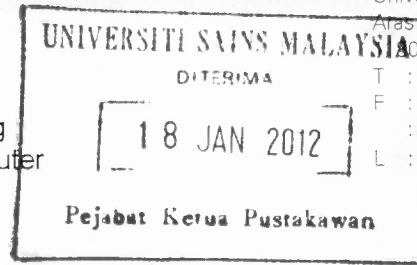




No. Fail : F0403
Tarikh : 2 Disember 2011

Prof. Madya Chan Huah Yong
Pusat Pengajian Sains Komputer
Universiti Sains Malaysia



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Tuan,

LAPORAN AKHIR SKIM GERAN PENYELIDIKAN FUNDAMENTAL (FRGS)
Tajuk Projek : Adaptive Virtual Organisation Policy Negotiator for Grid
No. Akaun : 203/PKOMP/671181

Dengan hormatnya perkara di atas dirujuk.

2. Terlebih dahulu saya ucapkan ribuan terima kasih di atas satu salinan laporan akhir untuk projek penyelidikan seperti tajuk di atas.
3. Adalah dimaklumkan walaupun projek ini telah selesai, kerjasama Jabatan Bendahari dipohon untuk menguruskan penutupan akaun projek pada selewat-lewatnya **31 Disember 2011**. Tempoh ini bertujuan untuk menyelesaikan semua urusan tuntutan dan bayaran yang telah dibelanjakan di dalam tempoh projek. Walau bagaimanapun, tuan dinasihatkan supaya tidak mengeluarkan borang-borang pesanan baru di dalam tempoh ini.
4. Selanjutnya sila ambil perhatian terhadap perkara-perkara berikut sekiranya berkaitan:
 - (i) Semua penerbitan harus merakamkan penghargaan kepada **Skim Geran Penyelidikan Fundamental (FRGS)** dan tuan dipohon mengemukakan satu salinan ke Pejabat ini.
 - (ii) Bahagian Penyelidikan & Inovasi boleh/akan mengagihkan semula peralatan yang telah dibeli menggunakan peruntukan geran ini seandainya terdapat penyelidik lain yang memerlukan peralatan tersebut.
5. Akhir sekali, tahniah di atas usaha dan kejayaan pihak tuan dapat menyelesaikan projek ini dengan jayanya.

Sekian, terima kasih.

“BERKHIDMAT UNTUK NEGARA”
‘Memastikan Kelestarian Hari Esok’

Yang menjalankan tugas,


(AMRA OTHMAN)
Penolong Pendaftar
Unit Pengurusan Geran & Kontrak

HAN, HAR, SM

LAPORAN AKHIR SKIM GERAN PENYELIDIKAN FUNDAMENTAL (FRGS)


Tajuk Projek : Adaptive Virtual Organisation Policy Negotiator for Grid

No. Akaun : 203/PKOMP/671181

s.k. Dekan Penyelidikan
Pelantar Sains Fundamental
Pejabat Pelantar Penyelidikan
Universiti Sains Malaysia

Dekan
Pusat Pengajian Sains Komputer
Universiti Sains Malaysia

Timbalan Dekan
(Pengajian Siswazah & Penyelidikan)
Pusat Pengajian Sains Komputer
Universiti Sains Malaysia

 Ketua Pustakawan
Perpustakaan Hamzah Sendut
Universiti Sains Malaysia

Penolong Bendahari Kanan
Unit Kumpulan Wang Penyelidikan
Jabatan Bendahari
Universiti Sains Malaysia

Pegawai Sains
Pelantar Sains Fundamental
Pejabat Pelantar Penyelidikan
Universiti Sains Malaysia

} Disampaikan satu salinan laporan akhir projek untuk simpanan Perpustakaan

} Mohon kerjasama pihak puan untuk menguruskan penutupan akaun projek selewat-lewatnya pada **31 Disember 2011** dan mohon kemukakan satu salinan penyata kewangan terakhir ke Pejabat ini untuk tujuan rekod

F0403

Kod Projek : FRGS/FASA1-2009/(BIDANG)/(NAMA IPT)/(NO.RUJ. KPT)

BORANG FRGS – P3(R)



FINAL REPORT FUNDAMENTAL RESEARCH GRANT SCHEME (FRGS)

*Laporan Akhir Skim Geran Penyelidikan Asas (FRGS) IPT
Pindaan 1/2009*

A RESEARCH TITLE : Adaptive Virtual Organization Policy Negotiator for Grid

Tajuk Penyelidikan

PROJECT LEADER : Prof. Madya Chan Huah Yong

Ketua Projek

PROJECT MEMBERS : 1. Cheng Wai Khuen

(including GRA) 2. Kheoh Hooi Leng

Ahli Projek



PROJECT ACHIEVEMENT (*Prestasi Projek*)

B ACHIEVEMENT PERCENTAGE

Project progress according to milestones achieved up to this period	0 - 50%	51 - 75%	76 - 100%
Percentage			100%

RESEARCH FINDINGS

Number of articles/ manuscripts/ books	Indexed Journal	Non-Indexed Journal
	-	-
Paper presentations	International	National
	1	1
Others (Please specify)		

HUMAN CAPITAL DEVELOPMENT

Human Capital	Number		Others (Please specify):
	On-going	Graduated	
PhD Student		1	
Masters Student			
Undergraduate Students			
Temporary Research Officer			
Temporary Research Assistant		1	
Total		2	

EXPENDITURE (*Perbelanjaan*)

C	Budget Approved (<i>Peruntukan diluluskan</i>)	: RM 60,000.00
	Amount Spent (<i>Jumlah Perbelanjaan</i>)	: <u>RM 59,845.54</u>
	Balance (<i>Baki</i>)	: <u>RM 154.46</u>
	Percentage of Amount Spent (<i>Peratusan Belanja</i>)	: 99.74 %

ADDITIONAL RESEARCH ACTIVITIES THAT CONTRIBUTE TOWARDS DEVELOPING SOFT AND HARD SKILLS

(Aktiviti Penyelidikan Sampingan yang menyumbang kepada pembangunan kemahiran insaniah)

D

International		
Activity	Date (Month, Year)	Organizer
Post-ICONIP'09 Workshop on Advances in Intelligent Computing (WAIC'09)	December, 2009	Universiti Tunku Abdul Rahman (UTAR)
National		
Activity	Date (Month, Year)	Organizer
Computer Sciences Postgraduate Colloquium 2007	June, 2007	School Of Computer Sciences, USM

PROBLEMS / CONSTRAINTS IF ANY (*Masalah/ Kekangan sekiranya ada*)**E****RECOMMENDATION** (*Cadangan Penambahbaikan*)

RESEARCH ABSTRACT – Not More Than 200 Words(*Abstrak Penyelidikan – Tidak Melebihi 200 patah perkataan*)

G The concept of virtual organization (VO) federation is now becoming the domination issue of working space in grid computing. People are looking for solution to provide an efficient VO federation for the seek of resource allocation. Since different human have different perspectives, specialties, experience and expectation towards a collaboration outcome, the coherence minds and consensus in decision making become a challenge in the design of VO.

Negotiation is a process giving both parties the ability of counter-offer and trade-off on a set of bargaining criteria. From our study in this research, a comprehensive negotiation mechanism increased the flexibility and applicability of autonomous resource allocation. Thus, a Select, Match, Negotiate and Expand (SMNE) protocol is proposed and examined. By integrating the relation-based negotiation strategy and creative negotiation in conflict resolution, a better result is shown compared to conventional negotiation approaches.

A policy based automated negotiation is crucial in the design of scalable VO. A VO administrator can utilize this functionality to improve the efficiency during VO participants selection. A perfect combination of VO participants may be produced through the SMNE protocol. This is to ensure the maximizing of global resource utility in particular domain. Therefore, negotiation protocol are playing the key role to improve the market value and utilization of resource trading market. As a conclusion, the proposed SMNE protocol is successfully implemented and integrated into a grid environment with good performance.

Date : 24 March 2010
Tarikh

Project Leader's Signature:
Tandatangan Ketua Projek



COMMENTS, IF ANY/ ENDORSEMENT BY RESEARCH MANAGEMENT CENTER (RMC)
(Komen, sekiranya ada/ Pengesahan oleh Pusat Pengurusan Penyelidikan)

H

.....

.....

Name:
Nama:

Signature:
Tandatangan:

Date:
Tarikh: