

BLACKROCK VARIABLE SERIES FUNDS, INC.

BlackRock International Index V.I. Fund

BlackRock S&P 500 Index V.I. Fund

BlackRock Small Cap Index V.I. Fund

(each, a “Fund” and together, the “Funds”)

Supplement dated May 16, 2025 to the Summary Prospectuses and the Prospectuses of the Funds, each dated May 1, 2025, as amended or supplemented to date

Effective June 30, 2025, the following changes are made to the Funds’ Summary Prospectuses and Prospectuses, as applicable:

The section of the Summary Prospectus for BlackRock International Index V.I. Fund entitled “Key Facts About BlackRock International Index V.I. Fund — Portfolio Managers” and the section of the Prospectus for BlackRock International Index V.I. Fund entitled “Fund Overview — Key Facts About BlackRock International Index V.I. Fund — Portfolio Managers” are deleted in their entirety and replaced with the following:

Portfolio Manager	Portfolio Manager of the Fund Since	Title
Jennifer Hsui, CFA	2018	Managing Director of BlackRock, Inc.
Matt Waldron, CFA	2025	Managing Director of BlackRock, Inc.
Peter Sietsema, CFA	2025	Director of BlackRock, Inc.
Steven White	2025	Director of BlackRock, Inc.

The section of the Summary Prospectus for BlackRock S&P 500 Index V.I. Fund entitled “Key Facts About BlackRock S&P 500 Index V.I. Fund — Portfolio Managers” and the section of the Prospectus for BlackRock S&P 500 Index V.I. Fund entitled “Fund Overview — Key Facts About BlackRock S&P 500 Index V.I. Fund — Portfolio Managers” are deleted in their entirety and replaced with the following:

Portfolio Manager	Portfolio Manager of the Fund Since	Title
Jennifer Hsui, CFA	2016	Managing Director of BlackRock, Inc.
Matt Waldron, CFA	2025	Managing Director of BlackRock, Inc.
Peter Sietsema, CFA	2025	Director of BlackRock, Inc.
Steven White	2025	Director of BlackRock, Inc.

The section of the Summary Prospectus for BlackRock Small Cap Index V.I. Fund entitled “Key Facts About BlackRock Small Cap Index V.I. Fund — Portfolio Managers” and the section of the Prospectus for BlackRock Small Cap Index V.I. Fund entitled “Fund Overview — Key Facts About BlackRock Small Cap Index V.I. Fund — Portfolio Managers” are deleted in their entirety and replaced with the following:

Portfolio Manager	Portfolio Manager of the Fund Since	Title
Jennifer Hsui, CFA	2018	Managing Director of BlackRock, Inc.
Matt Waldron, CFA	2025	Managing Director of BlackRock, Inc.
Peter Sietsema, CFA	2025	Director of BlackRock, Inc.
Steven White	2025	Director of BlackRock, Inc.

The section of the Prospectuses entitled “Details About the Fund — How the Fund Invests — About the Portfolio Management Team of [Fund]” is deleted in its entirety and replaced with the following:

ABOUT THE PORTFOLIO MANAGEMENT TEAM OF [FUND]	
The Fund is managed by a team of financial professionals. Jennifer Hsui, CFA, Matt Waldron, CFA, Peter Sietsema, CFA and Steven White are the portfolio managers and are jointly and primarily responsible for the day-to-day management of the Fund. Please see “Management of the Funds — Portfolio Manager Information” for additional information about the portfolio management team.	

The section of the Prospectuses entitled “Management of the Funds — Portfolio Manager Information — BlackRock International Index V.I. Fund and BlackRock Small Cap Index V.I. Fund” is deleted in its entirety and replaced with the following:

Portfolio Manager	Primary Role	Since	Title and Recent Biography
Jennifer Hsui, CFA	Jointly and primarily responsible for the day-to-day management of each Fund’s portfolio, including setting each Fund’s overall investment strategy and overseeing the management of the Funds.	2018	Managing Director of BlackRock, Inc. since 2011; Director of BlackRock, Inc. from 2009 to 2011; Principal of BGI from 2006 to 2009.
Matt Waldron, CFA	Jointly and primarily responsible for the day-to-day management of each Fund’s portfolio, including setting each Fund’s overall investment strategy and overseeing the management of the Funds.	2025	Managing Director of BlackRock, Inc. since 2024; Director of BlackRock, Inc from 2010 to 2024.
Peter Sietsema, CFA	Jointly and primarily responsible for the day-to-day management of each Fund’s portfolio, including setting each Fund’s overall investment strategy and overseeing the management of the Funds.	2025	Director of BlackRock, Inc. since 2013.
Steven White	Jointly and primarily responsible for the day-to-day management of each Fund’s portfolio, including setting each Fund’s overall investment strategy and overseeing the management of the Funds.	2025	Director of BlackRock, Inc. since 2020.

The section of the Prospectuses entitled “Management of the Funds — Portfolio Manager Information — BlackRock S&P 500 V.I. Fund” is deleted in its entirety and replaced with the following:

Portfolio Manager	Primary Role	Since	Title and Recent Biography
Jennifer Hsui, CFA	Jointly and primarily responsible for the day-to-day management of the Fund’s portfolio, including setting the Fund’s overall investment strategy and overseeing the management of the Fund.	2016	Managing Director of BlackRock, Inc. since 2011; Director of BlackRock, Inc. from 2009 to 2011; Principal of BGI from 2006 to 2009.
Matt Waldron, CFA	Jointly and primarily responsible for the day-to-day management of the Fund’s portfolio, including setting the Fund’s overall investment strategy and overseeing the management of the Fund.	2025	Managing Director of BlackRock, Inc. since 2024; Director of BlackRock, Inc from 2010 to 2024.
Peter Sietsema, CFA	Jointly and primarily responsible for the day-to-day management of the Fund’s portfolio, including setting the Fund’s overall investment strategy and overseeing the management of the Fund.	2025	Director of BlackRock, Inc. since 2013.
Steven White	Jointly and primarily responsible for the day-to-day management of the Fund’s portfolio, including setting the Fund’s overall investment strategy and overseeing the management of the Fund.	2025	Director of BlackRock, Inc. since 2020.

Shareholders should retain this Supplement for future reference.

PRO-VI-0525SUP

Summary Prospectus

BlackRock Variable Series Funds, Inc.

- **BlackRock Small Cap Index V.I. Fund (Class I, Class III)**

Before you invest, you may want to review the Fund's prospectus, which contains more information about the Fund and its risks. You can find the Fund's prospectus (including amendments and supplements), reports to shareholders and other information about the Fund, including the Fund's statement of additional information, online at <https://www.blackrock.com/prospectus>. You can also get this information at no cost by calling (800) 537-4942 or by sending an e-mail request to prospectus.request@blackrock.com, or from your financial professional. The Fund's prospectus and statement of additional information, both dated May 1, 2025, as amended and supplemented from time to time, are incorporated by reference into (legally made a part of) this Summary Prospectus.

This Summary Prospectus contains information you should know before investing, including information about risks. Please read it before you invest and keep it for future reference.

The Securities and Exchange Commission has not approved or disapproved these securities or passed upon the adequacy of this Summary Prospectus. Any representation to the contrary is a criminal offense.

Not FDIC Insured • May Lose Value • No Bank Guarantee

Summary Prospectus

Key Facts About BlackRock Small Cap Index V.I. Fund

Investment Objective

The investment objective of BlackRock Small Cap Index V.I. Fund (the “Fund”) is to seek to match the performance of the Russell 2000® Index (the “Russell 2000” or the “Underlying Index”) as closely as possible before the deduction of Fund expenses.

Fees and Expenses of the Fund

This table describes the fees and expenses that you may pay if you buy, hold and sell shares of the Fund. **The table and example below do not include separate account fees and expenses, and expenses would be higher if these fees and expenses were included.** Please refer to your variable annuity or insurance contract (the “Contract”) prospectus for information on the separate account fees and expenses associated with your Contract.

Shareholder Fees (fees paid directly from your investment)

The Fund is not subject to any shareholder fees.

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)	Class I Shares	Class III Shares
Management Fee ¹	0.08%	0.08%
Distribution and/or Service (12b-1 Fees)	None	0.25%
Other Expenses	0.15%	0.15%
Total Annual Fund Operating Expenses	0.23%	0.48%
Fee Waivers and/or Expense Reimbursements ^{1,2}	(0.01)%	(0.01)%
Total Annual Fund Operating Expenses After Fee Waivers and/or Expense Reimbursements ^{1,2}	0.22%	0.47%

¹ As described in the “Management of the Funds” section of the Fund’s prospectus, BlackRock Advisors, LLC (“BlackRock”) has contractually agreed to waive the management fee with respect to any portion of the Fund’s assets estimated to be attributable to investments in other equity and fixed-income mutual funds and exchange-traded funds managed by BlackRock or its affiliates that have a contractual management fee, through June 30, 2026. In addition, BlackRock has contractually agreed to waive its management fees by the amount of investment advisory fees the Fund pays to BlackRock indirectly through its investment in money market funds managed by BlackRock or its affiliates, through June 30, 2026. The contractual agreements may be terminated upon 90 days’ notice by a majority of the non-interested directors of BlackRock Variable Series Funds, Inc. (the “Company”) or by a vote of a majority of the outstanding voting securities of the Fund.

² As described in the “Management of the Funds” section of the Fund’s prospectus, BlackRock has contractually agreed to waive and/or reimburse fees or expenses in order to limit Total Annual Fund Operating Expenses After Fee Waivers and/or Expense Reimbursements (excluding Dividend Expense, Interest Expense, Acquired Fund Fees and Expenses and certain other Fund expenses) to 0.22% (for Class I Shares) and 0.47% (for Class III Shares) of average daily net assets through June 30, 2026. The Fund may have to repay some of these waivers and/or reimbursements to BlackRock in the two years following such waivers and/or reimbursements. Any such repayment obligation will terminate on October 26, 2025. BlackRock has also contractually agreed to reimburse fees in order to limit certain operational and recordkeeping fees to 0.05% (for Class I Shares) and 0.05% (for Class III Shares) of average daily net assets through June 30, 2026. Each of these contractual agreements may be terminated upon 90 days’ notice by a majority of the non-interested directors of the Company or by a vote of a majority of the outstanding voting securities of the Fund.

Example:

This Example is intended to help you compare the cost of investing in the Fund with the cost of investing in other mutual funds. The Example assumes that you invest \$10,000 in the Fund for the time periods indicated and then redeem all of your shares at the end of those periods. The Example also assumes that your investment has a 5% return each year and that the Fund’s operating expenses remain the same. The Example does not reflect charges imposed by the Contract. See the Contract prospectus for information on such charges. Although your actual costs may be higher or lower, based on these assumptions and the net expenses shown in the fee table, your costs would be:

	1 Year	3 Years	5 Years	10 Years
Class I Shares	\$23	\$ 73	\$129	\$292
Class III Shares	\$48	\$153	\$268	\$603

Portfolio Turnover:

The Fund pays transaction costs, such as commissions, when it buys and sells securities (or “turns over” its portfolio). A higher portfolio turnover rate may indicate higher transaction costs. These costs, which are not reflected in annual fund operating expenses or in the Example, affect the Fund’s performance. During the most recent fiscal year, the Fund’s portfolio turnover rate was 14% of the average value of its portfolio.

Principal Investment Strategies of the Fund

The Fund employs a “passive” management approach, attempting to invest in a portfolio of assets whose performance is expected to match approximately the performance of the Russell 2000. The Russell 2000 is composed of the common stocks of approximately the 1,001st through the 3,000th largest U.S. public companies by market capitalization. The Fund will be substantially invested in securities in the Russell 2000, and will invest, under normal circumstances, at least 90% of its assets in securities or other financial instruments that are components of or have economic characteristics similar to the securities included in the Russell 2000. The Fund may change its target index if Fund management believes a different index would better enable the Fund to match the performance of the market segment represented by the current index.

The Fund may invest in a statistically selected sample of stocks included in the Russell 2000 and in derivative instruments linked to the Russell 2000, which include equity index futures and total return swaps. The Fund may not invest in all of the common stocks in the Russell 2000, or in the same weightings as in the Russell 2000. The Fund chooses investments so that the market capitalizations, industry weightings and other fundamental characteristics of the stocks and derivative instruments chosen are similar to the Russell 2000 as a whole.

Principal Risks of Investing in the Fund

Risk is inherent in all investing. The value of your investment in the Fund, as well as the amount of return you receive on your investment, may fluctuate significantly from day to day and over time. You may lose part or all of your investment in the Fund or your investment may not perform as well as other similar investments. The following is a summary description of the principal risks of investing in the Fund. The relative significance of each risk factor below may change over time and you should review each risk factor carefully.

- **Small Cap Securities Risk** — Small cap companies may have limited product lines or markets. They may be less financially secure than larger, more established companies. They may depend on a more limited management group than larger capitalized companies.
- **Index-Related Risk** — There is no guarantee that the Fund’s investment results will have a high degree of correlation to those of the Underlying Index or that the Fund will achieve its investment objective. Market disruptions or high volatility, other unusual market circumstances and regulatory restrictions could have an adverse effect on the Fund’s ability to adjust its exposure to the required levels in order to track the Underlying Index. Errors in index data, index computations or the construction of the Underlying Index in accordance with its methodology may occur from time to time and may not be identified and corrected by the index provider for a period of time or at all, which may have an adverse impact on the Fund and its shareholders. Unusual market conditions or other unforeseen circumstances (such as natural disasters, political unrest or war) may impact the index provider or a third-party data provider and could cause the index provider to postpone a scheduled rebalance. This could cause the Underlying Index to vary from its normal or expected composition.

An index fund has operating and other expenses while an index does not. As a result, while the Fund will attempt to track the Underlying Index as closely as possible, it will tend to underperform the Underlying Index to some degree over time. If an index fund is properly correlated to its stated index, the fund will perform poorly when the index performs poorly.
- **Passive Investment Risk** — Because BlackRock does not select individual companies in the index that the Fund tracks, the Fund may hold securities of companies that present risks that an investment adviser researching individual securities might seek to avoid.
- **Tracking Error Risk** — The Fund may be subject to tracking error, which is the divergence of the Fund’s performance from that of the Underlying Index. Tracking error may occur because of differences between the securities and other instruments held in the Fund’s portfolio and those included in the Underlying Index, pricing differences (including, as applicable, differences between a security’s price at the local market close and the Fund’s valuation of a security at the time of calculation of the Fund’s net asset value), differences in transaction costs, the Fund’s holding of uninvested cash, differences in timing of the accrual of or the valuation of dividends or other distributions, interest, the requirements to maintain pass-through tax treatment, portfolio transactions carried out to minimize the distribution of capital gains to shareholders, changes to the Underlying Index and the cost to the Fund of complying with various new or existing regulatory requirements. These risks may be heightened during times of increased market volatility or other unusual market conditions. In addition, tracking error may result because the Fund incurs fees and expenses, while the Underlying Index does not.
- **Equity Securities Risk** — Stock markets are volatile. The price of equity securities fluctuates based on changes in a company’s financial condition and overall market and economic conditions.
- **Derivatives Risk** — The Fund’s use of derivatives may increase its costs, reduce the Fund’s returns and/or increase volatility. Derivatives involve significant risks, including:

Leverage Risk — The Fund’s use of derivatives can magnify the Fund’s gains and losses. Relatively small market movements may result in large changes in the value of a derivatives position and can result in losses that greatly exceed the amount originally invested.

Market Risk — Some derivatives are more sensitive to interest rate changes and market price fluctuations than other securities. The Fund could also suffer losses related to its derivatives positions as a result of unanticipated market movements, which losses are potentially unlimited. Finally, BlackRock may not be able to predict correctly the direction of securities prices, interest rates and other economic factors, which could cause the Fund's derivatives positions to lose value.

Counterparty Risk — Derivatives are also subject to counterparty risk, which is the risk that the other party in the transaction will be unable or unwilling to fulfill its contractual obligation, and the related risks of having concentrated exposure to such a counterparty.

Illiquidity Risk — The possible lack of a liquid secondary market for derivatives and the resulting inability of the Fund to sell or otherwise close a derivatives position could expose the Fund to losses and could make derivatives more difficult for the Fund to value accurately.

Operational Risk — The use of derivatives includes the risk of potential operational issues, including documentation issues, settlement issues, systems failures, inadequate controls and human error.

Legal Risk — The risk of insufficient documentation, insufficient capacity or authority of counterparty, or legality or enforceability of a contract.

Volatility and Correlation Risk — Volatility is defined as the characteristic of a security, an index or a market to fluctuate significantly in price within a short time period. A risk of the Fund's use of derivatives is that the fluctuations in their values may not correlate with the overall securities markets.

Valuation Risk — Valuation for derivatives may not be readily available in the market. Valuation may be more difficult in times of market turmoil since many investors and market makers may be reluctant to purchase complex instruments or quote prices for them.

Hedging Risk — Hedges are sometimes subject to imperfect matching between the derivative and the underlying security, and there can be no assurance that the Fund's hedging transactions will be effective. The use of hedging may result in certain adverse tax consequences.

Tax Risk — Certain aspects of the tax treatment of derivative instruments, including swap agreements and commodity-linked derivative instruments, are currently unclear and may be affected by changes in legislation, regulations or other legally binding authority. Such treatment may be less favorable than that given to a direct investment in an underlying asset and may adversely affect the timing, character and amount of income the Fund realizes from its investments.

■ **Leverage Risk** — Some transactions may give rise to a form of economic leverage. These transactions may include, among others, derivatives, and may expose the Fund to greater risk and increase its costs. The use of leverage may cause the Fund to liquidate portfolio positions when it may not be advantageous to do so to satisfy its obligations or to meet the applicable requirements of the Investment Company Act of 1940, as amended (the "Investment Company Act"), and the rules thereunder. Increases and decreases in the value of the Fund's portfolio will be magnified when the Fund uses leverage.

■ **Market Risk and Selection Risk** — Market risk is the risk that one or more markets in which the Fund invests will go down in value, including the possibility that the markets will go down sharply and unpredictably. The value of a security or other asset may decline due to changes in general market conditions, economic trends or events that are not specifically related to the issuer of the security or other asset, or factors that affect a particular issuer or issuers, exchange, country, group of countries, region, market, industry, group of industries, sector or asset class. Local, regional or global events such as war, acts of terrorism, the spread of infectious illness or other public health issues like pandemics or epidemics, recessions, or other events could have a significant impact on the Fund and its investments. Selection risk is the risk that the securities selected by Fund management will underperform the markets, the relevant indices or the securities selected by other funds with similar investment objectives and investment strategies. This means you may lose money.

■ **Representative Sampling Risk** — Representative sampling is a method of indexing that involves investing in a representative sample of securities that collectively have a similar investment profile to the Underlying Index and resemble the Underlying Index in terms of risk factors and other key characteristics. The Fund may or may not hold every security in the Underlying Index. When the Fund deviates from a full replication indexing strategy to utilize a representative sampling strategy, the Fund is subject to an increased risk of tracking error, in that the securities selected in the aggregate for the Fund may not have an investment profile similar to those of the Underlying Index.

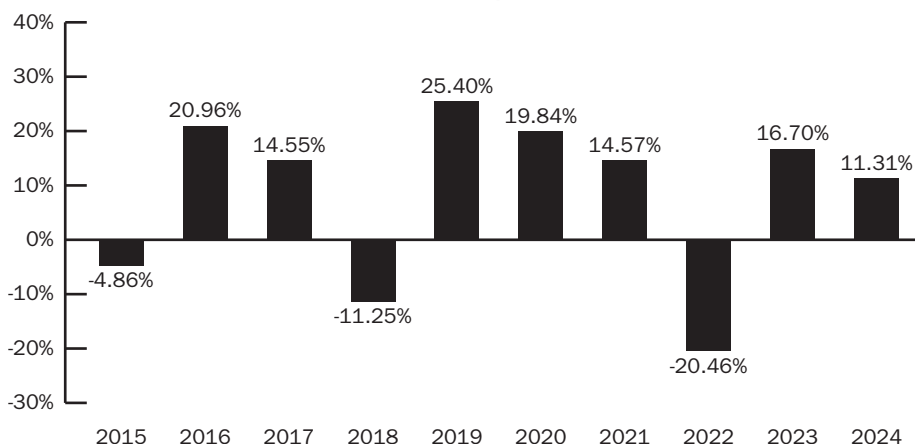
■ **Risk of Investing in the United States** — Certain changes in the U.S. economy, such as when the U.S. economy weakens or when its financial markets decline, may have an adverse effect on the securities to which the Fund has exposure.

Performance Information

The information shows you how the Fund's performance has varied year by year and provides some indication of the risks of investing in the Fund. The returns for Class III Shares prior to February 9, 2021, the commencement of Class III Shares, are based upon performance of the Fund's Class I Shares, as adjusted to reflect the distribution and/or service (12b-1) fees applicable to Class III Shares. This information may be considered when assessing the performance of Class III Shares, but does not represent the actual performance of Class III Shares.

As a result of a reorganization (the "Reorganization") which occurred on October 29, 2018, the Fund acquired all of the assets and assumed certain stated liabilities of the Small Cap Equity Index Fund (the "Predecessor Fund"), a series of State Farm Variable Product Trust. The Fund adopted the performance of the Predecessor Fund as a result of the Reorganization on October 29, 2018. The performance information below is based on the performance of the Predecessor Fund for periods prior to the date of the Reorganization. The Predecessor Fund had similar investment objective and strategies as the Fund as of the date of the Reorganization. The Predecessor Fund was managed by a different investment adviser but was subadvised by BlackRock and had the same portfolio management team as the Fund as of the date of the Reorganization. The table compares the Fund's performance to that of the Russell 3000® Index and the Russell 2000® Index. The Russell 2000® Index is relevant to the Fund because it has characteristics similar to the Fund's investment strategies. As with all such investments, past performance is not an indication of future results. The bar chart and table do not reflect separate account fees and expenses. If they did, returns would be less than those shown. To the extent that dividends and distributions have been paid by the Fund, the performance information for the Fund in the chart and table assumes reinvestment of the dividends and distributions. If the Fund's investment manager and its affiliates had not waived or reimbursed certain Fund expenses during these periods, the Fund's returns would have been lower.

Class I Shares
ANNUAL TOTAL RETURNS
BlackRock Small Cap Index V.I. Fund
As of 12/31



During the ten-year period shown in the bar chart, the highest return for a quarter was 31.41% (quarter ended December 31, 2020) and the lowest return for a quarter was -30.69% (quarter ended March 31, 2020).

For the periods ended 12/31/24
Average Annual Total Returns

	1 Year	5 Years	10 Years
BlackRock Small Cap Index V.I. Fund: Class I Shares	11.31%	7.24%	7.61%
BlackRock Small Cap Index V.I. Fund: Class III Shares	11.07%	6.99%	7.34%
Russell 3000® Index ¹ (Reflects no deduction for fees, expenses or taxes)	23.81%	13.86%	12.55%
Russell 2000 Index (Reflects no deduction for fees, expenses or taxes)	11.54%	7.40%	7.82%

¹ The Fund has added this broad-based index in response to new regulatory requirements.

Investment Manager

The Fund's investment manager is BlackRock Advisors, LLC (previously defined as "BlackRock").

Portfolio Managers

Portfolio Manager	Portfolio Manager of the Fund Since	Title
Jennifer Hsui, CFA	2018	Managing Director of BlackRock, Inc.
Paul Whitehead	2022	Managing Director of BlackRock, Inc.
Matt Waldron, CFA	2025	Managing Director of BlackRock, Inc.
Peter Sietsema, CFA	2025	Director of BlackRock, Inc.
Steven White	2025	Director of BlackRock, Inc.

Purchase and Sale of Fund Shares

Shares of the Fund currently are sold either directly or indirectly (through other variable insurance funds) to separate accounts of insurance companies (the “Insurance Companies”) and certain accounts administered by the Insurance Companies (the “Accounts”) to fund benefits under the Contracts issued by the Insurance Companies. Shares of the Fund may be purchased or sold each day the New York Stock Exchange is open.

The Fund does not have any initial or subsequent investment minimums. However, your Contract may require certain investment minimums. See your Contract prospectus for more information.

Tax Information

Distributions made by the Fund to an Account, and exchanges and redemptions of Fund shares made by an Account, ordinarily do not cause the corresponding Contract holder to recognize income or gain for U.S. federal income tax purposes. See the Contract prospectus for information regarding the U.S. federal income tax treatment of the distributions to Accounts and the holders of the Contracts.

Payments to Broker/Dealers and Other Financial Intermediaries

BlackRock and its affiliates may make payments relating to distribution and sales support activities to the Insurance Companies and other financial intermediaries for the sale of Fund shares and related services. These payments may create a conflict of interest by influencing the Insurance Company or other financial intermediary and your individual financial professional to recommend the Fund over another investment. Visit your Insurance Company’s website, which may have more information.

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