enealpy Profile

⊖ | ĕn⊜alpy

Exceed

Endure

Excel

Company

Company Information

Enthalpy Ltd is a limited liability company of share capital, , founded in 2006 as a provider of integrated software projects ,consulting & managemnet services to government and non govermental entities - organizations and commercial customers . It provides high technology solutions and services that require high-quality in every aspect of a project, from planning to delivery and documentation. We also provides services for project architecture design, application design, development of specialized hardware and software, systems programming, staff training, and data center auditing. The company is currently established in Limassol Cyprus and Athens Greece

Excellence

Created by scientists in the field of IT and new technologies, with extensive knowledge of market needs is focusing on developing innovative applications tailored exactly to the needs of each project, came to give bones to the vision of our people who believe that any solution that is designed by our company is unique as are the needs resulting from a thorough analysis. Our customer retention remains high because of the consistent value we provide. Enthalpy also strives to be flexible and adaptable to the changing needs of our clients. We ensure that our solutions remain viable, but that we are aware of new challenges, and that we are ready to assist at all times. Today has managed to represent in the minds of ICT market as a uniqe value added partner.

Srganizational tructure Enthalpy LTD is structured into core departments, as follows:

►Management-Secretariat.

The department is responsible for the secretarial support of the company, the conclusion of strategic agreements, the demarcation of economic objectives and the overall representation of the company.

>Department of ICT (Information Communication Technology).

The department is responsible for analysis, project implementation studies, implementation of control and correction of source code and keeping libraries and completing the deliverables.

≻Department of Research & Innovation.

The department is responsible for the participation of the company in research programs, the preparation of information notes to the Directorate, the writing of proposals and the coordination of consortia,.

>Delegation Department -Presales - Marketing.

The department is responsible for promoting the products of foreign firms represented by the company, contacts with organizations and companies organizations and the general promotion of the company at conferences, exhibitions.

▶Legal Department.





Participating in several on-going national and European projects, tenders & proposals we have managed to recognized as

Leading agency creating specialized applications in

- ►Defence & security
- ▶Data Control Centre
- ►Risk analysis & Risk Management
- ► Mesh Networtks for mission critical
- ►Innovative Access control Systems
- ►Disaster & contigency Planning
- ▹Mobile applications
- Security & Resilience
- ▶Embedded Systems Programming
- ► Secure mobile Transactions
- ▶Maritime industry
- ▹IoT, monitoring and data fusion, data aggregation, sensor connectivity to the Internet and the cloud
- ▹Big data analytics
- Cradle of research and innovation by developing user friendly
 - ►GIS & 3D Gis applications
 - ▶Geopositioning
 - ►Satellite data management
 - ▶Fleet management
 - ►DEM & DTM
 - ▶Data Fusion
 - ► Maritime Applications

A unique warranty in compliance with schedules and specifications, which is an issue puzzled for years the field of informatics



Exceeding

Competitive advantage of Enthalpy ltd, is the high specialization and professionalism of the staff and partners, combined with years of experience-leading positions in the public and private sectors. Above all, consistency and reliability in action.

Vision of Enthalpy ltd, is the innovative creation of harmonizing our action, with the rapid developments in information technology and communication, with the aim of effectively-modern and complete satisfaction of the needs of businesses and organizations.

Company's philosophy is a continued momentum beam and forming strategic partnerships with the view of providing a high level of innovative services.

The company with long-term experience in IT applications has demonstrated its involvement in a number of research programs either as a subcontractor or as a member of the consortium that has either been completed or is in progress or their EU approval is expected.

Has formed strategic alliances with Greek (University of Patras, University of Volos, Kapodistrian University) and foreign universities (University of Catania, University of Salonica, Sasex University) and with Greek companies (ATESE SA, TERRASPATIUM SA, GEOSYSTEM SA, MILTECH SA, EPA SA and others) and the European market (NET TECH-NOLOGIES (Finland), GEEWA (Germany), SMART MAGNA SOLUTIONS (Spain), XENIA (Italy), ZANASSI (Italy) to participate jointly in European community research programs (FP7, HORIZON 2020, MED, LIFE), as well as domestic and international competitions, being a stable partner.

Enthalpy LTD is a member of the Limassol Chamber of Commerce and Industry, member of international organizations and a cluster such as the Remote Sensing & Geo Environmental Research Organization, the Integrated Mission Group for Security (IMG-S) and the European Defense Cluster SME (EDA), working closely with companies of the Hellenic Space Cluter (Corallia / Space Cluster) operating under GSRT, aiming at a steady participation in decision-making centers and in understanding the evolution of new technologies so that being steadily at the center of technological events.



⊖ SAR Search & Rescue Platform





The primary planning requirement during a Search and Rescue (SAR) operation is knowledge of the likely search area in which targets may be found. The determination of search areas is not straightforward in an environment where the prevailing meteorology and oceanography complicates target trajectory. The Θ -SAR platform provides rapid and near to perfected predictions of the movement of drifting objects and missing persons at sea. It includes among others the ability to deploy search & rescue units (SRUs) with search patterns and calculate probability of containment (POC), probability of detection (POD), and probability of success (POS).

Supports commercial all nautical charts (BSB NOAA Charts / MapTech Charts / NDI Charts NOS Charts / British Admiralty (ARCS) Charts / C-MAP Charts integration), open data. satellite images and owned by organization layers.



Θ- SAR Modules

Web based tool NOT connected with a single license can used by multiple users simultaneously.Search Planning Tool

►IAMSAR and Monte Carlo methods for computing drift

►Datum point, Datum line and back track search methods.

≻Combine multiple resources for a single or multiple search target(s)

Cumulative POS and optimization tools to maximize probability of success Integrate prior/subsequent searches to improve in future/ successive search planning.

≻Export kml files containing every necessary
 Θ-SAR info for use by, out of the organization network , personnel.

▶Results output to reports.



 Θ -SAR has been designed to operate anywhere in the world. Using in-built databases of oceanography (based on best available tidal and ocean current data) and electronic charts. Θ -SAR can be applied by any search and rescue authority in the world.



As well as the ability to use preconfigured databases, Θ -SAR can import gridded metocean data in the internationally recognised NetCDF data format. Automatic import of this type of data can dramatically increase the system's accuracy and speed up model set-up times.

Stand			READERAGENES	And interfaces countries best history +	
	ng Sung ang Ang Tanganang Anggi S Ang Tanganang Anggi S Ang Tanganang Anggi S Ang Tanganang Anggi S Ang Tang Sang Tang	skar Histopour		·	
No. of Street					
Locate .	Sere there				Carlinson and
Deser ten 1	Taxtur His		Continues (1-11-22-28) (A-22-49-21-4)	Providence (Contraction C	And the second



⊖|2SEA Fleet Management



Understanding the Maritime Industry

Freet anagement

 Θ -2sea platform provides diligent supervision of your fleet, as the underlying and cardinal factor of a ship's quality, is of paramount importance to us.

The Θ -2sea is a modular software system designed to assist users' working processes within voyage reporting and other operations.

Θ-2sea capabilities

Our Θ -2sea represents new generation software for our clients. Built on a web based platform, Θ -2sea contains modular and secure structure for solutions with strengthened capabilities to support:

► All fleet sizes

Centralized and decentralized managementTwo-ways flow of data

► Modernized with improved user friendliness

► Centrally role based user administration

>The software comes with a dashboard functionality containing system information, user administration and setup.

 Θ -2sea is easy to be used. Its suite represents a new generation of software for our clients. The software comes with a dashboard functionality containing system information, system set-up and user administration.

 Θ -2sea provides great exibility. It is a modular software system, which can be tailored to the requirements of each particular vessel type. A user friendly interface make it quick and easy to

use for the operator.

 Θ -2sea is built upon your custom needs.

 Θ -2sea is not a simple commercial on the self product. Due to this fact, it is fully adapted to your needs because in its core it is your company.

Θ -2sea is built on two steps:

≻In the first step we survey and analyze your potential solutions by pointing to the most important key elements that will be add value in your company. Our confidential report will be make clear to what you have to choose as options and how crucial are considered to be, for your assets.

 \triangleright The second is the final implementation of the Θ -2sea according only to your needs.

That's why O-2sea innovates! O-2sea is You and not us!

Θ -2sea main features:

≻Two-way exchange of data between your company's departments and the software.

▶ Ship and fleet positions displayed on map.

≻Overview of vessel particulars.

►User adaptable dashboard / status display.

≻Data transmission log with confirmation of data package transfer and integrity.

≻Backup of attached documents to external source (hard drive, pen drive etc).

► Earlier software versions can automatically be upgraded.

▶ Full change log and traceability from all users in all modules.

▶ Centralized role-based user administration.

≻Strong filter search capabilities.

≻Filtering and reporting with the option of exporting to different formats (pdf, rtf, xls, xml, ods, tif etc.).

Sales, installation, commissioning and service support is provided

by Enthalpy. ≻No additional equipment is required for your ships

It provides:

list with your ships
tracking details
history of the trip
distance covered per ship per day
average speed per ship per day
many more options
a share point

Why Θ -2sea

Because:

≻It is simple,

≻It is modular

≻It is secure

▶It is hardware independent

≻It provides a good CAPEX

▶It provides a good OPEX

≻It is upgradable

It presents dynamic information (weather, data from ports, etc)
It can be connected to your other company's software platforms (HR, financial etc).

≻It is an upper level management advisor tool.

≻It adds value to your assets.

≻It is you!

Explore Θ -2sea Platform

Visit 79.129.122.66/saris using username: saris password: saris to explore the version we have developed for Hellenic Coast Guard.

Cyber Security Services



Understanding the Cyber Security



1. Cyber security Risk Management

Effectively managing IT and cybersecurity risk requires specialized expertise. Enthalpy offers flexible, responsive cyber security risk management services that can be customized to address your unique needs and risks.

A Fast-Changing Environment

Even organizations with mature risk management programs can struggle to stay current with today's fast-changing cyber security risks. The challenges include:

- ▶ Explosive growth in IT security threats that can lead to data or financial loss
- ▶ Evolving standards, frameworks, and regulatory expectations
- ➢ Proliferation of technology and third-party reliance across the organization
- ➤ Changing business conditions, including growth, mergers, and new products or services

Comprehensive Enthalpy Response

To address these challenges, the Enthalpy portfolio of services includes:

- ▶ IT and cyber security risk assessments
- > Design and implementation of IT risk management programs
- ▶ Security assessments, audits, and testing
- > Program effectiveness and maturity assessments
- > Cyber security solution design and road maps
- > Definition of residual risk, risk tolerance, and risk appetite for the organization
- ▶ Cyber resilience programs to limit damage and speed recovery

- ➢ Virtual CISO for the strategic planning, development, and management of an effective security program
- ➢ Implementation of governance, risk management, and compliance (GRC) solutions

Enthalpy draws on strong technical capabilities, deep industry expertise, and extensive experience with numerous control frameworks and standards to deliver a cyber security risk management program that is flexible, adaptable, and highly responsive to your organization's specific needs.



2. Implementing Cybersecurity Solutions

Day-to-day maintenance of IT functions can leave little time and few resources available for implementing critical cyber security controls to protect key data assets. Enthalpy offers deep cyber security knowledge and industry-specific specialization to help you implement or optimize these vital cyber security controls to protect your critical data and meet compliance expectations.

Enthalpy Cybersecurity Risk Services Approach

- ► Assess
- ▷ Design
- ▶ Implement
- ▹ Execute & Optimize

Staying Ahead of the Curve

With fast-changing business conditions and limited IT resources, busi-

nesses often struggle to capitalize on their technology investments and make the most of their available cyber security solutions. The solution choices themselves are often vendor-driven, and internal resources often lack the specialized knowledge needed to understand what is truly needed. Businesses can find it challenging to identify what solutions will best reduce their risks to an acceptable level and within budget constraints.

How Enthalpy Can Help

Enthalpy professionals deliver comprehensive cyber security implementation services, drawing on our extensive experience with today's most widely applied solutions, and a broad, "big picture" understanding of your business and top threats.

In addition, Enthalpy implementation team coordinate closely with our assessment and penetration testing teams, which combine deep technical expertise with the ability to "think like an attacker." The result is a flexible, adaptable, objective approach that can help you prioritize, implement, and optimize critical solutions such as:

- ▶ Security information and event management (SIEM) implementation
- ▶ Password management and multifactor authorization
- ▶ Vulnerability management
- ➤ Security awareness program
- ▶ Data leakage protection (DLP) implementation

3.Pen Test Services to Detect Your Vulnerabilities

Penetration testing is more than just a matter of regulatory compliance. It's a key component to a sound cybersecurity risk management program – critical to identifying vulnerabilities and testing the effectiveness of your security controls and incident response. Enthalpy provides a broad range of pen testing and advanced security assessment services to help you implement a best-in-class cyber security strategy.

The Scope of the Challenge

Loss or exposure of sensitive information not only impairs critical business processes but can also result in significant reputation damage.

Cyber Security Services

Boards and audit committees seek reassurance that their organization won't be the next headline.

Thinking Like an Attacker

Enthalpy penetration assessments are carried out by experienced professional hackers who have learned to think like an attacker. Each assessment is customized and fully integrated with other end-to-end Enthalpy cybersecurity services, which include:

- External assessment attempted breaches from outside your network
- Internal assessment mimicking the actions of a malicious insider
- Wireless assessment wireless encryption, rogue detection, war-driving/walking
- ➢ Web application assessment − customized testing of business applications
- Social engineering assessment revealing weaknesses in employee practices

Enthalpy certified specialists are thought leaders on information security issues and regularly speak at national security conferences, including Black Hat[®], DerbyCon[®], Def Con[®] and BSides[®].

We know about

experienced an attacker. Each other end-to-end ernance, oversight, and monitoring programs, assess program gaps and vulnerabilities, and help coordinate an integrated approach that supports your broader cyber security and risk management strategies. Enthalpy Data Privacy Initiatives Leaks, theft, or exposure of protected data can cause significant reputational demage while foilure to comply with percessory privacy

A Coordinated Approach

Leaks, theft, or exposure of protected data can cause significant reputational damage, while failure to comply with necessary privacy regulations can severely limit strategic opportunities and result in significant penalties.

Enthalpy data privacy teams – including highly skilled, CIPP-credentialed specialists – can help you maintain compliance with complex privacy regulations such as:

> EU General Data Protection Regulation (EU GDPR)

4. Addressing Your Data Privacy Concerns

Today's businesses are under increasing regulatory and consumer pressure to protect customers' and employees' sensitive personal information. Enthalpy can help you effectively address data privacy and security concerns, while also supporting regulatory compliance.

Our professionals can help evaluate your overall data privacy gov-

- Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule
- ▶ EU-U.S. Privacy Shield Framework
- ▶ Gramm-Leach-Bliley Act (GLBA)
- ▶ ISO/IEC 27001

5. Cyber Resilience: Rapid and Effective Breach Response and Recovery

Recent waves of cyber attacks have led many organizations to look beyond the question of "if or when" a breach might occur, and focus instead on "how" they can weather the inevitable attack and maintain operations. Enthalpy can help you refocus your cyber security risk management efforts to prepare for incidents and breaches and respond effectively.

Preparing for the Inevitable

With technology playing a critical role in almost every business operation, no organization can afford to find itself in a reactive mode when a cyber breach occurs. As attacks continue to grow in number, persistence, and sophistication, cyber resilience has become an essential component of business resilience, continuity, and disaster recovery efforts.

A Proactive, Comprehensive Approach

Enthalpy cyber resilience professionals are proficient in the major cyber security standards and frameworks, including NIST, CERT-RMM, COBIT, and ISO 27001. They also draw on our extensive assessment, attack, and penetration testing capabilities as part of a comprehensive, two-phased approach:

- Evaluation and preparation establishing a baseline, identifying threat scenarios and vulnerabilities, and developing risk mitigation plans
- Incident response executing an immediate breach investigation and well-planned response to limit damage and resume normal operations as quickly as possible

Cyber Resilience and Incident Response Strategy

Plan and Practice

- Risk assessments
- Deployed security controls/solutions
- Routine testing/audits
- User awareness/education

Identify and Respond

- Your alarms
- Malware, whitelisting, DLP, SIEM, etc.
- Tip Lines

Investigate, Contain, and Remove

- Specialized training, techniques
- Specialized tools/solutions
- Outside help

Reflect and Refine

- Metrics
- Measures
- Proof of performance

6.Efficient, Effective, Comprehensive Cybersecurity Management

In today's business climate, strategically and efficiently managing your cyber security risk is critical to your organization's success. But the cost and complexity of needed infrastructure – along with the struggle to find and retain qualified personnel – can present significant challenges.

Minimize Your Security Risk

Enthalpy managed security services offer an efficient and comprehensive cyber security approach that can help you manage the effectiveness of your cyber security solutions, while at the same time reducing costs and minimizing the impact on your existing IT staff, infrastructure, and other data resources.

A methodology of Focused Cyber security Services

Managed security services let you focus on your organization's goals and objectives, while our cyber security professionals handle critical and sensitive cyber risk management functions.

Our managed cyber security services includes:

Security Information and Event Management (SIEM) Antivirus and Anti-malware Data Loss Prevention (DLP) Firewall Monitoring and Management Disaster Recovery and ITVault





Smart Maritime Initiative









Enthalpy belongs within the SMI's initial core of CETUS SMI with :

Angelicoussis Shipping Group "ASGL" (Maran Gas, etc.) Dept. of Informatics and Telecommunications, University of Athens Lloyd's Register - South Europe Geosystems S.A Ports of: Thessaloniki, Patras, Pireus Operators: COSMOTE/OTE

CETUS strategic targets

▶ Provide an integrated test bed for the maritime domain, covering novel communications solutions (e.g., 5G), IoMT and data management

>Provide an open base platform for smart ports-smart vessels

▶ Provide a test platform for Internet of Maritime things and respective communication solutions

▶ Enable the fund raising for the sustainability of the platform

CETUS 5G- new networking concepts

>Delay intolerant apps (e.g., smart port/smart city assisted driving for transportation of cargo and people)

>High volume communications (e.g., cruise tourism apps)

≻High number of connected devices

▶Smart routing

(smart integration of edge sensors and mobile devices)

►Virtualized network functions

CETUS IoMT

▶Smart navigation and routing

- -Energy efficiency
- -Emissions
- -Collision avoidance
- -Unidentified vessel notification
- -Weather conditions

Smart maintenance

>Smart Vessel management and performance

▷Smart transportation

- -Smart logistics
- -Cargo status monitoring and tracing
- -Smart Port/Smart City road networks and transportation networks

≻Smart business model

-Data analytics for smart business development -New business models

Role	Function	Example of Big data application	
chin anomtor	Operation	 Energy saving operation Safe operation Schedule management 	
Ship operator	Fleet planning	 Fleet allocation Service planning Chartering 	
Ship owner	Technical management	 Safety operation Condition monitoring & maintenance Environmental regulation compliance Hull & propeller cleaning Retrofit & modification 	
	New building	Design optimization	

BIG DATA APPLICATION AREAS









>Inter System Interoperability for Tetra-TetraPol Networks (ISITEP)

Funded by: FP7/SECURITY - E.U.

≻Protection of Critical Infrastructures against High Power Microwave Threats (HIPOW) Funded by: FP7/SECURITY - E.U.

≻Improved port Efficiency and safety using a novel wireless network (DOCKINGASSIST) Funded by: FP7/ SME-2011-1: Research for SMEs - E.U.

≻Geographical positioning services to support independent living and social interaction of elderly people (LIFE 2.0) - Funded by: FP7/ICT - E.U.

►A Self-healing Approach to Designing Complex Software Systems (SHADOWS) Funded by: FP6/IST - E.U.

▶Wireless Information System for Athletic and Cultural Events

Funded by: General Secreteriat for Research & Technology (GSRT)

≻Mobile monitoring and automatic fall detection device for elderly people living alone (HEBE) Funded by: FP6 - CRAFT - E.U.

Secure economic electronic business via mobile-internet applications in the area of tourism (WAPSEC) - Funded by: GSRT

▶Resource allocation techniques for efficient control and management in wireless networks Joint research Greece-USA - Funded by: GSRT

>Development of an integrated secure wireless transmission system for medical images using digital watermarking - Joint research Greece-Britain - Funded by: GSRT

►Intelligent Access Control System for Accredited Persons in Athletic Events (ATHLETICS) Funded by: GSRT

>Urban Planning data application development for a number of municipalities in Greece.

Digital model of piping network of national gas sypply company.

►Search and rescue information system (Θ -SAR) for Hellenic coast guard joined operations center

ICT security projects (Cyber security) for organizations within SAUDI ARABIA kingdomICT projects for Hellenic governmental organizations

▶ Consulting Services and Coaching for GEEWA Gmhb

>Development of Θ - fire platform for the detection and fire evolution based on real time data using telemetry algorithms and special sensors and mapping in Web GIS (EPSILON S.A)

Software development for real-time monitoring and risk assessment of natural phenomena including industrial hazards (GRECO RISK PROJECT / Funded by: GSRT).

≻Feasibility Study for D-Box FP7 Research program with the use of satellite images . Funed by: FP7/ICT - E.U.

Consulting Services for Compiling D-BOX Tool Box Operational Functionalities (Functional Analysis) . Funded by: FP7/ICT - E.U.

SQL Server 2005 to SQL Server 2008 R2 Database Migration & Optimization Views, Store Procedures, String to boolean data conversion) for Ware site .

(SMART MAGNA SOLUTIONS SPAIN)

Source Code development for Fleet Management Platform using Telemetry- webservices in 3D terrestrial models & SAR images . (ATESE. S.A).

Source code Development for web platform plotting 3D urban images using Shp files & satellite images . (ATESE S.A)

▶ Feasibility Study for LOBOS - Reasearch program with the use of satellite images & WMS . Funded by: GSRT/Corallia/ Space Cluster.

>Hellenic Tourism Organization (EOT) Upgrading the Geoinformation System.



"We are what we repeatedly do. Excellence then is not an act, but a habit."

Aristotelis

NCSR DEMOKRITOS Technological Park Athens | Hellas t ./f. +30 213 027 1763 t. +30 6930 362 358

4 Pikioni str. | 3305 Limassol | Cyprus t. +30 6932 786 264 t ./f. +357 25 339280

> www.enthalpy-ltd.com info@enthalpy-ltd.com enthalpy@outlook.com.gr

