

1.2 Objetivos y beneficios de la computación orientada a Servicios.

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Overview

- It is very important to establish why both vendor and end-user communities within the IT industry are going through the trouble of adopting the service-oriented computing platform and embracing all of the change that comes with it.
- The vision behind service-oriented computing is extremely ambitious and therefore also very attractive to any organization interested in truly improving the effectiveness of its IT enterprise. A set of common goals and benefits has emerged to form this vision. These establish a target state for an enterprise that successfully adopts service-orientation.

Strategic goals and benefits

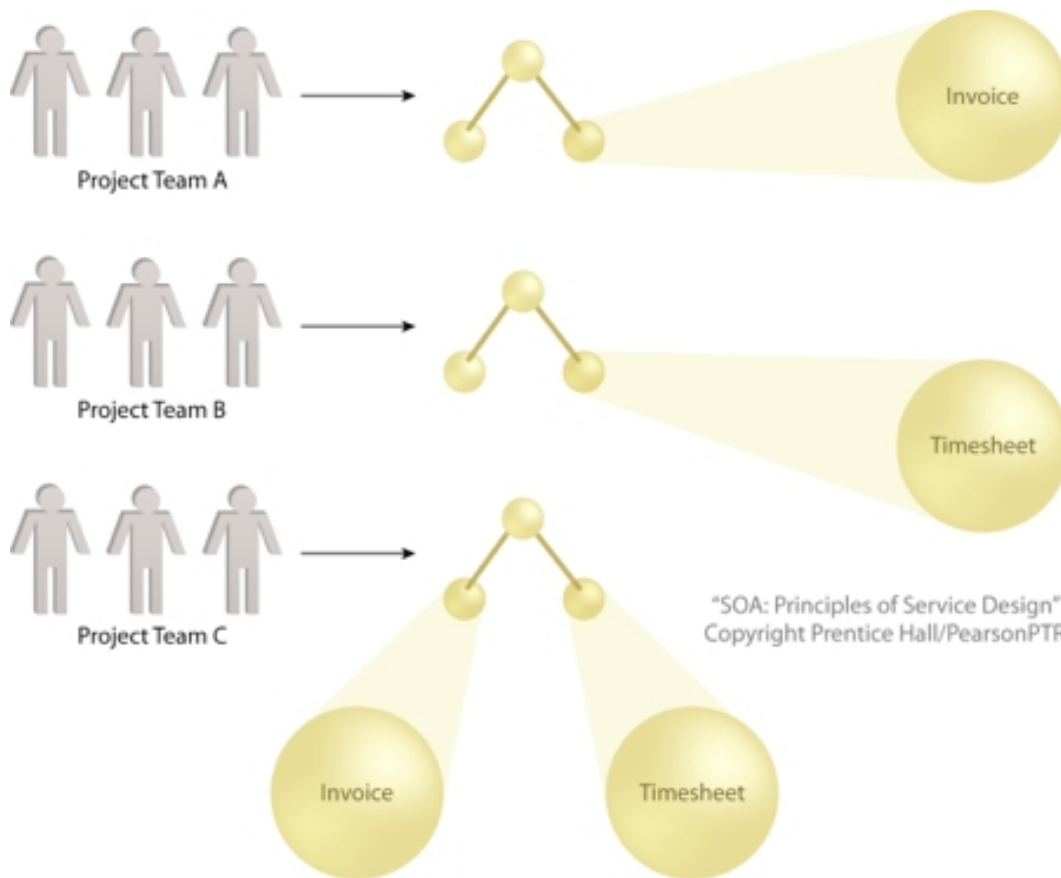
- [Increased Intrinsic Interoperability](#)
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Increased Intrinsic Interoperability

- Interoperability refers to the sharing of data. The more interoperable software programs are, the easier it is for them to exchange information.
- Software programs that are not interoperable need to be integrated. Therefore, integration can be seen as a process that enables interoperability.
- A goal of service-orientation is to establish native interoperability within services in order to reduce the need for integration.

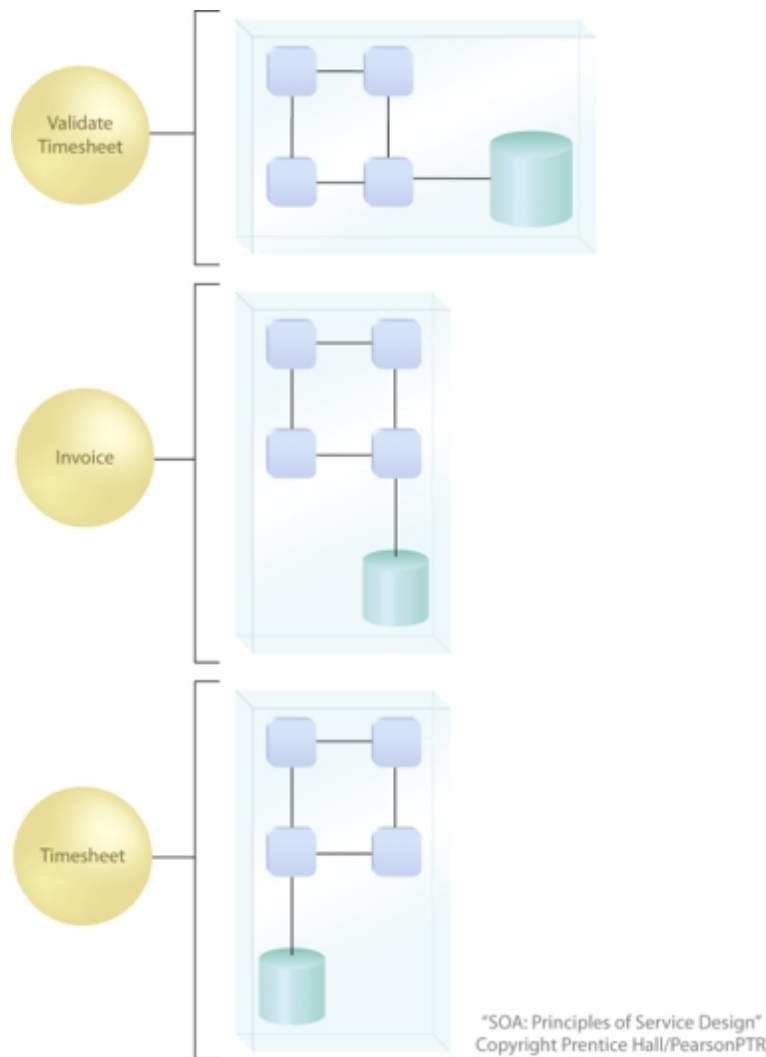


Services are designed to be intrinsically interoperable regardless of when and for which purpose they are delivered.

In this example, the intrinsic interoperability of the Invoice and Timesheet services delivered by Project Teams A and B allow them to be combined into a new service composition by Project Team C.

Increased Federation

- A federated IT environment is one where resources and applications are united while maintaining their individual autonomy and self-governance. SOA aims to increase a federated perspective of an enterprise to whatever extent it is applied. It accomplishes this through the wide spread deployment of standardized and composable services each of which encapsulates a segment of the enterprise and expresses it in a consistent manner.
- In support of increasing federation, standardization becomes part of the extra up-front attention each service receives at design time. Ultimately this leads to an environment where enterprise-wide solution logic becomes naturally harmonized, regardless of the nature of its underlying implementation.



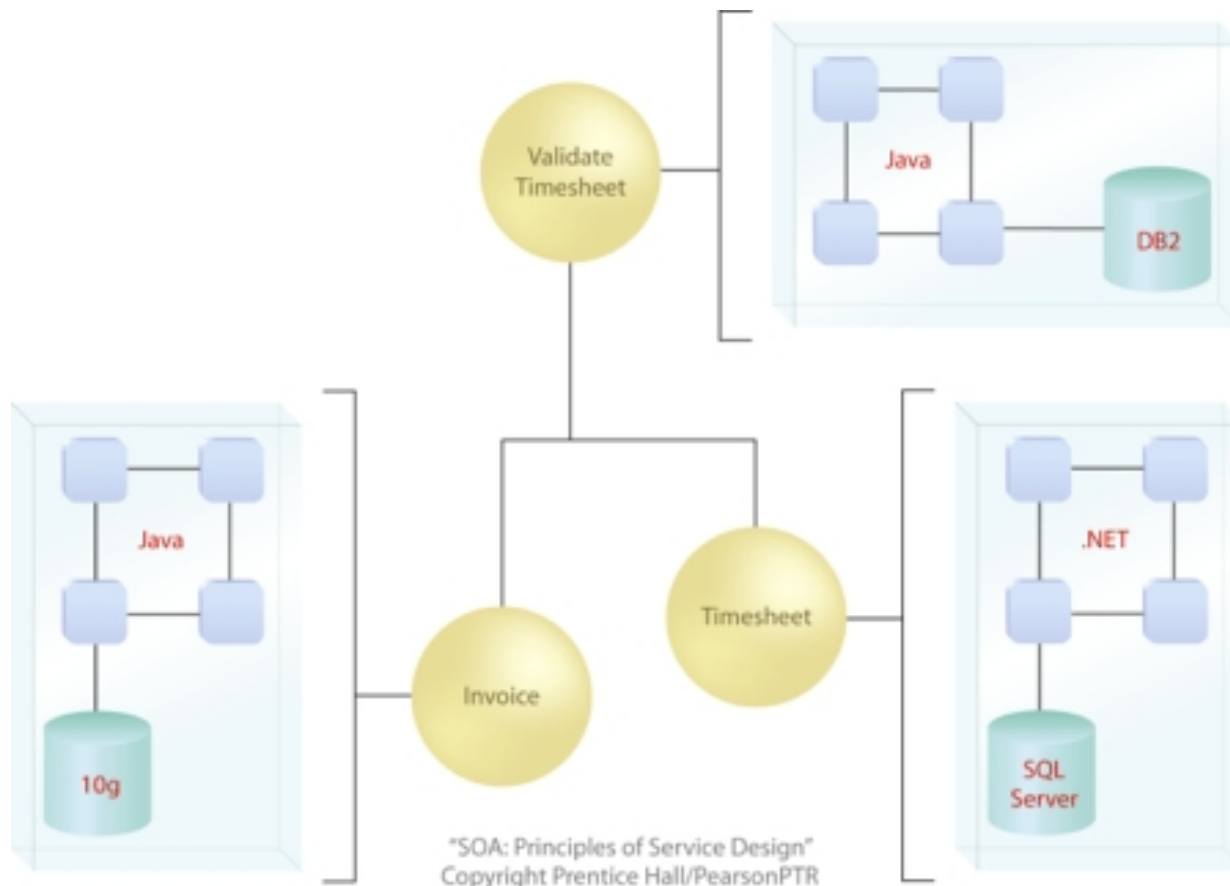
Three service contracts establishing a federated set of endpoints, each of which encapsulates a different implementation.

When service-oriented solutions are built via the Web services technology platform, the level of attainable federation is further elevated because services can leverage the non-proprietary nature of the technologies themselves.

However, even when using Web services the key success factor to achieving true unity and federation remains the application of design principles and standards.

Increased Vendor Diversification Options

- Vendor diversification refers to the ability an organization has to pick and choose “best-of-breed” vendor products and technology innovations and use them together within one enterprise.
- It is not necessarily beneficial for an organization to have a vendor diverse environment; however, it is beneficial to have the option to diversify when required.
- To have and retain this option requires that its technology architecture not be tied or locked into any one specific vendor platform.

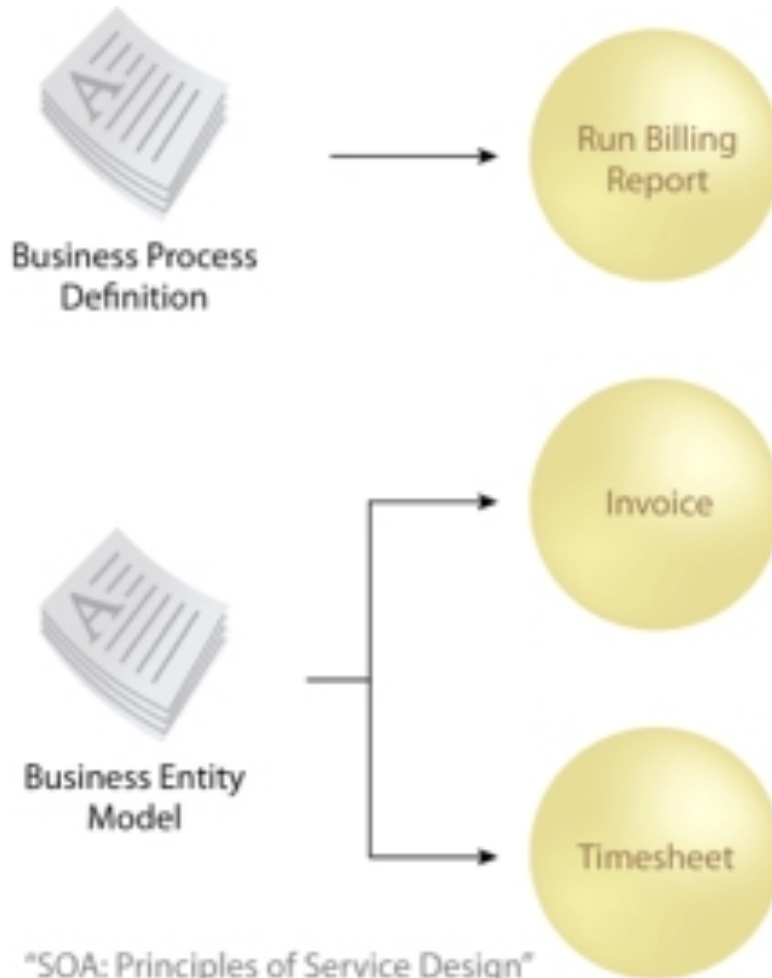


A service composition consisting of three services, each of which encapsulates a different vendor automation environment.

If service-orientation is adequately applied to the services, underlying disparity will not inhibit their ability to be combined into effective compositions.

Increased Business and Technology Alignment

- The extent to which IT business requirements are fulfilled is often associated with the accuracy with which business logic is expressed and automated by solution logic.
- Because applications have traditionally been designed to address immediate or tactical requirements, there has historically been a challenge in keeping applications in alignment with business needs when the nature and direction of the business changes.



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Services with business-centric functional contexts are carefully modeled to express and encapsulate corresponding business models and logic.

Increased ROI

- Because the nature of required application logic has increased in complexity and due to ever-growing, non-federated integration architectures that are difficult to maintain and evolve, the average IT department represents a significant amount of an organization's overall operational budget.
- For many organizations, the financial overhead required by IT is a primary concern because it often continues to rise without demonstrating any corresponding increase in business value.

traditional
unit of solution
logic



x

delivery cost

1st
year



y

2nd
year



$y \times 2$

3rd
year



$y \times 3$

ROI

service-oriented
unit of solution
logic



$x + 30\%$

delivery cost

1st
year



$y \times 2$

2nd
year



$y \times 5$

3rd
year



$y \times 9$

ROI

An example of the types of formulas being used to calculate ROI for SOA projects.

More is invested in the initial delivery with the goal of benefiting from increased subsequent reuse.

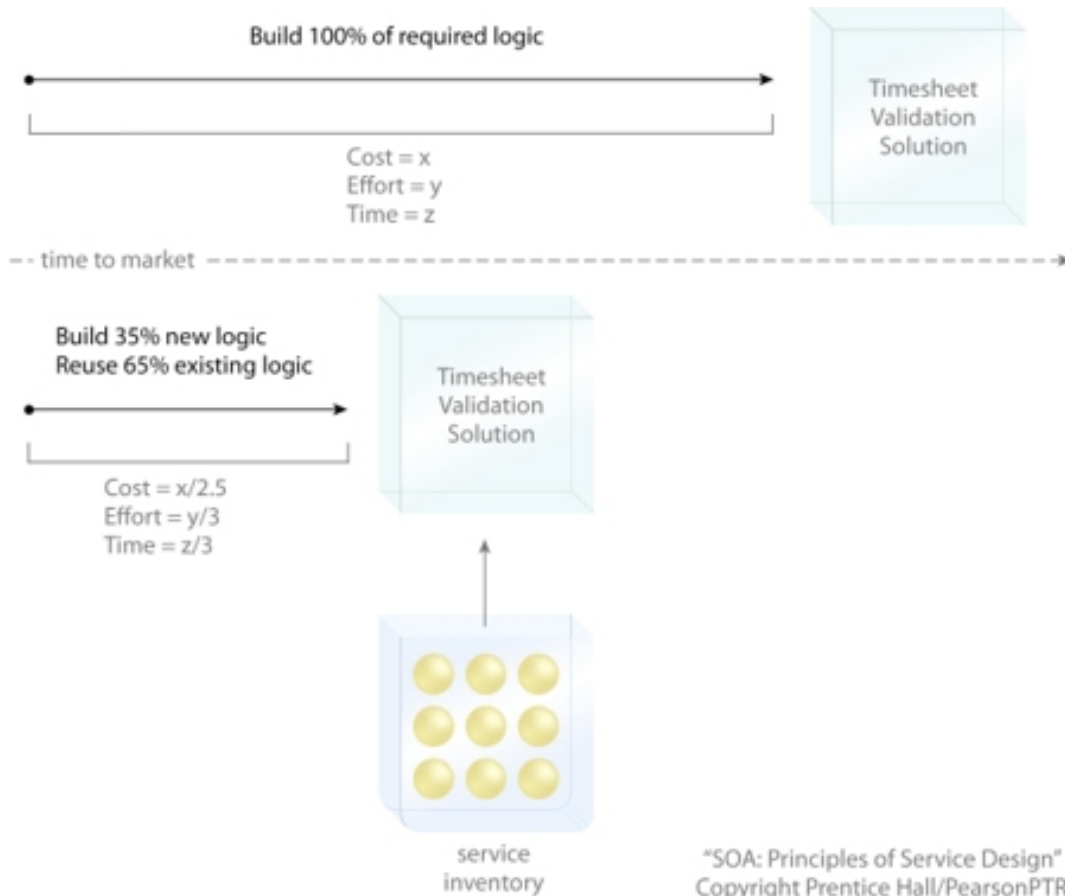
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Increased Organizational Agility

- Agility, on an organizational level, refers to efficiency with which an organization can respond to change.
- Increasing organizational agility is very attractive to corporations, especially those in the private sector.
- Being able to more quickly adapt to industry changes and outmaneuver competitors has tremendous strategic significance.
- An IT department can sometimes be perceived as a bottleneck, hampering desired responsiveness by requiring too much time or resources to fulfill new or changing business requirements.

Increased Organizational Agility (2)

- This is one of the reasons agile development methods have gained popularity as they provide a means of addressing immediate, tactical concerns more rapidly.
- Service-oriented computing is very much geared toward establishing wide-spread organizational agility.
- When service-orientation is applied throughout an enterprise, it results in the creation of services that are highly standardized and reusable and therefore agnostic to parent business processes and specific application environments.

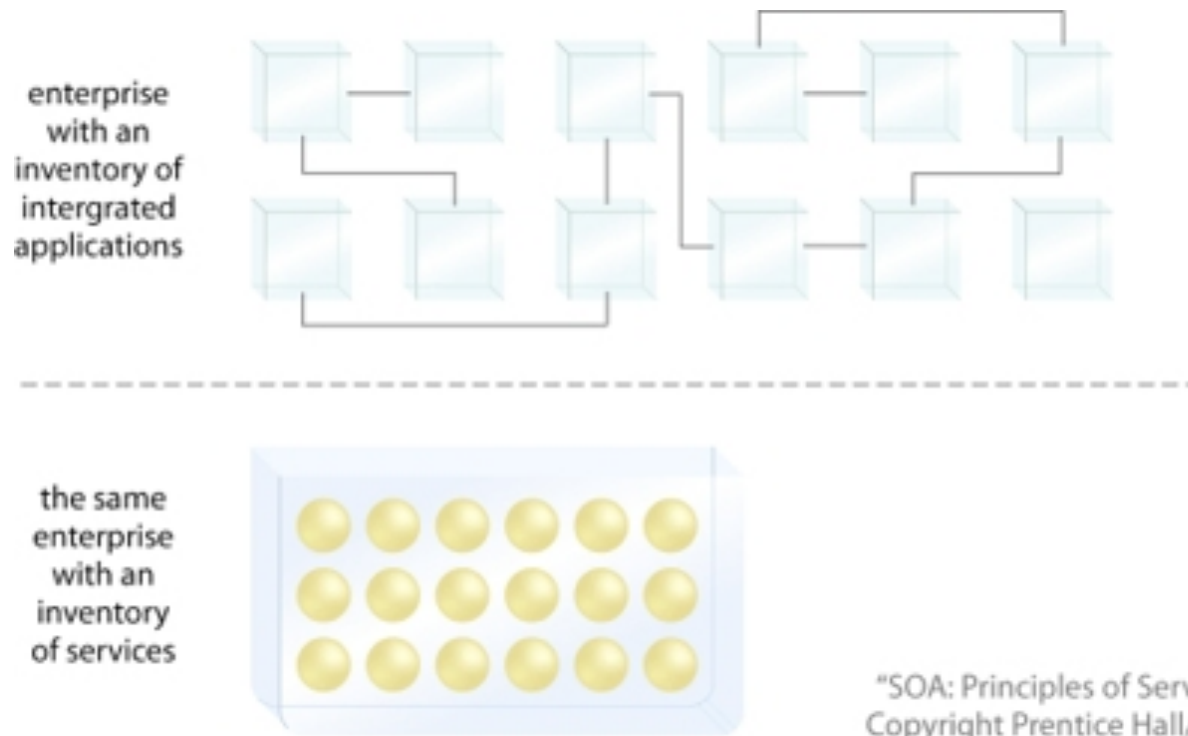


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- Another example of a formula used in SOA projects.
- This time, the delivery timeline is projected based on the percentage of "net new" solution logic that needs to be built.
- Though in this example only 35% of new logic is required, the timeline is reduced by around 50% because significant effort is still required to incorporate existing, reusable services from the inventory.

Reduced IT Burden

- Consistently applying service-orientation results in an IT enterprise with reduced waste and redundancy, reduced size and operational cost, and reduced overhead associated with its governance and evolution.
- Such an enterprise can benefit an organization through dramatic increases in efficiency and cost-effectiveness.
- In essence, the attainment of the previously described goals can create a leaner, more agile IT department; one that is less of a burden on the organization and more of an enabling contributor to its strategic goals.



If you were to take a typical automated enterprise and redevelop it entirely with custom, normalized services, its overall size would shrink considerably, resulting in a reduced operational scope.