



multos
consortium



Membership Prospectus

QUICK FACTS

Formed in March 1998

**3 membership levels:
Full, Partner &
Professional Partner**

**3 main activity groups:
Business Advisory
Group, Technical
Advisory Group and
Consortium Council**

**Joint marketing events
around the world,
including the annual
MULTOS World
conference**

**Members contribute to
www.multos.com and
MULTOS Commentary
newsletter**

CONTACT US

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The MULTOS Consortium is an open, membership body dedicated to the development and promotion of a de-facto industry-standard for smart cards, **MULTOS**. The vision and goals for the consortium are embodied in the MULTOS Charter, adopted at the start of the second decade of the consortium...

"We the secretariat and members of The MULTOS Consortium reaffirm the following objectives:

- *To maintain transparent and open governance of MULTOS as a standard for the smart card industry;*
- *To improve and develop MULTOS to meet ever-evolving customer needs;*
- *To maintain MULTOS' close relationships with other standards-making organizations;*
- *To ensure wide customer choice and open supply of quality, interoperable MULTOS implementations, cards, applications, systems and services;*
- *To promote all the MULTOS implementations, applications, products and services of all licensees and members."*

Membership of the consortium is available on a non-discriminatory basis to any company or organisation that wishes to sign-up to the membership agreement and pay the annual membership fee. Most members are technology suppliers to or customers of the smart card industry, however the membership also includes systems integrators and consultants from the wider Information Technology sector. If your company or organisation is an active technology supplier of MULTOS smart card technology, then membership should be of interest to you.

This prospectus sets out the consortium membership activities and membership options. For further information, contact us at info@multos.com



member

activities



There are 2 main objectives for the member-driven activities within The MULTOS Consortium, specification development and product marketing. The consortium has a strong customer and member-driven approach to both activities. Our philosophy is based on delivering a MULTOS technology platform that meets customer needs, allows competitive supply of products and services and that then further evolves to meet emerging and future customer requirements, followed by joint marketing of products and solutions of all members. There is a continuous programme of different member activities to support this approach.



The **Business Advisory Group** brings all the membership's market knowledge together in one place so that the customer current and future needs, urgent issues, technology trends and other information can be openly shared and discussed in order to develop tactical or strategic approaches to solving the customer's MULTOS-related needs.

The BAG activity may suggest technical specification development, which is undertaken by the Technical Advisory Group, or suggest strategic evolutions of the MULTOS eco-system to the Consortium Council. The BAG also helps determine the marketing activities of the consortium's secretariat, typically industry exhibitions or conference participation in conjunction with one or more consortium members. The BAG usually meets face-to-face twice a year with interim conference calls when necessary and benefits from our online group-working facility when collaborating on specific tasks.

The **Technical Advisory Group** develops the MULTOS specification so that fully interoperable platforms, applications, systems and other MULTOS-supporting products may be developed and deployed by platform licensees and other industry partners and suppliers. MULTOS Specifications for application development, card personalisation and deployment are made available to the industry and customers free-of-charge* and royalty-free. The TAG ensures that as new features are introduced, interoperability and backwards-compatibility is maintained in order to protect both industry and customer investment in MULTOS. The MULTOS Technical Director and secretariat ensure that Technical Library documentation and support products, such as application development tools, are maintained in line with the evolving specification. (*use of MULTOS step/one Off-Card Specifications requires a paid-for licence)

The **Consortium Council** is the decision-making authority of The MULTOS Consortium. Any change to MULTOS policy or operation suggested by the BAG is ultimately debated and decided upon by the Consortium Council. Any change request to the MULTOS Specification from the TAG needs to be ratified by the Consortium Council. The contractually-binding democratic operating rules require majority voting for most Consortium Council decisions, ensuring that a single company, even the owner of the Intellectual Property that under-pins some of the MULTOS technology, cannot change the MULTOS scheme or specification without reaching consensus.

ABOUT MULTOS

Open

The MULTOS Consortium members jointly control the MULTOS standard. No single company controls the development of the specifications, making MULTOS the most openly governed multi-application operating system standard available today. This joint control by a cross industry group ensures that the interests of customer card issuers and industry vendors are maintained whilst retaining an appropriate level of development momentum

Interoperable

Every MULTOS implementation is tested and Type Approved by MAOSCO to guarantee that applications are fully portable across all MULTOS cards. The application loading mechanism is also Type Approved, guaranteeing that MULTOS cards from any vendor work in any personalisation or card management infrastructure.

Cost effective

By separating applications from the platform, MULTOS makes it possible for card issuers and suppliers of smart cards to place volume orders for MULTOS chips without having to specify the issuer-specified functionality of the card until it is personalised and issued. The competitive multi-vendor supply environment of MULTOS helps to reduce the total cost of purchasing smart cards.

Secure

The MULTOS operating system provides a platform that protects and separates applications with firewalls so that multiple application providers can confidently share space on a single smart card. The security features of MULTOS products have been evaluated to the highest achievable levels of security assurance by a number of National Government approved certification bodies.

Post-issuance Loading

MULTOS enables new card applications to be loaded over any digital channel, such as the Internet, after a card has been issued. The mechanism uses asymmetric (public key) cryptography to encrypt applications from the application provider, and requires the correct digital certificate from the card issuer to authenticate the application to the card before it can be successfully loaded. This enables full end-to-end security from a card management system to a card, regardless of channel, and guarantees card issuer control and application provider privacy.

ABOUT
MULTOS step/one

Designed for EMV

For many financial institutions facing EMV migration as a fraud-busting strategy for credit and debit cards, the imperative is for rapid deployment at the lowest possible cost. These organisations may be embarking upon their first ever smart card project and the infrastructure investments often drive them initially towards lowest cost smart cards.

Static Data Authentication

MULTOS step/one is engineered for issuers who are prepared to limit card options and some application functionality. Focused on Static Data Authentication (SDA) profile EMV cards only, MULTOS step/one provides a multi-application secure smart card platform with reduced infrastructure demands, yet incorporating all of the heritage and experience of MULTOS.

Flexible security

MULTOS step/one also features a more flexible approach to security implementation and security evaluation, providing a framework to support a range of approaches appropriate to each individual issuer's or brand's requirements.

Lower cost

MULTOS step/one delivers much of the flexibility and software interoperability of MULTOS, but requires reduced functionality chips that are competitive in price with proprietary OS EMV chips.

Interoperable and upgradable

MULTOS step/one ensures that an issuers' infrastructure, data preparation and personalisation investments can be built upon to accommodate Dynamic Data Authentication (DDA) through MULTOS, with no significant changes.



The MULTOS Consortium encourages a co-ordinated marketing strategy amongst the membership as we believe in an open competitive marketplace where customers can make fully informed choices about the product or services they seek. The consortium membership includes many direct competitor companies who support the fully interoperable MULTOS platform within their products, but who often work alongside each other when presenting their MULTOS capability and credentials. The consortium-led marketing activities are typically about marketing multi-application smart card programmes using MULTOS in general, rather than demonstrating a specific member-developed products, even when only one product is demonstrated. However the consortium members and secretariat encourage marketing activities where customers can meet competing members and discover the features and benefits of every MULTOS-capable solution available. We believe that customers appreciate the co-ordinated, transparent approach to shared MULTOS marketing and as consortium-led events typically contain lots of educational and training value to customers they are not considered as a "product sales pitch". The consortium members and the secretariat typically attend and exhibit at smart card events around the world, including the largest annual event, Cartes, held in Paris. The secretariat typically attends around 6 other events each year, usually in conjunction with 2 or more members. The secretariat works closely with members on demonstrating capability at these events by assisting the development of product demonstrators. Planned events for 2010 include Cartes In Asia and Cards Middle East. Members can also participate in the consortium's other virtual and face-to-face marketing initiatives:



www.multos.com is the 'portal' for all things MULTOS, including consortium member's own news and events, for the global audience of MULTOS customers. The website contains sector-related product solution information as well as deployment Case Studies often developed in conjunction with consortium members.

The **Product Directory** is designed to showcase the global network of MULTOS consortium members products and services. Visitors can search for products or services by category or do a full text search. Members can login to maintain their own product and service related information such as adding downloadable product brochures.

The **MULTOS Commentary** is a quarterly newsletter. Here members can present their products and services, or develop articles of interest to the thousands to subscribers to the newsletter mailing list.

MULTOS World 2010. After the success of the event held to celebrate 10 Years of MULTOS, 2009 saw the first annual conference bringing Issuers and consortium members together in Kuala Lumpur. MULTOS World will again be a 2-day focused (but fun) conference-style marketing and networking opportunity and is only available to consortium member product vendors and service providers. Issuing organisations, both current and prospective customers, are invited to attend MULTOS World free-of-charge.





There are three options for membership participation with The MULTOS Consortium; Full, Partner¹ and Professional Partner² membership. The benefits of each are summarised in the table below:

	Professional Partner	Partner	Full
Strategic, decision-making rights in the Consortium Council	x	x	✓
Participate in the Technical Advisory Group	x	✓ ³	✓
Participate in the Business Advisory Group	x	✓	✓
Logo on homepage of www.multos.com	✓	✓	✓
Access joint consortium marketing activities at industry exhibitions and other regional conference events	✓	Priority Access ✓	Priority Access ✓
Self-editable information in the Product Directory	✓	✓	✓
Contributions to quarterly MULTOS Commentary newsletter	✓	✓	✓
Attendance at the MULTOS World 2010 conference event	One person	Four people	✓
Annual price of membership	\$1,500	\$5,000	\$60,000

Membership comes with some responsibilities. The membership agreement asks that members make a non-exclusive, non-discriminatory commitment to promote, support and endorse MULTOS in their product offer and marketing activities; commit to ongoing, active involvement and contribution to the Business Advisory Group, Technical Advisory Group and Consortium Council (dependent upon membership level); and pay membership fees promptly at the anniversary of membership each year.

MAOSCO Limited, the consortium secretariat company, is funded exclusively by the revenue from membership fees and MULTOS technology licenses. All such revenues are used to fund joint MULTOS consortium and secretariat marketing, business development and technical activities.

¹ Partner membership was previously known as 'Business & Systems' membership and was combined with the MULTOS step/one Off-Card Specification Licence, also now available separately.

² Professional Partner membership is available to individuals and small companies employing fewer than 5 people in any smart card or closely related activity, at the discretion of the secretariat.

³ Participation in the TAG is by invitation only and subject to signing the MULTOS Contributions agreement that covers all Intellectual Property contributions to the MULTOS Specification

Which Membership Option?

Full membership is aimed at organisations participating in the continuing development of MULTOS' openly licensed specification. This level offers members a contractual decision-making role in the policies of the Consortium and the future roadmap of MULTOS technology.

Partner membership is aimed at companies whose business is delivering MULTOS solutions to end customers. This level permits a member to contribute at a consultative level to the working groups that define the future of MULTOS. Members also benefit from the close relationship with the other consortium members and gain regular insight into developing market opportunities.

Professional Partner membership is aimed at smaller businesses who deliver MULTOS-based card solutions or other essential components such as card applications, software or consulting services. This level allows smaller companies to benefit from the marketing activities of the consortium and to reach the global market of MULTOS card issuers via the MULTOS website, newsletter and annual MULTOS conference event.

WHO ARE THE MEMBERS..?

- ABnote, ACI Worldwide, Bell ID, Carta Worldwide, Consult Hyperion, CPI Card Group, Cryptomathic, CTS-Caliber, Dai Nippon Printing, Datacard Group, Dynamic Card Solutions, Fujitsu, Gemalto, Giesecke & Devrient, Hitachi, Infineon, MasterCard Worldwide, Multos International, Oberthur Technologies, Samsung SDS, Techtrex, Thales & UbiVelox

