by Atech

arkhe

INTEGRATED SYSTEMS



Information and power

atech

GRUPO EMBRAER

Arkhe.

The complete solution in Defense and Public Security.



Atech, an Embraer group company, is a driver in technological solutions for complex mission-critical systems both in civilian and military applications. Acting in the areas of Command and Control, Embedded Systems, Cyber Security, Instrumentation & Control, Simulation and Public Security Solutions, Atech introduces Arkhe, the complete solution at your disposal to provide all the information you need to make the best decision. Get to know more about Arkhe's product family.

by Atech

arkhe

INTEGRATED SYSTEMS



Arkhe Command & Control

Integrated Planning, Surveillance and Action within the chain of command

In order to enhance the user's decision-making capability, Arkhe Command & Control offers a range of solutions for planning, surveillance and monitoring the execution of a diverse set of missions. Acting in an integrated way, these solutions bring different sources of information to be used to compose the situational awareness. With a flexible and scalable structure, it allows customers to evolve their physical and logical infrastructure, adding to the system new elements such as radars, cameras and legacy systems.

arkhe Command & Control



Arkhe Integrated Surveillance

Focused in command and control at the operational and tactical levels, this solution creates the necessary structure for planning, execution, monitoring and evaluation of activities for Surveillance and Defense in Air, Land and Naval environments, maintaining direct relationship with subordinate command centers, sensors and vectors including troops, aircraft, combat vehicles and others. Its communication module guarantees the exchange of data of different types, formats and protocols among the elements of the system, through SATCOM, microwave, V/UHF, and VCS radios. In addition to supporting different levels of access to information, this solution can generate the operational scenario of the mission incrementally, as its information network increases.

Arkhe Battlefield Management System – BMS

Arkhe BMS was developed to be used in advanced tactical operations centers, supporting activities for land surveillance, investigation, counterterrorism, target tracking and of assistance to troops and/or police forces. It was optimized to operate in specific scenarios, also for use in mobile platforms, being able to connect to other mobile or fixed centers, allowing the coverage of shadow areas of long range sensors, the sharing of the tactical situation and the control and support of the means of action more closely.

Arkhe Operations Management

Arkhe Operations Management is a solution developed to support the planning and execution of operations and exercises of a land, naval or air force, managing plans, orders and reports throughout the chain of command. It provides a set of functionalities capable of driving all the steps of situational assessment and of decision making activities in an integrated environment, covering all the processes of command from the strategic level down to the tactical units.

Arkhe Governance

Arkhe Governance is a complete data integration solution based on our Command and Control expertise focused on governance. To meet the demands of governments in city management - Smart Cities, Atech has developed Arkhe Governance, with the ability to track real time events from the Operations Centers or mobile units. It has a georeferenced environment, performing fusion, correlation and data analysis, providing to the manager a complete view of the relevant information of the city, such as mobility, education, health, security, among others.

Arkhe Command Training & Simulation

Arkhe Command Training & Simulation is a complete training and simulation solution capable of providing mission operators with a specific learning experience to their areas of expertise. Arkhe Command Training & Simulation enables the preparation, creation, execution, recording and playback of scenarios and operational exercises integrated to the Arkhe Integrated Surveillance and the Arkhe BMS operating platforms.

- Management and monitoring of operational activities;
- Dynamic support to missions;
- Execution of simulated and real operations;
- Management, resources and personnel's information;
- Mission planning;
- Secure management of system information.

Arkhe Mission & Combat

Total Control of Air and Sea Tactical Missions

Arkhe Mission & Combat is the product suite specialized for embedded solutions, effectively enabling different tactical missions in the air and at sea, through complete integration with aircraft and vessel systems and sensors. The solutions provide a set of functionalities that allow the operator to conduct missions considering all its stages: Planning, Execution and Debriefing. The integration of systems and sensors provides ample situational awareness of the tactical scenario, enabling effective and efficient decision making.

arkhe Mission & Combat



Arkhe Mission Management System – MMS

Integrated to various types of onboard sensors and systems, Arkhe MMS, in addition to providing effective mission management, also introduces onboard tactical situational awareness in aircraft and vessels. For this, it collects data and controls all internal and external information flow through the tactical data link. Due to its great integration power, by communicating detected target data and other essential information to the Operations Center, Arkhe MMS is considered to be the vital center of embedded tactical command.

Arkhe Mission Support System – MSS

Developed to be used on a fixed or mobile platform, Arkhe MSS is able to plan missions, prepare briefing and debriefing with replay of the real mission data and its analysis against the initial planning. Arkhe MSS also includes functionalities for route construction and graphical visualization in 2D and 3D with different layers of information.

Arkhe Combat Training & Simulation

The Arkhe Combat Training & Simulation is responsible for training and simulation on ground, with dedicated hardware and software for the execution of tactical scenarios and simulated exercises. This solution integrates seamlessly with Arkhe MMS and Arkhe MSS, adding the management and support capabilities of these solutions. By simulating sensors and embedded systems, it is a complete platform for training operators and preparing missions.

- Search and Rescue;
- Surveillance and Reconnaissance;
- Aerial Early Warning and Control;
- Maritime Patrol;
- Anti-submarine Warfare;
- Command and Control.

Arkhe Intelligence

Intelligence empowering decision-making

Arkhe Intelligence solutions was developed to address one of the major challenges in modern Armed Forces operations: the efficient and timely processing of large volumes of data. Arkhe Intelligence solutions make ingestion, processing, analysis and presentation of data, transforming information into knowledge.

arkhe Intelligence



Arkhe Data Analysis

Using different data sources, storage and distributed processing, in addition to secure information sharing, Arkhe Data Analysis uses Big Data technology, allowing the user to build advanced analytics from the available data. Working with other intelligence systems, Arkhe Data Analysis can generate reports and dashboards, guide future actions - based on predictive analytics - and integrate intelligence information such as IMINT, OSINT, SIGINT, and HUMINT.

Arkhe COMINT

The Arkhe COMINT (Communications Intelligence) solution is based on the analysis of communications intercepted by signal intelligence equipment. It is capable of planning, storing, analyzing, interpreting and disseminating important information for the execution of a mission.
Acting on the HF, VHF and UHF bands, Arkhe COMINT sweeps through different types of modulation (AM, FM, USB and LSB), and is able to locate signal emitters and exchange collected data with systems from other intelligence agencies.

Arkhe ELINT

Arkhe ELINT (Electronics Intelligence) integrates different systems and sensors which are employed to the processes of collection and analysis of electronic signals. A database is kept up-to-date with the collected electronic signals which can be used for the generation of electronic warfare countermeasures. Arkhe ELINT also supports the planning of electromagnetic spectrum monitoring missions, signal analysis processes and reports as well as the correlation of electronic and geographic parameters.

- Analysis of communications content and characteristics of the signals (frequency and modulation);
- Analysis of audio files and their conversion to text;
- Generation of metadata;
- Dictionary management of words and patterns;
- Generate customizable reports of detected signals.

Arkhe Cyber

Information integrity protection

Thinking about the fifth and final domain of war, Atech introduces Arkhe Cyber, a suite of products developed for the area of cyber security. Arkhe Cyber's focus is to ensure that essential information from organizations has its integrity preserved, as well as its correct use guaranteed.

arkhe Cyber



Arkhe C2 Cyber

Arkhe C2 Cyber enables effective management of the existing processes in the command and control cycle to manage the existing processes in the cycle of command and control present in a cybernetic operation, involving procedures of planning and execution control, allowing the managers to decide what to do and how to do it, as well as the verification of the fulfillment or not of such actions. In this way, the Arkhe C2 Cyber is designed to offer the integrated management of a cyber operation of short, medium or long term, following a cycle of operation and making use of a flow of information to support the decision making process.

Arkhe Athena

Arkhe Athena is the integrated hardware and software solution developed to serve as an in-a-box solution to provide security and high availability to system assets while minimizing cyber threats to information integrity. Provided for specific systems and infrastructures, such as C2 or communication systems, makes Arkhe Athena a strategic product for an integrated command center, enabling secure management of information used within the chain of command.

Arkhe Cyber Security Operation Center – CSOC

With the increasing number, complexity and nature of cyberattacks, and with the huge volume of technology assets, maintaining a high level of security requires a solution that goes well beyond protection. Arkhe CSOC is a systemic solution that is complete, modular and tailored to customer needs. Focused on the detection, analysis, response and prevention of cyber incidents, Arkhe CSOC centralizes, automates and rationalizes information security management efforts, as well as establishes a level of robust control of the cyber environment in which the structure of information technology is immersed.

- Management and monitoring of cybernetic activities;
- Protection of legacy systems;
- Correlation of security events;
- Security process analysis;
- Intrusion tests.

Arkhe Academy

Education, qualification and independence for knowledge usage





The safeguarding the sovereignty of a nation is not entirely associated with the technology in systems equipment that it owns, after all, its capacity to generate and disseminate knowledge will always directly influence the formation of people more qualified and prepared to education their evolution process. With Arkhe Academy, Atech is helping its clients create centers of excellence, concerned with the training and continuous training of professionals who not only operate systems and equipment, but also develop doctrines and disseminate knowledge. For the training of these professionals, Arkhe Academy already possesses an initial set of areas of expertise as follows:

- Military Operations Simulator
- Electronic Warfare
- Intelligence, Surveillance & Recognition – ISR
- Command & Control
- Surveillance
- Cyber Academy
- Mission Training

by Atech

arkhe

INTEGRATED SYSTEMS



INFORMATION

For more information,
contact one of our specialists.



AND POWER

MOLOTOV

by Atech

arkhe

INTEGRATED SYSTEMS

Information and power

atech

GRUPO EMBRAER

www.atech.com.br | Rua do Rocio, 313, 4° andar, Vila Olímpia, São Paulo - SP | 55 (11) 3103 - 4600 | comercial@atech.com.br