Transactional Behavior Verification in Business Process as a Service Configuration

ABSTRACT

Cloud computing has become a popular paradigm for delivering a wide range of services, such as software applications, computing capacity, storage, and virtual platforms. Cloud service providers can offer these utilities to clients over the Internet in a pay-by-use manner. The traditional hierarchy of cloud service types is comprised of three layers, where each layer can provide the *base* (infrastructure or platform) for running services within the layer.

EXISTING SYSTEM

In Existing System, Infrastructure as a Service (IaaS) is the bottom service layer, providing access to virtualized physical resources, such as storage and computation capacity. Computing capacity offered by Amazon EC21 or IBM Smart Cloud Enterprise+2 are examples of IaaS offerings. *Platform as a Service* (PaaS) provides access to utilities such as software development and hosting frameworks. For example, Google App Engine3 and Microsoft Azure4 both contain PaaS features for web application development and hosting. Finally, *Software as a Service* (SaaS) are software applications deployed in a way that is Internet accessible, automatically scaling, and multi-tenant. SaaS enables clients to remotely use software complex systems, such as customer relationship management through Sales force.

DIS ADVANTAGES

- Unacceptable delay has occurred during execution.
- Increase their state space.

PROPOSED SYSTEM

In Existing System, several modeling techniques, including BPMN for business process structure, state charts for transactional state, feature models for configuration constraints. Using these models, we develop a BPaaS configuration process that applies Binary Decision Diagram (BDD) analysis and model checking. BDD analysis ensures that BPaaS features selected during configuration do not violate the domain constraints of the service provider, while model

checking verifies the configured BPaaS against transactional requirements provided by the client. To reduce the impact of state-space explosion, we employ a state-space reduction algorithm and split the model checking into two phases. These phases verify different configuration perspectives separately, and allow for the state space and temporal logic properties to be reduced further. Our performance analysis shows that the proposed configuration method is capable of verifying models with hundreds of activities, resources, data objects, and requirement sets within seconds.

ADVANTAGES

- It provides a low-cost, low-risk outsource option for integral business.
- Configuring BPMN is also less complex.

SYSTEM REQUIREMENTS

H/W System Configuration:-

Processor	-	Pentium –III
RAM	-	256 MB (min)
Hard Disk	-	20 GB
Key Board	-	Standard Windows Keyboard
Mouse	-	Two or Three Button Mouse
Monitor	-	SVGA

S/W System Configuration:-

Operating System	:	Windows95/98/2000/XP
Application Server	:	Tomcat5.0/6.X
Front End	:	HTML, Jsp
Scripts	:	JavaScript.

Server side Script   :   Java Server Pages.

Database   :   MySQL 5.0

Database Connectivity   :   JDBC