Some Essential Problems and Future Directions in Business Oriented Framework for Enhancing Web Security Service through Network-Features

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ABSTRACT

In recently, web security service has been produced to the great-interests in the both-vendors as well as scholars. The performance of the web security service which are based on the dominant internet-protocols as well as exposed standards that can arrange for flexible descriptions of current problem and its applications integration in the network features. The Business Oriented Framework for Enhancing Web Security Service (BOF4EWSS) with the support of its important stages such as requirements elicitation phase, negotiation phase, agreement phase, analysis or architectural phase, agreement phase, system design phase, agreement for Quality of Service phase, and development as well as Maintenance phase. Therefore the web service description language (WSDL), simple object access protocol (SOAP), as well as universal description discovery integration (UDDI), and web security services are flattering more and more popular in the web applications techniques. The support as well as targeted at the significantly-easing complications experienced by the business in the transitioning among two main essential framework phases as well. These programming languages and its tools are very helpful for to find the hitches in network features. The recent web security services planning are challenged with the small number of stubborn-problems for example the security related issue. In this paper, we present the overall overview of these current problems in details and with valid proofs as well. Also we have confidence in that solving of these problems will grow into more and more important to the success of the web security service. Considering the opinions are made above this research-focuses on the recognising a novel business oriented methodology techniques to guide interrelating corporations in the achieving as well as upholding agreed-levels of the web security service crossways their innovativeness. Approach should be intended by corporations in a collaborative-manner to the tackle in addition to manage such widespread apprehension that the security in the businesses environment has become more essentials. The end we predict-distinct improvements in the semantic of the BOF4EWSS techniques in details. Additionally, these some important results also performance to the adhesive as advanced as well as significant to the current research-field.

KEYWORDS: Web Security Services, Service Oriented Architecture, Composition Techniques, and Grid Services systems.

I. INTRODUCTION

In past few years ad-hoc methods have been used for the performances of business to business applications to proceeds the advantages of basic internet-infrastructure. In recent times, the web security services are developing as the methodical and extensible-framework for the application to application interaction which is put together on the top of the prevailing to the web protocols as well as open extensible mark up language XML principles [1].

The web security services are new type of the network features applications. These are independent, as well as the modular applications which should be published and invoked-across the web security service through the performances of the business to business communications [3]. The Business Oriented Framework for Enhancing Web Security Service (BOF4EWSS) implement such functions in which can be whatever thing from the simple-requests for the facts to producing as well as executing-complicated to the business with the support of the web security services progresses. Therefore the web security services are deployed that can be exposed and appealed by other submissions [2].

Key advantages of the web security service is to the capability of the create-applications on take wing from end to end use of the loosely coupled refillable network features mechanisms. Such fundamental-implications in the both equipment as well as business submissions. Therefore universal description discovery integration (UDDI) can be redelivered in addition to remunerate for the fluid stream of service as oppose to the packaged-

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products which gives a more specially realised representation of signals than do discrete Fourier transform (DFT) or discrete cosine transform (DCT), by providing information to the network features relating to the spectral components of the web security service of the current business [4].

Therefore it should be conceivable to the automatic as well as dynamic interoperability among the system to realize the business errands. Web security service can be entirely regionalized in addition to the disseminated over internet protocols that can be access by wide diversity of the communications-devices. Therefore some hidden oaths of the network features should be integrated with the performances of the businesses which on the loose from encumbrance complex level information and exclusive UDDI integration as well as focus on the instead value of critical tasks of the BOF4EWSS. The internet protocols will be becomes a global communications stage of the groups and individual join with each-other to transmit the several profitable happenings in which be responsible for the value added services techniques. Therefore some important barriers as long as new offerings as well as ingoing the marketplace dropped to the enable-access for medium and high sized innovativeness. It will localize the time and frequency information of the network features in which showing the web service description language (WSDL) either the short time Fourier transforms (STFT) for the businesses communications for the future implementations procedures.

In recent research work the performance of the web security services background are divided into five main areas, such as communication protocols, network performance protocols, service descriptions, business enterprise protocols, service discovery, and information description in addition to the stipulations should be developed for each and every checksum path of the application layers of the network features. Therefore in this paper we are look at some important stipulations which are following and presently most salient area as well as stable for the communication between the business to business and network layer implementations techniques.

II. RESEARCH TECHNIQUES OF SOAP, WSDL, AND UDDI

There are some important research techniques which are very helpful for the integration between the Simple Object Access Protocol SOAP, web service description language WSDL, as well as universal description discovery integration UDDI some main points which are follows. i): The performance behaviour of the SOAP which are facilitates the communications links between web security services and business applications. ii): Integration techniques of the web services description language WSDL, which provides the formal as well as computer readable-description of web security service. iii): The communications links between the internet protocols and UDDI is the encyclopaedia in which the network features of the of web security service description.

SOAP is the basically a stateless one way message-exchange example in which facilitates the applications checksum performance level of the complex interaction-patterns by linking the such one way exchange with network features of the hidden path of the application layer protocols in specific information techniques. Although Simple Object Access Protocol be responsible for the solid framework-information conversation it nonexistence semantics of such applications in which provide a valid fact conveys of the routing phase of SOAP messages as well as data transfer traversal procedures. As well the important form of the SOAP is to provide a full descriptions of information of the communications protocols [5]. The core level of SOAP messages has been extremely simple-structure an extensible mark up language elements integrate with two brood’s elements one covering the application path of the header structures as well as connection link of the web security services and messages communication can be transported-over Hypertext Transfer Protocols HTTP as well as the runtime supplication which plays linking part for the interaction among the computer system techniques [7]. Therefore, principal component analysis (PCA) has been described one of most-valuable techniques from of the network features of the web security services and its important applications of the PCA are abundant in every forms of analysis application level of the BOF4EWSS over SOAP techniques [6].

WSDL delivers an innovative model for an extensible mark up language arrangement for the labelling of the web security services. WSDL describes the amenities as the collections of network features endpoints. Therefore the WSDL abstract-definition of the endpoints as well as communications is detached from of the real network application behaviour and fact format attachments procedures. To allows such use again of the nonconcrete descriptions of the communications that define the fact being-exchanged as well as port varieties which is signify the collection of operation. Concrete protocol as well as fact arrangement stipulations for specific port form establish the binding level of the network features. There are two main approaches of the WSDL such as supervised and unsupervised techniques [10]. In case of supervised WSDL involve a mechanism of the providing network features with desired productivity of the future directions and manually grading the network performance. But in the case of unsupervised WSDL is where network hidden path is to make-sense of inputs of the communication concrete protocols [8].

UDDI delivers a device for the integration of the users to find the exact value of the web security services. Therefore the web security services are fully expressive if and only if when the potential user discover information-sufficient to authorisation of their implementation framework procedures [9]. The main focus of the
UDDI to the description set of services-supporting explanation as well as discovery of business, organization, in addition to other web security services benefactors which are linked to the business strategy. Therefore the performance of the UDDI is similar to a common object request broker architecture CORBA, can be well thought-out as a domain name system DNS service for the internet protocols addresses for the business-applications [11].

UDDI facts encompasses four main phases. Top phase is about businesses object which are delivers the common information of the company for instance its addresses as well as short description techniques. Related to the business object to the tilt of business-services which are including to the communications of information descriptions of each and every services as well as the classifications hidden states of the checksum techniques of UDDI [12]. Within the business-service compulsory patterns describe the methodological data to the web security service. This paper is systematized as in first we liken for a moment of the web security service with some other distributed-component prototypes for instance common object request broker architecture CORBA and its important performance, then some current-states of the web security service is also explain such as including-problems as well as potential solutions. And finally we recognize some main planned guidelines for the further-development.

III. WEB SECURITY SERVICES IN DISTRIBUTED COMPONENT MODEL

In web security services were planned for the tackle delinquent of combination of the heterogeneous-sources as well as type of the heterogeneous system interoperable [13, 2]. The technologies for instance a common object request broker architecture CORBA, and interface definition language EDI had same objectives as well as its own groundwork. Therefore the explanations of heterogeneous-system incorporation problematic with these such equipment are precise costly. Therefore, some important distributed equipment for instance CORBA, dealing with some other related and well known languages and present a valid solutions for problems which are moved such languages into contextual through IDL. This is extremely virtuous idea that IDL language similar to Python, C, and C++ which is designers obligation also understand-language binding in the order to use common object request broker architecture. Therefore, the web security services clear as self-contained as well as self-describing linked submissions which can be really published as well as the appealed across such web to achieve such goal and it should be very clear for such web wide scope different form of the CORBA, which was principally used for such enterprise wide scope[14]. Therefore, the web security services is a valid choice for the insecurely coupled
buildings. CORBA architecture, in this area are more and more appropriate for the intra enterprise environments. While technical-features of the web security services sort the web application techniques and it should be more reusable as well as appropriate for such inter enterprise global environment. Thus we can clarify such success of the web security service by the broadcasting them as well as technological centred on the maximal-decoupling obtainable over current computer network features strategy. The power should be not same as their tools but, rather than the web native XML based solutions over the web services techniques.

In this manner the performance of the SOAP should be like an inconsequential protocol, envisioned for the swapping structure information in a reorganized distributed-environment. Because, which is based on omnipresent HTTP protocols in the combination with the XML such as message-syntax as well as computer systems limitations should be very easy for over whelmed concept of Better RPC or Better Distributed Component Management Technology BDCMT, for leading to wide consciousness of the web security services in designer as well as researcher-community. SOAP messages which are based on the transport protocol over the HTTP and the interaction among diverse submissions becomes easier over the internet protocol. The submissions like enterprise resource planning system, for instance oracle or WSDL for interfaces as well as integrating with web security services should be cheap and manageable in these techniques web security services should be the better enterprise application integration solution overwhelming of the current costly integration-technology arrangements.

While in other side we essential to look into conflicting of problem over the internet protocol. Such standard-protocol which is the most of services use at present to the SOAP over HTTP obligation should be not compulsory in all time. Furthermore the performance of the SOAP addresses will be more crucial problems for instance the reliability as well as security. These all be worthy thoughtful consideration in research-community. In currently web security services activities which is include the effort to the advancement of the SOAP, which provide better-security as well as reliability [14, 3, and 11].

IV. SOME ESSENTIAL PROBLEMS OF THE WEB SECURITY SERVICES AND THEIR PROPOSED SOLUTIONS

Some essential techniques of the SOAP, UDDI, as well as WSDL are very significant technologies for the web security services parameters. But to entirely content the requests of the business-applications for the present and updated technologies which have been inadequacies. Therefore in this portion we are able to discuss three main and essential problems as well as show the research information for the promotion of existing-technologies [15].

IV. I Web Security Problems and Their Proposed Clarifications

Let us we can use a very simple-travel development to exemplify such security related problems of the web security services procedures. In this techniques we take three main pieces of web security service background which are compulsory for the interact-properly to thorough light weight development. The very least in which to make certain such transaction like automated check-in were the showed in secure-environment as well as communications were dependably transported to destination. Therefore we are able to build supplementary security, as soon as we have to machineries for instance the secure multipurpose internet mail extension(SMIME) as well as the secure (HTTPS). But in response dishonesties in difference among end to end as well as single hop procedure respectively. In the business to business communications typically-originate commencing one the latest application responses as well as then is moved to the a different one as well. Mechanism for instance secure socket layer SSL are the pronounced for the securing the undeviating connections from one to another apparatus but they messages are passing to application layer towards the host point in which network features are distributed in checksum data information the one connection procedures.

While in the case of diffusion analysis municipal in which the attackers to the modern system is typically not in the same network features level, then again within such applications protocols such as HTTP as well as CORBA web security systems. Therefore such technique mean that to such performance of the firewall should be pass in very simply in attack-traffic in conjunction with legitimated HTTP request for the applications of the information in specific attack such as SQL injection of the agreements phase. In such techniques the web security services level should be integrated with the SSL in which firewall should not be seen into transportation streams. Some essentials respects of the web security services should be adopted in HTTP and the allowing to the all systems for in both internal as well as external communications of information on the HTTPs port of the suppleness is achieved, the network features of some hidden paths will be initiated to web application server.

Basically web security related difficulties that are to be expected to affects web service is identical to the pretentious of the conventional web based design system. A lot of these were deliberated in the measurement of its communication links behaviours in all distributed paths. Here we are briefly précis such present situations of all information to the web security is to be very perilous to implementation of the web security service by enterprises [16, 2, 11]. But in web security service background should not come across the basic security-requirements. Therefore some main and vital fact of the web security service which are involved the exchanged
of the messages worth that the actual performance of the architectural and maintenance level of these curing
messages exchanged are very significant issues in which to consider the building as well as using web security service response information. Therefore, response information of recipient would be able to receive a message-confidentially as well as unauthorized user may possibly not read it. They are able to passes all information to the authorized operational requested for the message confirmation. While some problems are initiated in other hand in which the web security services permit all systems in the internal as well as external to interconnect on level of the HTTPs ports and applications servers are inevitably-opened of the application level attacks respectively [12, 17, 1].

A small number of values have originate out on the alleviated messages security problem which are includes the web security as well as a number of other creativities in the direction of allowing the digital-signatures of the interface definition language IDL message as well as transactions strategy. But, in application level of the attack were scarcely concerned to the communication links towards the elicitation phase. The IDL signature specifications would be the joint efforts of HTTPs and UDDI in all direction of network features. The objective is to afford data-integrity in addition to the authentication features infolded in IDL format. HTTPs of the IDL encryption specifications statements, issue of the data-confidentiality by exhausting encryption methods. Therefore, encrypted data should be infolded confidential of IDL tags demarcated by IDL encryption specifications. The mechanism which is consist of integrity as well as confidentiality to the single communication information of the authentication authorization network related features of WSDL message response techniques. Web security service information make the use of IDL signature as well as IDL encryption specification which are includes the digital signatures and encrypted facts of the UDDI messages [18].

Some basic specifications of the security assertion mark up language SAML to exact form of the SOAP in which gives the companion application to the user of its authentication as well as authorization-information. In nonappearance of the present standards internet protocols on the sharing of the authentication information in respect of HTTPs communications to tool of the UDDI. But in case of XML which are describes a terminology that appease the subjects as well as its basic conditions. Essential moments for all the related communication of the B2B should be most form of the authorization policies in the e-commerce application in all oriented parameters which are mentioned the precise address of application level bouts. Some more comprehensive explanations of the web security services is the speaking as well as the worried enough by present standard as well as researches techniques are involved on it.

IV. II Basic Composition Problems and Their Solutions

Some important complex businesses interactions required to support the level of higher of the businesses functionality. While businesses interaction is characteristically long implementation process as well as involved multiple-interactions among the partners. They set out and efficiently used these forms of services to signify the business process as well as state of service in which are creates services composition in a consistent and methodical fashions. More than a few suggestions for the achieving this task exist to see for instance web security services flow language WSSFL as well as business power elicitation language for web security services BPEL4WSS.

In productiveness has been used a few terms in which to designate how the component can be connected-together that to dimensions multifaceted businesses process. Some of workflow in addition to the documents managements system have been be existent as a mean to grip directing of the work among numerous resources in information technology organizations. Such possessions strength includes systems or applications in addition to the characteristically involved approximately humanoid interventions. The overview of web services term for instance web security services compositions in addition to web service flow be situated in used to refer to compositions of the web information service in which the processes are flow on it. These essential interactions might be extent application as well as it should be more capable organization and results in a long lived transactional as well as multistep progression prototypical procedures [18, 19, 6].

V. SEMANTIC PROBLEMS AND THEIR PROPOSED SOLUTIONS FROM THE SEMANTIC WEB SECURITY SERVICES

Current web security service tools are fundamentally be responsible for a syntactical-solution as well as motionless lacks semantic parts of its information. Web security service is describe in UDDI the exactness what contribution to such services expect in addition to what productivity it should be return. Therefore the exploit of their potential to the web security service necessity be intelligent to arrange themselves hooked on more and more complex service. Thus we are able to implement a in which to combine the separate web services addicted to the distributed higher level services of the network features towards the information technology response techniques. Web service flow language conformation WSFLC that can be able to express such sequencing of the individual-services and captivating the first step. WSFLC let user decides that the web service to should be combine in addition to in proper order as well and the framework are in semantically pronounces such services.
Various researchers trust on semantic web dream of next generation web that permits to the computer unmistakably understanding of web content address exactly of this problematic strategy of the required communication of UDDI, and SOAP information. Because they passes all the requested links should be able communicate the elicitation phase of the network features and send the massages in all directions. They flow the WSFLC information to the delivers the SOAP communication links of the checksum strategy and its XML techniques. Continuous interoperability among service which are not be situated in the pre-designed to effort composed necessities program to described their individual competences in addition to comprehend other service competences. This essential problem is investigated in all direction to specify the hidden paths of the semantic web vision techniques and it should be very helpful for the next generation of information through the web services techniques [19, 20].

V.I Semantic Web Security Services Information

Semantic web security services are not the separated of the web but lee way to present one in that facts is assumed as well as demarcated meaning allowing computer in addition to the individuals in which to work in collaboration strategy. Therefore the important elements to be realizing such semantic web is emerging to the appropriately of that rich-language for indistinguishable so recitation web comfortable information [21, 22, 18]. A language necessity have that to demarcate the semantics be the sufficiently-expressive the designate of complex interrelationship as well as constraint among the web objects and the automated-manipulation techniques as well.

Some of the essential points in resource descriptions framework (RDF), are the ground work for the processing-metadata besides in which to provide interoperability among submissions of the conversation machine understandable facts on web security service. But the performance of the SOAP are more expressive-power of the semantics than the UDDI, IDL, and the RDF such these languages clear relationships with the machine decipherable contented on web security services application information.

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Research outcomes and checksum performance of the BOF4EWSS.

VI. TOWARDS THE GRID SERVICETECHNIQUES

Some of very complex applications of the web security service is requirement to the influential work out in the infrastructures to sustenance it. Grid services techniques are gives such an arrangement applications on the BOF4EWSS information. Therefore, open grid services architecture (OGSA), which are characterises as well as progression in the direction of a grid systems architectures based on the web security services technologies parameters behaviours.

Grid services techniques which give off the controlled-management procedures to the disseminated as well as frequently long lived service in usually require in the refined dispersed applications [23]. Therefore the essentials applications of the OGSI is also introduce such standards place of work and registrations interface for the creating as well as learning of the grid services infrastructures. While the exact performance of the grid services techniques are the instances are reachable to the client-applications through the grid services handle as well as Grid Services References. In Grid Services Handler GSH to be well thought-out as a perpetual network features parameters to the particular grid services techniques instances [23, 24]. GSR that contain the compulsory information’s to the all and relevant access points services instances confirmations of the valid network features infrastructures. While a client applications are used on the GSR to send the checksum hidden
paths request is in a straight line to exact instances of that detailed network attached services endpoint recognised by the GSR application as well. The significant issues of the BOF4EWSS crossing points are to be expected to be appealed from of the client application [25].

Another remarkable issues of the semantic grid services techniques is the ceremonial of the production of grid at the moment is the suggestive of web security services application through the network features of the elicitation phase is limited deployment as well as principally ambitious by the enthusiast in technical community which are the emerging standard in addition to the point of profitable uptake [26, 11, 23]. Meanwhile some important techniques of web security services has been seen in the modification from the machine to human communication (HTML), to the machine to machine information. Such form of the precisely arrangement should be desirable for grid services techniques for conclude from of these resemblances that the grid services techniques deployments will be follows equivalent exponential model of the web growth application layer of the BOFFEWS. The grid services techniques is traditionally-focused on from top to bottom concert computing even though the ambition of semantic web services towards the inference impervious and expectation. Grid services techniques we are at the present structure is title in the direction of semantic grid services techniques in all direction of the present information [27, 11].

VII. CONCLUSION

This paper we are presented the performances of the web security services a developing tools for BOFFEWSS. There are three main facets of the web security services were discussed in details such as service-security, service-composition, and service-semantics as well. There are some essential of the precarious to be very efficacious deployments of WSS techniques. Such model as well as boundaries are highlighted for the expansions of research oriented field for main two significant reasons. The first reason is to give an initial steps-towards the means of the spontaneously settle conflicting business level security movements are required on it. In addition, the second reason is about decision-model in which to seek the several decisions factors are not typically combined surrounded byte model as well as numeric wisdom. For instance the looking for numerically defined influence of the strengths of the security-decision influences of the BOFFEWS to the network features. Some of the important feedback and tools will be created in which to support such framework in encouraging. Main advantages which are textured are used in the meaning fully facilitation security negotiation from corner to corner companies in addition to the productivity of the crucial as well as normal length stages techniques in which the formation and implementation of the technology-solutions behaviours. This as well destined that models as well as tools could be accelerated to the implementation of the BOF4WSS, by its easing and applications to the business scenario. These be situated encouraging and worth mentioning finding of the creating from of the security-professionals operational and its connected areas in business. We have confidence in the interlacing of the semantic web security services and grid services becomes significant practical trend.

VIII. REFERENCES


Muhammad Ismail Mohmand is currently pursuing PhD in the Department of Computer Science, School of Computer Science, and University of Hertfordshire, United Kingdom, UK. My research area of interest is Business oriented framework for enhancing web services security (BOFE4WSS) and its important applications.