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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report: December 13, 2004  
(Date of earliest event reported)

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TRANSACTION SYSTEMS ARCHITECTS, INC.  
(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction  
of incorporation)

0-25346  
(Commission  
File Number)

47-0772104  
(I.R.S. Employer  
Identification No.)

224 South 108th Avenue,  
Omaha, Nebraska 68154  
(Address of principal executive offices, including zip code)

(402) 334-5101  
(Registrant's telephone number, including area code)

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Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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Item 7.01. Regulation FD Disclosure.

On December 13, 2004, Transaction Systems Architects, Inc. issued a press release announcing that its Board of Directors has approved a stock repurchase program authorizing the Company to acquire up to \$80 million of its Class A Common Stock. A copy of this press release is attached hereto as Exhibit 99.1 and is being furnished, not filed, under Item 7.01 of Form 8-K.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

TRANSACTION SYSTEMS ARCHITECTS, INC.

Date: December 13, 2004

By: /s/ Dennis P. Byrnes

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Dennis P. Byrnes  
Senior Vice President,  
General Counsel and Secretary

EXHIBIT INDEX

Exhibit Number	Description
99.1	Press Release, dated December 13, 2004.

TRANSACTION SYSTEMS ARCHITECTS INC  
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OMAHA, NEBRASKA 68154  
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402.390.8990

FOR IMMEDIATE RELEASE

#### Transaction Systems Architects Announces Stock Repurchase Program

(OMAHA, Neb.--December 13, 2004)--Transaction Systems Architects, Inc. (Nasdaq:TSAI) today announced that its Board of Directors has approved a stock repurchase program authorizing the Company to acquire up to \$80 million of its Class A Common Stock. Purchases will be made from time to time as market and business conditions warrant, in open market, negotiated or block transactions, in accordance with applicable laws, rules and regulations. Transaction Systems Architects, Inc. has approximately 37.8 million shares of Class A Common Stock outstanding.

"Given the Company's strong balance sheet and cash flow, the stock repurchase program represents an excellent use of capital and reflects our commitment to enhancing stockholder value," said Gregory D. Derkacht, President and CEO.

About Transaction Systems Architects, Inc.

The Company's software facilitates electronic payments by providing consumers and companies access to their money. Its products are used to process transactions involving credit cards, debit cards, secure electronic commerce, mobile commerce, smart cards, secure electronic document delivery and payment, checks, high-value money transfers, bulk payment clearing and settlement, and enterprise e-infrastructure. The Company's solutions are used on more than 1,700 product systems in 76 countries on six continents.

Forward-Looking Statements

Statements included in this press release may contain forward-looking statements. Such forward-looking statements are made pursuant to the safe-harbor provisions of the Private Securities Litigation Reform Act of 1995. The forward-looking statements in this press release are subject to a variety of risks and uncertainties. Actual results could differ materially.

For a detailed discussion of these and other risk factors, interested parties should review the Company's filings with the Securities and Exchange Commission, including the Company's Form 10-K filed on December 23, 2003, the Company's Form 10-Q filed on February 17, 2004, the Company's form 10-Q filed on May 17, 2004, and the Company's Form 10-Q filed on August 11, 2004.