



# RUNTIME ADAPTATION OF SERVICE WITH FEEDBACK CONTROL SELF OPTIMIZATION

T.Priyaradhikadevi<sup>1</sup>, R.Anandhi<sup>2</sup>

<sup>1</sup> M.E. CSE, Department of Computer Science Engineering, Mailam Engineering College, affiliated to Anna University (Chennai), Mailam, Villupuram, Tamilnadu- 604304, India

<sup>2</sup> Head of the Department, Department of Computer Science Engineering, Mailam Engineering College, affiliated to Anna University (Chennai, Mailam, Villupuram, Tamilnadu- 604304, India.

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## Abstract

In a composite service which needs to be in uncertain and changing optimized environment which have service selection along with runtime adaptation. For maximum satisfaction for stakeholders quality and requirement needs for adapting composite services which responds to various environments. Service selection and business process for quality preference that made statistics during their design time. The proposed requirements driven self optimizing approach of such composite services measures its quality of service. The estimation of business tunes the preference for ranking the feedbacks detecting unexpected triggering of business values self optimization process. Process level configuration for modelling the configuration according to its mapping service level decision selections optimized and tuned for its quality of service. In our proposed model the process level preference based configuration of requirements ranks according to its goal configurations. The experimental study is used to evaluate the proposed approach results indicating the new approach outperforms both fixed weighted and floating weighted service selecting approaches with respect to earning business value and adapting the flexibility.

**Keywords:** Quality of service, self optimization, earning business value, service selection.

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## 1. Introduction

Architecture for service has emerging value of development and integration of business applications. In a service oriented system for development focusing the shifted customary application for designing the business process which selects and compose services for new business applications. Web services organizing integration for business process language used widely for specifying the business process for composite service rather than integration between composite services along with external web services.

Functional requirement for business logic concerns with composite services should fulfil all the non functional concern for requiring quality of services. Composition of services that have uncertain and changing optimal configuration of business process which selects services that reflects decisions taken during design time.

The reflected designs for self optimized service have some adapting runtime composite services in better way for meeting their overall quality of service requirement.

Addressing the problems regarding composite services during their runtime adaptation for various service selection of different composition of approaches which is recently proposed with configuration of statistics business process. The set of abstract services have global approach towards its hybrid heuristics that have dynamic optimization of selected binding using their concrete services with each abstract service. Maximizing the usage of user objective is to satisfy the quality of service constraints which has user satisfaction which can have utility function for multiple weight assignment for criteria based on quality of service.

Static decision approach based on various different preferences given for quality and business process made for design time which has weights for quality of service structures the business process used for selecting the service and compositions determines the design time which is static during runtime. During runtime these unchanged decisions used to make composite service which runs according to suboptimal manner. The betterment for optimization for entire stakeholder satisfying requirements with quality trade needed for adapting response to changing environment for system. High preference order process service for preventing risks requires the large amount for time and resource allocation for processing credit verifying the additional process. The response time for users is so long and they have to wait very patiently for their task to be accomplished.

The process variability for activities having optional and alternate sub processes which often have various alternative business goal for quality of service requirements. Flexible accommodation of preference with different usage for quality of service requirements has taken risk for prevention of order processing. The order reconfiguration process skips temporary credit verification for improving the response time. The motivational service analyse the needed for required self optimizing composite services for dynamic quality services.

The business value creation for adoption of stakeholders designing time that has runtime value based software engineering principles and practicing them. The emphasis is on incorporation of business values achieves the feedback controlling system. The self optimizing service technique for composite services that accounts for achieving business values which can be measured by transactions committed successfully.

## 2. Selection and composition for service

The requirement driven value based idea for motivation for self optimizing approach for proposing the characteristics for composition of service have dynamic tradeoffs quality and support. The combination of runtime process for configuring the service that can have selection for various process requirements can provide them with resources. The values for business earned the reflection for runtime environment that satisfies the requirements of stake holders.

Quality attributes measures and estimates earned business values having predefined value for our approach having dynamic quality tuning the rank preferences for different quality attributes that have control over feedbacks. The violation of business value ensures the detection of optimized preference rank process attributes systematically. The requirement configuration model based on preferences according to the quality of service requirement changes over the uncertain environment. The composite services always cannot run with optimal static configuration for business process along with selection of services. The existing stakeholders who are unsatisfied with the requirement driven approach has to be failed for selection of service and their composition which can have challenging problems.

This can have many disadvantages for making business processes adaptable for runtime environment. The exponential for complexity in timing concerns. They do not have any satisfaction need with stakeholders responsibility. The static quality tradeoffs support the stakeholder for exponential time complexity. Overcoming the short comes of approaches propose the modelling of multi dimension problem have multiple choice having multiple constraints for optimal problems regarding path which leads to efficiency for heuristics. Hybrid approaches that finds nearest optimal solutions for end to end quality of service constraints that have local and global approaches.

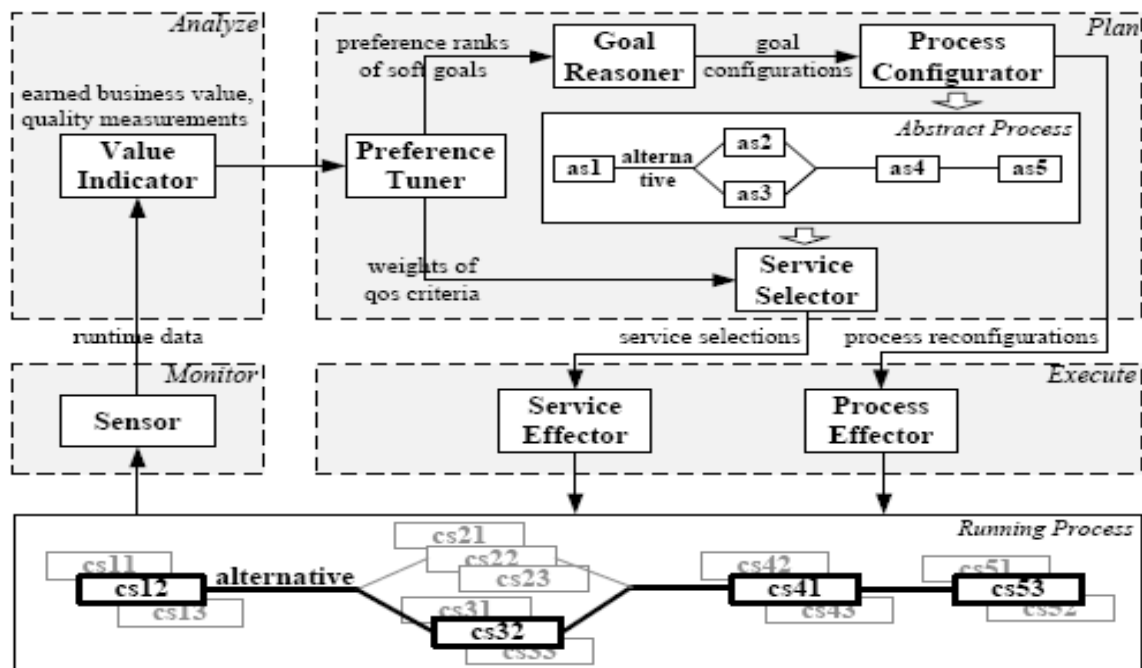


Figure.1 requirement driven and goal configuration based on value indicator.

### 3. Dynamic self-optimization constraints

All the hybrid approach for starting decompose which have end to end quality of service constraints that have local quality of service which can perform local selections. The approach that allows the quality of service weights for dynamic tuning that reflects dynamic quality tradeoffs uses the feedback controlling mechanism for achieving the runtime process adaptation for dynamic weaving for process. For motivating the dynamic quality for tradeoffs that can conduct maximized qualifiers for overall satisfaction for stakeholder requirements.

Achieving the self optimization for composite services in which our proposed approach continuously seeks opportunities for improvising the earned business values. They can have maximized user satisfaction which can as well meet its quality of service requirements. The user satisfaction which can usually express the utility function for weighing various qualities of service criteria will be well fixed weight assignment of each quality of service criteria.

The dynamically planned adaption service based on runtime requirement models for dynamic self optimization. For achieving the self optimization for overall composite services that maximizes the value propositions for multiple kinds of stakeholders. For optimizing the customer details should be entered in customer registry and once if the details are entered and submitted then they will be stored in database of stakeholders. They can be accessed using username and passwords which can also be used for updating and editing for details entered and stored.

The customers should select their required product in self driven optimizing approach they can use the category or product name. If the product is available then they should choose the option for payment. Whether they should pay using credit or debit card. They also help in suggesting the alternate products which are not available in stock. After this process the bank transaction details of the customer should be rendered and they provide the feedbacks about their services.

The approach for formulating the value for validating main threats which can capture the changes along with change of business strategies emphasize the guidance for online analytical processing. The large amount of business data can have composite service over the online analytical processing which can provide predictive analysis for validation and mapping of business processes.

Dynamic runtime processing for business configuring the rare address faces different challenges according to their stake holder requirements. Self adaptive requirements based on system increasingly run under poor environment. The goal oriented requirements for widely used methods used in olden days. They are modelled and the intentions used for capturing and satisfying the requirements between the agents for exploring the alternate ways. Variable system used for processing runtime goals can be configured processes with regular

credit verification such as checking the purchase and ordered things list the total number of products ordered and quality verification along with credit details verification.

The evaluation and effectiveness for composite service approach having applications over real time applications required for evaluation of feasible that can guarantee the self improvement. The earned business values can be better or worse for depending on factors specifying the applications for number of process variations. There are different single and double approaches for hard perspectives for competitive selections during runtime. They are not superior or inferior static single approach which can totally have optimization for business values which is really harder. The composite service can optimally design strategies for new service optimization failure with new process configuration.

#### 4. Conclusion

In our proposed approach of requirement driven self optimizing approach we can combine the composite service for having process reconfiguration of high level and low level selection of service based on flexible adaptations. Then it supports dynamic quality tradeoffs for reflection of changing environments employs feedback controller that tunes the preference ranks for relevancy of attributes regarding quality. The earned business value having objective that can be triggered using self optimization techniques can be self optimized. The value formula for stakeholder requirements defines current business strategies for order processing service focuses directly on profits obtained from successful experience and feedback systems. The services for processing orders that have fixed weights and having flexibility demonstrate the performance adaptation for acceptable overhead for process reconfiguration which can select service accordingly. The integration rendered has to be variable with advancement of flexible mechanisms that can be achieved more flexible process variability having definitions and adaptations which validates their feasibility.

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**R. Anandhi** has finished her B.Tech (IT) and at present she is pursuing M.E. (CSE) in Mailam Engineering College, Villupuram, Tamil Nadu, India. Her research interests lies in the areas of Mobile Computing, Data Mining, Cloud Computing and Software Engineering.

**T.Priyarthikadevi** has completed her M.tech (IT) and now pursuing her Ph.D. Currently she is Head Of the department in Computer Science and Engineering at Mailam Engineering College, Villupuram, Tamil Nadu, India. She has attended many national and international conferences in several colleges. She organized many technical symposiums, workshops and seminars.