Business Transaction Protocol

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Tietojenkäsittelytieteen laitos

1 Abstract

For long time in internet transactions between the supplier and client have been quite short and usually between only two counterparts. As systems and needs have developed more complex there has raised a need to control more specifically how the transactions are coordinated between clients and suppliers. In today's world there can be dozens or hundreds different suppliers for certain type of information and getting this information from each supplier would tremendous task if there would not be any standardising for transactions how information is acquired or some service is consumed. Also it is vital for the supplier to provide its service in one unified form to all of its customers instead of making individual transaction for each client.

The nature of many business transactions between clients and suppliers are not straight forward communication between two counterparts that is executed immediately. In business transaction the communication is usually between two different systems (even in different companies) and in these cases you can not rely to the opposite side that much. To manage these kinds of situations you have to loosen up some of the ACID properties in order to achieve a system that is not stuck for waiting others or resources are not reserved unnecessarily. Time span in these services can be from start to finish from few milliseconds up to several months and they can include numerous different kinds of transactions, but it still can be considered as one service.

In this paper we focus to Business Transaction Protocol (BTP) that is designed for these long term transactions or services. BTP also provides flexibility for the transactions and outputs of the transactions. BTP loosens up some of the ACID properties to achieve the possibility to coordinate and control the workflow of long termed transactions so that resources are not reserved unless its planned to and systems don't stuck while waiting for others.

We go through the basics of BTP, how the transactions are communicated and how the consistency of the outcome is guaranteed. How the coordination of transactions is managed and how the atomicity of transactions is done in BTP. Also the message types that are used in BTP will be covered.

We also take look how the future looks for BTP. Is BTP good enough for the future demands and what kind of threats it faces. Very big threat comes from the specifications Web Services Coordination (WS-C) and Web Services Transactions (WS-T) that has some mighty big corporations backing it up (IBM, Microsoft and BEA). Usually when some standard or specification gets large enough supporters it starts to be only option in the business.

2 References

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