

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13D
(Rule 13d-2-101)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO RULE 13d-1(a) AND AMENDMENTS THERETO FILED
PURSUANT TO RULE 13d-2(a)

(Amendment No. __)¹

GSI Technology, Inc.
(Name of Issuer)

Class A Common Stock
(Title of Class of Securities)

36241U106
(CUSIP Number)

Riley Investment Management LLC
Attn: Bryant R. Riley
11100 Santa Monica Blvd.
Suite 810
Los Angeles, CA 90025
(310) 966-1445

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

September 23, 2008
(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition which is the subject of this Schedule 13D, and is filing this schedule because of Rule 13d-1(b)(3) or (4), check the following box:

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7(b) for other parties to whom copies are to be sent.

(Continued on following pages)

¹ The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

- 1** NAME OF REPORTING PERSON
SS. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON
Riley Investment Partners Master Fund, L.P.
- 2** CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*
(a)
(b)
- 3** SEC USE ONLY
- 4** SOURCE OF FUNDS*
WC
- 5** CHECK BOX OF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)
- 6** CITIZENSHIP OR PLACE OF ORGANIZATION
Cayman Islands
- | | | |
|--|--|--|
| | 7 | SOLE VOTING POWER
120,202 |
| NUMBER OF
SHARES
BENEFICIALLY
OWNED BY EACH
REPORTING
PERSON WITH | 8 | SHARED VOTING POWER
-0- |
| | 9 | SOLE DISPOSITIVE POWER
120,202 |
| | 10 | SHARED DISPOSITIVE POWER
-0- |
| | 11 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
120,202¹ |
| 12 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN
SHARES* <input type="checkbox"/> | |
| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)
0.4%¹ | |
| 14 | TYPE OF REPORTING PERSON*
PN | |

¹ Based on 28,065,504 shares of Common Stock ("Common Stock") of GSI Technology, Inc. (the "Issuer") outstanding at July 31, 2008, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2008 filed with the Securities and Exchange Commission on August 8, 2008.

- 1** NAME OF REPORTING PERSON
SS. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON
Riley Investment Management LLC
- 2** CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*
(a)
(b)
- 3** SEC USE ONLY
- 4** SOURCE OF FUNDS*
AF
- 5** CHECK BOX OF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)
- 6** CITIZENSHIP OR PLACE OF ORGANIZATION
Delaware
- | | | |
|--|-----------|--|
| | 7 | SOLE VOTING POWER
223,628² |
| NUMBER OF
SHARES
BENEFICIALLY
OWNED BY EACH
REPORTING
PERSON WITH | 8 | SHARED VOTING POWER
1,168,404³ |
| | 9 | SOLE DISPOSITIVE POWER
223,628² |
| | 10 | SHARED DISPOSITIVE POWER
1,168,404³ |
- 11** AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
1,384,232³
- 12** CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES*
- 13** PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)
4.9%¹
- 14** TYPE OF REPORTING PERSON*
IA

² Because Riley Investment Management LLC has sole investment and voting power over 120,202 shares of Common Stock held by Riley Investment Partners Master Fund, L.P. and 103,426 shares held in managed accounts by its investment advisory clients, Riley Investment Management LLC may be deemed to have beneficial ownership of these shares.

³ Riley Investment Management LLC has shared voting and dispositive power over 1,168,404 shares of Common Stock held by its investment advisory clients, 1,160,604 of which are held in accounts indirectly affiliated with Mr. Riley or Riley Investment Partners Master Fund, L.P. However, Riley Investment Management LLC disclaims beneficial ownership of the non-affiliated shares.

- 1** NAME OF REPORTING PERSON
SS. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON
B. Riley & Co. Retirement Trust
- 2** CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*
(a)
(b)
- 3** SEC USE ONLY
- 4** SOURCE OF FUNDS*
WC
- 5** CHECK BOX OF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)
- 6** CITIZENSHIP OR PLACE OF ORGANIZATION
United States
- | | | |
|--|-----------|---|
| | 7 | SOLE VOTING POWER
10,000 |
| NUMBER OF
SHARES
BENEFICIALLY
OWNED BY EACH
REPORTING
PERSON WITH | 8 | SHARED VOTING POWER
-0- |
| | 9 | SOLE DISPOSITIVE POWER
10,000 |
| | 10 | SHARED DISPOSITIVE POWER
-0- |
- 11** AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
10,000
- 12** CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES*
- 13** PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)
0.0%¹
- 14** TYPE OF REPORTING PERSON*
EP

- 1** NAME OF REPORTING PERSON
SS. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON
B. Riley & Co., LLC
- 2** CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*
(a)
(b)
- 3** SEC USE ONLY
- 4** SOURCE OF FUNDS*
WC
- 5** CHECK BOX OF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)
- 6** CITIZENSHIP OR PLACE OF ORGANIZATION
Delaware
- | | | |
|--|-----------|--|
| | 7 | SOLE VOTING POWER
-0- |
| NUMBER OF
SHARES
BENEFICIALLY
OWNED BY EACH
REPORTING
PERSON WITH | 8 | SHARED VOTING POWER
5,730 ⁴ |
| | 9 | SOLE DISPOSITIVE POWER
-0- |
| | 10 | SHARED DISPOSITIVE POWER
5,730 ⁴ |
- 11** AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
5,730⁴
- 12** CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES*
- 13** PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)
0.0%¹
- 14** TYPE OF REPORTING PERSON*
BD

⁴ B. Riley & Co., LLC has shared voting and dispositive power over 5,730 shares of Common Stock held by a managed account, with which it is indirectly affiliated.

- 1** NAME OF REPORTING PERSON
SS. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON
Bryant R. Riley
- 2** CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*
(a)
(b)
- 3** SEC USE ONLY
- 4** SOURCE OF FUNDS*
AF, WC
- 5** CHECK BOX OF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)
- 6** CITIZENSHIP OR PLACE OF ORGANIZATION
United States
- | | | |
|--|-----------|--|
| | 7 | SOLE VOTING POWER
233,628⁵ |
| NUMBER OF
SHARES
BENEFICIALLY
OWNED BY EACH
REPORTING
PERSON WITH | 8 | SHARED VOTING POWER
1,174,134⁶ |
| | 9 | SOLE DISPOSITIVE POWER
233,628⁵ |
| | 10 | SHARED DISPOSITIVE POWER
1,174,134⁶ |
- 11** AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
1,399,962⁶
- 12** CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES*
- 13** PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)
5.0%¹
- 14** TYPE OF REPORTING PERSON*
IN

⁵ Because Riley Investment Management LLC has sole voting and investment power over Riley Investment Partners Master Fund, L.P.'s security holdings and certain managed accounts of its investment advisory clients and Mr. Riley, in his role as the sole manager of Riley Investment Management LLC, controls its voting and investment decisions, Mr. Riley may be deemed to have beneficial ownership of the 120,202 shares of Common Stock held by Riley Investment Partners Master Fund, L.P. and 103,426 shares held in managed accounts by its investment advisory clients. Includes 10,000 shares held by the B. Riley & Co. Retirement Trust, of which Mr. Riley is the trustee.

⁶ Riley Investment Management LLC has shared voting and dispositive power over 1,168,404 shares of Common Stock held by its investment advisory clients, 1,160,604 of which are held in accounts indirectly affiliated with Mr. Riley or Riley Investment Partners Master Fund, L.P. Although Mr. Riley controls Riley Investment Management LLC's voting and investment decisions for its investment advisory clients, Mr. Riley disclaims beneficial ownership of the non-affiliated shares. B. Riley & Co., LLC has shared voting and dispositive power over 5,730 shares of Common Stock held by a managed account, with which it is indirectly affiliated. Mr. Riley is the Chairman and indirect sole equity holder of B. Riley & Co., LLC.

Item 1. Security and Issuer

Common Stock ("Common Stock") of GSI Technology, Inc. (the "Issuer")
2360 Owen Street
Santa Clara, California 95054

Item 2. Identity and Background

- (a) (i) Riley Investment Partners Master Fund, L.P. (Cayman Islands limited partnership)
Riley Investment Management LLC (Delaware limited liability company)
Mr. Bryant R. Riley (individual residing in California)
- (ii) B. Riley & Co. Retirement Trust (employee benefit plan)
B. Riley & Co., LLC (Delaware limited liability company)
- (b) (i) 11100 Santa Monica Blvd.
Suite 810
Los Angeles, CA 90025
- (ii) 11100 Santa Monica Blvd.
Suite 810
Los Angeles, CA 90025
- (c) Mr. Riley manages and owns all of the outstanding membership interests of Riley Investment Management LLC ("RIM"), an SEC registered investment adviser. RIM is the investment adviser to and general partner of Riley Investment Partners Master Fund, L.P. ("RIP"). RIM is the investment advisor to other clients pursuant to investment advisory agreements. Mr. Riley is the trustee of the B. Riley & Co. Retirement Trust ("BRCRT"). Mr. Riley is the sole indirect equity holder and Chairman of B. Riley & Co., LLC ("BRC"). BRC an investment advisor to a client pursuant to an investment advisory agreement.
- (d) N/A
- (e) N/A
- (f) United States

Item 3. Source or Amount of Funds or Other Consideration

The source of funding for the purchase of Common Stock was the general working capital of the respective purchasers. Some of the shares are held in margin accounts together with other securities, and part of the purchase price of such shares may have been purchased through margin borrowing.

Item 4. Purpose of the Transaction

The Reporting Persons acquired Issuer's securities reported on this Schedule 13D because they believed such securities represented an attractive investment.

On September 26, 2008, RIM sent a letter to the Issuer's Board of Directors. In the letter, among other things, RIM stated its belief that long-term shareholder value would be best enhanced through share purchases, given the Issuer's low valuation and minimal capital expenditure needs. RIM asked that the Issuer implement a stock buyback as expeditiously as possible. The foregoing description of the letter is qualified in its entirety by Exhibit A.

The Reporting Persons may, from time to time, evaluate various other alternatives that they might consider in order to influence the performance of the Issuer and the activities of its Board of Directors. Depending on various factors, the Reporting Persons may take such actions as they deem appropriate including, without limitation, engaging in discussions with management and the Board of Directors of the Issuer, communicating with other stockholders, making proposals to the Issuer concerning the capitalization and operations of the Issuer, seeking representation on the Board of Directors, purchasing additional shares of Common Stock or selling some or all of their shares of Common Stock or seeking to make a significant equity investment or to otherwise acquire the Issuer.

The Reporting Persons may determine to change their investment intent with respect to the Issuer in the future. The Reporting Persons intend to vote their respective shares of Common Stock individually as each Reporting Person deems appropriate from time to time. In determining whether to sell or retain their shares of Common Stock, the applicable Reporting Person will take into consideration such factors as it deems relevant, including without limitation Issuer's business and prospects, anticipated future developments, existing and anticipated market conditions, general economic conditions, and other opportunities available to the Reporting Person. The Reporting Persons reserve the right to acquire securities of the Issuer in the open market, in privately negotiated transactions, or otherwise, to dispose of all or a portion of its holdings in Issuer's securities, or to change their intention with respect to any or all of the matters referred to in this Item 4.

Item 5. Interest in Securities of the Issuer

- (a) With respect to each Reporting Person, see the response set forth in Rows 11 and 13, including the footnotes thereto.
- (b) See Item 5(a) and, with respect to each Reporting Person, the responses to Rows 7 through 10 set forth for such Reporting Person on the cover pages hereto.
- (c) In the ordinary course of business, BRC effects transactions in connection with its ordinary course market making activities, as well as for customer transactions. The transactions effected by the other Reporting Persons in Common Stock that have taken place in the past 60 days are set forth on Exhibit B.
- (d) RIM's advisory clients are entitled to any dividends or proceeds paid with respect to stock held by such persons. The holder of the account managed by BRC is entitled to any dividends or proceeds paid with respect to stock held by such account.
- (e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer

The relationships between Mr. Riley, RIM, RIP, BRC and BRCRT are described above under Item 2(c) above. The relationship between RIM and BRC and other investment advisory clients is described under Item 2(c) above.

Item 7. Material to be filed as Exhibits

Exhibit A. Letter, dated as of September 26, 2008, from Riley Investment Management LLC to the Issuer

Exhibit B. Certain Transactions in Common Stock

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: September 26, 2008

Riley Investment Partners Master Fund, L.P.
By: Riley Investment Management LLC, its General Partner

By: /s/ Bryant R. Riley

Bryant R. Riley, Managing Member

Riley Investment Management LLC

By: /s/ Bryant R. Riley

Bryant R. Riley, Managing Member

B. Riley & Co., LLC

By: /s/ Bryant R. Riley

Bryant R. Riley, Chairman

B. Riley & Co. Retirement Trust

By: /s/ Bryant R. Riley

Bryant R. Riley, Trustee

By: /s/ Bryant R. Riley

Bryant R. Riley

Exhibit A

Letter, dated as of September 26, 2008, from Riley Investment Management LLC to the Issuer

Riley Investment Management, LLC

11100 Santa Monica Boulevard, Suite 810, Los Angeles, CA 90025
Phone (310) 966-1445 Fax (310) 966-1096
www.rileyim.com

September 26, 2008

Board of Directors
GSI Technology Inc.
2360 Owen Street
Santa Clara, CA 95054

Gentlemen:

As you may be aware, Riley Investment Management and its affiliated entities own over 5 percent of GSI Technology. While we are pleased with both the financial performance of the company - consistent profitability over the past 5 years as well as its positive cash generation – as well as prudent decision making on the part of management, we feel strongly that long-term shareholder value will best be enhanced through share repurchases. With over \$59 million in cash and long-term investments as of June 30, 2008, the current enterprise value of GSI is only \$40 million. This absurdly low valuation of under 3.5 times annualized June quarter net income and 2.5 times annualized June quarter EBITDA should be a major concern for the Board of Directors. Accordingly, we believe the company should move aggressively to implement a large share repurchase.

Unfortunately, much of the fundamental success that GSI has enjoyed has been ignored by Wall Street. More specifically, GSI's June 30th financial results were highlighted by \$4.3 million in pre-tax income, \$3 million in net income and a 23% operating margin. We believe that GSI is being inappropriately grouped with commodity memory manufacturers despite its mid 40% gross margins, insignificant inventory write-offs, and consistent profitability.

Additionally, since the company has minimal capital expenditure needs, we believe that shareholders would best be rewarded through share repurchases at current valuations. For example, a repurchase of 10% of GSI's outstanding shares at \$4.5 per share would use \$12.6 million in cash. On this \$12.6 million, shareholders are currently earning an after tax return of approximately \$190,000. 10 percent accretion off of annualized June quarter net income of \$12 million would result in a \$1.2 million economic gain to investors, or almost 6 times our current after tax return of \$190,000 on the same capital.

With a compelling product roadmap, significant earnings leverage and robust cash resources now is the time to take advantage of GSI's depressed share price by retiring outstanding shares and benefiting all shareholders. We ask that you implement a stock buyback as expeditiously as possible. We would welcome the opportunity to discuss this more in detail with management or the Board of Directors.

Very truly yours,

Bryant Riley
Managing Member
Riley Investment Management LLC

Exhibit B
Certain Transactions in Common Stock

	Trans Code	Quantity	Price	Trade Date
BRCRT	BY	10,000	3.61	9/16/2008
RIP	BY	7,500	3.9	7/31/2008
	BY	31,800	3.63	8/13/2008
	BY	1,094	3.7	8/27/2008
	BY	2,125	3.7	9/3/2008
	BY	16,862	3.7712	9/4/2008
	BY	2,500	3.61	9/12/2008
	BY	10,000	3.49	9/15/2008
	BY	5,000	3.53	9/17/2008
	BY	5,000	3.64	9/18/2008
	BY	5,700	3.6193	9/19/2008
	BY	10,571	3.4071	9/23/2008
	BY	250	3.65	9/24/2008
Investment Advisory Clients	BY	15,000	3.9679	8/1/2008
	BY	85,000	3.9679	8/1/2008
	BY	120	3.7	8/4/2008
	BY	680	3.7	8/4/2008
	BY	1,185	3.6927	8/5/2008
	BY	6,715	3.6927	8/5/2008
	BY	1,200	3.6998	8/7/2008
	BY	6,802	3.6998	8/7/2008
	BY	1,245	3.6804	8/8/2008
	BY	7,053	3.6804	8/8/2008
	BY	750	3.745	8/15/2008
	BY	4,250	3.745	8/15/2008
	BY	2,910	3.75	8/18/2008
	BY	16,490	3.75	8/18/2008
	BY	4,917	3.678	8/19/2008
	BY	27,865	3.678	8/19/2008
	BY	1,865	3.6998	8/21/2008
	BY	10,572	3.6998	8/21/2008
	BY	2,800	3.8071	8/26/2008
	BY	405	3.7989	8/29/2008
	BY	2,295	3.7989	8/29/2008
	BY	5,000	3.61	9/11/2008
	BY	17	3.65	9/24/2008
	BY	348	3.65	9/24/2008
	BY	1,885	3.65	9/24/2008