



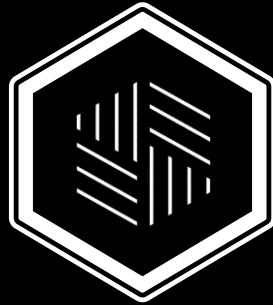
Software

IR²

PROPOSAL

INTRODUCTION

A b o u t U s



We are a large software company based in MILAN and ROME, with 150 employees from engineer to management experts.

Since our birth, we worked with MAJOR FIRMS in different sectors in order to provide the BEST IT SOLUTIONS for innovation and management. QUALITY is an obsession for us.

Thanks to the KNOW-HOW, accumulated with the countless projects brought to completion, we can deliver FLEXIBLE, SCALABLE and AD-HOC software solution with EFFICIENCY and EFFECTIVENESS. One of our excellences concerns COMBINING MULTIPLE DATA SOURCES and our systems are designed to be fully COMPATIBLE and INTEGRABLE with the client pre-existing IT infrastructure. We can also boast a long-term collaboration with MICROSOFT and their business management and cloud systems, on which many of our solutions are based.

DATA SECURITY and PRIVACY are among our main concern: a team of specialists contributes to each of our projects to ensure top CYBERSECURITY standards, furthermore, our collaboration with large law firms guarantees compliance with the increasingly important GDPR regulations.

Our new RESEARCH SITE in ROME allows us to use STATE-OF-THE-ART technologies for DATA MANAGEMENT and ANALYSIS, as well as the use of innovative MACHINE LEARNING and ARTIFICIAL INTELLIGENCE solutions for INDUSTRY 4.0.

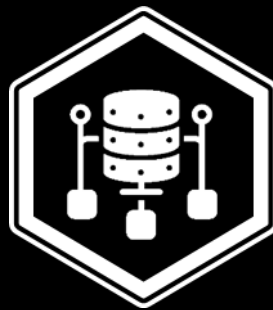
*When you will discover our solutions,
you will know that they are the perfect ones for you*

Project Overview

In response to IR² RFP, SOFTWHERE is pleased to offer AD-HOC designed solution consisting of the following modules:

- ◆ SOFTWHERE DATA COLLECTION SUITE
- ◆ SOFTWHERE DATA ANALYSIS SUITE
- ◆ SOFTWHERE SOCIAL SCIENCE SUITE

SoftWhere Data Collection Suite



SOFTWHERE DATA COLLECTION SUITE is the first suite on which our solution is structured. Based on our EXPERIENCE and EXPERTISE in the sector, this module is designed to offer QUICK and RELIABLE DATA INTEGRATION capabilities and is based on MICROSOFT AZURE HDINSIGHT CLOUD PLATFORM suitable for handling HUGE quantity of data.

This suite is also integrated with APACHEHBASE DBMS: a COLUMN-FAMILY based DBMS OPTIMIZED for search QUERIES and ANALYTICS. Our solution is capable of extracting and merging HETEROGENEOUS data from DIFFERENT types of SOURCES, like websites and apps.

The module is designed to exploit the MICROSOFT DYNAMICS functionalities and is therefore naturally integrated with your AZURE-based systems

The main features of the suite are the following:

- The ability to AUTOMATICALLY collect data from the IR² WEB site, SMARTPHONE APPLICATION and R&D DEPARTMENT.
- The AUTOMATIC RESOLUTION of the INCONSISTENCIES between data.

- An INTUITIVE user INTERFACE, that allows users to easily upload files and datasheets in the system.
- An ADVANCED SEARCH FEATURE, that permits the search of files and data using various criteria.
- The ability to VISUALLY REPRESENT DATA with a wide range of GRAPHS and VISUALIZATION METHODS, even virtual reality functions can be developed on request.
- The system AUTOMATICALLY REPLICATES data, offering maximum AVAILABILITY and REMOVING the risk of any DATA LOSS. The level of replication can be easily modified.
- Data will be collected in compliance with GDPR regulations.

SoftWhere Data Analysis Suite



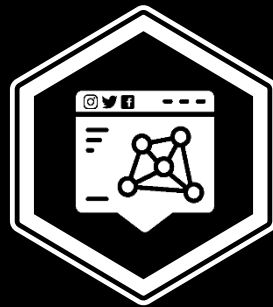
The SOFTWHERE DATA ANALYSIS SUITE grants access to a great variety of advanced ANALYTIC TOOLS. Based on MICROSOFT HDINSIGHT services and integrated by SOFTWHERE data science experts, this solution allows to extract meaningful information from huge quantity of data.

The key functionalities are:

- An integration with the SOFTWHERE DATA COLLECTION SUITE user interface and the power of its visualization functionalities.
- The possibility to select through the interface one of several ANALYTICAL TOOLS, including:
 - A FORECASTING TOOL that detects trends based on user review and application data.

- A power SENTIMENT ANALYSIS tool on the reviews, able to distinguish the sentiments on the DIFFERENT CHARACTERISTICS of the products.
- PARALLEL SEARCH TOOL that determines similar keywords and topic that are in common between user reviews and R&D datasheet.
- A COMPETITOR MONITOR that analyzes user review in order to comparisons with competitors.
- The possibility for each analytical tool to be easily USED BY NON-TECHNICAL USER thanks to a build-in explanation of their usage.

SoftWhere Social Science Suite



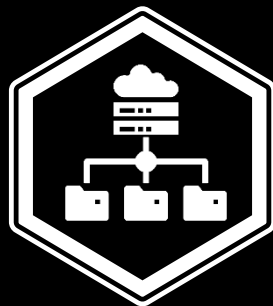
The SOFTWHERE SOCIAL SCIENCE SUITE is a special module developed with the goal of analyzing SOCIAL MEDIA profiles and TRENDS. The module is perfectly integrated with the other suits.

Among the features that this module offers, there is:

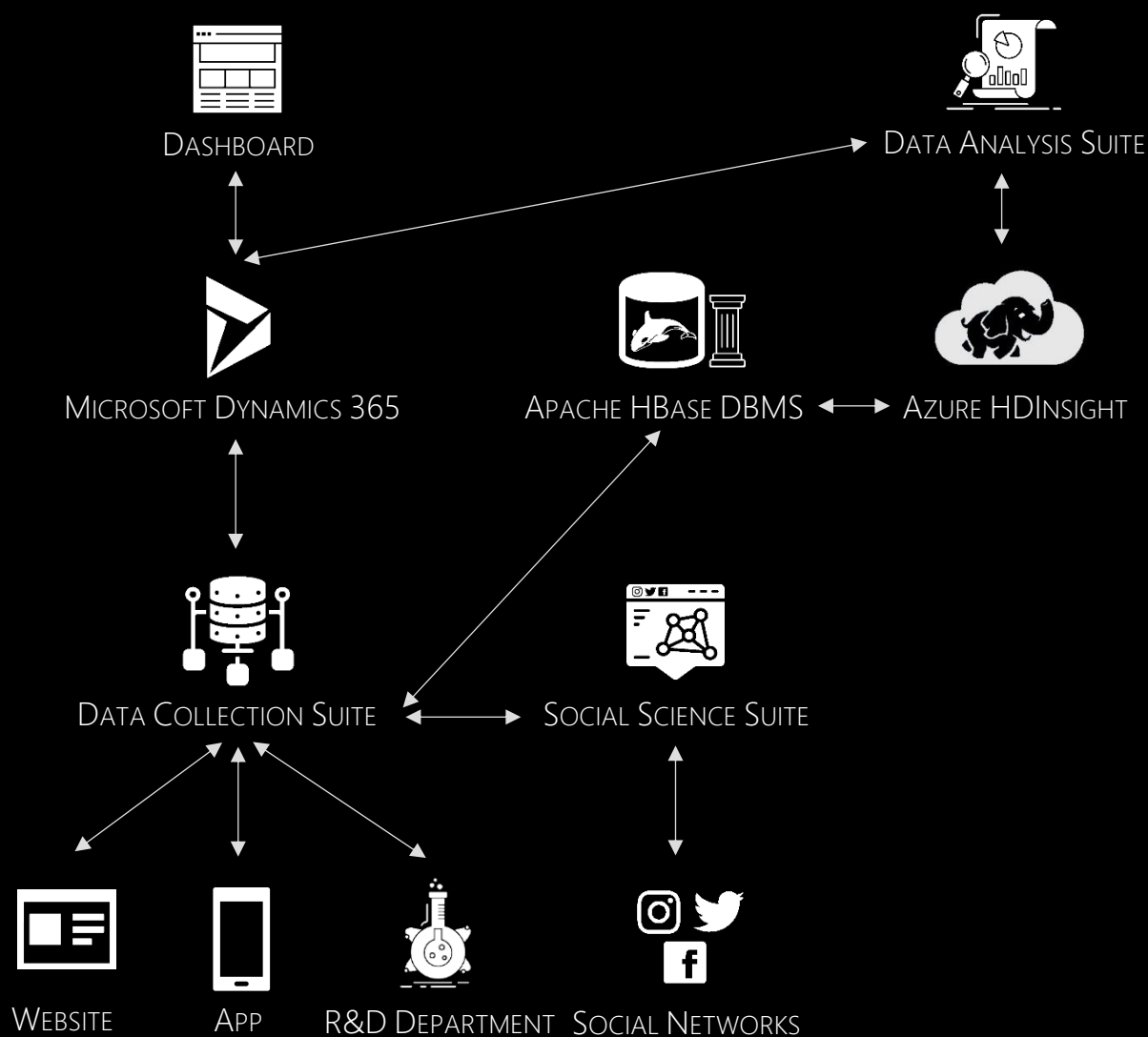
- The possibility for the user to select the SOCIAL NETWORK(S) as well as the COMPANY PROFILES to be monitored.
- The possibility to set PERIODICAL REPORTS that summarize the EVOLUTION of the COMPANY'S SOCIAL PROFILES.
- The integration with the SOFTWHERE DATA COLLECTION SUITE features, like the USER INTERFACE and the data MERGING CAPABILITIES.
- The integration with the SOFTWHERE DATA ANALYSIS SUIT and its powerful analytical tools, adapted to also manage data coming from social networks.

TECHNICAL OVERVIEW

Architecture



The following scheme reflects the ARCHITECTURE of the proposed solution:



CLOUD COMPUTING AND STORAGE

SOFTWHERE DATA COLLECTION SUITE and SOFTWHERE DATA ANALYSIS SUITE are based on a common cloud solution: MICROSOFT AZURE HDINSIGHT. This service is integrated with APACHE HBASE DBMS, a column-family based database optimized for search queries and analytics.

DATA COLLECTION

SOFTWHERE DATA COLLECTION SUITE automatically retrieves data from the different data sources and merges them into the database. With the integration of the SOFTWHERE SOCIAL SCIENCE SUITE, the system is also be able to collect and analyze data from social networks.

DATA ANALYSIS

The SOFTWHERE DATA ANALYSIS SUITE uses the cloud computing power, provided by MICROSOFT AZURE HDINSIGHT frameworks based on HADOOP, to analyze large amounts of data effectively and efficiently.

DASHBOARD

SOFTWHERE DATA COLLECTION SUITE and The SOFTWHERE DATA ANALYSIS SUITE are built on top of MICROSOFT DYNAMICS 365, exploiting its interface and great functionalities. This solution allows you to bring together all the features described above, designed specifically for your company, with the vast ERP features that DYNAMICS offers. You will have the definitive solution for the business management in a single DASHBOARD.

Cloud Computing and Storage



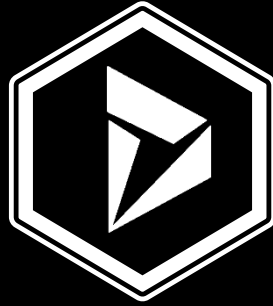
MICROSOFT AZURE HDINSIGHT is a cloud distribution of HADOOP components, that makes easy, fast and cost-effective to process massive amount of data. HDINSIGHT is a LOW-COST NATIVE CLOUD SOLUTION capable of SCALE workloads by creating clusters ON DEMAND. Being part of MICROSOFT AZURE ecosystem, it naturally integrates with all MICROSOFT products and offers all benefits of AZURE-based applications, like the AZURE SECURE PLATFORMS and AZURE MONITOR LOGS.

APACHE HBASE offers a management system for cluster configured to store data directly on AZURE STORAGE, which provides LOW LATENCY and increased ELASTICITY in PERFORMANCE and COST CHOICES.

Processing HUGE quantity of DATA is not a problem because operations are performed using HADOOP JOBS (MAPREDUCE), integrated with SOFTWHERE in house solutions to address the specific requirements of the company. PERSISTENCY and RELIABILITY of data is granted by HBASE STRICTLY CONSISTENCY POLICY. The system is DESIGNED TO AVOID any DATA LOSSES. Data can be managed through HBASE's C# API, which offers a client library, in addition to HBASE's REST API.

We propose this solution because represent the INDUSTRY LEADING STANDARD FOR ANALYTICS operations OVER BIG DATA, while also being fully COMPATIBLE with AZURE and MICROSOFT solutions. Moreover, this solution is highly SCALABLE and FLEXIBLE, offering you the possibility to expand and integrate it with new tools and services at low cost.

Microsoft Dynamics 365



Our suites are designed to be MODULAR and they offer their best with their INTEGRATION. All the modules expose a COMMON INTERFACE build on top of MICROSOFT DYNAMICS 365.

MICROSOFT DYNAMICS 365 is modular ENTERPRISE RESOURCE PLANNING (ERP) offering advanced CUSTOM RELATIONSHIP MANAGEMENT (CRM) capabilities. Some of its key benefits are:

- Usage of MACHINE LEARNING, ARTIFICIAL INTELLIGENCE and MIXED-REALITY tools for business.
- PREDICTING GUIDANCE for SALES and DECISION making.
- EXTENSIVE FUNCTIONALITIES in many fields and INTEGRATION with MICROSOFT products.
- SCALABILITY and PRICE-FLEXIBILITY.

We base our solution on top of the SALES, MARKETING and CUSTOMER INSIGHTS modules that DYNAMICS offer, extending their functionalities with new AD-HOC solutions that address your needs, without compromising efficiency and usability.

MICROSOFT DYNAMICS 365 it is the most natural choice, due to its NATIVE INTEGRATION with MICROSOFT products (in particular AZURE), its ADVANCED FUNCTIONALITIES and its MODULARITY. The latter allows us to integrate, and make you pay, only the modules that are necessary.

Technical Support



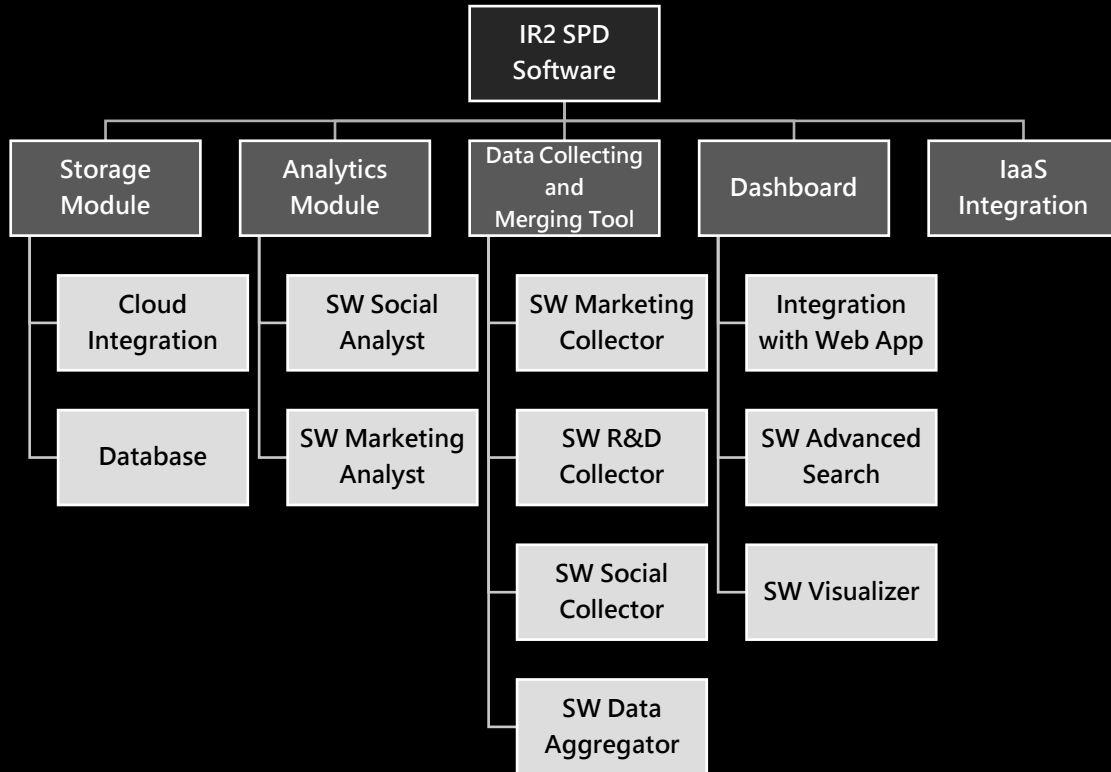
At SOFTWHERE we believe that the quality of our solutions also passes through the RELATIONSHIP with our CUSTOMERS.

Our TECHNICAL TEAM is specialized in the training of personnel. We are so confident in our ability to make our software easy to use for our clients, that all the training necessary, up to three months from deployment, will be included in our offer. They will also provide TUTORIALS AND TECHNICAL GUIDES for you and your customers.

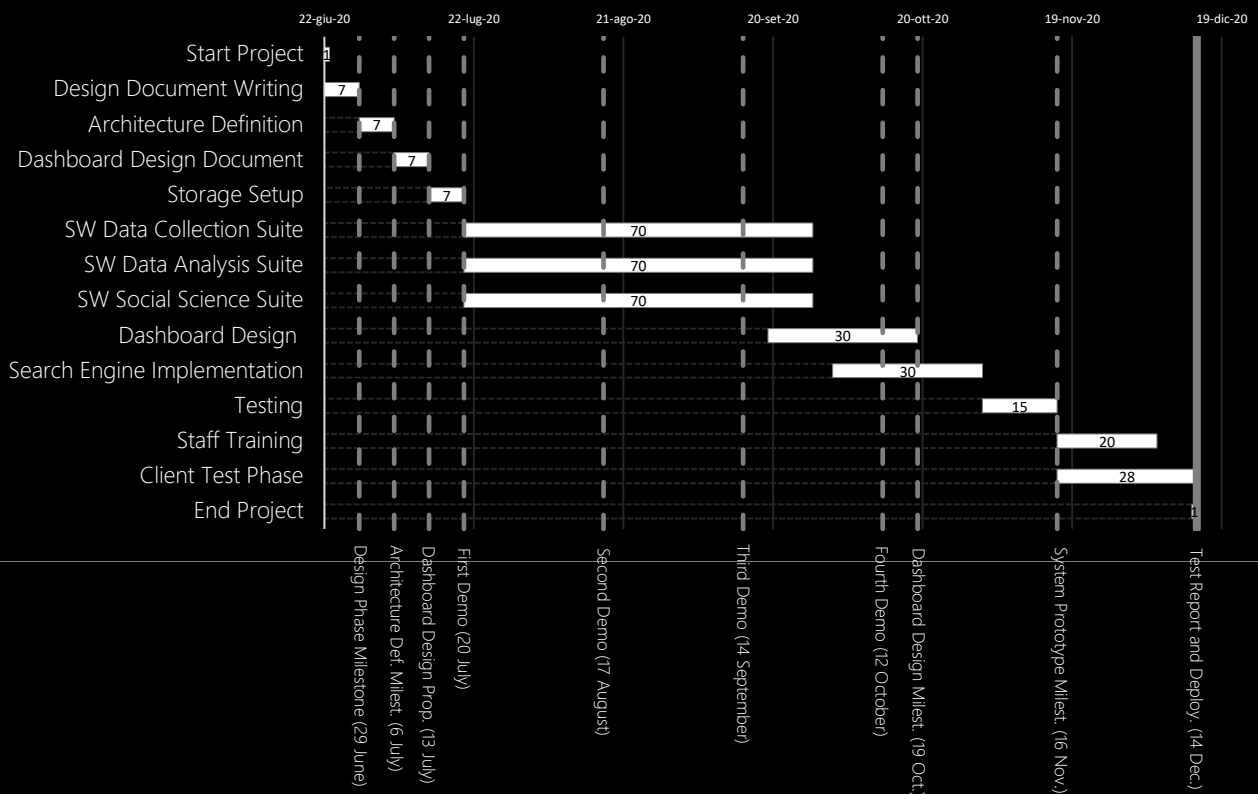
In case you are interested in an even more PERSONALIZED and LONG-TERM SUPPORT, we offer a PREMIUM PACKAGE that guarantees 360 ° assistance and availability for every possible technical need, with guaranteed resolution in the shortest possible time.

Project Management

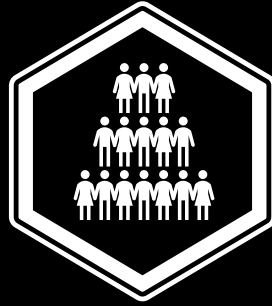
Work Breakdown Structure



Gantt Graph



Personnel



For each phase listed in the WBS the following personnel has been planned:

- DESIGN DOCUMENT: Project Manager (3), Senior Developer (2), System Engineer (1), Data Science Expert (3) → Total (9)
- ARCHITECTURE DEFINITION: Project Manager (2), Senior Developer (2), System Engineer (2) → Total (6)
- DASHBOARD DESIGN DOCUMENT: Project Manager (2), Designer (3), Senior Developer (2) → Total (7)
- STORAGE SETUP: Senior Developer (2), System Engineer (5) → Total (5)
- DATA COLLECTION SUITE: Junior Developer (3), Senior Developer (5), Data Science Expert (2) → Total (10)
- DATA ANALYSIS SUITE: Junior Developer (2), Senior Developer (2), Data Science Expert (4) → Total (8)
- DASHBOARD DESIGN: Senior Developer (1), Designer (3) → Total (4)
- SEARCH ENGINE IMPLEMENTATION: Senior Developer (1), Junior Developer (3) → Total (4)
- TESTING: Technical (5)
- STAFF TRAINING: Technical (3)
- CLIENT TESTING SUPPORT: Technical (2)

To guarantee our quality standards for such an extensive work, that is necessary to redefine your company's business intelligence systems, a great effort is needed. The number of employees working on this project allows us to offer you the best possible solution with a price not much higher than the indicative one provided.

OFFER

One Time Costs

MODULE	COST (€)
S.W. Data Collection Suite	130 000.00
S.W. Data Analysis Suite	130 000.00
S.W. Social Science Suite	90 000.00
TOTAL	350 000.00
Five-month licenses discount	- 35 000.00
OUR OFFER	315 000.00

We would like to emphasize how our prices reflects the QUALITY of our products, nevertheless we have decided to subtract from our offer the cost of FIVE-MONTH of MICROSOFT AZURE HDINSIGHT and MICROSOFT DYNAMICS 365 LICENSES.

License Costs

The RECURSIVE COSTS are those related to MICROSOFT AZURE HDINSIGHT and MICROSOFT DYNAMICS 365 LICENSES, those includes APACHE HBASE which is integrated into HDINSIGHT. (EXTEND EVENTUALLY PRE-EXISTING LICENSES COULD SIGNIFICANTLY REDUCE THE COSTS)

The costs relating to the MICROSOFT AZURE HDINSIGHT license amount to a total of about € 4 700.00 per month, for a configuration of 8 terabytes, complete with redundancy and security features.

The costs relating to the MICROSOFT DYNAMICS 365 license amount to a total of about € 2 300.00 per month, for the required modules.