

DOI Buys 30,000 DESFire Chips

The Department of the Interior becomes second government agency to issue employee access cards that meet the GSC-IS standard, using Philips' Mifare DESFire chips.

By Mary Catherine O'Connor

Dec. 20, 2004—[Philips Semiconductors](#) has announced that it has provided the U.S. Department of the Interior (DOI) with 30,000 of its Mifare DESFire chips for use in contactless smart card applications. The chips, which are being embedded in employee identification cards, operate at 13.56 MHz and comply with ISO 14443 standards. The cards will provide employees physical access to DOI facilities and, in some cases, also be used to log on to the DOI computer system. The department plans to issue cards to all its employees, as well as to firefighters, police and other emergency personnel that need access to DOI facilities. By late 2005, the DOI expects it will have ordered and issued up to 70,000 cards.

The technological groundwork for the smart card program is defined in the Government Smart Card Interoperability Specification (GSC-IS), developed by the Government Services Administration and the National Institute of Standards and Technology. This standard was created to ensure the interoperability of contactless and contact smart cards throughout the federal government.

"We initially created the DESFire chip as an upgrade to the Mifare chip so that the chip could handle more applications, such as contactless payments and enhanced security features, for use in [public] transportation [fare] application schemes," says Manuel Albers, Philips' director of business development and identification, Americas. "And when we first released the DESFire chip, the government approached us. They liked it because it complies with the ISO 14443 standards, levels 1 to 4, and this was the key requirement in the GSC-IS standard. But we did have to reengineer the chip to fully comply with the GSC-IS standard."

Specifically, Philips needed to slow the processing speed of the DESFire chip slightly so that it could be used in cards that also contain contact chips, based on the ISO 7816 standard.

Albers says Philips, which is based in Eindhoven, the Netherlands, is the first and only company he knows of that is making a GSC-IS-complaint chip, but Bob Donelson, smart card program manager for the DOI, says the government has tested a number of other chips that meet the GSC-IS standard.

NASA, which began a DESFire-based smart card secure access program at an Alabama flight center in August (see [NASA Launches Access System](#)), and the DOI are the first agencies to enforce the standard. Donelson is working with a number of other federal agencies, including the Department of Homeland Security and the Veteran's Administration, to expand the smart card program. He'd like to integrate the DOI access cards with the contactless fare collection systems endorsed by the American Public Transportation Association. APTA has created a uniform transit fare standard that includes contactless fare collection specifications that are compatible with the GSC-IS, which would allow DOI employees to use their ID cards on public transit systems.

"Now that the standards are in place, I think these cards are going to be a great service; they'll be a ubiquitous

token for access, e-business, etc.," says Donelson. He says the GSC-IC standard could be used to develop smart card state licensing programs, as well. Estimates of how many smart cards could be issued based on GSC-IS range from 20 million to 150 million.

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