Integration Framework

The challenge of integration

Today the "old" operators (PTTs) often have large investments in the existing IT infrastructure, which has been established over a period of time. New support systems have been introduced one at a time, or many at once in a merger/ acquisition situation. The needed integration between the components has been made on a point-to-point basis. This leaves the operators with a large number of point-to-point relationships between enterprise applications which lead to costly maintenance and an almost non-existing flexibility in the IT infrastructure to adapt to changes in the business environment. Key information is also duplicated over a number of different databases with inconsistencies as a consequence. This is normally referred to as the spaghetti syndrome! In addition to the traditional operators a number of new operators working in the broadband / 3G area are also emerging. They are building their IT infrastructure from scratch. Their challenge is to avoid the pitfalls of point-to-point solutions and build a flexible integration solution from the beginning.

Integration made our way

We provide an integration concept based on a Message Bus integration platform solution. We call it the *Integration Framework*. The concept is technology independent and can be applied using the product suites from any of the big EAI product vendors (Tibco, webMethods etc). On the figure below the elements of the Integration Framework are visualised.

Enterprise Applications are integrated to the Message Bus using **Adaptation Units** (AU). The AU communicates with the application by whatever interface that is provided by the application. This might be a programmable API, by using the database or maybe files used by the application. The AU also applies any business rules applicable and do the transformation between the application proprietary data model and the common business object model used in the communication with other applications.

In addition to the AU's the Message Bus concept also provides support for **Business Process Control**, **Monitoring** and keeping track of the meta-data in a Message Bus **Repository**. The former provides workflow functionality. Monitoring provides operations and maintenance support for a deployed integration solution. The Message Bus Repository keeps track of the definition of the common business object model and other meta-data needed by the integration solution. We see the Integration Framework *as the basis for the evolution towards an NGOSS (New Generation OSS) architecture.*

Deployment strategy

To implement and use an integration framework requires an on-going strategic and implementation oriented set of activities. Our established "best

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practice" when performing a project within this Service Offering follows a well-defined process that is divided into five phases:

Preparation phase provide the foundation for the integration work. An understanding of the customer business and support system environments is established.

Specification phase is where the details of the integration solution are defined and put into specifications.

Development phase is where the implementation of the integration solution occurs. This is done in the product suite selected for implementing the Message Bus concept.

Test / Delivery phase is where Quality Assurance (QA) of the integration solution is performed.

Support phase provides support once the integration solution has been handed over to the customer. This includes support during the customers own acceptance tests, during release to production and in the long-term as a support and maintenance agreement.

Customer benefits

The advantages with an Integration Framework approach are well known within the industry. Simplified integration, lower maintenance cost, (less testing of interfaces) and increased flexibility are a few. But many Integration Framework projects fail; technology is only about 10% of the problem! The rest is coordination.

Our value add

Teleca can provide this expertise! Our uniqueness is that we know the technology and also the methodology and the processes required. Without the experience and competence from systems integration projects an integration platform initiative will fail. Our main partner in this area is Tibco and their product suites ActiveEnterprise, ActiveExchange and ActivePortal.

Recent engagements cover Integration Framework projects for major Nordic operators, like Bredbandsbolaget, 3, 3GIS and Orange.