Quality, service and technology innovation
Medios y Soluciones® is a holding group, which works on integrating advanced and high technology solutions for various domestic and international industries.

M&S represents high-tech multinational brands leaders worldwide and it manufactures solutions for important education, defense, transportation, health and services industries. All of our solutions are successfully made, thanks to our workforce, innovation, development and research capacities.

MEDIOS Y SOLUCIONES AT A GLANCE...

- Headquarters and business operations in COLOMBIA, MEXICO and USA.
- Main office in Bogotá.
- Strategic lines such as Specialized Technology Solutions Integration, Consulting Services, IT Distribution, Software Development, Virtual Training, IT Services.
- Business lines such as C-CBTs, Simulators, PLM Consulting and Supplies, Large Format Visualization, High Range Projection HDR PROJECTION, Logistic Aeronautics Services, Social Responsibility, Research and Development.
- Airbus Military Partner:
  - FISS SERVICES (Full In Service Support)
  - LSMS REPRESENTATIVES (Logistics Support Management System)
  - C-CBT COOPERATING SUPPLIERS (Certified Computer Based Training)
  - Ministry of Industry and Tourism cooperative partner.
  - Active member of RECIIF Line Cooperation in R&D with the European Union.
  - IT Mark certified since 2010.
  - Patents and Utility Models in various products and software.
MARKET PROFILE

Medios & Soluciones® (M&S) solutions are aimed toward markets or companies, which require innovative technology solutions to improve their processes, products and service offerings to their clients or to their business itself. Based on its software’s development market experience and knowledge, M&S is able to counsel its customer’s capacities and experience to make easier the implementation, transferring and the start-up processes and solutions that adapt to the client’s needs.

M&S’s main objective is to establish personalized loyal long-term business relationships to guarantee progressive growth with its customers.


2. Virtual Training: E-Learning strategies - B-learning - Corporate Universities and Business Schools - Educational IT contents for C-CBTs (Certified Computer Based Training) - Educational Videos - And more IT tactics for the training and skills improvement.

3. Specialized Visualization: Large Format - 3D Applications - Holography - Dome Theater - Dome Portable Projection System - Industrial Visualization Laboratories - Command and Control Centers - Simulators


Command and control centers

TARGET MARKET

Development of Research and Training Centers for Data Analysis, Simulation, Failure Detection and High-graphic detailed Levels Findings used in various companies that belong to the Industrial, Engineering, Oil & Gas, Government, Defense, Financial, Aeronautic, Health, Transportation, Urbanism, Emergency Control, Security, Data and Monitoring Sectors.

CHALLENGE

Globalization requires companies to have their information consolidated, accurate and accessible. Due to the high costs of Command Centers Implementation in LATAM, more and more inadequate and expensive solutions are being adopted by the industry.

SOLUTION:

Medios & Soluciones® provides a customized visualization mission-critical 24/7 solution that ensures the final user a real interaction and high definition experience of control and management information in a customized screens. M&S uses a wide range of specialized projectors, optics, image processing systems, and all of its experience to integrate scalable, easy-to-maintain, long-lasting and low-cost operation solutions.

“\textit{This solution implementation has permitted us attend the air traffic controller training demand in Central America, Venezuela, Ecuador and Colombia. Its quality and level of detail have given us the perfect tool to simulate flight operations and improve all of our processes}”.

Dr. Carlos A. Suárez
Dean of the Faculty of Aeronautics CEA – Aeronáutica Civil de Colombia

BENEFITS:

• Mono and multichannel setups.
• Variety of appropriate technologies for each business core.
• Specialized screens in diverse sizes and geometries.
• Specialized optics that reduce installation requirements in small areas.
• Suitable mobile interior structures for Command Centers.
• Local Authorized Support and Maintenance.

Successful Cases:

• AERONÁUTICA CIVIL COLOMBIA – ATC Simulator in Centro de Estudios de las Ciencias Aeronáuticas CEA, 2011.
• Multimedia Service - Dassault Systèmes Stand Feria Internacional de Bogotá, 2010.
• SENA Scientific Visualization Centers, 2013.
**TARGET MARKET**

Defense, Industry, Oil&Gas, Aeronautical, Automobile, Health, Interactive Visualization Centers, Virtual and Augmented Immersive Reality, Specialized Academy and Training.

**CHALLENGE:**

New IT development innovative training tools have emerged because of the necessity of anticipating possible faults, risk reduction and errors, based on sophisticated engineering and visualization systems. Simulation is considered one of the most effective methods to transfer knowledge by facing real scenarios and situations by using these type of technologies.

**SOLUTION:**

M&S integrates training and evaluation simulators that use customized features that belong to a simulation environment such as Visualization Systems (3D Immersive technology), Computer and Networking Infrastructure, Specialized Software, Replicated Cabins, Assemblies, Vehicles, Equipment, Control and Command Panels, Motion Platforms, Enclosure Construction and Adaptation and Consulting Processes.

**SUCCESSFUL CASES:**

- Tactical Operational Training, regular war and guerrilla warfare games (Centro de Simulación y Análisis de Crisis Escuela Superior de Guerra- ESDEGUE), Escuela Militar de Cadetes (ESMIC) y Centro de Educación Militar Ejercito Nacional (CEMIL).
- Oil Drilling Simulator for British Petroleum Company Simulator (BP Colombia).
- Police and Forensic Simulation Laboratory Escuela General Santander (POLICIA NACIONAL Colombia).
- PLM Process Simulator (Universidad Tecnológica de Bolívar).

**BENEFITS**

- Scalable and configurable multi-task Systems.
- Turnkey Solutions.
- Customized simulator which allows the replication of the same physical functionality conditions of the actual systems.
- Low cost maintenance.
- Support and Maintenance Services.
TARGET MARKET
Private and public companies and institutions, research centers, NGOs, system and technology integrators and service consultants who require special software solutions focused on web local or mobile environments, hardware control systems, entertainment, education, science, research, business management, and technology-based simulations.

CHALLENGE
Implementing integral software solutions, which attend the client and environment’s necessities by adding an effective and efficient design, development and software implementation.

SOLUTION
M&S designs, develops, implements and integrates solutions that are made from the customer’s needs, its conditions, and reality. We analyze the target population, its characteristics, current technologic platform, IT and communication appropriation, available time and budget to adapt and integrate the information management platforms.

The Holding Group provides and creates communication and control hardware Systems, safety applications, biometric control accesses, sensorial and digital image processing applications, such as games, augmented reality, virtual and mixed reality, tridimensional systems and stereo vision.

SUCCESSFUL CASES
• Virtual Showcase Services and portal implementation and design for Bogotá Trabaja Alcaldía Mayor de Bogotá, SENA regional Bogotá.
• Unified Information Registration for Meals de Colombia.
• Academic Management Platform and its adaption as a learning administrative tool Moodle for Alcaldía Mayor de Bogotá.
• Management, control and operation solution for Sistema Metro ascensores IDESEG-Metro Medellín.

BENEFITS
• Humanization: development and design of interfaces from the population, use and understanding view.
• Independent or specific development for each operating system.
• Language and technology development according to the necessities and project requirements.
• Time and cost adopted to the client’s requirements, without losing the product’s quality and integration.
• Continued innovation and integration in all of the methodologies and technologies available used.
• Comprehensive advice for the requirement’s dimensioning and interoperable environment.
• Scalability and modularity that guarantee the business development.
Product Lifecycle Management (PLM) commercialization and consulting services

TARGET MARKET
Private and public business and organizations, academic institutions, industry and service sectors. Manufacturers, assemblers, large manufacturing and production lines.

CHALLENGE
Resource Productivity and PML Efficient Management methodologies have been developed to reduce the company’s costs and expenses in order to remain in the globalized market. M&S offers the best technology integrations and services by using the PML’s methodology.

SOLUTION
Medios & Soluciones ® offers software and services’ tools to manage a product’s lifecycle from its conceptualization, detailed design creation, material and functions’ tests, production processes analysis until the digital experience that the user goes through with the product. The solution is especially made customizing the operational company needs and adapting the appropriated product that permits the client reduce costs and time by improving its market’s efficiency and competitiveness.

BENEFITS
• Process, resource, documentation and knowledge’s management in all of the product stages.
• Access to the most developed specific designing tools.
• Production plan planning and monitoring by using 3D simulation tools.
• Raw material’s optimization by using a virtual evaluation mode.
• Product and processes documentation with virtual 3D models.

SUCCESSFUL CASES
• First PLM Mastery Production Engineering Laboratory Implementation in Colombia. The laboratory was provided with a large format visualization system and more than 200 robust applications that cover all the stages of a Product Lifecycle.
• PLM Implementation as a basic tool for the Colombian Aeronautical Industry.
• Internationalization product basic tool for CHASIDNEME Group.

"These new programs enable these concurrent and interdisciplinary products and processes, which establish worldwide "the State of the art" in these kind of technologies. UTB University is the only institution in the Caribbean coast that owns these sort of technologies".

Luis Ignacio Morales
Director of the Mastery in industrial processes engineering.
Universidad Tecnológica de Bolívar
MARKET PROFILE
The MS DOME THEATER® is the ideal solution for schools, colleges and universities as a movable study room to be used for laboratories, workshops, lectures and academic inductions.

TARGET MARKET
- Entertainment solution as a 2D, 3D, 4D portable cinema.
- Simulators for Command Centers, Interactive visualization centers, Immersive, Virtual and Augmented Reality, CAD-CAM scenarios visualization, GIS Systems Visualization.
- Planetariums, museums and interactive centers.
- Product launch, stands, and commercial showcases for advertising and marketing firms.

CHALLENGE
Today’s world is constantly searching for new integral solutions that enable moving interactive immersive spaces to be easily adapted for science and culture centers or planetariums in order to approach new population markets outside their current locations by using easy-handling mobile structures that are able to work in outdoor spaces 24h and guarantee the the same conditions as like they were used in indoor areas.

MS DOME THEATER SOLUTION
M&S offers an inflatable structure, which is an easy handling portable hemispherical dome. It has the appropriated distinctive features to house various technologies in its interior, in order to create immersive environments to its users in outdoor places and with 95% of opacity to project different specialized digital media in an appropriated smooth screen.

This MS Dome Theater® solution has been implemented as a moving digital planetarium, attending more than 25000 students in many primary and high schools in Colombia. Thanks to its reusability, the MS Dome® has become the perfect tool to bring entertainment, science and culture to disadvantaged populations.  

“This educative solution will allow us spread knowledge through a fun and different spectacle for adults and children in La Guajira. It is a big step for us to invest in education tools that make a positive impact in the communities where we work. Chevron Colombia supports all the national technological initiatives and even more this dome that has been developed and manufactured by a Colombian company. “

David Bantz Presidente CHEVRON Colombia
**BENEFITS**

- The DOME does not require external nor rigid structures. The inflating process lasts only 10 minutes.
- Ideal for outdoor operations.
- Visualization systems operations inside the DOME. Internal high opacity of 95%.
- Perfect flow of people in its entrance and exit without losing its inflatable condition.
- Specialized optic and diverse technology projectors to create digital theaters.
- Portable accessories such as: enlightenment, audio, seats, control console, air-conditioning that make from the MSDome® a perfect scenery of a cinema.
- Available in four sizes: 19ft, 26ft, 32ft and 40ft.

**SUCCESSFUL CASES:**

- SKYLER CAFAM digital theatre (The world’s biggest itinerant digital planetarium).
- DISCOVERY SCIENCE interactive park (NASA Project – Cambridge School)
- EXPODEFENSA command and control center Fuerza Aerea Colombiana stand, 2009.
- Ejercito Nacional de Colombia - Weapons and services school stand.
- CHEVRON Tour 2010 - Itinerant digital theatre CHEVRON TEXACO.
- 4D digital theatre ARGOS Stand EXPOCAMACOL 2010.
- Centro Comercial BIMA amusement park 4D Digital Theatre.
- Colegio San Angelo Colombia Mobile Classroom.
- MINTIC Tour, 2015, VIVE DIGITAL

“It is a ludic way to transmit culture by using immersive audio and video technologies, which make us feel like we were sinking into our maritime platforms”.

Miller Moya Guajira’s Superintendent
CHEVRON TEXACO Colombia
TARGET MARKET
Specialized organizations or training centers, which require trained personnel in operation and maintenance systems or devices, that require staff turnovers.

CHALLENGE
Reducing time, cost, and labor risks associated to technical maintenance training, systems or devices operation processes. Increasing the content comprehension and appropriation. Spreading knowledge to other people or groups according to the clients schedules.

SOLUTION
M&S creates specialized technical training systems and contents which are done by work-flow tools that have the capability of registering all of the training system creations and the main relation between the original technical document and the certifying authorized trainer.

Medios y Soluciones® has been officially certified and has the technology and experience to develop these kind of products for challenging industries such the aeronautical one. On this basis, M&S has the ability to adapt these training courses to any other industry which requires these demanding complex training solutions.

Most of the trainings are developed to reduce operation and training costs and to increase the student and tutor’s autonomy in these technical learning processes. All of these certified trainings are supported on instructional and pedagogic policies that certify them worldwide.

BENEFITS
• Time and costs reduction associated to personal, group or disseminated training processes.
• Easy access and availability: The traditional training system’s fidelity makes the C-CBT an ideal high-availability solution for 24/7 training.
• Organizational customized instructions and contents.
• Methodology, concepts and support resources ease updating.
• Certified and outstanding education and methodologies.
• Information confidence and reliability regarding to operation and maintenance manufacturer system or device manuals.
• Self-directed or assisted learning, focused on student’s processes and competences.

SUCCESSFUL CASES
• C297 AIRBUS training rooms CATAM.
• TECHNICAL TRAINING SOLUTIONS FOR BELL 206B3 AND CESSNA 162

Guaranteed information fidelity by implementing standard certified methodologies of production and information follow-up in the industry.

“The C-CBT is the component that ensures our clients a better business operational performance and an integrated service according to their necessities”.

Airbus Military Quote
Aeronautical logistic support and operations

TARGET MARKET
Industries which have high levels of growth rates, constant technological changes and innovations, where the key to success is to be a leader in those areas and especially in the aeronautic sector.

SOLUTION
M&S provides computerized platforms that control parts and services of an aircraft’s lifecycle since its operation’s start, maintenance process, reparation, importation and exportation, storage and assembly procedures. Creating the aircraft’s parts warnings, document management, and statistical analysis.

CHALLENGE
The entire aeronautic industry needs to be at the forefront by updating and giving the best service with their products or solutions. It is required to have alliances that guarantee a technical leadership status and customized, permanent, appropriated support service.

BENEFITS
- Direct access to leader aeronautical services companies.
- Own the latest technology solutions.
- Engineering and technical local support to all of the products.
- Products customization according to the needs.
- Integral Solutions, which guarantee a symmetrical business operation.

SUCCESFUL CASES
- Logistic support program for military aircrafts in Latin America.
- Aeronautical training programs implementation and support. UAEAC, FAC

“To achieve Operational Excellence, management has to coach, guide, teach, and instill the concept of getting rid of the use of management in supporting the flow of product to the customer”.

Kevin J. Duggan, Design for Operational Excellence: A Breakthrough Strategy for Business Growth
Telepresence and specialized projection

TARGET MARKET
Companies with high travel costs of its executives and employees that might want to use video conference systems to implement telepresence systems inside their company. Telecommunication companies, which want to add value to their companies. Entertainment shows, restaurants, museums, science centers that want to implement interactive holographic shows. Sales companies, malls, display fairs and virtual announcers. Government entities. Educational institutions for conference rooms or training classrooms.

CHALLENGE
The government boosts new technologies to allow real time connections and interactions be a business efficient tool. This requires products that guarantee business ubiquity, decision making and persistence.

“New technologies are part of today’s world. I am using now one of them to be present in this important congress using the available technologies in the presidency. While all of you are watching this message, I am travelling to Argentina, to be part of funeral of the ex-president Néstor Kirchner. I hope I may be excused for not being there”.

Dr. Juan Manuel Santos
President of the Republic of Colombia

SOLUTION
M&S has implemented to its market the VSENSE system, a high-tech holographic solution, which allows the user to appreciate 3D virtual figures in their actual size, in a realistic and detailed scenery. This is an ideal solution for workstations, podiums, conference rooms, or large stages or auditoriums.

SUCCESSFUL CASES
• President of Colombia’s public speech. Congreso de Comunicaciones, 2011.
• IT’s Minister’s speech. ANDICOM, 2012

“These sort of technologies will change all of our lives, the way we interact with other human being, the way we do business, and the way we make our companies efficient with low-cost solutions”.

Dr. Diego Molano.
Ministro de TIC. República de Colombia

BENEFITS
• Easy installation and operation.
• Compatibility to most of the video conference systems.
• Reduces risks and costs associated with safety, travel costs or high-ranking executives’ presentations.
• Allows commercial presentations and interactions in real time with people outside or inside the meeting place.
• Adaptable size availability scenarios.
Virtual Training

TARGET MARKET

Academic, public and private institutions and companies, NGOs, governmental bodies and service consultants which have already a defined training, appropriation and improvement schemes, either as a people’s segment offer, due to current regulations, or as an answer to its stakeholder’s demand.

CHALLENGE

Virtual training organizations are orientated to fulfill all of the teaching-learning processes. Humanized and didactic technologies are required to generate new digital cultures along this market. They should facilitate knowledge by building in a flexible, progressive evolutionary manner.

SOLUTION

M&S focuses on each user’s demand and characterization. Therefore, each visual, audiovisual and interactive content works with many essential media pedagogic and didactic subjects, which allow the instructional design, online production and integration, interoperability, accessibility and usability work in different contexts or scenarios of performance.

BENEFITS

- Humanization: academic trends and creative techniques which boost the training course’s usability. In addition, design, production and integration are used for all of the backgrounds under virtual training quality standards.
- Integrated advice in efficient users and organizational objectives implementation.
- Structural versatility: Original Video Animation (OVA), completed courses, progressive and adopted modules according to the curriculums.
- Progressive innovation, research and improvement in all of the course training features (Integration, media design, interoperability).
- Product settings and versatility to make easier administrative, updating and versioning processes.

High impact technology and community

PROYECTA

Thanks to INNOVATIVE BASED PROJECTION ROOMS TECHNOLOGY, it is possible to live unique experiences through immersive entertainment scenarios, where science, art, technology and enjoyment are integrated for cultural and recreational activities.

Proyecta offers an amazing digital theatre, which immerse its viewers into a unique media experience by owning an appropriated architecture, HD vision and surround audio.

M&S presents its latest innovation, a mixed structure where traditional semi-rigid dome screens and eye-catching architecture, are part of it with short construction time and low costs.

MS main challenge is to bring the general community such high-impact technologies that create innovative self-sustained low-cost projects.

MSProyectaRSE FOUNDATION

MS Proyecta Responsabilidad Social Empresarial (CSR) is a private non-profit foundation, which works to guarantee high-impact technologies access to vulnerable populations, where special cultural industries’ competences and roles are strengthened to give good life standards to these people.

TECHNOLOGIES AND PROGRAMS USED

Talento Digit@l: Digital Talent. This is the area where integral training, strengthening and improvement are used to create interactive virtual media strategies for special communities, based on Biblioteca Mi T@lento (my library), courses, guides and games.

MS DOME THEATER: This solution is used to project immersive shows, documents, movie trailers and usual commercial presentation in high quality.

Construye presente, Proyect@ futuro: (Built the present, project the future) this is where technology management, applied transfer, policy design, and digital culture programs and specialized updating are developed.

SUCCESSFUL CASES

Association Guajira’s tour CHEVRON 2010, where MSProyectaRSE attended more than 6500 people during 22 days in adverse weather conditions to let aborigine communities (disability conditions, elderly, vulnerable population and general public) have contact with the MS Dome Theater®.