The Case for Open Source Information Management

Taken from excerpts of the report 'An Alternative to Major IT Providers' published by CIGREF, France in December 2018

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DISPELLING THE ENTERPRISE OPEN SOURCE MYTHS

According to the 2019 Open Source Security and Risk Analysis report, nearly 100 percent of application code bases contain open source software.

It's only for IT hobbyists

Wrong. The world's largest companies, including **Amazon, Walmart and JP Morgan Chase,** not only use open source but have released their own open source software so the rest of the world can modify and share their code.

It's not safe

Not true. If the **US National Security Agency** and **UK Government Communications Headquarters (GCHQ)** use open source software, you can, too

It lacks features to make it useful

Nope. WikiSuite offers most (**over 80%**) of the data and information management features all organizations need.
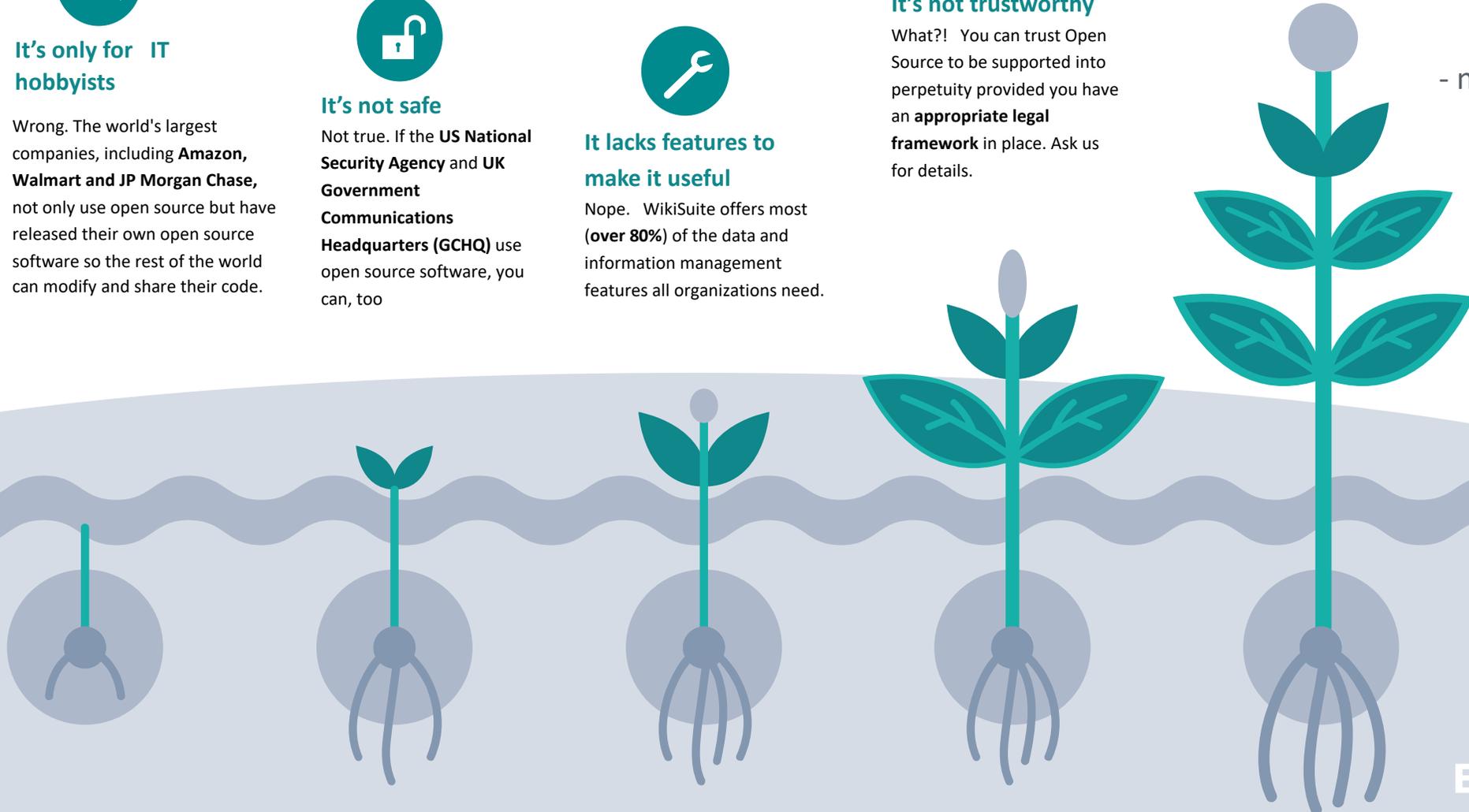
It's not trustworthy

What?! You can trust Open Source to be supported into perpetuity provided you have an **appropriate legal framework** in place. Ask us for details.

The ROI is poor

Unreal. **Open Source software is generally FREE!!**

With IM solutions from EvoluData, you pay for: configuration integration training testing tuning support - not for software or upgrades

About

This presentation provides a synopsis of the excellent white paper titled, 'Open Source, An Alternative to Major IT Providers' published by CIGREF, France in December 2018.

About CIGREF

Cigref is a network of major French companies and public administrations set up in order to develop its members' ability to acquire and master digital technology.

Created in 1970, Cigref is a non-profit organization. Its counts among its members some 150 major French corporations and public administrations across all business sectors, all users of digital services. It is a key player and federating body in the digital society, thanks to its high-quality thinking and the extent to which it represents its members.

Outlook

Open source solutions meet today's challenges: time to market, agility at scale of the company and open innovation. They facilitate the collaboration and pooling of software developments.
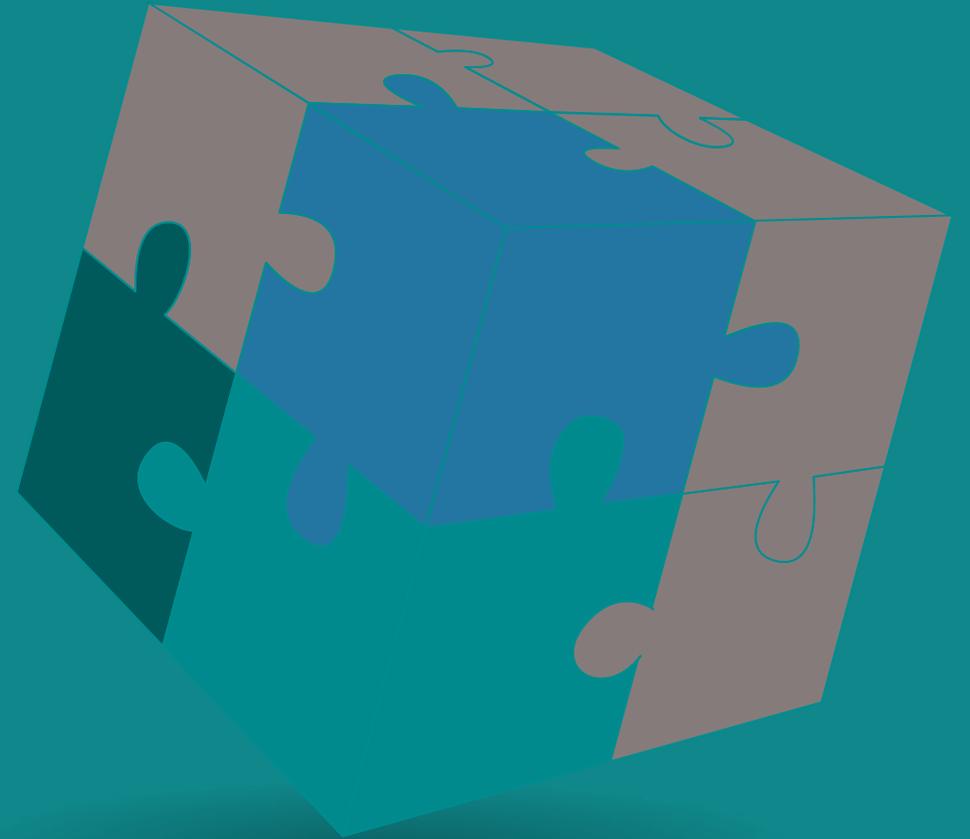
Open Source for Enterprise Information Systems

Definition

Software is said to be open source when the source code is free and open access. This is known as Free Open Source Software, or FOSS.

The Four Types of Freedom

These 4 freedoms are sometimes combined with rules (constraints

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101010
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Freedom to study the source code (access) and how the program works to adapt it to your needs

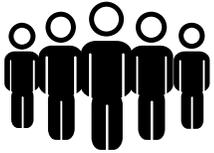Freedom to change/improve the source code (access) and share it

Freedom to run the program

Freedom to redistribute and copy the code

How the Community Ecosystem Works

Customers fund the developments and support

Provider creates the software. Developers and users are usually independent with various motivations. They produce or use tools based on a production mode combining collaboration, mutual assistance, sharing and pooling

IT consultancy integrates the software into the information system. IT consultancies may have to contribute to open source developments, but they do not publish them;

Foundation hosts the code with neutrality and governance rules. Foundations are not there to create the software they host. They coordinate the community and promote software programs. Where ownership rights are hosted within a foundation, editors cannot change to proprietary mode or modify its business model

3 Licence Types

Non-permissive also known as copyleft (as opposed to copyright) licences. The author retains a copyright and redistribution must be done under the same licence.

In principle, copyleft licences prevent the person using the code from taking ownership of the community effort without transferring improvements and corrections to it.

Contribution to the collective effort becomes a principle and helps to maintain the dynamics of their developments. Free software in copyleft will remain in copyleft forever.

Permissive also known as copyfree licences have no restrictions on redistribution

Public domain licence where the copyright has expired or there is no copyright.

The True Costs of Open Source

Project Total = User rights cost = Nil + dev. cost + adaptations/integrations + professional support + training cost

Licence Costs

Nil

Development Cost

There are two possibilities for developing future functionalities that the company is interested in. First situation, the company is the only party interested in these developments: it funds them in full. Second situation, several companies are interested; so they choose to share the development cost of a common core.

Adaptation and Integration Costs

Most adaptations and integrations are performed by IT Consultancies on a chargeable basis. When developments for integration into the information system are accepted by the community, the entire configuration and customisation does not need to be redefined on each update. This helps control operational costs.

Support Costs

Buyers normally have the possibility of selecting a provider who will provide community model open source software support and maintenance. This is not the case of open source software with subscription, which requires support and maintenance, or of proprietary software.

Other Costs

Changing to open source solutions sometimes incurs hidden costs that need to be kept in mind. As is the case for many software solutions, investment in in-house or external skills is necessary. Some skills are rare and therefore expensive. Buyers must expect an additional cost when it has to change its practices, its organisation for adopting collaborative work, sharing developments or even venturing into the make.

Summary

'The market concentration on major IT providers is significantly shifting the decision-making focus. Consequently, urgent action is needed to foster a dynamic alternative ecosystem that can be controlled by user companies. This ecosystem exists in infrastructure software solutions: this is the open source universe.'

Stéphane Rousseau, Working group coordinator CIO Eiffage and Cigref administrator

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Disadvantages

Lack of familiarity with legal structures

Buyers need to be at ease with the ecosystem's licences, the various possible business models and fully understand where the intellectual property is situated to be aware of the risks associated with free software. Ultimately, you should be fully aware of the obligations associated with free software. Understanding open source software roadmaps, excluding subscription models, is also not so easy.

Talent retention

Discovering open source talented individuals is important to avoid seeing them attracted by other open source ecosystem companies.

Integrating the open source core values and behaviours into organizational norms

The integration of individuals possessing open source cultural values and sense of community – including the allocation of time commitments to openly contribute towards community projects and to invest time in learning new technology constructs - may generate cultural tensions. I n general, 'open sourcers' have very different cultures from those practised within major companies. This represents a real culture change and way of producing issue: ability to change delivery modes, organisation, etc.

Choosing an appropriate partner and support approach

Choosing the type and scope of support according to the needs and having several contact people instead of just one with major publishers, also requires skills. The multiplicity of types of possible support with free software, and the scope of the guarantee and support service to be defined, have a certain complexity that buyers should know how to manage.

Embracing 'fair play' principles

It should be noted that open source forces the IT provider to ensure fair play and the excellence of its model. As the source code is public, the customer or part of the community may decide to create a fork at any time in the event of disagreement.

Advantages (1)

Enable digital transformation

Digital transformation provides a company with the ability to find new sources of growth in new markets. The cumbersome rules of traditional publishers can be overcome through Open source solutions, which can speed up the process and rapidly test these sources of growth in an extremely fast-changing economic context. Open source also represents a real innovative program accelerator because free software provides technological drivers, in particular, in the sectors of IT agility, DevOps (mainly open source solutions are deployed), cloud, open APIs, and IoT, etc.

Competitive advantage

Serve untapped needs to gain first-mover advantage
Some companies have specific needs with no solutions available on the market. Indeed, the more specifically the technology meets a specific need, the less likely it will be of interest to other companies.
This raises the question of make or buy. Opting for make in open source represents a genuine project accelerator if the company has adopted the open source "mindset". Free software makes it possible to overcome certain publisher constraints and provides greater autonomy. It is important to take the time ratio into account.

Pay for what you use

In the open source business model, excluding open source subscription products, the user pays for the service associated to the exact need and not for the software annuity. This is one of the reasons why the open source alternative is being studied carefully.

Facilitate collaboration and agility

In order to take market share in the sectors of innovation and more specifically, Artificial Intelligence, augmented reality, big data, and analytics, the big five tech companies (GAFAM) are placing algorithms in open source. Therefore, everyone is using them, and they are becoming the solutions used. R&D departments can network on their algorithms in complete transparency. Lastly, the open source ecosystem, a true technological research laboratory, enables companies to identify the emerging technological trends that are in vogue or growing and analyse their evolution. Therefore, this ecosystem represents a barometer indicating the continuity of the various technologies and their potential to discover sources of growth.

Advantages (2)

Produce industry-wide / federated systems

Major companies are pooling their resources in order to develop common open source software solutions within alliances, associations, or industrial sectors (vertical industries). Nowadays, companies are no longer hesitating to group together within inter-company partnerships in order to share their feedback and even pool developments. Such is the case of associations like the PGGTIE and TOSIT. In fact, major companies have already started to pool software developments in order to focus on the applications and services side that make them stand out in the market.

Reduce enterprise software risks

There is a presumption that open source software is a higher risk than procuring software applications under licence from a reputed supplier with excellent credentials from industry watchers such as Gartner Inc. This perception is now being placed under scrutiny by enterprise buyers.

Remove the constraining cost of enterprise IT using licenced software from major vendors

Free software enables companies and public administrations to gain independence and autonomy in relation to major providers. Open source software enables companies to achieve their objective of reducing the IT department's budget, even though free software has a cost.

Improve Compliance

Open source software has a decisive structural advantage in terms of compliance and IT security over proprietary software, the code of which is closed: the code is open and therefore can be analysed.

Examples of Cross-Industry Cooperation

Case Story - PostgreSQL.fr association

The aim of the PGGTIE, the Inter-Company Working Group of the PostgreSQL.fr association in accordance with the French 1901 Law of Associations, is to promote PostgreSQL database management systems in French-speaking countries. The working group's objective is to pool efforts for 3 concrete actions on PostgreSQL:

- Share implementation feedback. Members exchange the irrespective architectures, and the consolidation of orders of magnitude on the base and on volumes. A toolbox is provided to share and consolidate the respective documents in order to publish their results;

- Encourage companies to use and adopt PostgreSQL. Also encourage support by software package publishers.

- Contribute to continuity, improvement and operability;

Case Story - GENIVI alliance

In the case of GENIVI alliance, the aim of this not-for-profit consortium founded in 2009 by BMW Group, Delphi, GM, Intel, Magneti-Marelli, Groupe PSA, Visteon, and Wind River Systems, is to create a Linux-based operating system standard for the automotive navigation systems and multimedia systems industry.

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Planning Steps

Acculturate employees with the open source ecosystem (key characteristics of this ecosystem, advantages and disadvantages of open source software, and risk management)

02

Establish governance within your company for selecting software

04

| Step Number One | Step Number Two | Step Number Three | Step Number Four |

01

Define criteria for analysing open source software, shared by the entire company and that take into account long-term risk taking; for example, intellectual property, type of licence, user and developer communities, etc.

03

Set up a software selection and support process
In other words, with all possible software solutions, select the best compromise between:
- business need
- Price
- possible support

Final Thoughts

- Open source software provides **technological and strategic advantages** with the digital transformation of companies, such as the attractiveness of talented individuals and the development of skills. These are all reasons why some companies, strongly supported by their Executive Committee, have established an "open source first" strategy.

- Open source solutions meet **current challenges,** such as, time to market, information system control, agility at scale of the company and open innovation.

- Convinced of the power of **collective intelligence** and the advantages of pooling investments, software developments or experience sharing within EIGs or associations, companies and public organisations are getting organised in order to collaborate.

- Selecting an open source solution **requires a clear understanding of the specificities** of this ecosystem to avoid getting it completely wrong.

'Compared with the traditional model for publishing software solutions, which shows the limitations of its relevancy, open source is better suited to the new codes of co-creation, collaborative production and open innovation. Open source has become the go-to component of an IT strategy.'

Stéphane Rousseau, Working group coordinator CIO Eiffage and Cigref administrator

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EvoluData is a global information management company serving large enterprise

We lever value from WikiSuite by creating ready-to-play solutions for our clients around the world. We educate and promote on the use of the WikiSuite open source digital platform, and we offer turnkey solutions to meet YOUR very specific information management management needs.

OPEN SOURCE IS MORE CAPABLE THAN YOU COULD EVER IMAGINE

Collaborate

Explore the three ways to make **collaboration** work...

✶ Project Teams
Improve efficiency and reduce the volume of emails by using shared project management tools.

✶ Social Networking
Empower people to interact and help each other around a common interest.

✶ Membership Management
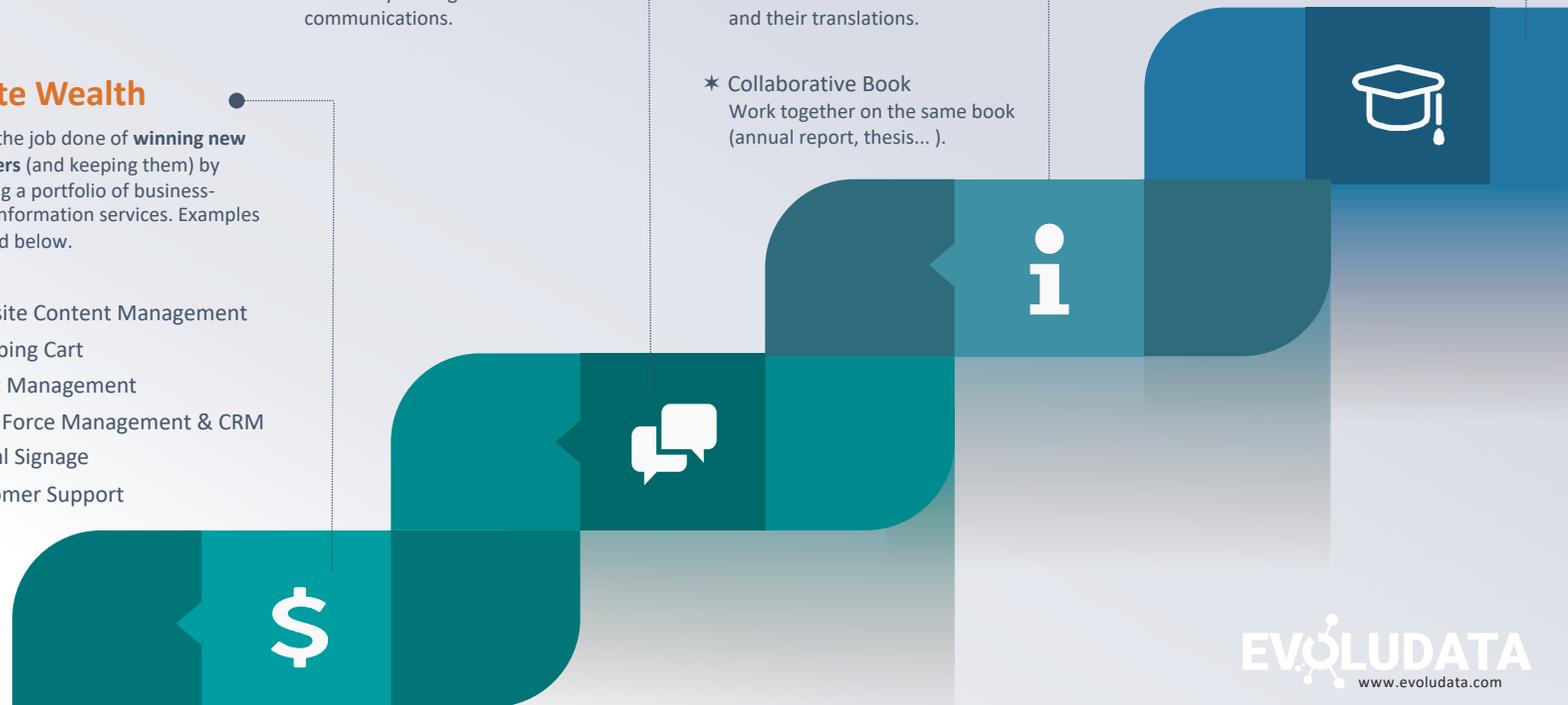Effectively manage member lists and communications.

Share Knowledge

Case examples of knowledge management in practice teach us that **sharing knowledge** requires teams to have a common goal and/or purpose. It demands a unifying 'place to share' knowledge and wisdom.

✶ Knowledge Base
Preserve and share knowledge

✶ Multilingual Glossary
Collaborate on a list of terms and their translations.

✶ Collaborative Book
Work together on the same book (annual report, thesis...).

Learn

Train employees or customers with our **learning platform** that grows and adapts to your needs.

✶ Webinars
Deliver and record webinars

✶ Calendar
Manage a calendar of webinars and have your team update them

✶ Self-Registration
Encourage online registration

✶ Quizzes and Exercises
Why educate if you don't test?

Create Wealth

We get the job done of **winning new customers** (and keeping them) by providing a portfolio of business-critical information services. Examples are listed below.

✶ Website Content Management
✶ Shopping Cart
✶ Event Management
✶ Sales Force Management & CRM
✶ Digital Signage
✶ Customer Support

Take the next step to discovering open source