.

**Use of Proceeds:**

All proceeds from the sales of the shares pursuant to this prospectus will go to the Selling Stockholder. We will not receive any proceeds from the sale of the shares by the Selling Stockholder.

**Risk Factors:**

Investing in shares of our common stock involves a high degree of risk. You should carefully review and consider the section entitled “Risk Factors” below.

**Primary Market for Our Securities:**

Nasdaq Capital Market.

**Nasdaq Trading Symbol:**

“RIOT”
RISK FACTORS

Investing in our common stock involves a high degree of risk. Before making an investment decision, you should consider carefully the risks, uncertainties and other factors described under Part I, Item 1A. “Risk Factors” in our most recent Annual Report on Form 10-K, as well as those which may be disclosed in our subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, and in the other filings we make with the SEC, which are incorporated by reference into this prospectus. For more information regarding the incorporation of information herein by reference, please see the section of this prospectus entitled “Incorporation of Certain Documents by Reference” on page 14 of this prospectus.

The risks, uncertainties and other factors discussed in the foregoing filings are not exhaustive. Additional risks and uncertainties not known to us or that we currently believe not to be material may adversely impact our business, financial condition, results of operations and cash flows. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from our expectations. Should any of these risks or uncertainties develop into actual events, they could have a material adverse effect on our business, financial condition, results of operations and cash flows. For more information about the filings we make with the SEC, please see the section entitled “Where You Can Find More Information” on page 14 of this prospectus.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is not complete and may not contain all the information you should consider before investing in the shares of our common stock offered pursuant to this prospectus. This description is summarized from, and qualified in its entirety by reference to, our Articles of Incorporation, as amended, our Bylaws, as amended, and the certificates of designation related to our designated preferred stock, which have been filed with the SEC, as well as the applicable provisions of the Nevada Revised Statutes Chapter 78 and the associated provisions of the Nevada Administrative Code. See the sections “Where You Can Find More Information” and “Incorporation of Certain Documents by Reference” on page 14 of this prospectus.

Authorized Shares of Capital Stock

Our authorized capital stock consists of: (i) 170,000,000 shares of common stock, no par value per share; and (ii) 15,000,000 shares of “blank check” preferred stock, no par value per share, including (a) 2,000,000 shares of preferred stock designated as “2% Series A Convertible Preferred Stock” and (b) 1,750,001 shares of preferred stock designated as “0% Series B Convertible Preferred Stock.” As of August 19, 2021, there were 95,948,232 shares of our common stock outstanding, no shares of our 2% Series A ConvertiblePreferred Stock outstanding, and 2,199 shares of our 0% Series B Convertible Preferred Stock outstanding.

Common Stock

Listing. Shares of our common stock are listed on the Nasdaq Capital Market under the trading symbol “RIOT.”

Voting Rights. Holders of shares of our common stock are entitled to one vote for each share of common stock standing in such stockholder’s name on the records of the Company on all matters submitted to a stockholder vote, with no cumulative voting rights. Except as otherwise provided in our Articles of Incorporation, Bylaws, the rules of any stock exchange applicable to us, applicable provisions of the Nevada Revised Statutes, or any other applicable law or regulations, matters submitted to a stockholder vote require the affirmative vote of the holders of a majority of the shares of our capital stock present and voting at the applicable stockholders’ meeting to be approved. See the section entitled “Structure of Board of Directors; Director Elections and Terms of Office” under “Corporate Governance” below for further details regarding the voting rights of our common stock.

Conversion and Redemption Rights. Shares of our common stock have no conversionary rights and are not subject to any rights of redemption by operation of a sinking fund or otherwise.

Dividend Rights. Subject to any preferential rights of holders of our preferred stock, if any, or any restrictions on the payments of dividends imposed under the terms of our indebtedness, if any, holders of our common stock shall be entitled to receive their pro rata shares of such dividends as may be declared from time to time by our board of directors, in its discretion, from legally available funds, based upon such holders’ proportionate ownership of the shares of our capital stock outstanding at the time such dividends are declared.

Liquidation Rights. Subject to any preferential rights of holders of our preferred stock, if any, in the event of a liquidation, dissolution or winding up of the Company, holders of our common stock shall be entitled to participate pro rata in all assets of the Company that remain after payment of the Company’s liabilities, including satisfaction of all indebtedness of the Company then outstanding, based upon such holders’ proportionate ownership of the shares of our capital stock then outstanding.

8
Preemptive Rights. Shares of our common stock have no pre-emptive rights to purchase or subscribe for any of our capital stock or other securities. Thus, if additional shares of our common stock are issued, the current holders of our common stock will own a proportionately smaller interest in a larger number of outstanding shares of common stock to the extent that they do not participate in the additional issuance.

Transfer Agent and Registrar. The transfer agent and registrar for our common stock is Equiniti Trust Corporation.

Preferred Stock

We are authorized to issue up to 15,000,000 shares of “blank check” preferred stock, no par value per share, in one or more series, subject to any limitations prescribed by law, without further vote or action by the stockholders. Each such series of preferred stock shall have such number of shares, designations, preferences, voting powers, qualifications, and special or relative rights or privileges as shall be determined by our board of directors, which may include, among others, dividend rights, voting rights, liquidation preferences, conversion rights and pre-emptive rights.

Preferred stock is available for possible future financings or acquisitions and for general corporate purposes without further authorization of stockholders unless such authorization is required by applicable law, the rules of the Nasdaq Capital Market or other securities exchange or market on which our stock is then listed or admitted to trading.

As of the date of this prospectus, we have designated 2,000,000 shares of preferred stock as “2% Series A Convertible Preferred Stock” and 1,750,001 shares of preferred stock as “0% Series B Convertible Preferred Stock.”

Voting Rights. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of common stock.

As described more completely in the related certificate of designation, holders of shares of our 2% Series A Convertible Preferred Stock are entitled to vote on matters submitted to our stockholders for consideration based on the number of shares of our common stock underlying each share of our 2% Series A Convertible Preferred Stock held as of the record date for the applicable stockholder meeting.

Holders of shares of our 0% Series B Convertible Preferred Stock are not entitled to vote on matters submitted to our stockholders prior to the conversion of their shares into shares of our common stock.

Conversion Rights. Subject to certain beneficial ownership limitations described in the applicable certificate of designation and under applicable rules of the Nasdaq Capital Market and the Nevada Revised Statutes, shares of our preferred stock are convertible into shares of our common stock based on the conversion calculation stated in such series of preferred stock’s certificate of designation.

Dividend, Liquidation, Redemption, and Other Preferential Rights. The rights of holders of shares of our common stock are subject to, and may be adversely affected by, the rights of the holders of any shares of our preferred stock that may be issued in the future. Our board of directors may authorize the issuance of preferred stock with dividend, liquidation, redemption, conversion, or other preferential rights that could adversely affect the relative voting power and market price of shares of our common stock. Further, the issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes could, under some circumstances, have the effect of delaying, deferring or preventing a change in control of the Company, and may adversely affect the market price of shares of our common stock.

Each holder of our 2% Series A Convertible Preferred Stock and our 0% Series B Convertible Preferred Stock shall be entitled to receive dividends on such shares on an “as converted” basis, which shall be payable, subject to applicable beneficial ownership limitations set forth in their certificate of designation, in shares of common stock or cash on their stated value, and holders of our 2% Series A Convertible Preferred Stock are entitled to receive such dividends at the cumulative dividend rate of two percent (2%) per year. Shares of our 0% Series B Convertible Preferred Stock have preferential rights ahead of all other shares of our capital stock with respect to dividends, distributions, redemptions, and payments upon the liquidation, dissolution and winding-up of the Company, other than shares of our 2% Series A Convertible Preferred Stock, which have the first priority of such preferential rights.

Corporate Governance

Structure of Board of Directors; Director Elections and Terms of Office. Our Bylaws provide for election of nominees to our board of directors by plurality vote of our stockholders present and entitled to vote at a meeting of our stockholders called for the purpose of electing nominees to serve on our board of directors. Therefore, those nominees for our board of directors receiving the most affirmative votes at a given stockholders’ meeting shall be elected as directors for the applicable term. Once elected, directors serve until the end of the term of office and their successor has been duly qualified to serve and elected by our stockholders, or his or her earlier death, resignation, or removal.
Our Bylaws permit our Board to be divided into three classes, with each class serving a staggered three-year term. Each of our directors is currently serving a term that expires at our next annual meeting of stockholders and when his or her successor is duly elected and qualified. If implemented, a classified board structure could have the effect of making the removal of incumbent directors more time consuming and difficult, and, therefore may discourage a third party from making a tender offer or otherwise attempting to obtain control of us, even though such an attempt might be beneficial to us and our stockholders.

Quorum for Conducting Business. Our Bylaws provide that, to conduct business at a meeting of our stockholders, holders of shares representing at least one-third of the issued and outstanding shares of our capital stock entitled to vote at such meeting, whether represented in person or by proxy, must be present to establish a quorum.

Exclusive Forum. Article XIV of our Bylaws, as amended, provides that, to the fullest extent permitted by law, and unless we consent to the selection of an alternative forum, the state and federal courts in and for the State of New York shall be the sole and exclusive forum for the resolution of certain actions and proceedings that may be initiated by our stockholders, and that, by purchasing our securities, our stockholders are deemed to have notice of and consented to this forum selection clause. Under Article XIV of our Bylaws, the following claims are subject to this forum selection clause: (a) any derivative action or proceeding brought on behalf of the Company; (b) any action or proceeding asserting a claim of breach of a fiduciary duty owed by any director or officer of the Company to the Company or the Company’s stockholders; (c) any action or proceeding asserting a claim against the Company arising pursuant to any provision of the Nevada Revised Statutes or the Company’s Articles of Incorporation or Bylaws (as either might be amended from time to time); or (d) any action or proceeding asserting a claim against the Company governed by the internal affairs doctrine.

By its terms, the forum selection clause in our Bylaws applies to the foregoing claims to the fullest extent permitted by law, and, as such, should not be interpreted as precluding our stockholders from bringing claims under the Exchange Act in the appropriate federal court with jurisdiction over such claims, as provided by Section 27 of the Exchange Act. Likewise, the forum selection clause in our Bylaws should not be interpreted as precluding our stockholders from bringing claims under the Securities Act in the appropriate state or federal court with jurisdiction over such claims, as provided by Section 22 of the Securities Act.

We believe the choice-of-forum provision in our Bylaws will help provide for the orderly, efficient, and cost-effective resolution of legal issues affecting us by designating courts located in the State of New York as the exclusive forum for cases involving such issues. However, this provision may limit a stockholder’s ability to bring a claim in a judicial forum that it believes to be favorable for disputes with us or our directors, officers, employees, or agents, which may discourage such actions against us and our directors, officers, employees, and agents.

Nevada Anti-Takeover Statute. Certain provisions of Nevada law described below may make us a less attractive candidate for acquisition, which may adversely impact the value of the shares of our capital stock held by our stockholders. We have not opted out of these provisions in our Bylaws, as permitted under the Nevada Revised Statutes.

Nevada Revised Statutes Sections 78.411 through 78.444 generally prohibit “combinations” including mergers, consolidations, sales and leases of assets, issuances of securities and similar transactions by a Nevada corporation having a requisite number of stockholders of record (of which we are one) with any person who beneficially owns (or any affiliate or associate of the corporation who within the previous two years owned), directly or indirectly, 10% or more of the voting power of the outstanding voting shares of the corporation (an “interested stockholder”), within two years after such person first became an interested stockholder unless (i) the board of directors of the corporation approved the combination or transaction by which the person first became an interested stockholder before the person first became an interested stockholder or (ii) the board of directors of the corporation has approved the combination in question and, at or after that time, such combination is approved at an annual or special meeting of the stockholders of the target corporation, and not by written consent, by the affirmative vote of holders of stock representing at least 60% of the outstanding voting power of the target corporation not beneficially owned by the interested stockholder or the affiliates or associates of the interested stockholder.

Two years after the date the person first became an interested stockholder, the Nevada Combinations Statute prohibits any combination with that interested stockholder unless (i) the board of directors of the Company approved the combination or transaction by which the person first became an interested stockholder before the person first became an interested stockholder or (ii) such combination is approved by a majority of the outstanding voting power of the corporation not beneficially owned by the interested stockholder or any affiliate or associate of the interested stockholder. The Nevada Combinations Statute does not apply to combinations with an interested stockholder after the expiration of four years from when the person first became an interested stockholder.
SELLING STOCKHOLDER

This prospectus relates to the offer and sale from time to time by the Selling Stockholder identified below of up to 11,800,000 shares of our common stock. The shares being made available for resale by the Selling Stockholder were issued on May 26, 2021 as part of the consideration we paid the Selling Stockholder for the Whinstone Acquisition. Please see the section entitled “Whinstone Acquisition” under the heading “About Riot Blockchain” on page 6 of this prospectus.

We are registering 11,800,000 shares of common stock for sale by the Selling Stockholder pursuant to the Shareholder Agreement we entered into with the Selling Stockholder in connection with the closing of the Whinstone Acquisition. We will not receive any proceeds from the sale of the shares by the Selling Stockholder.

The following table sets forth, as of the date of this prospectus, (i) the number of shares held of record or beneficially owned by the Selling Stockholder as of such date (as determined below) and (ii) the number of shares that may be sold or otherwise disposed of under this prospectus by the Selling Stockholder. In accordance with Rule 13d-3(d) (1) under the Exchange Act, beneficial ownership includes all shares of common stock held as of the date of this prospectus, plus any securities held by the holder exercisable for or convertible into shares within sixty (60) days after August 19, 2021. The inclusion of any shares in this table does not constitute an admission of beneficial ownership by the Selling Stockholder named below.

We do not know when or in what amounts the Selling Stockholder may sell or otherwise dispose of the shares covered by this prospectus, if any.

The Selling Stockholder may decide not to sell or otherwise dispose of any or all of the shares available to be offered pursuant to this prospectus and may sell or otherwise dispose of shares covered hereby in transactions exempt from the registration requirements of the Securities Act. Because the Selling Stockholder may sell or otherwise dispose of some, all or none of the shares covered by this prospectus, and because we are not, as of the date of this prospectus, aware of any agreements, arrangements or understandings between the Selling Stockholder and any underwriters, brokers, or other sales agents with respect to the sale of any of shares, we cannot estimate the number of shares of common stock that will be held by the Selling Stockholder after completion of the offering contemplated by this prospectus. However, for purposes of the following table only, we have assumed that the Selling Stockholder will sell all of the shares pursuant to this prospectus.

<table>
<thead>
<tr>
<th>Name of Selling Stockholder (1)</th>
<th>Shares Beneficially Owned Prior to the Offering</th>
<th>Shares Being Offered</th>
<th>Shares Beneficially Owned After the Offering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Data AG (3)</td>
<td>11,800,000 shares, 12.3%</td>
<td>11,800,000</td>
<td>—</td>
</tr>
</tbody>
</table>

(1) Information concerning the named Selling Stockholder or future permitted assignees, transferees, pledgees, distributees, donees or successors of or from any such Selling Stockholder or others who later hold any of the Selling Stockholder’s interests will be set forth in supplements to this prospectus, absent circumstances indicating that the change is not material. In addition, post-effective amendments to the registration statement of which this prospectus forms a part will be filed to disclose any material changes to the plan of distribution from the description in this prospectus.

(2) Based on 95,948,232 shares of common stock outstanding as of August 19, 2021.

(3) The address for the Selling Stockholder is: Northern Data AG, An der Welle 3, 60322 Frankfurt am Main, Germany.

USE OF PROCEEDS

We are registering the shares for resale by the Selling Stockholder pursuant to the registration rights granted to the Selling Stockholder under the Shareholder Agreement. All of the shares that may be offered by the Selling Stockholder pursuant to this prospectus will be sold by the Selling Stockholder for its own account and we will not receive any proceeds from the sale of the shares by the Selling Stockholder.

We have agreed to pay all costs, expenses and fees relating to the registration of the shares for resale by the Selling Stockholder pursuant to this prospectus, including the reasonable fees and disbursements of one counsel to the Selling Stockholder. The Selling Stockholder, however, will pay any fees, discounts, concessions or commissions of any underwriters, broker-dealers or agents, and certain other expenses incurred in connection with the sale or other disposition of the shares by the Selling Stockholder.
PLAN OF DISTRIBUTION

The Selling Stockholder may use any one or more of the following methods when selling the shares covered under this prospectus:

- underwritten transactions (including sales to or through underwriters);
- privately negotiated transactions;
- exchange distributions and/or secondary distributions;
- sales through agents;
- sales in the over-the-counter market;
- ordinary brokerage transactions and transactions in which the broker solicits purchasers;
- sales through broker-dealers or other agents;
- a block trade (which may involve crosses) in which the broker or dealer so engaged will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker or dealer as principal and resale by such broker or dealer for its own account pursuant to this prospectus;
- short sales and delivery of the shares to close out short positions;
- sales by broker-dealers of the shares that are loaned or pledged to such broker-dealers;
- any other method permitted pursuant to applicable law; and
- a combination of any methods of sale described above.

The shares covered by this prospectus may be distributed from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

The Selling Stockholder may also sell the shares under Rule 144 under the Securities Act, if available, or pursuant to other available exemptions from the registration requirements under the Securities Act, rather than under this prospectus.

We will bear all fees and expenses incident to our obligation to register the shares.

Offers to purchase the shares being offered by this prospectus may be solicited directly. Agents may also be designated to solicit offers to purchase the shares from time to time.
To the extent required, this prospectus may be amended or supplemented from time to time to describe a specific plan of distribution. In connection with distributions of the shares, the Selling Stockholder may enter into hedging transactions with broker-dealers or other financial institutions. In connection with such transactions, broker-dealers or other financial institutions may engage in short sales of the common stock in the course of hedging the positions they assume with the Selling Stockholder. The Selling Stockholder may also sell the common stock short and deliver the shares of the common stock to close out such short positions. The Selling Stockholder may also enter into option or other transactions with broker-dealers or other financial institutions which require the delivery to such broker-dealer or other financial institution of the shares of common stock offered by this prospectus, which shares of common stock such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction). The Selling Stockholder may also pledge the shares of common stock to a broker-dealer or other financial institution, and, upon a default, such broker-dealer or other financial institution may effect sales of the pledged shares pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The Selling Stockholder may also enter into derivative transactions relating to the shares with third parties, including sales of derivative securities that are not covered by this prospectus in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with such derivative securities, the third party purchasers thereof may sell the underlying shares covered by this prospectus and the applicable prospectus supplement to which such derivative securities relate, including in short-sale transactions. Further, such third party may use shares (or derivative securities relating to the shares) pledged by or borrowed from the Selling Stockholder to settle such sales or to close out any related open transactions involving the shares, and may use shares received from the Selling Stockholder in settlement of such derivative securities to close out any related open transactions involving the shares. If such third party would be considered an underwriter in such transactions, such third party will be identified in the applicable prospectus supplement (or a post-effective amendment) as required.

If an underwriter is utilized in the sale of the shares being offered by this prospectus, an underwriting agreement will be executed with the underwriter at the time of sale and the name of any underwriter will be provided in the prospectus supplement that the underwriter will use to make resales of the shares to the public. In connection with the sale of the shares, the Selling Stockholder, or the purchasers of the shares for whom the underwriter may act as agent, may compensate the underwriter in the form of underwriting discounts or commissions. The underwriter may sell the shares to or through dealers, and those dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters and/or commissions from the purchasers for which they may act as agent.

In addition, the Selling Stockholder may otherwise loan or pledge the shares to a financial institution or other third party that in turn may sell the shares short using this prospectus or the applicable prospectus supplement. Such financial institution or other third party may transfer its economic short position to investors or in our shares or in connection with a concurrent offering of other shares.

In effecting sales, broker-dealers or agents engaged by the Selling Stockholder may arrange for other broker-dealers to participate. Broker-dealers or agents may receive commissions, discounts or concessions from the Selling Stockholder in amounts to be negotiated immediately prior to the sale. If the Selling Stockholder uses a broker-dealer in the sale of the shares, the broker-dealer may then resell these shares to the public at varying prices to be determined by the broker-dealer at the time of resale.

In offering the shares covered by this prospectus, the Selling Stockholder and any broker-dealers who execute sales for the Selling Stockholder may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. Any profits realized by the Selling Stockholder and the compensation of any broker-dealer may be deemed to be underwriting discounts and commissions.

In order to comply with the securities laws of certain states, if applicable, the shares must be sold in such jurisdictions only through registered or licensed brokers or dealers. In addition, it is possible that in certain states the shares may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

We will make copies of this prospectus and any applicable prospectus supplement available to the Selling Stockholder for the purpose of satisfying the prospectus delivery requirements of the Securities Act. We or the Selling Stockholder may enter into agreements to indemnify any underwriters, broker-dealers and agents that participate in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act, or to contribute to payments they may be required to make in respect thereof and to reimburse those persons for certain expenses.

At the time a particular offer of the shares is made, if required, a prospectus supplement will be distributed that will set forth the number of the shares of common stock being offered and the terms of the offering, including the name of any underwriter, dealer or agent, the purchase price paid by any underwriter, any discount, commission and other item constituting compensation, any discount, commission or concession allowed or reallowed or paid to any dealer, and the proposed selling price to the public.
LEGAL MATTERS

The validity of the issuance of the shares offered by this prospectus will be passed upon for us by Lewis Roca Rothgerber Christie LLP, Las Vegas, Nevada.

EXPERTS

The consolidated financial statements of Riot Blockchain, Inc. and Subsidiaries as of December 31, 2020 and 2019 and for each of the two years in the period ended December 31, 2020, have been audited by Marcum LLP, independent registered public accounting firm, as stated in their report, which is incorporated herein by reference. Such consolidated financial statements of Riot Blockchain, Inc. and Subsidiaries are incorporated in this prospectus by reference in reliance on the report of such firm given upon their authority as experts in accounting and auditing.

The financial statements of Whinstone US, Inc. as of and for the year ended December 31, 2020 and 2019, which are incorporated in this prospectus by reference from the Current Report on Form 8-K/A of Riot Blockchain, Inc. filed with the SEC on August 12, 2021, have been audited by Malcolm M. Dienes, LLC, an independent audit firm, as stated in their report filed as an Exhibit 23.1 to such Current Report on Form 8-K/A. Such financial statements have been incorporated by reference in this prospectus in reliance upon the report of such independent audit firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus does not contain all of the information included in the registration statements of which it forms a part, including certain exhibits and schedules and those items we incorporate by reference herein. We file annual, quarterly and special reports, along with other information, including the registration statement of which this prospectus forms a part, with the SEC. The filings we make with the SEC are available to the public over the Internet at the SEC’s website at http://www.sec.gov. Our filings with the SEC are also available on our website, https://www.riotblockchain.com/ under the heading “Investors.” The information on this website is not incorporated by reference into, and does not constitute a part of, this prospectus.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC permits us to “incorporate by reference” the information contained in documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents rather than by including them in this prospectus. Information that is incorporated by reference herein is considered to be part of this prospectus and you should read it with the same care that you read this prospectus. Information that we file later with the SEC will automatically update and supersede the information that is either contained, or incorporated by reference, in this prospectus, and will be considered to be a part of this prospectus from the date those documents are filed. We have filed with the SEC, and incorporate by reference in this prospectus the following:

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2020, as filed with the SEC on March 31, 2021, as amended by a filing made with the SEC on April 30, 2021;

- Our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2021 and June 30, 2021, as filed with the SEC on May 17, 2021 and August 23, 2021, respectively;

- Our Current Reports on Form 8-K (excluding any reports or portions thereof that are deemed to be furnished and not filed, as provided therein) filed with the SEC on: February 10, 2021; March 17, 2021; April 7, 2021 (excluding Item 7.01); April 9, 2021; May 24, 2021; May 26, 2021 (excluding Item 7.01); June 8, 2021; Form 8-K/A filed with the SEC on August 12, 2021; and on August 16, 2021; and

- The description of our common stock contained in our registration statement on Form 8-A, filed pursuant to Section 12(b) of the Exchange Act on August 27, 2007, including any amendment or report filed for the purpose of updating that description.

We also incorporate by reference all additional documents that we file with the SEC under the terms of Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act that are made after the date of this prospectus but prior to the termination of the offering of the shares covered by this prospectus. We are not, however, incorporating, in each case, any documents or information that we are deemed to furnish and not file in accordance with SEC rules.

You may request, and we will provide you with, a copy of these filings, at no cost, by calling us at (303) 794-2000 or by writing to us at the following address: Riot Blockchain, Inc., Attn: Jeffrey G. McGonegal, Chief Financial Officer, 202 6th Street, Suite 401 Castle Rock, CO 80104.
PROSPECTUS

RIOT BLOCKCHAIN, INC.

11,800,000 SHARES OF COMMON STOCK, NO PAR VALUE PER SHARE
OFFERED BY THE SELLING STOCKHOLDER

August 24, 2021
PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the costs and expenses payable by the Registrant in connection with this offering of the securities being registered, other than underwriting commissions and discounts, all of which are estimated except for the SEC registration fee.

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEC registration fee</td>
<td>$40,939</td>
</tr>
<tr>
<td>Legal fees and expenses</td>
<td>50,000</td>
</tr>
<tr>
<td>Accounting fees and expenses</td>
<td>15,000</td>
</tr>
<tr>
<td>Transfer agent and registrar’s fees and expenses</td>
<td>5,000</td>
</tr>
<tr>
<td>Miscellaneous expenses</td>
<td>4,061</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$115,000</strong></td>
</tr>
</tbody>
</table>

Item 15. Indemnification of Directors and Officers.

Nevada Revised Statutes Sections 78.7502 and 78.751 provide us with the power to indemnify any of our directors and officers. The director or officer must have conducted himself/herself in good faith and reasonably believe that his/her conduct was in, or not opposed to, our best interests. In a criminal action, the director, officer, employee or agent must not have had reasonable cause to believe his/her conduct was unlawful. Under Nevada Revised Statutes Section 78.751, advances for expenses may be made by agreement if the director or officer affirms in writing that he/she believes he/she has met the standards and will personally repay the expenses if it is determined such officer or director did not meet the standards.

Our Articles of Incorporation and Bylaws provide that our officers and directors shall be indemnified and held harmless to the fullest extent legally permissible under the laws of the State of Nevada against all expenses, liability and loss (including attorneys’ fees, judgments, fines and amounts paid or to be paid in settlement) reasonably incurred or suffered by them in connection with any civil, criminal, administrative or investigative action, suit or proceeding related to their service as an officer or director except for damages for breach of fiduciary duty resulting from material facts or omissions which involve (a) intentional misconduct, (b) fraud, or (c) a knowing violation of law, including the payment of dividends in violation of Nevada Revised Statutes Section 78.300. Further, we have entered into employment agreements with our executive officers which contain provisions requiring us to indemnify them from certain liabilities arising in the course of their employment with us to the fullest extent permitted under our Bylaws and Articles of Incorporation, and we may enter into similar indemnification agreements with each of our directors, executive officers, and certain of our other employees in the future.

Subject to limitations established under applicable Nevada law, federal securities laws, our Articles of Incorporation, and our Bylaws, such right of indemnification shall be a contractual right which may be enforced in any manner desired by such person. These indemnification obligations may require us, among other things, to indemnify and hold our directors and executive officers harmless from certain expenses and against certain liabilities including, among other things, attorneys’ fees, judgments, fines, and settlement amounts actually and reasonably paid or incurred by such director or officer in any action, suit, or proceeding arising out of their services as a director or officer or any other company or enterprise to which the person provides services at our request. Upon receipt of an undertaking by or on behalf of the director or officer to repay the amount if it is ultimately determined by a court of competent jurisdiction that he/she is not entitled to be indemnified by us, we must pay the expenses of officers and directors incurred in defending a civil or criminal action, suit or proceeding as they are incurred and in advance of the final disposition of the action, suit or proceeding. Such right of indemnification shall not be exclusive of any other right which such directors or officers may have or hereafter acquire. The indemnification provided in our Articles of Incorporation shall continue as to a person who has ceased to be a director, officer, employee or agent, and shall inure to the benefit of the heirs, executors and administrators of such person. We believe these indemnification agreements are necessary to attract and retain qualified individuals to serve as directors and executive officers.

As permitted by our Articles of Incorporation and Bylaws, we maintain general liability and directors’ and officers’ insurance policies that cover certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers, including liabilities under the Securities Act.

**THESE LIMITATIONS OF LIABILITY DO NOT ALTER DIRECTOR LIABILITY UNDER THE FEDERAL SECURITIES LAWS AND DO NOT AFFECT THE AVAILABILITY OF EQUITABLE REMEDIES SUCH AS AN INJUNCTION OR RESCISSION.**

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling the Registrant pursuant to the foregoing provisions, the Registrant has been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable.
Item 16. Exhibits.

<table>
<thead>
<tr>
<th>Exhibit Number</th>
<th>Description of Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Form of Underwriting Agreement †</td>
</tr>
<tr>
<td>2.1</td>
<td>Stock Purchase Agreement, dated as of April 8, 2021, by and among Riot Blockchain, Inc., Northern Data AG, and Whinstone US, Inc. (Incorporated by reference from the Registrant’s Current Report on Form 8-K, filed with the SEC on April 9, 2021)*</td>
</tr>
<tr>
<td>4.1</td>
<td>Articles of Incorporation filed September 20, 2017 (Incorporated by reference from the Registrant’s Current Report on Form 8-K, filed with the SEC September 25, 2017)</td>
</tr>
<tr>
<td>4.2</td>
<td>Bylaws, effective September 20, 2017 (Incorporated by reference from the Registrant’s Current Report on Form 8-K, filed with the SEC September 25, 2017)</td>
</tr>
<tr>
<td>4.3</td>
<td>Amendment to Bylaws (Incorporated by reference from the Registrant’s Current Report on Form 8-K, filed with the SEC March 12, 2018)</td>
</tr>
<tr>
<td>4.4</td>
<td>Shareholder Agreement, dated as of May 26, 2021, by and between Riot Blockchain, Inc. and Northern Data AG (Incorporated by reference from the Registrant’s Current Report on Form 8-K, filed with the SEC on May 26, 2021)</td>
</tr>
<tr>
<td>5.1</td>
<td>Opinion of Lewis Roca Rothgerber Christie LLP**</td>
</tr>
<tr>
<td>23.1</td>
<td>Consent of Marcum LLP**</td>
</tr>
<tr>
<td>23.2</td>
<td>Consent of Malcolm M. Dienes, LLC**</td>
</tr>
<tr>
<td>23.3</td>
<td>Consent of Lewis Roca Rothgerber Christie LLP (contained in Exhibit 5.1)**</td>
</tr>
<tr>
<td>24.1</td>
<td>Power of Attorney (included on the signature page of this registration statement)**</td>
</tr>
</tbody>
</table>

* Schedules and exhibits to the Stock Purchase Agreement have been omitted pursuant to Item 601(b)(2) of Regulation S-K. The Company hereby undertakes to furnish supplementally a copy of any omitted schedules and exhibits to the SEC upon request.

† To be filed by amendment or by a Current Report on Form 8-K and incorporated by reference herein.

** Filed herewith.

Item 17. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

   (i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

   (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the “Calculation of Registration Fee” table in the effective registration statement; and

   (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement

provided, however, Paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) of this section do not apply if the registration statement is on Form S-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the Registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.
(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) Each prospectus filed by the Registrant pursuant to Rule 424(b)(3) shall be deemed to be part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or

(5) That, for the purpose of determining liability of the Registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned Registrant undertakes that in a primary offering of securities of the undersigned Registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned Registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned Registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned Registrant or used or referred to by the undersigned Registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned Registrant or its securities provided by or on behalf of the undersigned Registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned Registrant to the purchaser.

(b) The Registrant hereby undertakes that for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant’s annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan’s annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

(d) The Registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

II-3
Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, on August 24, 2021.

Riot Blockchain, Inc.
(Registrant)

By: /s/ Jeffrey G. McGonegal
Jeffrey G. McGonegal
Chief Financial Officer
(Principal Financial and Accounting Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that the Registrant and each person whose signature appears below constitutes and appoints Messrs. Jason Les, Chief Executive Officer of the Registrant, and Jeffrey G. McGonegal, Chief Financial Officer of the Registrant, his, her, or its true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him, her or it and in his, her or its name, place and stead, in any and all capacities, to sign and file any and all amendments (including post-effective amendments) to this registration statement on Form S-3, with all schedules and exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as he, she, or it might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the date indicated.

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>/s/ Jason Les</td>
<td>Chief Executive Officer (Principal Executive Officer) and Director</td>
<td>August 24, 2021</td>
</tr>
<tr>
<td>Jason Les</td>
<td></td>
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</tr>
<tr>
<td>/s/ Jeffrey G. McGonegal</td>
<td>Chief Financial Officer (Principal Financial and Accounting Officer)</td>
<td>August 24, 2021</td>
</tr>
<tr>
<td>Jeffrey G. McGonegal</td>
<td></td>
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</tr>
<tr>
<td>/s/ Benjamin Yi</td>
<td>Executive Chairman (Director)</td>
<td>August 24, 2021</td>
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<tr>
<td>Benjamin Yi</td>
<td></td>
<td></td>
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<tr>
<td>/s/ Hubert Marleau</td>
<td>Director</td>
<td>August 24, 2021</td>
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<tr>
<td>Hubert Marleau</td>
<td></td>
<td></td>
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<tr>
<td>/s/ Hannah Cho</td>
<td>Director</td>
<td>August 24, 2021</td>
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<tr>
<td>Hannah Cho</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/s/ Lance D’Ambrosio</td>
<td>Director</td>
<td>August 24, 2021</td>
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<tr>
<td>Lance D’Ambrosio</td>
<td></td>
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</tbody>
</table>
August 24, 2021

Riot Blockchain, Inc.
Attn: Jeffrey G. McGonegal
202 6th Street, Suite 401
Castle Rock, CO 80140

RE: Riot Blockchain, Inc.; Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as special Nevada counsel to Riot Blockchain, Inc., a Nevada corporation (the “Company”), in connection with the registration by the Company under the Securities Act of 1933, as amended (the “Act”), and pursuant to the Registration Statement on Form S-3 (the “Registration Statement”), of 11,800,000 shares of Company common stock without par value (the “Securities”). This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Act.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon corporate records, certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein as to the Corporation Law of the State of Nevada, Nevada Revised Statutes Chapter 78 ("Nevada Corporation Law"), and we express no opinion with respect to any other laws, including any federal securities law, or any state securities or “blue sky” laws or regulations.

In rendering the opinion as set forth below, we have assumed: (a) the authenticity of all documents submitted to us as originals; (b) the conformity to the originals of all documents submitted to us as copies; (c) the genuineness of all signatures; (d) the legal capacity of natural persons; (e) the truth, accuracy, and completeness of the factual statements contained in all of such documents; (f) the legal, valid, and binding effect of all such documents on the parties thereto; (g) that the Company will act in accordance with its representations and warranties as set forth in the documents; (h) all Securities will be issued and sold in compliance with applicable federal and state securities laws and in the manner specified in the Registration Statement; (i) each person executing relevant documents (other than persons executing documents on behalf of Company) has the legal capacity and authority to do so; and (j) the Registration Statement, and any amendments thereto (including post-effective amendments), will have become effective, and no stop order suspending its effectiveness will have been issued and remain in effect.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof:

1. The issuance by the Company of the Securities as provided in the Registration Statement have been duly and validly authorized by all necessary corporate action of the Company.

2. The Securities are validly issued, fully paid and non-assessable shares of common stock of the Company, and the Securities constitute valid and legally binding obligations of Company.

In rendering the foregoing opinions, we have assumed that the Company has complied with any and all applicable notice requirements regarding uncertificated shares pursuant to the Nevada Corporation Law. This opinion is given as of the date hereof, and we assume no obligation to advise you after the date hereof of facts or circumstances that come to our attention, or changes in law that occur, that could affect the opinions contained herein.

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Act. We consent to your filing this opinion as exhibit 5.1 to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ LEWIS ROCA ROTHGERBER CHRISTIE LLP
LEWIS ROCA ROTHGERBER CHRISTIE LLP
INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM’S CONSENT

We consent to the incorporation by reference in this Registration Statement of Riot Blockchain, Inc. on Form S-3 of our report dated March 31, 2021, with respect to our audits of the consolidated financial statements of Riot Blockchain, Inc. and Subsidiaries as of December 31, 2020 and 2019 and for each of the two years in the period ended December 31, 2020 appearing in the Annual Report on Form 10-K of Riot Blockchain, Inc. for the year ended December 31, 2020. We also consent to the reference to our firm under the heading “Experts” in the Prospectus, which is part of this Registration Statement.

/s/ Marcum LLP
Marcum LLP
Los Angeles, CA
August 24, 2021
CONSENT OF INDEPENDENT AUDITOR

We consent to the incorporation by reference in this Registration Statement on Form S-3 of Riot Blockchain, Inc., of our report, dated August 12, 2021, with respect to our audits of the consolidated financial statements of Whinstone US, Inc., as of December 31, 2020 and 2019, and for each of the two years in the period ended December 31, 2020, as filed as Exhibit 99.1 to the Current Report on Form 8-K/A of Riot Blockchain, Inc., dated August 12, 2021. We also consent to the reference to us under the heading “Experts” in such Prospectus, which is part of this Registration Statement.

/s/ Malcolm M. Dienes, LLC

Malcolm M. Dienes, LLC

Metairie, LA

August 24, 2021