

Latin American Smart Card Spotlight

Presentation prepared for:



May 14, 2008

FROST & SULLIVAN

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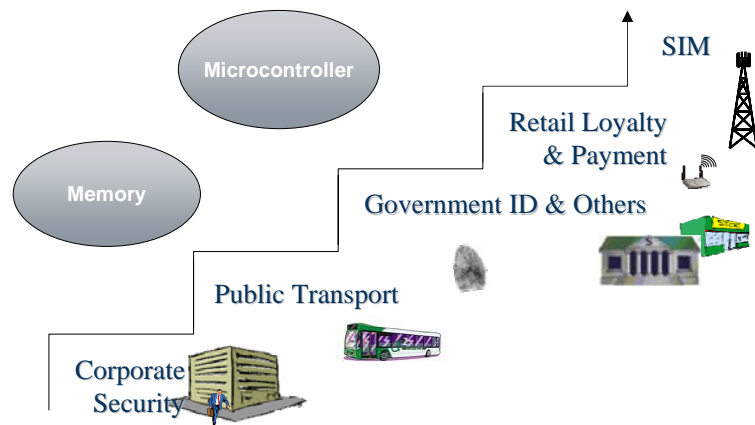
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Latin American Smart Card Industry Market Coverage



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Latin American Smart Card Industry Market Overview

- ❖ SIM cards continue to drive healthy growth rates globally, especially Latin America.
- ❖ Highly competitive, price oriented markets.
- ❖ Progressive adoption of chip enabled EMV migration by main banks in Brazil and Mexico.
- ❖ Large inroads of contactless technology in the transit segments and just beginning in the payment markets.



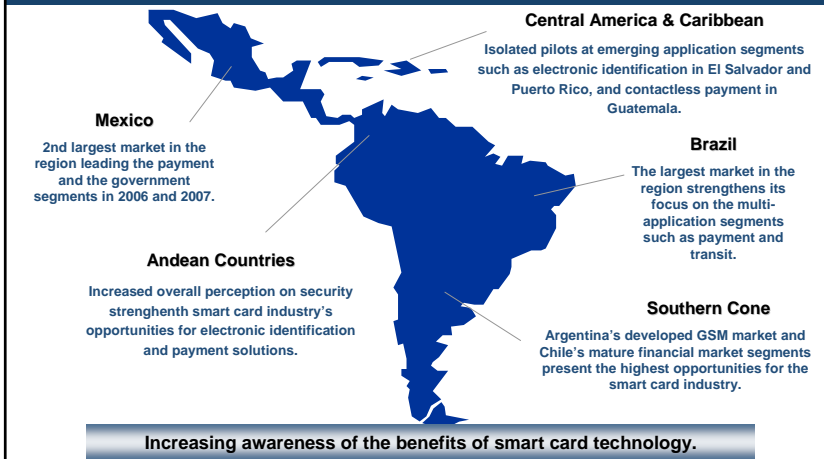
Increasing market penetration of the microcontroller card markets since 2004.

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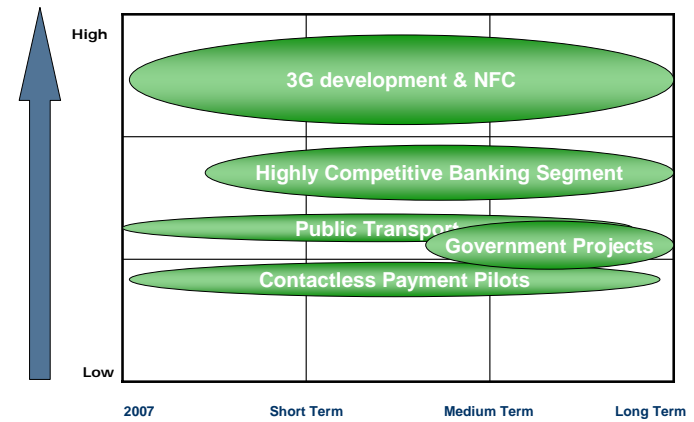
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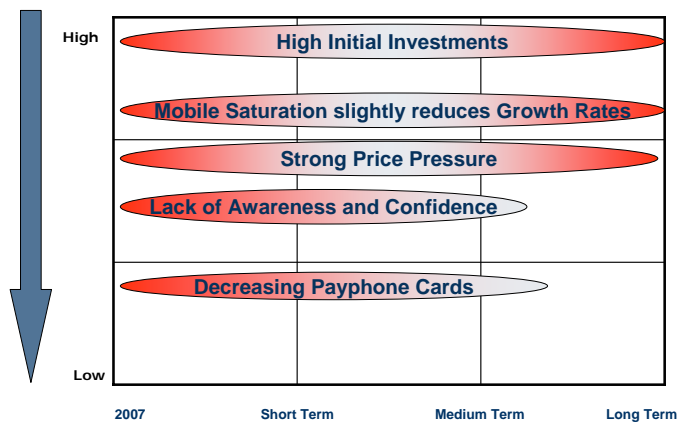
What is going on in the market? Market Overview



Market Drivers



Market Restraints



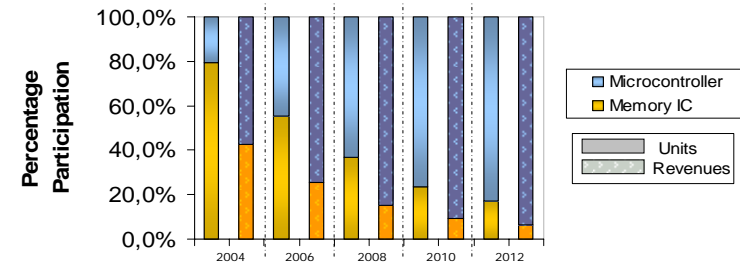
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Unit & Revenue Forecast

Units and Revenues Percentage Split



Revenue 2006
\$ 387.2 million

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CAGR (2006-2012)
12.3 percent

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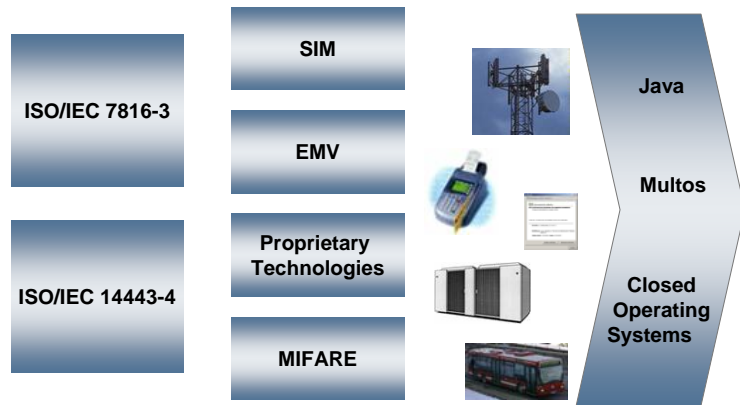
Revenue 2012 (Forecasted)
\$ 775.4 million

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Technology Trends

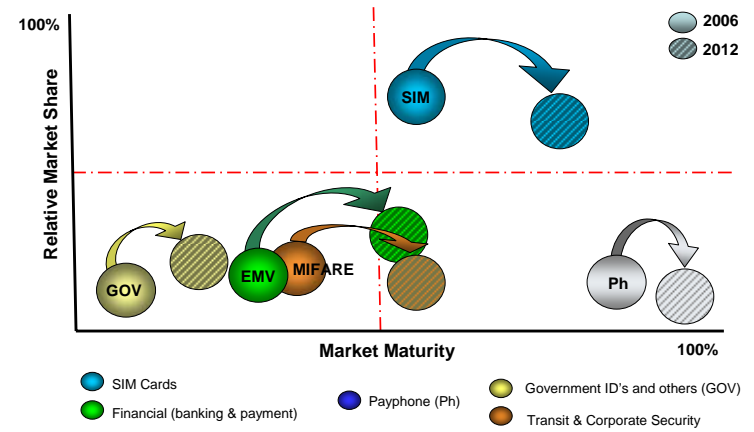


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Vertical Markets' Development (Revenues)



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Business Opportunities

Present Market Conditions

Microcontrollers accounted for over 75% of the total smart card revenues in 2007.

The SIM would continue to dominate the smart card shipments in the short, medium and long terms.

Banking and payment contact chip enabled cards under EMV protocol expands beyond Brazil and Mexico.

Inexpensive MIFARE cards increase penetration at key public transport systems adding e-purse and other functionalities.

Student ID's, drivers licensees and vehicle registration projects to demand millions of low cost contactless smart cards.

Price pressure drives offer of low end smart cards and value-added services development.



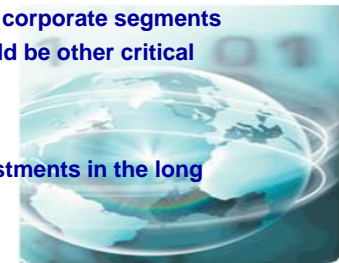
Future Market Conditions

Growth Implications

■ **The need for increased security offers new opportunities for the smart card industry across all application segments, and significantly at critical Government areas.**

■ **Retail loyalty, and closed user group corporate segments for online and offline transactions would be other critical segments to drive growth.**

■ **Open Operative Systems drives investments in the long term.**



Challenges & Strategies

Higher Penetration Through Smart Cards' Flexibility at Low Cost



- Identify value-added products and services for addressing a dual market demand
- Develop multi-application smart cards for achieving penetration at lower cost
- Build partnerships, and alliances for future prosperity

Value-Added Applications & Services

Major Industry Participants

- Gemalto
- Gieseck & Devrient
- Sagem Orga
- Oberthur Card Systems
- Incard do Brasil
- ABNote
- CPI
- Inteligensa-Intelcav
- Sonsun
- HID Global - ITG

There has been some consolidation in the market (i.e. Daruma Orga became Sagem Orga; Gemplus acquired CSM, and merged with Axalto; Assa Abloy Identification Technologies Group – ITG acquired Novacard do Brasil and merged with HID Global). We expect to see more consolidation in the coming years as the value chain begins to shift.



Contact Information

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Thank you!