

Concept

An organisation that deploys the **tiggs** components is empowered to quickly and easily deliver flexible business processes and applications, utilising data from diverse legacy systems or applications.

Design Goals

A number of key goals were set during the design of **tiggs** BPM (Business Process Management):

Once a target process has been identified, the steps to define and implement it in an executable environment should be as fast and simple as possible to execute.

In this context we, like Gartner, view business processes independently from any operational system deployed within an organisation.

Regardless of which operational system has been chosen, it will never be suitable for fast, cost effective realisation of diverse business processes. Operational systems are not designed with this in mind, and the architecture resulting from using them in this way, would force an organisation into an unnecessary level of dependency upon them.

Therefore, **tiggs BPM - component** must be independent from any data access layers or business objects.

An advantage however, is that the **tiggs** BPM - component can, as standard, integrate email systems, Microsoft Office products, document management systems and relational database management systems within business processes.

For connections to legacy systems, the organisation has a number of supported options:

- If only a small number of legacy systems need to be connected to, this can be achieved directly.
- If the organisation is in the process of implementing a SOA architecture, **tiggs** BPM - component can utilize existing Web Services to interact with the legacy systems.
- Should the organisation not yet be positioned to quickly, and cost-effectively implement applications that require access to data from multiple operational systems, then we can offer this capability through second **tiggs** component, the 'SSI Bridge'.

The **tiggs - SSI Bridge** has subsequently been designed as a stand alone component to meet three key criteria. It abstracts the legacy system data in such a way that the **tiggs** BPM - component need only recognise the available business objects. Hence, organisations are enabled to develop applications that require access to data from diverse legacy systems, without explicit knowledge of the legacy systems interfaces, and with their preferred development tools (.Net, Java, Web, etc.). They need not even be aware as to where the data resides.

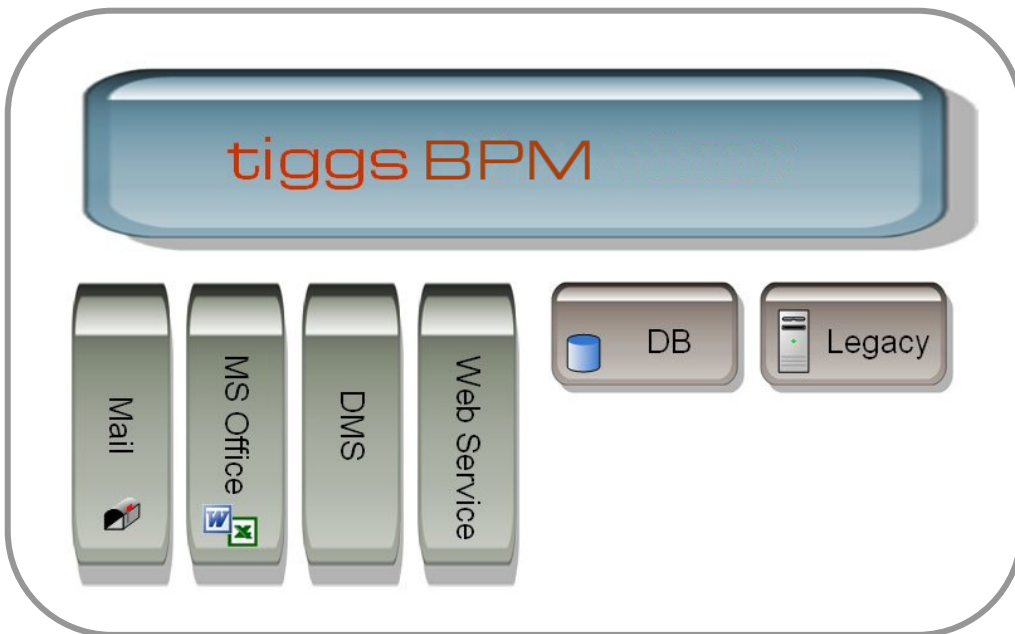
This approach provides significant additional advantages where operational system are replaced or merged.

Finally, it should be possible to seamlessly integrate the business objects provided by the **tiggs** EAI Bridge into a future federated SOA architecture.

As the EAI Bridge component are intended to play a central role in the development of applications, and that independently of **tiggs** workflow component, they must meet high scalability and performance requirements without utilising redundant data storage techniques.

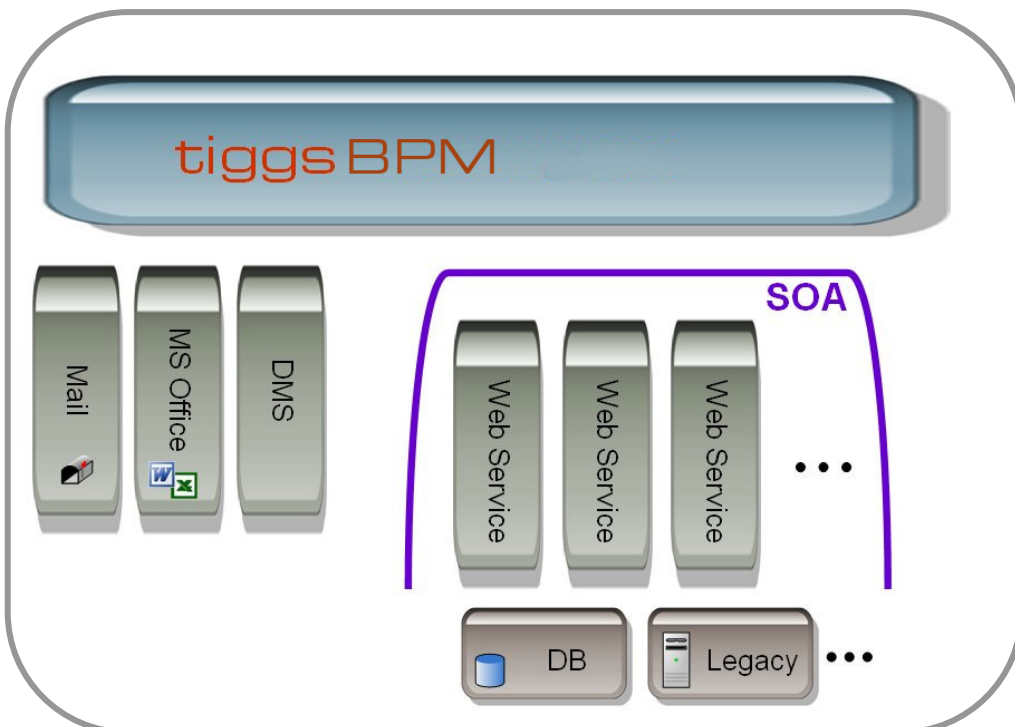
Architektur

(1) The first option detailed in the Design Goals section of this document can be implemented with a stand alone deployment of the tiggss BPM - component, and is suited to basic architectures with no SOA Web Service connections and a low number of connected legacy systems.



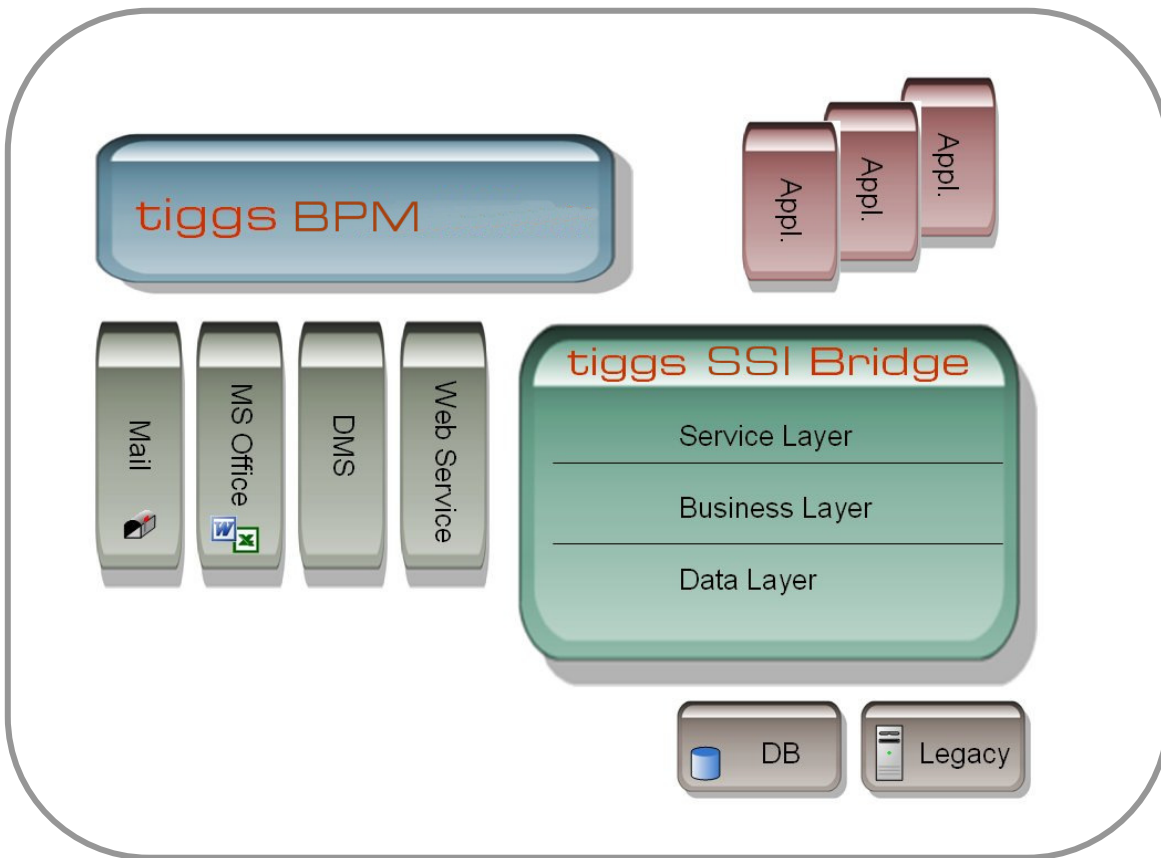
This variation requires only the installation of an MS SQL Server 2005 along with the Java frontend deployed with Java Web Start, or the Web frontend running against a suitable Web Server (e.g. Microsoft IIS). Legacy and individual Web Services are connected directly as required. Details of the specific features available with this option are listed at the end of this document.

(2) The architecture for organisations with existing SOA implementations.



This solution, differs only minimally from the first, but enables a step by step implementation into the SOA architecture without the need to change business processes.

(3) The greatest benefits will be obtained by organisations that have no existing and complete SOA implementation, but wish to quickly and cost-efficiently build applications requiring access to data from multiple legacy systems.



By combining both of the tiggs component, the organisation will be enabled to deliver such applications. These could be enterprise wide workflows implemented in tiggs, or other individually developed applications,

All legacy systems that require integration, need only be attached once to the tiggs SSI Bridge. The definition of the individual data access methods and objects within the Business Layer are executed in a declarative fashion, usually with no need for programming. The Service Layer then presents the business objects ready for use in .Net, Java or Web applications.

A key feature of the Data Layer, is its design to accommodate large numbers of users. tiggs obtains a significant performance gain through highly developed caching, whilst reducing overall load on operational systems.

If required, the business objects made available through the SSI Bridge may be used within a federated SOA architecture.

In addition to tiggs - BPM, an IBM Websphere Application Server is required to run the SSI Bridge.

Key Features

The following lists summarise the key features of the tiggs component as described within this whitepaper.

tiggs BPM

Web Frontend	✓
Java Frontend	✓
Support for Windows Mobile devices	✓
Multi-lingual client	✓
Offline enabled processes	✓
Graphical process design (modelling)	✓
Automated GUI generation	✓
Individually customisable dialogues	✓
Freely designable rules	✓
Integrated access control, including stand-in functionality	✓
Multi-level reminders / escalations	✓
Standard connections for eMail, MS Office, DMS, DB	✓
Transaction secure process handling	✓
Development → Integration → Production Deployment	✓
Real time modification of running processes	✓
tiggs Analyser	✓
Process optimisation analysis	✓
Lead time forecasting	✓
Central repository	✓
Individual reporting with integrated cubes	✓
Access to process data through Web Services	✓

tiggs SSI Bridge

Integration with tiggs Workflow	✓
business objects available for .NET, Java, and Web applications	✓
Declarative definition of Sub-System access	✓
Declarative definition of business objects	✓
No redundant data	✓
High performance caching	✓
Integrated monitoring	✓
Defined business objects can be accessed by Web Services (SOA ready)	✓

Both tiggs component, BPM and the SSI Bridge, are available together as the inexpensive **tiggs Enterprise** solution.

Contact

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