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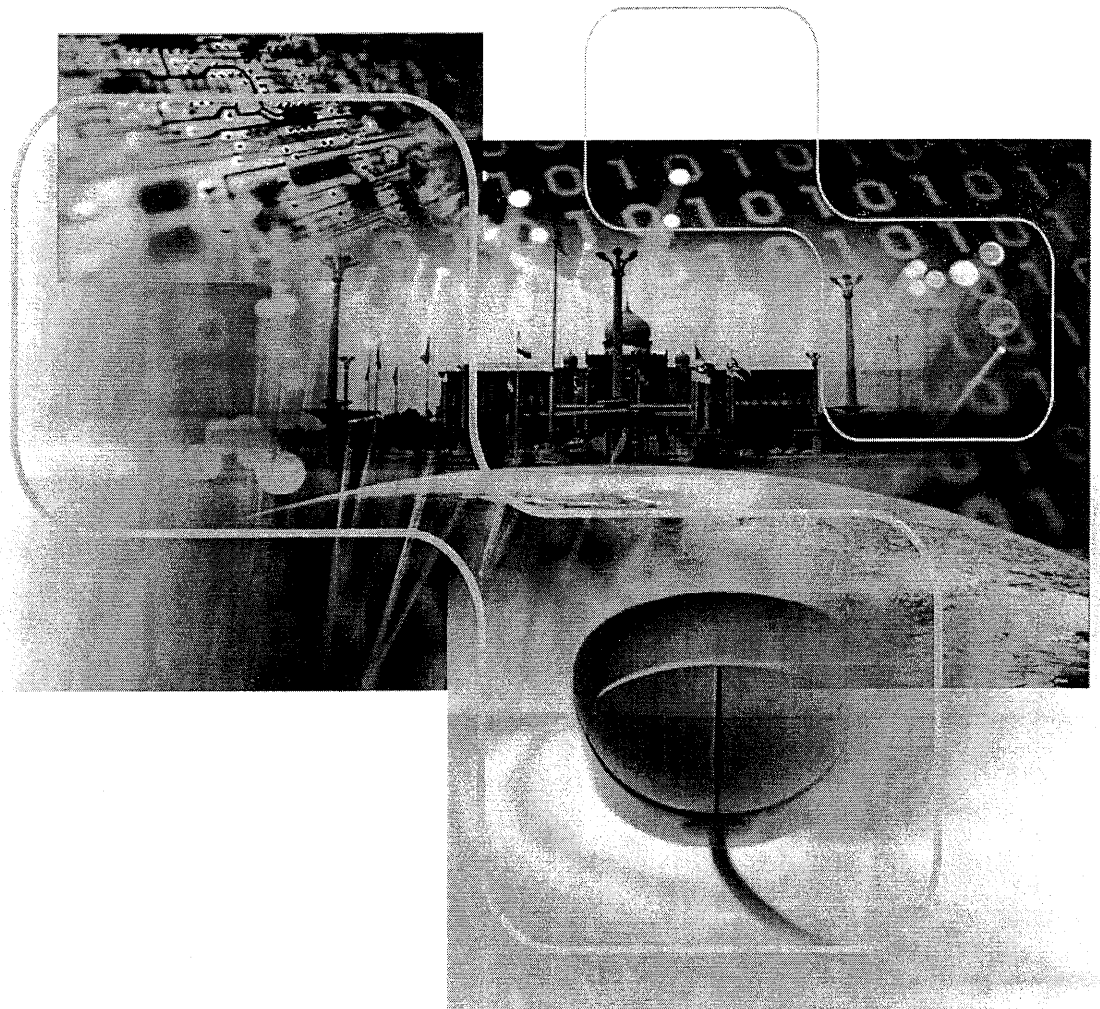
**THE MALAYSIAN PUBLIC SECTOR OPEN SOURCE
SOFTWARE MASTER PLAN**

(Background Document)

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THE MALAYSIAN PUBLIC SECTOR OPEN SOURCE SOFTWARE MASTER PLAN



JAN 2005

**Chief Secretary
To The Government of Malaysia**



Over the past few years, the Malaysian Government has made significant progress in the development and utilisation of ICT through the implementation of various application systems and computerisation programmes.

One of the main concerns from the implementation is the escalating and high cost due to the structure of licensing fees and constant upgrades. Risks to national competitiveness arising from software vulnerabilities and potential lock-in through proprietary software have also prompted the Government to consider alternative solutions.

The emergence of Open Source Software (OSS) where the source codes are available for the users to use, modify and redistribute, provides vast opportunities for the Government to leverage on OSS technologies for the benefit of its IT implementation. With source codes made open, interoperability among systems can be enhanced to enable a more integrated and improved public service.

Other benefits that can be reaped from OSS include, growth of local software development allowing the production of localised versions of software. As software cost becomes cheaper, usage of IT applications can be extended to all levels of society thus reducing the digital divide and promoting the drive towards the creation of a knowledge-based society.

The development of the Malaysian Public Sector OSS Master Plan by the Malaysian Administrative Modernisation and Management Planning Unit (MAMPU) will serve as a guide to accelerate the adoption and usage of OSS in the public sector.

I would like to express my appreciation to the members of the Government IT and Internet Committee (GITIC) for their effort and invaluable input to the development of this OSS Master Plan. My special gratitude also goes to MAMPU for planning and spearheading this effort.

A handwritten signature in black ink, appearing to read 'Samsudin Osman'. The signature is fluid and cursive, written over a light-colored background.

Tan Sri Samsudin Osman

MESSAGE

**Director General
MAMPU, Prime Minister's Department**



Open Source Software (OSS) has emerged as a strong technological force in the ICT world of late. Strong security, stability and the potential to reduce total cost of ownership, together with the promise of freedom to use, modify and customise the source codes have provided the impetus for OSS proliferation in governments and businesses.

In anticipation of the impact of the global OSS movement, the public sector has initiated the OSS programme, and MAMPU has been given the responsibility to lead this effort. The Malaysian Public Sector OSS Master Plan and the Open Source Competency Centre (OSCC) will spearhead and support OSS adoption in the public sector.

The Master Plan provides a roadmap for the adoption of OSS technologies within the public sector to assist in the delivery of quality and secured services. Open Source adoption in the Public Sector can help to improve public service delivery, as lower costs in software enable greater and more pervasive utilisation of ICT.

The Master Plan will assist the Public Sector to become more self-reliant by increasing the technical capabilities of its personnel via reskilling and certification programmes, as well as, practical hands-on experience. The OSCC will provide technical support and consultancy, conduct training and awareness programme to promote and assist agencies in their OSS implementation.

I would like to express my heartfelt appreciation to Y. Bhg. Tan Sri Samsudin Osman, Chief Secretary to the Government of Malaysia, for his continuous guidance and direction towards the successful completion of this Master Plan.

Finally, my special thank you to the project team from MAMPU and consultants from DRB-HICOM Information Technologies Sdn Bhd (DHIT), and their partners, that worked together to develop this Master Plan.

A handwritten signature in black ink, appearing to read 'Nazariah'.

Datin Paduka Nazariah Mohd Khalid

BACKGROUND

MALAYSIAN OPEN SOURCE SOFTWARE INITIATIVE

The Government of Malaysia has decided to encourage the development and implementation of Open Source Software (OSS) and MAMPU has been given the responsibility to lead this initiative for the Public Sector.

OBJECTIVES

- ◆ Reduce total cost of ownership
- ◆ Increase freedom of choice of software usage
- ◆ Increase interoperability among systems
- ◆ Increase growth of ICT industry
- ◆ Increase growth of OSS industry
- ◆ Increase growth of OSS user and developer community
- ◆ Increase growth of knowledge-based society
- ◆ Reduce digital divide

GUIDING PRINCIPLES

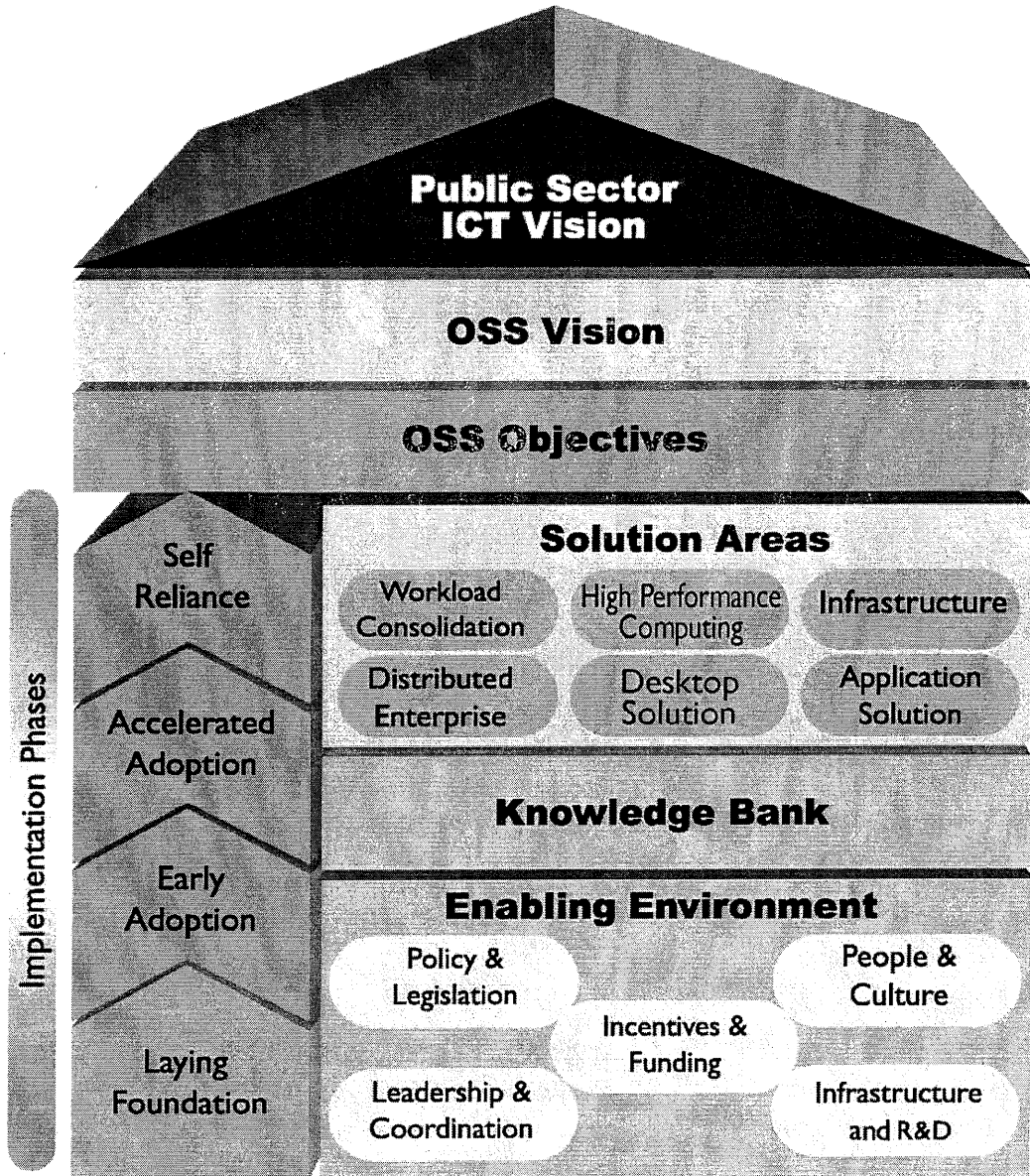
- ◆ Fit for purpose
- ◆ Least disruptive to operations
- ◆ Co-existence with other legacy proprietary system
- ◆ Leveraging on existing facilities, hardware, software and expertise
- ◆ Not driven or controlled by hardware and software vendors

THE PUBLIC SECTOR OSS MASTER PLAN

The master plan includes the following:

- ◆ Establish strategic direction and framework
- ◆ Develop an implementation plan and roadmap
- ◆ Establish an Open Source Competency Centre to support OSS implementation in the Public Sector
- ◆ Formulate policies, standards and guidelines

MASTER PLAN



The Malaysian Public Sector OSS Framework

OSS FRAMEWORK

The OSS Framework serves as a blueprint to achieve the Public Sector OSS vision and objectives.

Public Sector ICT Vision

To deliver efficient and quality service through the use of ICT.

OSS Vision

Creating and enhancing value using OSS within the Public Sector ICT framework in providing efficient, secure and quality services.

OSS Objectives

- ◆ Increase choice of software usage
- ◆ Increase interoperability
- ◆ Increase capability to maintain and support software
- ◆ Reduce total cost of ownership
- ◆ Reduce vendor lock-in
- ◆ Increase security and enforce sovereignty



Solution Areas

The proven OSS solutions across the IT value chain that can be implemented in the Public Sector.

Implementation Phases

Provide OSS Implementation Roadmap for the Public Sector over the short, medium and long term.

Knowledge Bank

Supports the sharing of OSS knowledge and experience among agencies.

Enabling Environment

Components that will impact OSS related initiatives to ensure the success of OSS implementation in the Public Sector.

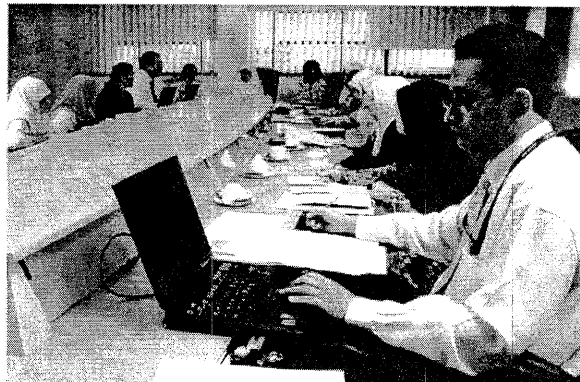
MASTER PLAN

STRATEGIC THRUSTS

In line with the framework developed, the following seven strategic thrusts are identified:

No.	Strategic Thrust	Strategy	Activities
1	Develop OSS Technical Implementation Plan For the Public Sector	Formulate and establish OSS Technical Implementation Plan for the Public Sector	<ul style="list-style-type: none"> Identify solution areas to be implemented Identify pilot initiatives and agencies involved
2	Entrust A Governing Body To Champion, Monitor & Drive The OSS Implementation	Entrust the existing agency responsible for Public Sector ICT initiatives to champion OSS	
		Establish the Open Source Competency Centre (OSCC) as a one-stop reference centre	<ul style="list-style-type: none"> Set up infrastructure Implement and manage projects Set up Central Knowledge Bank International Networking Consultancy Services
3	Train And Develop Human Resource To Support OSS Implementation	Create greater OSS awareness	<ul style="list-style-type: none"> Promotional activities
		Re-skill personnel	<ul style="list-style-type: none"> OSS training and certification programmes
		Educate students	<ul style="list-style-type: none"> Introduce OSS skills in school IT labs at primary, secondary and tertiary education institutions.
4	Promote Creativity And Innovativeness Via R&D To Harness Competitiveness	Establish mechanism to plan, coordinate and monitor OSS R&D activities	<ul style="list-style-type: none"> Establish R&D Framework through hub and spoke approach Formulate policies and guidelines on technology and development standards
		Leverage R&D centres in Institutions of Higher Education to lead OSS research and development	<ul style="list-style-type: none"> Identify and assess OSS R&D centres Assign OSS R&D opportunities Establish knowledge bank

No.	Strategic Thrust	Strategy	Activities
5	Continuous Development Of Policies & Legal Direction To Encourage Utilisation & Production Of OSS	Formulate OSS policies and guidelines	<ul style="list-style-type: none"> • Adoption • Procurement • Ownership • Technology • Implementation • Knowledge Sharing • Education
		Legal direction setting	
6	Provide Incentives To Prosper The Development Of OSS Solutions	Provide incentives for the purpose of inculcating growth of OSS usage and development initiatives	<ul style="list-style-type: none"> • Annual recognition and award • Annual OSS programming competition • Sponsorship for presentation in conferences and seminars • R&D fund • Budget allocation for migration
7	Optimise Resources By Encouraging Smart Partnerships With Relevant Organisations	Establish collaboration models for Smart Partnerships	
		Encourage partnerships with local businesses to commercialise OSS solutions	
		Establish communication channels between public sector, research bodies, businesses, financiers and community	

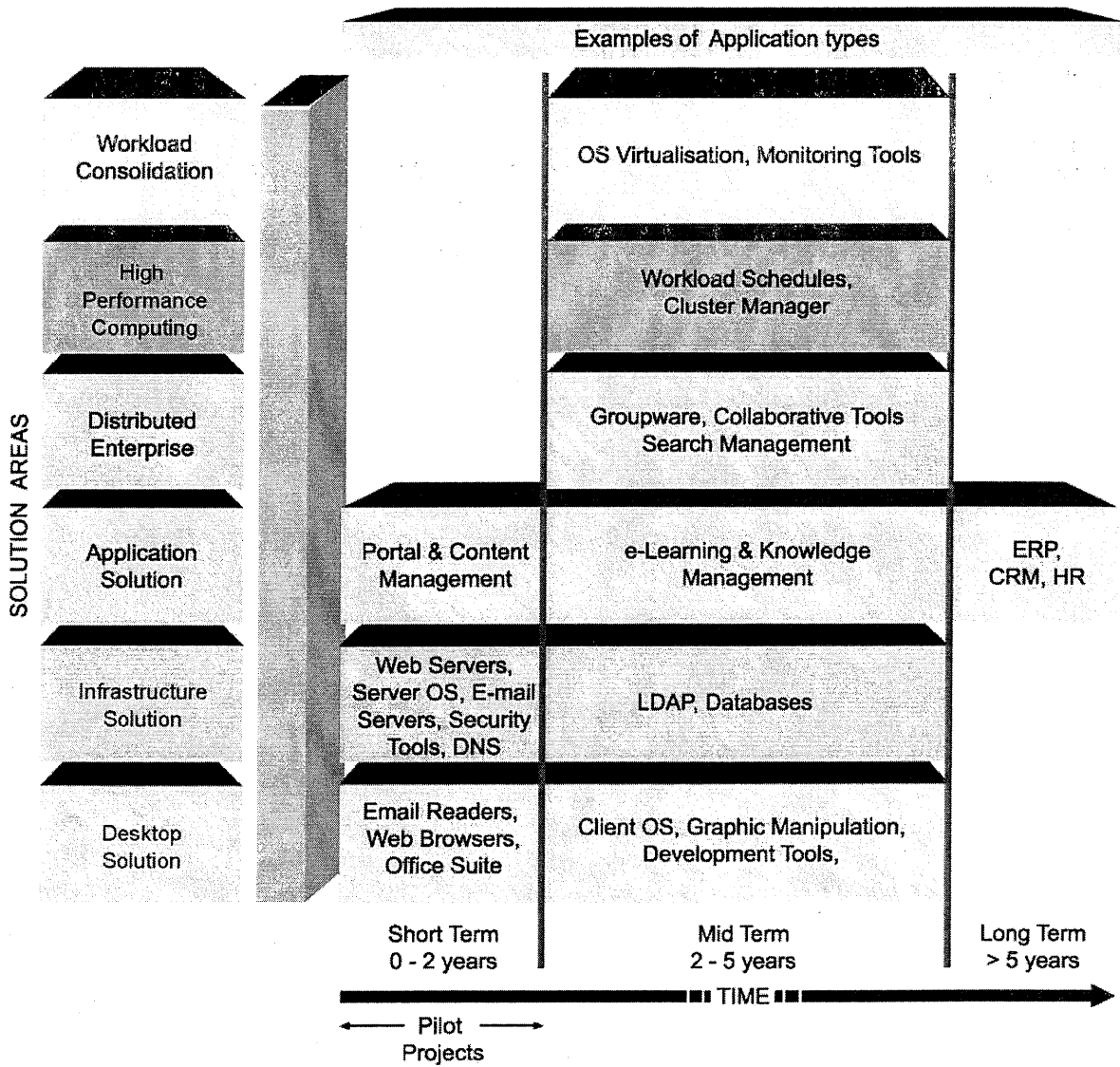


MASTER PLAN



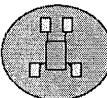



TECHNICAL IMPLEMENTATION PLAN

The Technical Implementation Plan outlines the OSS solution areas that may be implemented over the short, medium and long term.

In the short and the immediate terms, quick win pilots will be implemented to demonstrate the benefits of open source.



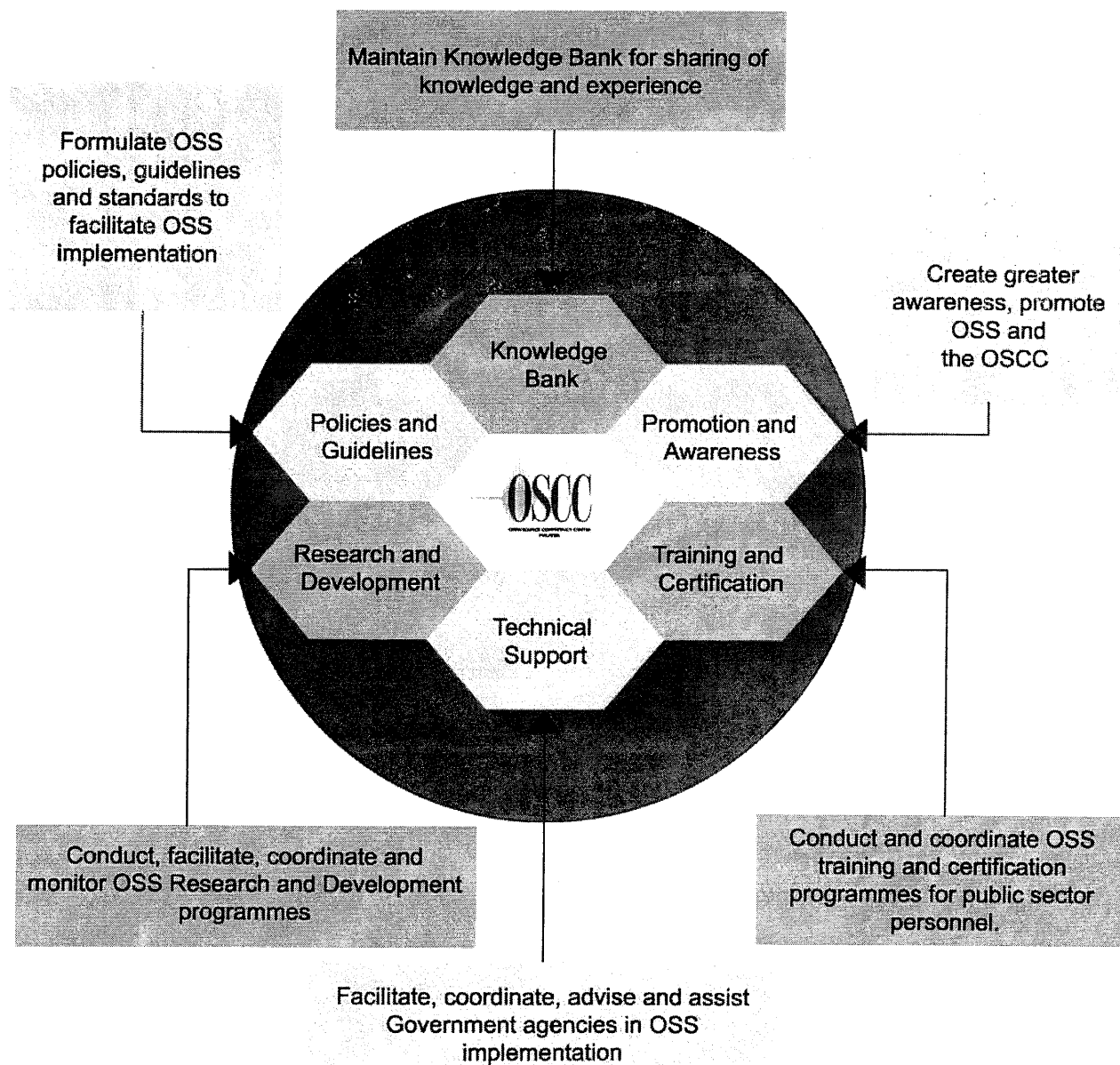
OSS SOLUTION AREAS

OSS SOLUTION AREAS	EXPLANATION
 <p>Workload Consolidation</p>	<p>Migration of applications on multiple physical servers to fewer number of servers to optimise infrastructure and reduce operational costs.</p>
 <p>High Performance Computing</p>	<p>Running parallel applications on a number of dedicated nodes to maximise performance.</p>
 <p>Distributed Enterprise</p>	<p>Processing on multiple remote servers with a centralised data store for consolidation.</p>
 <p>Application Solution</p>	<p>Implementation of specific application solutions to address business needs.</p>
 <p>Infrastructure Solution</p>	<p>Deployment of applications which provide basic computing services.</p>
 <p>Desktop Solution</p>	<p>Usage of PC applications to enhance user productivity.</p>

MASTER PLAN

OPEN SOURCE COMPETENCY CENTRE (OSCC)

The Open Source Competency Centre (OSCC) is the single point of reference for support and guidance in the implementation of OSS in the public sector.



OSCC OBJECTIVES

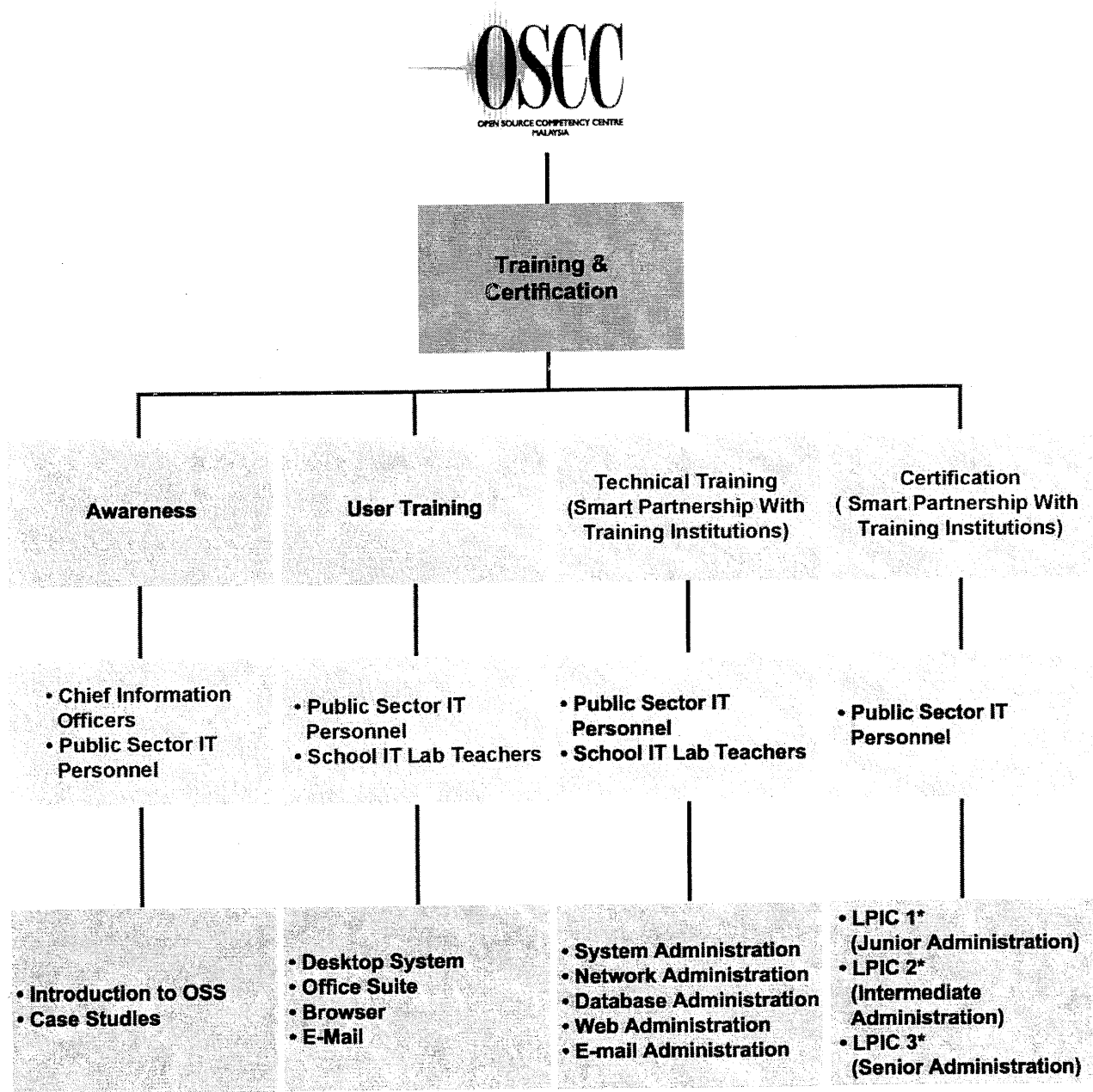
The OSCC supports the implementation of the Strategic Thrusts:

- ◆ To provide the direction in the development and use of OSS
- ◆ To create greater awareness on OSS
- ◆ To provide information, expertise and physical infrastructure to support OSS implementation
- ◆ To facilitate collaboration between the Government and OSS Industry in the areas of education, research and development
- ◆ To position Malaysia as a world class OSS technology hub
- ◆ To contribute to the development of local OSS expertise



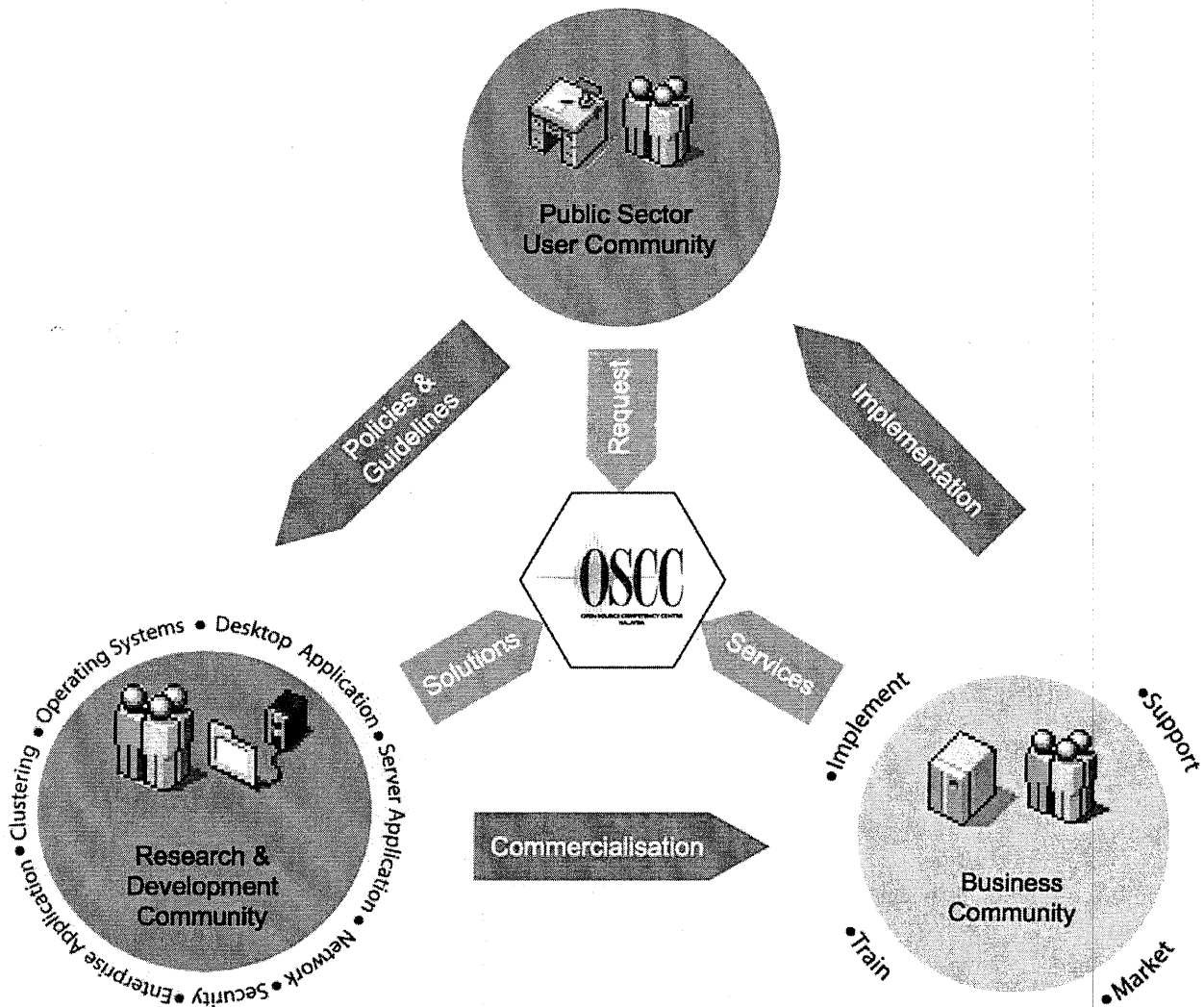
MASTER PLAN

TRAINING AND CERTIFICATION



*Linux Professional Institute Certification

RESEARCH & DEVELOPMENT, SMART PARTNERSHIP AND INCENTIVES



- ◆ The Smart Partnership is a collaborative network among the public sector, research & development as well as business communities. The objective is to optimize the resources and expertise from each community in a complementary manner to achieve OSS objectives.
- ◆ The Research & Development community will be involved in the setting up of OSS centers of excellence to lead research and development based on a hub and spoke approach.
- ◆ The Government will provide incentives to increase the usage and development of OSS and provide a conducive environment to sustain the local OSS community.

MASTER PLAN

POLICY AREAS

1	Adoption	➔	OSS adoption should be based on the least disruptive and fit for purpose implementation.
2	Procurement	➔	OSS procurement should be based on merits, value for money, transparency, security and interoperability, as well as in accordance with the Government procurement policies and procedures. In situations where advantages and disadvantages of OSS and proprietary software are equal, preference shall be given to OSS.
3	Ownership	➔	OSS ownership should include software licensing that allows rights to use and modify the software. Licensing for software developed within the public sector should be compatible with the GPL license, the BSD license or a formulated GOM license based on suitability.
4	Technology	➔	OSS technology to be used in the public sector shall comply to worldwide open standards. The technology acquired should be able to be supported by any other party to ensure continuity of support.
5	Implementation	➔	OSS implementation should be based on the guidelines specified in the Malaysian Public Sector OSS Technical Implementation Plan. The implementation should leverage on the shared knowledge in the Knowledge Bank and with minimal impact to the day-to-day business operations.
6	Knowledge Sharing	➔	Agencies implementing OSS must register their initiatives in the Knowledge Bank. The Knowledge Bank shall serve as a platform for sharing knowledge and experience.
7	Education	➔	OSS education should be introduced through structured programmes in school IT labs for primary, secondary and tertiary education levels.
8	Training	➔	Agencies must be committed in educating and re-skilling its personnel to ensure their competency in OSS.

TARGETS TO BE ACHIEVED BY 2005

Activities	Target
Awareness	<ul style="list-style-type: none"> • 100% of CIOs and IT Personnel are OSS literate
Re-skilling	<ul style="list-style-type: none"> • 60% of IT Personnel are OSS trained • 10% of IT Personnel are OSS certified • 20% of teachers responsible for School IT Labs are OSS trained
Education	<ul style="list-style-type: none"> • 40% of Institutions of Higher Education utilise OSS education and teaching tools • 20% School IT Labs utilise OSS education and teaching tools
Procurement	<ul style="list-style-type: none"> • 60% of all new servers (hardware) procured are able to run open source operating systems
Implementation	<ul style="list-style-type: none"> • 20% of School IT Labs have OSS installed (e.g. office productivity) • 60% of web servers (software) use OSS • 30% of office infrastructure (email, DNS, Proxy) use OSS • 30% of desktop solutions (e.g. web browser, email reader) use OSS

MASTER PLAN

IMPLEMENTATION ROADMAP

Laying the Foundation	Early Adoption	Accelerated Adoption	Self Reliance
SHORT TERM (0 - 2 years)	MID TERM (2 - 5 years)	LONG TERM (> 5years)	
<ul style="list-style-type: none"> • Formulate policies and guidelines • Formulate and establish OSS Technical Implementation Plan • Establish and operationalise OSCC • Formulate and implement Change Management Plan • Design and launch National Awareness Programme • Establish R&D Governing Framework 	<ul style="list-style-type: none"> • Reskill via certification and training • OSS Education • Implement pilot projects (quick wins) • Implement hub and spoke mechanism for R&D • Develop incentive and funding programmes • Establish Smart Partnership Programmes 	<ul style="list-style-type: none"> • Replicate OSS pilot sites to selected agencies • Monitor OSS adoption rate & progress via predefined Key Performance Indicators • Bilateral initiatives with countries adopting OSS 	<ul style="list-style-type: none"> • Enhance OSS solutions independently by agencies • Continuous identification of new opportunities



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