NEEDHAM & CO INC Form SC 13D/A July 23, 2004

following box $/_/$.

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

SCHEDULE 13D/A AMENDMENT No. 2 (Rule 13d-101)

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

Southwall Technologies Inc.
(Name of Issuer)
COMMON STOCK, PAR VALUE \$.001 PER SHARE
(Title of Class of Securities)
844909101
(CUSIP Number)
Saul S. Cohen Proskauer Rose LLP 1585 Broadway New York, New York 10036 212-969-3000
(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)
February 20, 2004
(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 that is the subject of this Schedule 13D, and is filing this schedule because of Rule $13d-1(e)$, $13(d)-1(f)$ or $13(d)-1(g)$, check the

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 the section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

SCHEDULE 13D

	No. 844909101			Page 1 of 13		
	NAME OF REPORTING PERSONS Needham & Company, Inc. S.S. or I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (Intentionally Omitted)					
 ? .	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) /_/ (b) /X/					
3.	SEC USE ONLY					
 4.	SOURCE OF FUNDS WC					
 5.	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(D) OR 2(E) /_/					
6.	CITIZENSHIP OR P	LACE (OF ORGANIZATION			
6.			OF ORGANIZATION SOLE VOTING POWER	2,023,566		
NUMBEF BENE	U.S. R OF SHARES EFICIALLY	7.		2,023,566 0		
NUMBEF BENF OWNEI	U.S.	7.	SOLE VOTING POWER	0		
NUMBEF BENF OWNEI	U.S. R OF SHARES EFICIALLY D BY EACH TING PERSON	7. 8. 9.	SOLE VOTING POWER SHARED VOTING POWER	0 2,023,566		
NUMBEF BENE OWNEI REPORT	U.S. R OF SHARES EFICIALLY D BY EACH TING PERSON WITH AGGREGATE AMOUNT 2,023,566	7. 8 9. 10.	SOLE VOTING POWER SHARED VOTING POWER SOLE DISPOSITIVE POWER	0 2,023,566 0 ORTING PERSON		
BENE OWNEI REPORT	U.S. R OF SHARES EFICIALLY D BY EACH FING PERSON WITH AGGREGATE AMOUNT 2,023,566	7. 8. 9. 10.	SOLE VOTING POWER SHARED VOTING POWER SOLE DISPOSITIVE POWER SHARED DISPOSITIVE POWER	0 2,023,566 0 ORTING PERSON		

14.	TYPE OF REPORTING BD	NG PERSON*	
		SCHEDULE 13D	
CUSIP	No. 844909101		Page 2 of 13
1.	_	ent Partners, L.P. IDENTIFICATION NO. OF ABOVE PERS	ons
2.	CHECK THE APPROI	PRIATE BOX IF A MEMBER OF A GROU	P* (a) /_/ (b) /X/
3.	SEC USE ONLY		
4.	SOURCE OF FUNDS WC		
5.	CHECK BOX IF DI: TO ITEMS 2(D) OI	SCLOSURE OF LEGAL PROCEEDINGS IS	REQUIRED PURSUANT
6.	CITIZENSHIP OR I	PLACE OF ORGANIZATION	
		7. SOLE VOTING POWER	0
BENE	R OF SHARES	8. SHARED VOTING POWER	700 , 000
	D BY EACH TING PERSON WITH	9. SOLE DISPOSITIVE POWER	0
		10. SHARED DISPOSITIVE POWER	700,000
11.	AGGREGATE AMOUN'	BENEFICIALLY OWNED BY EACH REP	ORTING PERSON
12.	CHECK BOX IF TH	E AGGREGATE AMOUNT IN ROW (11) E	XCLUDES CERTAIN /_/

13.	PERCENT OF CLA	ASS REPRI	ESENTED BY AMOUNT IN ROW	(11)	
14.	TYPE OF REPORT	CING PER	SON*		
			SCHEDULE 13D		
CUSIP	No. 844909101			Page 3 c	of 13
1.	-	ng Growt	th Partners, L.P. FICATION NO. OF ABOVE PER	SONS	
2.	CHECK THE APPF	ROPRIATE	BOX IF A MEMBER OF A GRO	UP* (a) (b)	
3.	SEC USE ONLY				
4.	SOURCE OF FUND)S			
5.	CHECK BOX IF D		RE OF LEGAL PROCEEDINGS I	S REQUIRED PURS	GUANT /_/
6.	CITIZENSHIP OF	R PLACE (DF ORGANIZATION		
		7.	SOLE VOTING POWER	0	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		8.	SHARED VOTING POWER	300,000	
		9.	SOLE DISPOSITIVE POWER	0	
		10.	SHARED DISPOSITIVE POWE	R 300,000	
11.	AGGREGATE AMOU	JNT BENEI	FICIALLY OWNED BY EACH RE	PORTING PERSON	

12.	CHECK BOX IF SHARES*	 ГНЕ AGGR	EGATE AMOUNT IN ROW (11)	EXCLUDES CERTAIN
13.	PERCENT OF CLA	 ASS REPR	ESENTED BY AMOUNT IN ROV	
 14.	TYPE OF REPOR!	ΓING PER		
			SCHEDULE 13D	
CUSIP	No. 844909101			Page 4 of 13
1.	NAME OF REPORT Needham Control S.S. or I.R.S (Intentionally	arian Fu . IDENTI	nd, L.P. FICATION NO. OF ABOVE PE	ERSONS
2.	CHECK THE APPI	ROPRIATE	BOX IF A MEMBER OF A GR	ROUP* (a) /_/ (b) /X/
3.	SEC USE ONLY			
 4.	SOURCE OF FUNI)S		
 5.	CHECK BOX IF I		RE OF LEGAL PROCEEDINGS	IS REQUIRED PURSUANT
	CITIZENSHIP OF	R PLACE	OF ORGANIZATION	
			SOLE VOTING POWER	0
BENE	C OF SHARES SFICIALLY D BY EACH	8.	SHARED VOTING POWER	300,000
REPORT	TING PERSON WITH	9.	SOLE DISPOSITIVE POWER	
		1.0	SHARED DISPOSITIVE POW	JED 300 000

11.	AGGREGATE AMOUN	T BENEFICIALLY OWNED BY EACH	REPORTING PERSON
12.	CHECK BOX IF TH	E AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN /_/
13.	PERCENT OF CLAS	S REPRESENTED BY AMOUNT IN RO	W (11)
14.	TYPE OF REPORTI	NG PERSON*	
		SCHEDULE 13D	
CUSIP	No. 844909101		Page 5 of 13
1.		g Growth Partners (Caymans), IDENTIFICATION NO. OF ABOVE P	
2.	CHECK THE APPRO	PRIATE BOX IF A MEMBER OF A G	(a) /_/ (b) /X/
3.	SEC USE ONLY		
4.	SOURCE OF FUNDS		
5.	CHECK BOX IF DI	SCLOSURE OF LEGAL PROCEEDINGS	IS REQUIRED PURSUANT
6.	CITIZENSHIP OR U.S.	PLACE OF ORGANIZATION	
		7. SOLE VOTING POWER	0
BENI	R OF SHARES EFICIALLY	8. SHARED VOTING POWER	100,000

REPORTING PERSON WITH		9.	9. SOLE DISPOSITIVE POWER 0					
		10.	SHARED DISPOSITIVI	E POWER 100,00	00			
11.	AGGREGATE AMOUNT	BENEF	ICIALLY OWNED BY EX	ACH REPORTING I	PERSON			
12.	CHECK BOX IF THE SHARES*	E AGGRE	GATE AMOUNT IN ROW	(11) EXCLUDES	CERTAIN /_/			
13.	PERCENT OF CLASS	REPRE	SENTED BY AMOUNT II	N ROW (11)				
14.	TYPE OF REPORTIN	IG PERS	On*					
			SCHEDULE 13D					
CUSIP	No. 844909101			Pa	age 6 of 13 			
1.	NAME OF REPORTING George A. Needhas.S. or I.R.S. I	am IDENTIF	CICATION NO. OF ABOV	VE PERSONS				
2.	CHECK THE APPROF	PRIATE	BOX IF A MEMBER OF	A GROUP*	(a) /_/ (b) /X/			
3.	SEC USE ONLY							
4.	SOURCE OF FUNDS PF							
5.	CHECK BOX IF DIS		E OF LEGAL PROCEED	INGS IS REQUIRI	ED PURSUANT			
6.	CITIZENSHIP OR F	PLACE O	F ORGANIZATION					
		 7.	SOLE VOTING POWER	30,000)			

BENEFICIALLY OWNED BY EACH		8.	SHARED	VOTING PO	OWER	5,000
		9.	SOLE D	ISPOSITIV	E POWER	30,000
		10.	SHARED	DISPOSIT	IVE POWER	5,000
11.	AGGREGATE AMOUNT	BENEF:	 ICIALLY	OWNED BY	EACH REPO	RTING PERSON
12.	CHECK BOX IF THE SHARES*	AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN /X/				
13.	PERCENT OF CLASS	REPRES	SENTED	BY AMOUNT	IN ROW (1	1)
14.	TYPE OF REPORTING	G PERSO	 ON*			
			SCH	EDULE 13D		
CUSIP N	No. 844909101				_	Page 7 of 13
1.	NAME OF REPORTING Needham Capital S.S. or I.R.S. II (Intentionally	Partner DENTIF:	rs II, ICATION		BOVE PERSO	NS
2.	CHECK THE APPROP	 RIATE I	BOX IF	A MEMBER (OF A GROUP	* (a) /_/ (b) /X/
3.	SEC USE ONLY					
4.	SOURCE OF FUNDS WC					
5.	CHECK BOX IF DIS		E OF LE	GAL PROCE	 EDINGS IS	REQUIRED PURSUANT
6.	CITIZENSHIP OR P	LACE O	F ORGAN	IZATION		

		7.	SOLE VOTING POWER	0
NUMBER OF SHARES BENEFICIALLY		8.	SHARED VOTING POWER	3,206,483
REPORTI	BY EACH ING PERSON WITH	9.	SOLE DISPOSITIVE POWER	0
		10.	SHARED DISPOSITIVE POWE	
11.	AGGREGATE AMOUNT 3,206,483	BENEF	ICIALLY OWNED BY EACH RE	PORTING PERSON
12.	CHECK BOX IF THE SHARES*	AGGRE	GATE AMOUNT IN ROW (11)	/_/
13.	PERCENT OF CLASS 20.38%	REPRE	SENTED BY AMOUNT IN ROW	(11)
14.	TYPE OF REPORTING	 G PERS	ON*	
			SCHEDULE 13D	
CUSIP N	Jo. 844909101 			Page 8 of 13
1.	_	Partne DENTIF	rs II (Bermuda), L.P. ICATION NO. OF ABOVE PER	SONS
2.	CHECK THE APPROP	 RIATE	BOX IF A MEMBER OF A GRO	(a) /_/ (b) /X/
3.	SEC USE ONLY			
4.	SOURCE OF FUNDS WC			

5. CHECK BOX IF DISC TO ITEMS 2(D) OR	CLOSURE OF LEGAL PROCEEDINGS IS REQU 2(E)	JIRED PURSUANT /_/
6. CITIZENSHIP OR P. U.S.		
	7. SOLE VOTING POWER 0	
BENEFICIALLY	8. SHARED VOTING POWER 449	7, 469
OWNED BY EACH REPORTING PERSON WITH	9. SOLE DISPOSITIVE POWER 0	
	10. SHARED DISPOSITIVE POWER 449	,469
11. AGGREGATE AMOUNT 449,469	BENEFICIALLY OWNED BY EACH REPORTIN	G PERSON
12. CHECK BOX IF THE SHARES*	AGGREGATE AMOUNT IN ROW (11) EXCLUI	/_/
3.46%	REPRESENTED BY AMOUNT IN ROW (11)	
14. TYPE OF REPORTING PN	G PERSON*	
	SCHEDULE 13D	
CUSIP No. 844909101		Page 9 of 13
	Partners III, L.P. DENTIFICATION NO. OF ABOVE PERSONS	
2. CHECK THE APPROP	RIATE BOX IF A MEMBER OF A GROUP*	(a) /_/ (b) /X/
3. SEC USE ONLY		

4.	SOURCE OF FUNDS WC							
5.	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(D) OR 2(E) /_/							
6.	CITIZENSHIP OR P	ACE OF ORGANIZATION						
		7. SOLE VOTING POWER 0						
BENEF	OF SHARES ICIALLY	8. SHARED VOTING POWER 5,613,409						
REPORTI	BY EACH NG PERSON ITH	9. SOLE DISPOSITIVE POWER 0						
		10. SHARED DISPOSITIVE POWER 5,613,409						
11.	AGGREGATE AMOUNT 5,613,409	BENEFICIALLY OWNED BY EACH REPORTING PERSON						
12.	CHECK BOX IF THE SHARES*	AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN /_/						
13.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 30.94%							
14.	TYPE OF REPORTING	; person*						
		SCHEDULE 13D						
CUSIP N	o. 844909101	Page 10 of 13						
1.	NAME OF REPORTING PERSONS Needham Capital Partners IIIA L.P. S.S. or I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (Intentionally Omitted)							
2.	CHECK THE APPROP	CIATE BOX IF A MEMBER OF A GROUP* (a) /_/ (b) /X/						

3.	SEC USE ONLY							
4.	SOURCE OF FUNDS WC							
5.	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(D) OR 2(E) /_/							
6.	CITIZENSHIP OR PLACE OF ORGANIZATION U.S.							
		7.	SOLE VOTING POWER	0				
BENEF	OF SHARES ICIALLY BY EACH	8.	SHARED VOTING POWER	579,727				
REPORTI	NG PERSON ITH	9.	SOLE DISPOSITIVE POWER	0				
		10.	SHARED DISPOSITIVE POWER	579,727				
11.	AGGREGATE AMOUNT 579,727	BENEI	FICIALLY OWNED BY EACH REPO	DRTING PERSON				
12.	CHECK BOX IF THE SHARES*	AGGRI	EGATE AMOUNT IN ROW (11) EX	CLUDES CERTAIN				
13.	PERCENT OF CLASS	REPRI	ESENTED BY AMOUNT IN ROW (1	.11)				
14.	TYPE OF REPORTIN PN		SON*					
			SCHEDULE 13D					
CUSIP N	o. 844909101		-	Page 11 of 13				

1. NAME OF REPORTING PERSONS
 Needham Capital Partners III (Bermuda), L.P.
 S.S. or I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS
 (Intentionally Omitted)

2.	CHECK THE APPROPI	 RIATE	BOX IF A MEMBER OF A GROUP	(a) /_/ (b) /X/	
3.	SEC USE ONLY				
4.	SOURCE OF FUNDS WC				
5.	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(D) OR 2(E) /_/				
6.	CITIZENSHIP OR PLACE OF ORGANIZATION U.S.				
		7.	SOLE VOTING POWER	0	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		8.	SHARED VOTING POWER	1,118,769	
		9.	SOLE DISPOSITIVE POWER	0	
		10.	SHARED DISPOSITIVE POWER	1,118,769	
11.	AGGREGATE AMOUNT 1,118,769	BENEFICIALLY OWNED BY EACH REPORTING PERSON			
12.	CHECK BOX IF THE SHARES*	IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN /_/			
13.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)				
14.	TYPE OF REPORTING PERSON* PN				
			SCHEDULE 13D		
CUSIP No	o. 844909101		_	Page 12 of 13	 }

NAME OF REPORTING PERSONS Needham Capital Management L.L.C. S.S. or I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (Intentionally Omitted)		
RIATE BOX IF A MEMBER OF A GROUP* (a) /_/ (b) /X/		
SOURCE OF FUNDS WC		
CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(D) OR 2(E) /_/		
CITIZENSHIP OR PLACE OF ORGANIZATION U.S.		
7. SOLE VOTING POWER 0		
8. SHARED VOTING POWER 9,399,619		
9. SOLE DISPOSITIVE POWER 0		
10. SHARED DISPOSITIVE POWER 9,399,619		
BENEFICIALLY OWNED BY EACH REPORTING PERSON		
AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN /_/		
REPRESENTED BY AMOUNT IN ROW (11)		
G PERSON*		
SCHEDULE 13D		

	No. 844909101	P	age 13 of 13
1.	-	Management (Bermuda) L.L.C. DENTIFICATION NO. OF ABOVE PERSONS	
2.	CHECK THE APPROP	RIATE BOX IF A MEMBER OF A GROUP*	(a) /_/ (b) /X/
 3 .	SEC USE ONLY		
4.	SOURCE OF FUNDS WC		
 5 .	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(D) OR 2(E) /_/		
 6 .	CITIZENSHIP OR P	LACE OF ORGANIZATION	
		7. SOLE VOTING POWER 0	
	OF SHARES	8. SHARED VOTING POWER 1,568	 - 238
	FICIALLY	,,,,,	, 230
OWNED REPORT	FICIALLY BY EACH ING PERSON WITH	9. SOLE DISPOSITIVE POWER 0	
OWNED REPORT	BY EACH ING PERSON		
OWNED REPORT	BY EACH ING PERSON WITH	9. SOLE DISPOSITIVE POWER 0	,238 PERSON
OWNED REPORT	BY EACH ING PERSON WITH AGGREGATE AMOUNT 1,568,238	9. SOLE DISPOSITIVE POWER 0 10. SHARED DISPOSITIVE POWER 1,568	,238 PERSON
OWNED REPORT:	BY EACH ING PERSON WITH AGGREGATE AMOUNT 1,568,238 CHECK BOX IF THE SHARES*	9. SOLE DISPOSITIVE POWER 0 10. SHARED DISPOSITIVE POWER 1,568 BENEFICIALLY OWNED BY EACH REPORTING	,238 PERSON CERTAIN /_/

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PURSUANT TO RULE 13d-1 UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

ITEM 1. SECURITY AND ISSUER.

This Statement on Schedule 13D/A (this "Statement") relates to the common stock, par value \$0.001 per share (the "Common Stock"), of Southwall Technologies Inc., a Delaware corporation (the "Company"). This statement restates and amends the Schedule 13D filed by the Reporting Persons (as hereinafter defined) on March 8, 2004 and amendment No. 1 thereto filed on April 23, 2004. The principal executive offices of the Company are located at 1029 Corporation Way, Palo Alto, California 94303.

ITEM 2. IDENTITY AND BACKGROUND.

(a)-(c) and (f) This Statement is filed by Needham & Company, Inc., a Delaware corporation ("Needham & Co."), Needham Management Partners, L.P., a Delaware limited partnership ("NMP"), Needham Emerging Growth Partners, L.P., a Delaware limited partnership ("NEGP"), Needham Contrarian Fund, L.P., a Delaware limited partnership ("NCF"), Needham Emerging Growth Partners (Caymans), L.P., a Cayman Islands limited partnership ("NEGPC"), George A. Needham, a natural person who is a U.S. citizen, Needham Capital Partners II, L.P., a Delaware limited partnership ("NCPII"), Needham Capital Partners II (Bermuda), L.P., a Bermuda limited partnership ("NCPIIB"), Needham Capital Partners III, L.P, a Delaware limited partnership ("NCPIII"), Needham Capital Partners IIIA, L.P., a Delaware limited partnership ("NCPIIIA"), Needham Capital Partners III (Bermuda), L.P., a Bermuda limited partnership ("NCPIIIB"), Needham Capital Management L.L.C., a Delaware limited liability company ("NCM"), and Needham Capital Management (Bermuda) L.L.C., a Bermuda limited liability company ("NCMB"). Needham & Co., NMP, NEGP, NCF, NEGPC, George A. Needham, NCPII, NCPIIB, NCPIII, NCPIIIA, NCPIIIB, NCM and NCMB are collectively referred to in this Statement as the "Reporting Persons."

The principal business office and mailing address of the Reporting Persons is c/o Needham & Company, Inc., 445 Park Avenue, New York, New York 10022. Needham & Co. is an investment banking, securities and asset management firm. The business of NMP is serving as the general partner of NEGP, NCF and NEGPC, each of which are private investment partnerships. The business of NCM is serving as the general partner of NCPII, NCPIII and NCPIIIA, each of which are private investment partnerships. The business of NCMB is serving as the general partner of NCPIIB and NCPIIIB, each of which are private investment partnerships. The present principal occupation of George A. Needham is Chairman of the Board and Chief Executive Officer of Needham & Co. The name and principal occupation or employment of the executive officers, directors or general partners of the Reporting Persons who are corporations, limited partnerships and limited liability companies are set forth on Schedule I to this Statement.

(d) and (e) During the past five years, none of the Reporting Persons or, to the best knowledge of the Reporting Persons, any of the persons listed on Schedule I, (i) has been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors) or (ii) has been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities

subject to, Federal or State securities laws or finding any violation with respect to such laws.

ITEM 3. SOURCE AND AMOUNT OF FUNDS OR OTHER CONSIDERATION.

The Schedule 13D filed by the Reporting Person on March 8, 2004 reported the issuance by the Company to the Reporting Persons of warrants to purchase shares of Common Stock and Secured Convertible Promissory Notes ("Notes") pursuant to an Investment Agreement by and among the Company, certain of the Reporting Persons and Dolphin Direct Equity Partners, L.P., (collectively, the "Investor Parties"), which agreement was subsequently amended and restated, as more fully described in the Schedule 13D (the "Investment Agreement"). The Schedule 13D amendment No. 1 filed by the Reporting Persons on April 23, 2004 ("Amendment No. 1") reported the issuance of additional warrants by the Company to Needham & Co. pursuant to Section 4.14 of the Investment Agreement, which provides anti-dilution protections to the Investor Parties. This amendment No. 2 to the Schedule 13D of the Reporting Persons discloses that the Company has reissued and replaced warrants it issued to certain of the Reporting Persons pursuant to the Investment Agreement, which warrants were reported in the Schedule 13D filed by the Reporting Persons on March 8, 2004. The Company reissued and replaced the following warrants, each dated February 20, 2004, to purchase share of Common Stock at an exercise price of \$0.01 per share because the Company determined upon a recalculation of the application of the anti-dilution protections of Section 4.14 of the Investment Agreement that such Reported Persons were entitled to warrants for a smaller amount of shares of Common Stock than set forth in the original warrants: (i) the Company replaced a warrant issued to NCPII for 2,435,348 shares of Common Stock with a warrant for 2,329,425 shares of Common Stock, (ii) the Company replaced a warrant issued to NCPIIB for 341,375 shares of Common Stock with a warrant for 326,527 shares of Common Stock, (iii) the Company replaced a warrant issued to NCPIII for 4,263,427 shares of Common Stock with a warrant for 4,077,993 shares of Common Stock, (iv) the Company replaced a warrant issued to NCPIIIA for 440,307 shares of Common Stock with a warrant for 421,156 shares of Common Stock, and (v) the Company replaced a warrant issued to NCPIIIB for 849,714 shares of Common Stock with a warrant for 812,756 shares of Common Stock. The Company also documented the issuance of warrants to Needham & Co. disclosed in Amendment No. 1 by issuing a warrant dated February 20, 2004 to purchase 31,679 shares of Common Stock at an exercise price of \$0.01 per share, which share amount represents the portion of warrants Needham & Co. was entitled to retain pursuant to its agreement with Dolphin Direct Equity Partners, L.P. relating to Needham & Co.'s loan quaranty in favor of the Company disclosed in Amendment No.

ITEM 4. PURPOSE OF TRANSACTION.

The Investment Agreement pursuant to which the warrants were issued to Needham & Co. is described in the Schedule 13D filed by the Reporting Persons on March 8, 2003.

Other than as specified in this Item 4, the Reporting Persons have no plans or proposals which relate to or which would result in or relate to any of the actions specified in paragraphs (a) through (j) of Item 4 of Schedule 13D.

ITEM 5. INTEREST IN SECURITIES OF THE ISSUER.

(a) (1) Needham & Co. owns of record and beneficially 737,067 shares of Common Stock and the warrants described in item 3 above, which are immediately exercisable for an aggregate of 1,286,499 shares of Common Stock. Assuming the

full exercise of the warrants, Needham & Co. would own of record 2,023,566 shares of Common Stock, which would constitute 13.9% of the issued and outstanding Common Stock.

- (2) NEGP owns of record and beneficially 300,000 shares of Common Stock, which constitutes 2.39% of the issued and outstanding Common Stock.
- (3) NCF owns of record and beneficially 300,000 shares of Common Stock, which constitutes 2.39% of the issued and outstanding Common Stock.
- (4) NEGPC owns of record and beneficially 100,000 shares of Common Stock, which constitutes 0.80% of the issued and outstanding Common Stock.
- (5) NMP may be deemed to own beneficially the aggregate amount of 700,000 shares of Common Stock owned by NEGP, NCF and NEGPC by virtue of its position as general partner of those Reporting Persons, which amount constitutes 5.58% of the issued and outstanding Common Stock. NMP disclaims beneficial ownership of all of the reported shares of Common Stock owned by NEGP, NCF and NEGPC, and the inclusion of these shares of Common Stock in this report shall not be deemed an admission by it of beneficial ownership of such shares for any purpose.
- (6) George A. Needham owns of record and beneficially 30,000 shares of Common Stock. He also may be deemed to beneficially own (i) the shares of Common Stock and the warrants owned by Needham & Co. by virtue of his position in and share ownership of Needham & Co., (ii) the shares of Common Stock owned by NEGP, NCF and NEGPC by virtue of his position as general partner of NMP, the general partner of NEGP, NCF and NEGPC, (iii) the Notes and warrants owned by NCPII, NCPIII and NCPIIIA by virtue of his position as a manager of NCM, the general partner of NCPII, NCPIII and NCPIIIA, (iv) the Notes and warrants owned by NCPIIB and NCPIIIB by virtue of his position as a manager of NCMB, and (v) 5,000 shares of Common Stock owned by family members of Mr. Needham. The aggregate amount of shares of Common Stock owned by Mr. Needham and his family members is 35,000, which constitutes 0.28% of the issued and

outstanding shares of Common Stock. Mr. Needham disclaims beneficial ownership of all of the reported shares of Common Stock and the warrants, except the shares of Common Stock he owns of record, and the inclusion of these shares in this report shall not be deemed an admission by him of beneficial ownership for any purpose.

- (7) NCPII owns of record and beneficially (i) a Note in the principal amount of \$877,058, which is convertible to 877,058 shares of Preferred Stock, which in turn is convertible to 877,058 shares of Common Stock, subject to adjustments applicable to the Note and Preferred Stock, and (ii) a warrant which is exercisable for 2,329,425 shares of Common Stock. Assuming full conversion of the Note and full exercise of the warrant, NCPII would own of record 3,206,483 shares of Common Stock, which would constitute 20.38% of the issued and outstanding Common Stock.
- (8) NCPIIB owns of record and beneficially (i) a Note in the principal amount of \$122,942, which is convertible to 122,942 shares of Preferred Stock, which in turn is convertible to 122,942 shares of Common Stock, subject to adjustments applicable to the Note and Preferred Stock, and (ii) a warrant which is exercisable for 326,527 shares of Common Stock. Assuming full conversion of the Note and full exercise of the warrant, NCPIIB would own of record 449,469 shares of Common Stock, which would constitute 3.46% of the issued and outstanding Common Stock.

- (9) NCPIII owns of record and beneficially (i) a Note in the principal amount of \$1,535,416, which is convertible to 1,535,416 shares of Preferred Stock, which in turn is convertible to 1,535,416 shares of Common Stock, subject to adjustments applicable to the Note and Preferred Stock, and (ii) a warrant which is exercisable for 4,077,993 shares of Common Stock. Assuming full conversion of the Note and full exercise of the warrant, NCPIII would own of record 5,613,409 shares of Common Stock, which would constitute 30.94% of the issued and outstanding Common Stock.
- (10) NCPIIIA owns of record and beneficially (i) a Note in the principal amount of \$158,571, which is convertible to 158,571 shares of Preferred Stock, which in turn is convertible to 158,571 shares of Common Stock, subject to adjustments applicable to the Note and Preferred Stock, and (ii) a warrant which is exercisable for 421,156 shares of Common Stock. Assuming full conversion of the Note and full exercise of the warrant, NCPIIIA would own of record 579,727 shares of Common Stock, which would constitute 4.42% of the issued and outstanding Common Stock.
- (11) NCPIIIB owns of record and beneficially (i) a Note in the principal amount of \$306,013, which is convertible to 306,013 shares of Preferred Stock, which in turn is convertible to 306,013 shares of Common Stock, subject to adjustments applicable to the Note and Preferred Stock, and (ii) a warrant which is exercisable for 812,756 shares of Common Stock. Assuming full conversion of the Note and full exercise of the warrant, NCPIIIB would own of record 1,118,769 shares of Common Stock, which would constitute 8.2% of the issued and outstanding Common Stock.
- (12) NCM may be deemed to own beneficially the Notes and warrants owned by NCPII, NCPIII and NCPIIIA by virtue of its position as general partner of those Reporting

Persons, and accordingly may be deemed to beneficially own the 9,399,619 shares of Common Stock underlying those convertible securities, which amount constitute 42.87% of the issued and outstanding Common Stock. NCM disclaims beneficial ownership of all of the reported shares of Common Stock underlying the Notes and warrants owned by NCPII, NCPIII and NCPIIIA, and the inclusion of these shares of Common Stock in this report shall not be deemed an admission by it of beneficial ownership of such shares for any purpose.

- (13) NCMB may be deemed to own beneficially the Notes and warrants owned by NCPIIB and NCPIIIB by virtue of its position as general partner of those Reporting Persons, and accordingly may be deemed to beneficially own the 1,568,238 shares of Common Stock underlying those convertible securities, which amount constitute 11.13% of the issued and outstanding Common Stock. NCMB disclaims beneficial ownership of all of the reported shares of Common Stock underlying the Notes and warrants owned by NCPIIB and NCPIIIB, and the inclusion of these shares of Common Stock in this report shall not be deemed an admission by it of beneficial ownership of such shares for any purpose.
- (b) Needham & Co. has the sole power to direct the vote and disposition of 737,067 shares of Common Stock directly owned by it, and, assuming the exercise of the warrants in full, Needham & Co. will have the sole power to direct the vote and disposition of an additional 1,286,499 shares of Common Stock issuable upon the exercise of the warrants. NMP, the general partner of NEGP, and NEGP have shared power to direct the vote and disposition of 300,000 shares of Common Stock directly owned by NEGP. NMP, the general partner of NCF, and NCF have shared power to direct the vote and disposition of 300,000 shares of Common Stock directly owned by NCF. NMP, the general partner of NEGPC, and

NEGPC have shared power to direct the vote and disposition of 100,000 shares of Common Stock directly owned by NEGPC. NCM, the general partner of NCPII, and NCPII have shared power to direct the vote and disposition of 3,206,483 shares of Common Stock issuable upon the conversion of the Note (assuming the simultaneous conversion of the shares of Series A Preferred Stock underlying the Note into shares of Common Stock) and the exercise of the warrant owned by NCPII. NCMB, the general partner of NCPIIB, and NCPIIB have shared power to direct the vote and disposition of 449,469 shares of Common Stock issuable upon the conversion of the Note (assuming the simultaneous conversion of the shares of Series A Preferred Stock underlying the Note into shares of Common Stock) and the exercise of the warrant owned by NCPIIB. NCM, the general partner of NCPIII, and NCPIII have shared power to direct the vote and disposition of 5,613,409 shares of Common Stock issuable upon the conversion of the Note (assuming the simultaneous conversion of the shares of Series A Preferred Stock underlying the Note into shares of Common Stock) and the exercise of the warrant owned by NCPIII. NCM, the general partner of NCPIIIA, and NCPIIIA have shared power to direct the vote and disposition of 579,727 shares of Common Stock issuable upon the conversion of the Note (assuming the simultaneous conversion of the shares of Series A Preferred Stock underlying the Note into shares of Common Stock) and the exercise of the warrant owned by NCPIIIA. NCMB, the general partner of NCPIIIB, and NCPIIIB have shared power to direct the vote and disposition of 1,118,769 shares of Common Stock issuable upon the conversion of the Note (assuming the simultaneous conversion of the shares of Series A Preferred Stock underlying the Note into shares of Common Stock) and the exercise of the Warrant owned by NCPIIIB. George A. Needham has the sole power to direct the vote and disposition of

30,000 shares of Common Stock directly owned by him. Mr. Needham has shared power to direct the vote of 5,000 shares of Common Stock owned directly by members of his immediate family. George A. Needham may be deemed to have shared power to direct the vote and disposition of (i) the shares of Common Stock owned by Needham & Co., and the shares of Common Stock issuable upon exercise of the warrants owned by Needham & Co., by virtue of his position in and share ownership of Needham & Co., (ii) the shares of Common Stock owned directly by NEGP, NCF and NEGPC because he serves as managing general partner of NMP, the general partner of NEGP, NCF and NEGPC, (iii) the shares of Common Stock issuable upon the conversion of the Notes (assuming the simultaneous conversion of the shares of Series A Preferred Stock underlying the Notes into shares of Common Stock) and the exercise of the warrants owned directly by NCPII, NCPIII and NCPIIIA because he serves as a manager of NCM, the general partner of NCPII, NCPIII and NCPIIIA, and (iv) the shares of Common Stock issuable upon the conversion of the Notes (assuming the simultaneous conversion of the shares of Series A Preferred Stock underlying the Notes into shares of Common Stock) and the exercise of the warrants owned directly by NCPIIB and NCPIIIB because he serves as a manager of NCMB, the general partner of NCPIIB and NCPIIIB. Mr. Needham disclaims beneficial ownership of the shares of Common Stock owned by Needham & Co., NEGP, NCF, NEGPC, NCPII, NCPIIB, NCPIII, NCPIIIA

- (c) Except as noted above, the Reporting Persons did not effect any transactions in the securities of the Company during the past 60 days.
 - (d) and (e) Not applicable.

ITEM 6. CONTRACTS, ARRANGEMENTS, UNDERSTANDINGS OR RELATIONSHIPS WITH RESPECT TO SECURITIES OF THE ISSUER.

Other than as described in Item 4 above, to the knowledge of the Reporting Persons, there are no contracts, arrangements, understandings or

relationships (legal or otherwise) among the persons named in Item 2 with respect to any securities of the Company.

ITEM 7. MATERIAL TO BE FILED AS EXHIBITS.

1. Joint Filing Agreement

SIGNATURE

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

Dated: July 21, 2004

NEEDHAM & COMPANY, INC.

By: /s/ Glen W. Albanese

Name: Glen W. Albanese

Title: Chief Financial Officer

/s/ George A. Needham

George A. Needham

NEEDHAM EMERGING GROWTH PARTNERS, L.P.

By: Needham Management Partners, L.P.,
 its general partner

By: /s/ Glen W. Albanese

Name: Glen W. Albanese Title: General Partner

NEEDHAM CONTRARIAN FUND, L.P.

By: Needham Management Partners, L.P.,
 its general partner

By: /s/ Glen W. Albanese

Name: Glen W. Albanese
Title: General Partner

NEEDHAM EMERGING GROWTH PARTNERS (CAYMANS), L.P.

By: Needham Management Partners, L.P.,
 its general partner

By: /s/ Glen W. Albanese

Name: Glen W. Albanese Title: General Partner

NEEDHAM MANAGEMENT PARTNERS, L.P.

By: /s/ Glen W. Albanese

Name: Glen W. Albanese Title: General Partner

NEEDHAM CAPITAL PARTNERS II, L.P.

By: Needham Capital Management L.L.C., its general partner

By: /s/ Glen W. Albanese

Name: Glen W. Albanese

Title: Member

NEEDHAM CAPITAL PARTNERS II (BERMUDA), L.P.

By: Needham Capital Management (Bermuda) L.L.C., its general partner

By: /s/ Glen W. Albanese

_____ Name: Glen W. Albanese Title: Member NEEDHAM CAPITAL PARTNERS III, L.P. By: Needham Capital Management L.L.C., its general partner By: /s/ Glen W. Albanese Name: Glen W. Albanese Title: Member NEEDHAM CAPITAL PARTNERS IIIA, L.P. By: Needham Capital Management L.L.C., its general partner By: /s/ Glen W. Albanese _____ Name: Glen W. Albanese Title: Member NEEDHAM CAPITAL PARTNERS III (BERMUDA), L.P. By: Needham Capital Management (Bermuda) L.L.C., its general partner By: /s/ Glen W. Albanese _____ Name: Glen W. Albanese Title: Member NEEDHAM CAPITAL MANAGEMENT, L.L.C.

By: /s/ Glen W. Albanese

Name: Glen W. Albanese

Title: Member

NEEDHAM CAPITAL MANAGEMENT (BERMUDA), L.L.C.

By: /s/ Glen W. Albanese

Name: Glen W. Albanese

Title: Member

SCHEDULE I

EXECUTIVE OFFICERS AND DIRECTORS OF NEEDHAM & Company, Inc.

NAME OF OFFICER OR DIRECTOR	BUSINESS ADDRESS	PRINCIPAL EMPLOYMENT/O NEEDHAM & COMPANY
George A. Needham	c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	Chairman of the Board
John C. Michaelson	c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	President of Needham
John J. Prior, Jr.	c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	Managing Director, Co
Chad W. Keck	c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	Managing Director, Co
Warren M. Foss	c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	Managing Director, In
Vincent J. Keney	c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	Managing Director, OT
Theodor J. Kundtz	c/o Needham & Company, Inc.	Managing Director, Eq

445 Park Avenue

New York, New York 10022

Glen W. Albanese	c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	Managing Director, Ch
Andre R. Horn	c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	Chairman Emeritus
Edgar F. Heizer, Jr.	c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	Director Chairman of the Board
Eugene R. White	c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	Director
Joseph H. Reich	c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	Director Managing General Part

SCHEDULE I

Needham Management Partners, L.P. is the sole general partner of:

(a) Needham Emerging Growth Partners, L.P., (b) Needham Contrarian Fund, L.P., and (c) Needham Emerging Growth Partners (Caymans), L.P. Needham Capital Management L.L.C. is the sole general partner of (a) Needham Capital Partners II, L.P., (b) Needham Capital Partners III, L.P. and (c) Needham Capital Partners IIIA, L.P. Needham Capital Management (Bermuda) L.L.C. is the sole general partner of (a) Needham Capital Partners II (Bermuda), L.P. and (b) Needham Capital Partners III (Bermuda), L.P.

The general partners of Needham Management Partners, L.P. are:

NAME OF OFFICER OR DIRECTOR	BUSINESS ADDRESS	PRINCIPAL EMPLOY NEEDHAM &
George A. Needham	c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	Chairman of the Board
John C. Michaelson	c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	President of Needham F
Jane K. Kloppenburg	c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	Managing Director, Por
Glen W. Albanese	c/o Needham & Company, Inc. 445 Park Avenue	Managing Director, Chi

New York, New York 10022

The managing members of Needham Capital Management L.L.C. are:

NAME OF OFFICER OR DIRECTOR	BUSINESS ADDRESS	PRINCIPAL EMPLOYME NEEDHAM & C
George A. Needham	c/o Needham & Company, Inc. 445 Park Avenue	Chairman of the Board
John C. Michaelson	New York, New York 10022 c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	President of Needham
John J. Prior, Jr.	c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	Managing Director, Co
Thomas P. Shanahan	c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	Managing Director, Ne

The managing members of Needham Capital Management (Bermuda) L.L.C. are:

NAME OF OFFICER OR DIRECTOR	BUSINESS ADDRESS	PRINCIPAL EMPLOYMEN NEEDHAM & C
Glen W. Albanese	c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	Managing Director, Ch
George A. Needham	c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	Chairman of the Board
John C. Michaelson	c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	President of Needham
John J. Prior, Jr.	c/o Needham & Company, Inc. 445 Park Avenue New York, New York 10022	Managing Director, Co
Thomas P. Shanahan	c/o Needham & Company, Inc. 445 Park Avenue	Managing Director, Ne

New York, New York 10022

Glen W. Albanese

c/o Needham & Company, Inc.
445 Park Avenue
New York, New York 10022

Managing Director, Ch

EXHIBIT 1

JOINT FILING AGREEMENT

In accordance with Rule 13d-1(f) promulgated under the Securities Exchange Act of 1934, as amended, the undersigned hereby agree to the joint filing with all other Reporting Persons (as such term is defined in the Schedule 13D referred to below) on behalf of each of them of a statement on Schedule 13D (including amendments thereto) with respect to the common shares of beneficial interest, par value \$.001 per share, of Southwall Technologies Inc., a Delaware corporation, and that this Agreement may be included as an Exhibit to such joint filing. This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the undersigned hereby execute this Agreement as of the 21st day of July, 2004.

NEEDHAM & COMPANY, INC.

By: /s/ Glen W. Albanese

Name: Glen W. Albanese

Title: Chief Financial Officer

/s/ George A. Needham

George A. Needham

NEEDHAM EMERGING GROWTH PARTNERS, L.P.

By: Needham Management Partners, L.P.,
 its general partner

By: /s/ Glen W. Albanese

Name: Glen W. Albanese Title: General Partner

NEEDHAM CONTRARIAN FUND, L.P.

By: Needham Management Partners, L.P.,
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By: /s/ Glen W. Albanese

Name: Glen W. Albanese Title: General Partner

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By: Needham Management Partners, L.P.,
 its general partner

By: /s/ Glen W. Albanese

Name: Glen W. Albanese Title: General Partner

NEEDHAM MANAGEMENT PARTNERS, L.P.

By: /s/ Glen W. Albanese

Name: Glen W. Albanese Title: General Partner

NEEDHAM CAPITAL PARTNERS II, L.P.

By: Needham Capital Management L.L.C., its general partner

By: /s/ Glen W. Albanese

Name: Glen W. Albanese

Title: Member

NEEDHAM CAPITAL PARTNERS II (BERMUDA), L.P. By: Needham Capital Management (Bermuda) L.L.C., its general partner By: /s/ Glen W. Albanese Name: Glen W. Albanese Title: Member NEEDHAM CAPITAL PARTNERS III, L.P. By: Needham Capital Management L.L.C., its general partner By: /s/ Glen W. Albanese _____ Name: Glen W. Albanese Title: Member NEEDHAM CAPITAL PARTNERS IIIA, L.P. By: Needham Capital Management L.L.C., its general partner By: /s/ Glen W. Albanese _____ Name: Glen W. Albanese Title: Member NEEDHAM CAPITAL PARTNERS III (BERMUDA), L.P. By: Needham Capital Management (Bermuda) L.L.C., its general partner By: /s/ Glen W. Albanese -----Name: Glen W. Albanese

Title: Member

NEEDHAM CAPITAL MANAGEMENT, L.L.C.

By: /s/ Glen W. Albanese

Name: Glen W. Albanese

Title: Member

NEEDHAM CAPITAL MANAGEMENT (BERMUDA), L.L.C.

By: /s/ Glen W. Albanese

Name: Glen W. Albanese

Title: Member