

Efficient business interaction over auction bidding on the internet

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ABSTRACT: *Online business interaction popularly developing and it attracts the buyer and seller of the internet users. When bargain plays the possibilities of the product price gets reduces. No updating of the product may displayed in this site and the maintenance of those product are missing from the service provider. If any mistake in the purchased product that cannot be shown to other customer. So customer satisfaction of this site gets reduced. The alternate commercial site which provide auction bidding increase the product price because of bidding. All the user of this kind of site are not fully satisfied because of the fixed bid rate. In interaction and monitoring has been lapsed. In proposed project , it clearly says to developed a site which promise to each partner to be honour. Here the business to business (b2b) partnership should be such that it can be used by monitoring service for contract compliance checking (ccc).*

Index Terms: *Electronic contracts, contract monitoring, compliance, B2B messaging, fault tolerance, distributed systems.*

I. INTRODUCTION

Contract monitoring and/or enforcement at runtime has been addressed by several researchers. One of the earliest works in this direction is on Law-Governed Interaction (LGI). LGI is a “law enforcer” that regulates the interaction between two or more autonomous and distributed agents linked by a communication network. A controller instrumented with the law is placed between each agent and the network to intercept and filter out incoming or outgoing messages that are incompatible with the law, keep the agent’s state in synchrony with other agents, verify certain conditions, and execute relevant actions to enforce the law imposed on the agent. LGI system architecture is peer-to-peer in the sense that each participant is required to run an instance of LGI, whereas we have examined compliance checking from the view point of a “third party.” Further, unlike our work, timing and message validity constraints that are an essential part of B2B messaging are not considered in LGI. The clauses of a given contract can be abstracted as six sets (three for each partner) that contain the list of Rights (R), Obligations (O), Prohibitions (P) that the two business partners are expected to honor under the observance of their associated constraints. Informally, a right is something that a business partner is allowed to do; an obligation is something that a business partner is expected to do unless they wish to take the risk of being penalized; finally, a prohibition is something that a business partner is not expected to do unless they are prepared to be penalized.

II. RELATED WORK

In [1] author describes, The electronic representation of a contract for a business-to-business (B2B) partnership should be such that it can be used by a monitoring service for compliance checking of B2B interactions at runtime, ensuring that the interactions match the rights and obligations that each partner has promised to honor. With this view in mind the paper develops a model for checking contractual compliance of business interactions. Specifically, the paper develops a novel way of representing contract clauses using business rules, that is specially suited to compliance checking and describes what events need to be captured from the underlying messaging middleware and how they can be processed in a careful manner to evaluate contractual compliance. Appropriately specified electro-called Contract Compliance Checker (CCC) that is nice contracts can play a central role in compliance checking provided with the specification of the contraction force and enforcement and is capable of observing significant events related to primarily focus on the terms and conditions of B2B partner interactions. In[2] view of recent business scandals that prompted the Sarbanes-Oxley legislation, there is a greater need for businesses to develop systematic approaches to designing business processes that comply with organizational policies. Moreover, it should be possible to express the policy and relate it to a given process in a descriptive or declarative manner. In this paper we propose role patterns, and show how they can be associated with generic task categories and processes in order to meet standard requirements of internal control principles in businesses.

In [5] author describes, It is a typical scenario that many organizations have their business processes specified independently of their business contracts. This is because of the lack of guidelines and tools that facilitate derivation of processes from contracts but also because of the traditional mindset of treating contracts separately from business processes. This paper provides a solution to one specific problem that arises from this situation, namely the lack of mechanisms to check whether business processes are compliant with business contracts. The central parts of the paper are logic based formalism for describing both the semantics of contract and the semantics of compliance checking procedures.

III. OVER ALL VIEW

3.1 Overall Architecture

The CCC is a neutral entity that is provided with an executable specification of the contract in force; it is able to observe and log the relevant B2B interaction events which it processes to determine whether the actions of the business partners are consistent with respect to the contract. Business partners interact by executing business operations, which implies execution of corresponding conversations. The figure depicts two logical communication channels. one is for facilitating business conversations and the other is a monitoring channel to deliver business events to the CCC. Precise details of interaction between the monitoring channel and the CCC (the components inside the dotted box) are discussed subsequently. We do not elaborate on the actual implementation of the two channels, other than to note that their realization is usually based on some form of MoM.

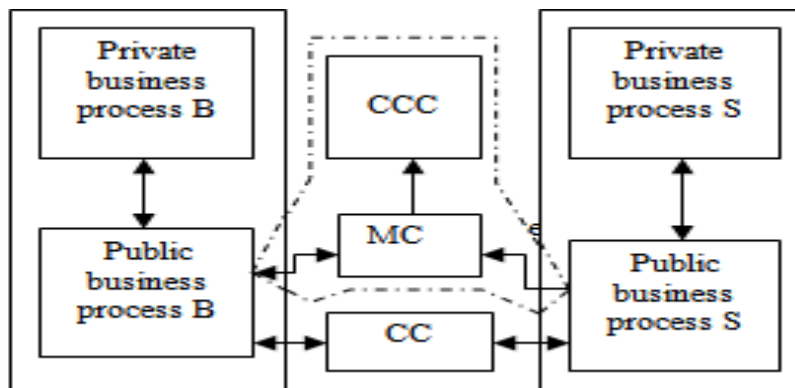


Fig: Abstract view of the architecture.

3.2 Loose coupling

B2B interactions take place in a loosely coupled manner, typically using message oriented middleware (MoM) where business partners are not required to be online at the same time. As a result, interacting partners rarely have an up to-date information on the state of other partners, so there is a danger of partners getting out of synchrony with each other (state misalignment).

3.3 Timing and Validity Constraints

Messages in a given Conversation are subjected to various timing (deadlines) as well as validity constraints. A business message is accepted for processing only if it is timely and satisfies specific syntactic and semantic validity constraints. Such constraints can be yet another cause of state misalignment between the partners. For example, imagine that a business partner sends a message as part of a conversation that represents the execution of a business operation.

It is possible that the message is delivered but not taken up for processing at the receiver's end after failing to satisfy a validity test; if this happens, the sender's and the receiver's views over the outcome of the operation will diverge: the sender will assume that the operation succeeded, whereas the receiver will assume that the operation failed.

3.4 Faulty Environment

Business interactions encounter software, hardware, and network related problems (e.g., clock skews, unpredictable transmission delays, lost, and incorrect messages, node crashes, etc.). In order to establish the validity of the actions of trading partners with respect to the contract in force, compliance checking must take into account the impact of the above factors.

Further, the CCC should be able to work hand in hand with well-known industry standards on B2B messaging and provide easy to use notations and techniques for representing contract clauses suited to compliance checking.

Existing work on contract specification and monitoring has paid attention to some but not all of the above requirements simultaneously. We remedy the situation by presenting a technique for representing

contractual rights, obligations and prohibitions of trading partners and discuss what events need to be captured from the underlying messaging middleware and how they can be processed in a careful manner by the CCC for evaluating contractual compliance.

3.5 Compliant Checker

Business partners correctly implement the execution model of business operations. In other words, events are correctly generated by the partners. The components inside the dashed box of function correctly. The clocks of all the parties are synchronized to a master global clock with a known accuracy. Thus, the difference between the reading of any two clocks is never larger than 2 accuracy. Events are time stamped at the source. Events are delivered exactly once to the CCC in temporal order.

The transmission and processing delays (TPD) of events from the source (initiation or execution synchronizer) to the event queue of the CCC are bounded and known (as discussed subsequently, the CCC is provided with a queue for events that need processing). The CCC has a timer process for generating time-out events as per the contract. To guarantee that this timer does not erroneously generate a time-out event about the absence of an operation when the business event about the execution of the operation is on its way to the event queue, all time-out events are delayed by the quantity $TPD + 2$ accuracy.

This quantity compensates for transmission and processing delays and any error in clock synchronization. The buyer's and seller's infrastructure components can fail by crashing and eventually recovering, however, all events that are generated are supplied to the monitoring channel as per TPD.

IV. EXPERIMENTAL RESULT

Implementation is the stage in the project where the theoretical design is turned into a working system and is giving confidence on the new system for the users, which it will work efficiently and effectively. It involves careful planning, investigation of the current System and its constraints on implementation, design of methods to achieve the change over, an evaluation, of change over methods. According to this plan, the activities are to be carried out, discussions made regarding the equipment and resources and the additional equipment has to be acquired to implement the new system.

Indeed designed such a language called Events, Rights, Obligations, and Prohibitions (for EROP) for the CCC, that provides constructs to specify what rights, obligation, and prohibitions become active and inactive after the occurrence of events related to the execution of business operations. The core components of the CCC (relevance engine, contract rules, event queue, event logger, and timer) have been implemented.

The service relies on the JBoss Rules engine, also known as Drools), for the decision capabilities of the relevance engine and for rule management. Additional Java components for Drools implement the functionality required for the manipulation of ROP sets, historical queries, and timer management, using Java statements within an augmented version of the Drools rule language.

V. CONCLUSION

One could imagine that long transactions would be a useful way of structuring the public business process, in which case the model may well be requested to track commit and abort events, and relate them to clauses. This way it is able to track the state of the B2B interaction and determine whether the final end state is normal or abnormal.

Future Enhancement

This work can be further extended in two directions:

- The rules implemented within the validated model could form the basis for automatically generating EROP version of the contract.
- The event sequences produced from model-checking runs can be used as executable test cases for testing the actual implementation of the CCC.

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