

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

**Form S-8
REGISTRATION STATEMENT**
Under
THE SECURITIES ACT OF 1933

MIPS TECHNOLOGIES, INC.
(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

77-0322161
(I.R.S. Employer Identification No.)

**955 East Arques Avenue
Sunnyvale, CA 94085**
(Address of principal executive offices)

MIPS Technologies, Inc. Amended and Restated Employee Stock Purchase Plan
(Full title of the plan)

John E. Bourgoin
Chief Executive Officer and President
MIPS TECHNOLOGIES, INC.
955 East Arques Avenue
Sunnyvale, CA 94085
(Name and address of agent for service)

(408) 530-5000
(Telephone number, including area code, of agent for service)

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

Large accelerated filer

Accelerated filer

Non-accelerated filer (Do not check if a
smaller reporting company)

Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered (1)(2)	Proposed Maximum Offering Price per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, par value \$0.001 per share, issuable pursuant to the Amended and Restated Employee Stock Purchase Plan	1,000,000(3)	\$3.83(4)	\$3,830,000.00(4)	\$213.71

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement also covers any additional securities that may be offered or issued in connection with any stock split, stock dividend or similar transaction.
- (2) This Registration Statement also covers rights to purchase shares of the Registrant's Series A Participating Preferred Stock (the "Rights") that are attached to all shares of the Registrant's Common Stock. Until the occurrence of certain prescribed events, the Rights are not exercisable, are evidenced by the certificates for Common Stock and will be transferable along with and only with the Common Stock. The value attributable to the Rights, if any, is reflected in the value of the Common Stock.
- (3) Represents 1,000,000 additional shares of Common Stock reserved for future grant under the Registrant's Amended and Restated Employee Stock Purchase Plan (the "ESPP"), which increase was approved at the Registrant's Annual Meeting of Stockholders held on November 12, 2009.
- (4) Estimated solely for the purpose of computing the amount of registration fee in accordance with Rules 457(c) and (h) promulgated under the Securities Act based on the average of the high and low prices of our Common Stock as reported on The NASDAQ Global Select Market on December 4, 2009. Under the ESPP, the purchase price of a share of Common Stock is equal to lower of 85% of the fair market value of our Common Stock (a) on the first day of the offering or (b) on the last day of the offering.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE.

The following documents, all of which the Registrant has previously filed with the Commission pursuant to the Securities Exchange Act of 1934 (the "Exchange Act") are incorporated herein by this reference:

- (1) Registrant's Annual Report on Form 10-K for the year ended June 30, 2009, filed with the Commission on September 15, 2009.
- (2) All other reports filed pursuant to Section 13(a) or 15(d) of the Exchange Act since the end of the fiscal year covered by Registrant's latest Annual Report referred to in (1) above.
- (3) The description of Registrant's common stock as set forth in the Registration Statement on Form 8-A filed with the Commission on April 5, 1999, File No. 000-24487, including any amendments or reports filed with the Commission for the purpose of updating such description.
- (4) The description of Registrant's Preferred Stock Rights contained in the Registration Statement on Form 8-A filed with the Commission on November 18, 2003, File No. 000-24487, including any other amendments or reports filed for the purpose of updating such description.

All reports and other documents filed by the Registrant pursuant to sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, after the date of this Registration Statement and prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement and to be part hereof from the date of filing such documents, except as to specific sections of such reports or other documents as set forth therein. Unless expressly incorporated into this Registration Statement, a report furnished on Form 8-K prior or subsequent to the date hereof shall not be incorporated by reference into this Registration Statement. Any statement contained in a document incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein (or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein) modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed to constitute a part hereof, except as so modified or superseded.

ITEM 4. DESCRIPTION OF SECURITIES.

Not applicable.

ITEM 5. INTERESTS OF NAMED EXPERTS AND COUNSEL.

Not applicable.

ITEM 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Section 145 of the Delaware General Corporation Law (the "DGCL") empowers a Delaware corporation to indemnify any persons who are, or are threatened to be made, parties to any threatened, pending or completed legal action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person is or was an officer or director of such corporation or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided that such officer or director acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, in the case of criminal proceedings, had no reasonable cause to believe his or her conduct was illegal. A Delaware corporation may indemnify officers and directors against expenses (including attorneys' fees) in connection with the defense or settlement of an action by or in the right of the corporation under the same conditions, except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him or her against expenses which such officer or director actually and reasonably incurred. The Restated Certificate of Incorporation of the Registrant provides for indemnification of the officers and directors of the Registrant to the full extent permitted by applicable law.

In accordance with Delaware law, the Restated Certificate of Incorporation of the Registrant contains a provision to limit the personal liability of directors of the Registrant for violations of their fiduciary duty. This provision eliminates each director's liability to the Registrant or its stockholders for monetary damages except (i) for any breach of the director's duty of loyalty to the Registrant or its stockholders, (ii) for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL, providing for liability of directors for unlawful payment of dividends or unlawful stock purchases or redemptions, or (iv) for any transaction from which a director derived an improper personal benefit. The effect of this provision is to eliminate the personal liability of directors for monetary damages for actions involving a breach of their fiduciary duty of care, including any such actions involving gross negligence.

The indemnification provisions in the Bylaws may be sufficiently broad to permit indemnification of the Registrant's directors and officers for liabilities arising within the meaning of the Securities Act.

The Registrant has entered into indemnification agreements with its directors and officers, indemnifying them against certain potential liabilities that may arise as a result of their service to the Registrant, and providing for certain other protections. The Registrant also maintains an insurance policy insuring its directors and officers against liability for certain acts and omissions while acting in their official capacities.

ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED.

Not applicable.

ITEM 8. EXHIBITS.

See Exhibit Index.

ITEM 9. 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) or 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 Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement;

(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, that paragraphs (a)(1)(i) and (a)(1)(ii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in 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.

(b) The undersigned 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.

SIGNATURES

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-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Sunnyvale, California, on December 8, 2009.

MIPS TECHNOLOGIES, INC.

By: /s/ JOHN BOURGOIN

John Bourgoin

President, Chief Executive Officer and Director

SIGNATURES and POWER OF ATTORNEY

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed below by the following persons in the capacities and on the dates indicated. In addition, each person whose signature appears below constitutes and appoints John E. Bourgoin and Maury Austin, each alone to act as his or her true and lawful attorney-in-fact and agent, each with the full power of substitution, for him or her and in his or her name in any and all capacities, to sign any or all amendments, including pre-effective and post-effective amendments, and supplements to this Registration Statement on Form S-8 relating to the Registrant's Amended and Restated Employee Stock Purchase Plan, and to file the same, with exhibits thereto and other documents in connection therewith, with the Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact, or his or her substitute or substitutes, may do or cause to be done by virtue hereof.

Signature	Title	Date
<u>/s/ John F. Bourgoin</u> John E. Bourgoin	President, Chief Executive Officer, and Director <i>(Principal Executive Officer)</i>	December 8, 2009
<u>/s/ Maury Austin</u> Maury Austin	Vice President and Chief Financial Officer <i>(Principal Financial and Accounting Officer)</i>	December 8, 2009
<u>/s/ Kenneth L. Coleman</u> Kenneth L. Coleman	Director	December 8, 2009
<u>/s/ Fred M. Gibbons</u> Fred M. Gibbons	Director	December 8, 2009
<u>/s/ Robert R. Herb</u> Robert R. Herb	Director	December 8, 2009
<u>/s/ Anthony B. Holbrook</u> Anthony B. Holbrook	Director	December 8, 2009
<u>/s/ William M. Kelly</u> William M. Kelly	Director	December 8, 2009
<u>/s/ Robin L. Washington</u> Robin L. Washington	Director	December 8, 2009

EXHIBIT INDEX

Item 8. Exhibits

Exhibit No.	Exhibit	Form	File No.	Filing Date	Exhibit No.	Filed Herewith
4.01	Preferred Stock Rights Agreement	8-A	000-24487	11-18-03	10.11.3	
4.02	MIPS Technologies, Inc. Amended and Restated Employee Stock Purchase Plan	S-8	333-148606	01-11-08	4.03	
5.01	Opinion of Fenwick & West LLP					X
23.01	Consent of Fenwick & West LLP (included in Exhibit 5.01)					X
23.02	Consent of Independent Registered Public Accounting Firm					X
24.01	Power of Attorney (included on signature page)					X

December 8, 2009

MIPS Technologies, Inc.
955 East Arques Avenue
Sunnyvale, California 94085

Gentlemen/Ladies:

At your request, we have examined the Registration Statement on Form S-8 (the "**Registration Statement**") to be filed by MIPS Technologies, Inc., a Delaware corporation (the "**Company**"), with the Securities and Exchange Commission (the "**Commission**") on or about December 8, 2009 in connection with the registration under the Securities Act of 1933, as amended, of an aggregate of 1,000,000 shares of the Company's Common Stock (the "**Stock**"), subject to issuance by the Company upon the exercise of purchase rights granted or to be granted under the Company's Amended and Restated Employee Stock Purchase Plan, as amended (the "**ESPP**"). In rendering this opinion, we have examined such matters of fact as we have deemed necessary in order to render the opinion set forth herein, which included examination of the following.

- (1) the Company's Certificate of Incorporation, certified by the Delaware Secretary of State on November 13, 2003.
 - (2) the Company's Bylaws, certified by the Company's Secretary on December 9, 2009.
 - (3) the Registration Statement, together with the Exhibits filed as a part thereof or incorporated therein by reference, including but not limited to the ESPP and the forms of purchase agreement to be entered into thereunder.
 - (4) the Prospectuses prepared in connection with the Registration Statement.
 - (5) the minutes of meetings and actions by written consent of the stockholders and Board of Directors that are contained in the Company's minute books maintained by the Company, which minutes and actions have been provided to us for purposes of giving this opinion.
 - (6) the stock records that the Company has provided to us (consisting of a certificate from the Company's transfer agent of even date herewith verifying the number of the Company's issued and outstanding shares of capital stock as of the date hereof and a list of option and warrant holders respecting the Company's capital and of any rights to purchase capital stock that was prepared by the Company and dated December 7, 2009 verifying the number of such issued and outstanding securities).
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(7) a Management Certificate addressed to us and dated of even date herewith executed by the Company containing certain factual representations (the "*Management Certificate*").

In our examination of documents for purposes of this opinion, we have assumed, and express no opinion as to, the genuineness of all signatures on original documents, the authenticity and completeness of all documents submitted to us as originals, the conformity to originals and completeness of all documents submitted to us as copies, the legal capacity of all persons or entities executing the same, the lack of any undisclosed termination, modification, waiver or amendment to any document reviewed by us and the due authorization, execution and delivery of all documents where due authorization, execution and delivery are prerequisites to the effectiveness thereof. We have also assumed that the certificates representing the Stock have been, or will be when issued, properly signed by authorized officers of the Company or their agents.

As to matters of fact relevant to this opinion, we have relied solely upon our examination of the documents referred to above and have assumed the current accuracy and completeness of the information obtained from the documents referred to above and the representations and warranties made by representatives of the Company to us, including but not limited to those set forth in the Management Certificate. We have made no independent investigation or other attempt to verify the accuracy of any of such information or to determine the existence or non-existence of any other factual matters.

We are admitted to practice law in the State of California, and we render this opinion only with respect to, and express no opinion herein concerning the application or effect of the laws of any jurisdiction other than, the existing laws of the United States of America, of the State of California and of the Delaware General Corporation Law, the Delaware Constitution and reported judicial decisions relating thereto.

Based upon the foregoing, it is our opinion that the 1,000,000 shares of Stock that may be issued and sold by the Company upon the exercise of purchase rights granted or to be granted under the ESPP, when issued, sold and delivered in accordance with the ESPP and purchase agreements to be entered into thereunder and in the manner and for the consideration stated in the Registration Statement and the relevant Prospectus, will be validly issued, fully paid and nonassessable.

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MIPS Technologies, Inc.
955 East Arques Avenue
Sunnyvale, California 94085
December 8, 2009

We consent to the use of this opinion as an exhibit to the Registration Statement and further consent to all references to us, if any, in the Registration Statement, the Prospectus constituting a part thereof and any amendments thereto. This opinion is intended solely for use in connection with issuance and sale of Stock subject to the Registration Statement and is not to be relied upon for any other purpose. We assume no obligation to advise you of any fact, circumstance, event or change in the law or the facts that may hereafter be brought to our attention whether or not such occurrence would affect or modify the opinions expressed herein.

Very truly yours,

FENWICK & WEST LLP

By: /s/ DANIEL J. WINNIKE
Daniel J. Winnike, a Partner

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8) of MIPS Technologies, Inc. pertaining to the MIPS Technologies, Inc. Amended and Restated Employee Stock Purchase Plan of our reports dated September 14, 2009, with respect to the consolidated financial statements and schedule of MIPS Technologies, Inc. and the effectiveness of internal control over financial reporting of MIPS Technologies, Inc., included in its Annual Report (Form 10-K) for the year ended June 30, 2009, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Palo Alto, California
December 4, 2009