

Java Card™ Technology At-A-Glance

The foundation for secure digital identity solutions

Customer Wins/References

Government

- U.S. Department of Defense - New military ID card issued to all 4.3 million active duty military personnel and select DoD contractors.
- Other U.S. government organizations: Treasury, Homeland Security, Justice, Interior, NASA.
- Taiwan Government - Issued as new healthcare insurance benefits ID card to all 24 million residents.
- Belgium Government - 1st EU country to issue citizen ID card to 11 million person population.
- Thailand Government - National ID cards for personal data including fingerprint biometrics, insurance, tax and welfare benefit information. Deployment target is up to 61 million cards.

Financial Services

- Visa - Issuing tens of millions of Java Card technology-based bank cards and has recently introduced a new contactless program called "Visa Wave."
- MasterCard's Citibank and the American Express "Blue" cards leverage Java Card technology.

Telecommunications

- Dozens of GSM telecom operators, including Vodafone, T-Mobile, Telecom Italia Mobile (TIM), China Mobile, SK Telecom.

Products/Services

Java Card Enterprise Software

- Sun Java Card Enterprise Software is an integrated smart card system. Java Card Enterprise Software enhances security and trust in network computing systems by applying strong user authentication methods, system and user management utilities, and defining access control policy rules.

Sun Licensees

- Java Card technology is available from Sun on an OEM basis to smart card manufacturers, silicon vendors, and other companies that develop Java Card implementations for their devices.

Java Card Licensee Products

- Commercial products containing Java Card technology are available today from many vendors around the world. These products are suitable for a wide variety of different markets. There are GSM SIM cards for standard wireless networks, 3G USIM cards for advanced wireless networks, banking cards compliant with Visa, MasterCard and American Express payment applications, and ID cards supporting PKI functionality.
- Silicon architectures that have been enhanced specifically to support Java are available from Infineon (88 series), STMicroelectronics (ST22), and ARM (Jazelle).
- Some of Sun's Java Card technology licensees include: ARM, Aspects, Axalto, Fujitsu, Gemplus, Giesecke & Devrient, Goldkey, IBM, Incard, KEBTechnology, Logos Smart Card, Oberthur, ORGA, Philips, Sermepa, Sharp, Smart Card Laboratory, SSP Solutions, ST Microelectronics, Toppan Printing, Trusted Logic.

Services

- Services to support the development, integration and deployment of solutions based on Java Card technology are available from Sun and from Sun partners around the world. Most leading system integrators support Java Card products.

Top Ten Things You Should Know About Java Card Technology

<p>1. Java Card technology is the undisputed market leader for multi-application smart card technology</p>	<p>Java Card products are deployed around the world in all major smart card market segments utilizing multi-application cards. These include telecom, government, financial services, retail, and Enterprise ID.</p>
<p>2. Over 600 million cards issued</p>	<p>From ID cards to credit cards, Java Card technology is everywhere.</p>
<p>3. Manufacturers representing over 95% of the world's smart card manufacturing capacity have licensed Java Card technology.</p>	<p>With more than 50 licensees, Java Card technology is supported, developed and delivered by leading smart card manufacturers all over the world. There are Java Card licensees in the U.S., Europe, Japan, and other parts of Asia.</p>
<p>4. Java Card is award-winning.</p>	<p>Java Card is the recipient of the Frost & Sullivan's 2004 Market Leadership Award.</p>
<p>5. As business needs evolve, issuers can allow users to add and delete Java Card applets on card.</p>	<p>Using the secure, dynamic capabilities of the Java Card platform, card issuers can add, update, and delete applets on a card. This allows card issuers to deploy with confidence, knowing that their infrastructure can be updated to support their changing requirements.</p>
<p>6. Supports use of biometrics and "On Card" biometrics matching.</p>	<p>End user convenience and desire for stronger personal identity links have led to growing interest in the use of biometrics with smart cards. Privacy concerns and network bandwidth issues make "match on card" an attractive option. Java Card products support fingerprint "match on card" today.</p>
<p>7. Java Card products have received numerous security certifications by national and international organizations.</p>	<p>Java Card products have been evaluated using security criteria from many different organizations around the world. Certificates have been issued for FIPS 140-1 and FIPS 140-2 at levels 2 and 3; Common Criteria at levels EAL 4+ and EAL 5+. In addition, Java Card products have been certified for deployment by Visa, MasterCard, American Express, Citibank, Vodafone and many other leading card issuers.</p>
<p>8. Financial services cards issued by Visa and MasterCard member banks, and American Express.</p>	<p>Java Card products are a leading choice for payment applications such as credit, debit, stored value, and loyalty. Java Card products have been deployed by leading Visa and MasterCard member banks such as Citibank, Providian, and BankONE/First USA.</p>
<p>9. Sun's 30,000 employees all use JavaBadges for physical and logical access.</p>	<p>Sun employees now carry JavaBadges that provide physical access to Sun buildings as well as network access to Sun's global network.</p>
<p>10. The Java Card market is forecasted to grow over 190% in the next 4 years.</p>	<p>Frost & Sullivan reports that the Java Card market will grow at a compound annual growth rate of 32% (2002-2008). Frost & Sullivan projects that Java Card unit shipments will reach 867 million units per year by 2008.</p>