Kementerian Kesihatan Malaysia

**PEMBENTANGAN
KICK-OFF *PROJEK PHARMACY INFORMATION SYSTEM* (PhIS) DAN CLINIC *PHARMACY INFORMATION SYSTEM (CPS)* KEMENTERIAN KESIHATAN MALAYSIA (TEMPOH INTERIM)**

**Pembentangan Oleh:
Program Perkhidmatan Farmasi
Januari 2020**

Kandungan

1. Latar Belakang Projek
2. Skop Pelaksanaan Projek
3. Komitmen *Service Level Agreement* (SLA)
4. Perkakasan Yang Diselenggara
5. Carta Organisasi Projek
6. Keahlian Jawatankuasa Projek
7. Terma Rujukan (TOR) Jawatankuasa Projek

1. Latar Belakang

- Perjanjian Konsesi Penswastaan Makmal Ubat Dan Stor (MUS) telah ditandatangani oleh pihak Kerajaan dan Pharmaniaga Logistics Sdn. Bhd. (PLSB) pada 16 Mac 2011. Di bawah perjanjian ini, PLSB dikehendaki membangunkan *PhIS* dan *CPS* serta meluaskan pelaksanaannya di semua fasiliti KKM.

- Konsesi Penswastaan Makmal Ubat dan Stor Kementerian Kesihatan dengan Pharmaniaga Logistics Sdn. Bhd. (PLSB) yang tamat pada 30 November 2019 disambung secara interim dengan terma dan syarat pembekalan produk di bawah perjanjian konsesi sedia ada bermula 1 Disember 2019 sehingga 31 Disember 2021 iaitu selama 25 bulan.

- Nilai keseluruhan kontrak bagi perjanjian interim ini adalah sebanyak RM41 juta yang akan ditanggung oleh PLSB berdasarkan kadar kos pengendalian sedia ada.

- Pelaksanaan PhIS dan CPS secara keseluruhan melibatkan 1,247 fasiliti.

Latar Belakang (sambungan)

Status Pelaksanaan PhIS dan CPS setakat Disember 2019

Facility Type	No. of Facility Go-Live	Full Based	Pharmacy Based	Inventory Based	Indent Based	IWP
1. Hospital / Institute	145	5	121	19	-	-
2. MUS/PBFN	8	-	-	8	-	-
3. PK/PKD	108	-	-	57	-	51
4. Klinik Kesihatan	986	17	726	18	225	-
Total Facilities	**1,247**	**22**	**847**	**102**	**225**	**51**

2. Skop Perkhidmatan Sokongan Tempoh Interim

- **Tempoh :**   25 bulan - 1 Disember 2019 - 31 Disember 2021
- **Peruntukan :**   41.667 juta
- **Jenis Perkhidmatan :** Khidmat sokongan dan penyelenggaraan pemulihan
- **Skop Perkhidmatan:**

No.	Support Services	Coverage
1.	Helpdesk Call Centre Support	✓
2.	Application Support	✓
3.	Software Support	
	a. Software Defect/Bug Fixes and Version Release	✓
	b. Change Request for PhIS & CPS Software	**Reimburse**
	c. Integration Development and Implementation with 3rd-party System	**Reimburse**
4.	On-Site Regional Technical Support	✓
5.	Control Centre Monitoring and Support	✓
6,	Data Centre and Disaster Recovery Centre Support	✓
7.	Preventive Maintenance for Hardware, System & Software	✗
8.	Repair / Replacement of Hardware under Warranty	✓
9.	Repair of Hardware that are out-of-Warranty	✓
10.	Replacement of Hardware that are out-of-Warranty	**Reimburse**
11.	New, Upgrade and Relocation for Facility Implementation	**Reimburse**
12.	Service Level Agreement (SLA) Commitment	✓
13.	Service Level Guarantee (SLG) Commitment - Data Centre only	✓

Note: Services on the reimbursed items is based on time & material basis and PITC/PSC approval is required before PLSB proceeds with the services.

2.1 Waktu Operasi Bagi Perkhidmatan Sokongan

No.	Services	Support Hours	Support Days	States Coverage
1.	Helpdesk Support	7am to 11pm	7 days per week, excludes National Public Holidays	All states
2.	Regional On-site Support	8am to 5pm	5 days per week (Monday to Friday), excludes Public Holidays (Both National and respective State Holidays)	Perlis, Penang, Perak, Selangor, W.P., Negeri Sembilan, Melaka, Pahang, Sabah, Sarawak
		8am to 5pm	5 days per week (Sunday to Thursday) excludes Public Holidays (Both National and respective State Holidays)	Kelantan, Terengganu, Kedah, Johor.
3.	Application Support	8am to 5pm	5 days per week (Monday to Friday), excludes Public Holidays (Both National and respective State Holidays)	Perlis, Penang, Perak, Selangor, W.P., Negeri Sembilan, Melaka, Pahang, Sabah, Sarawak
		8am to 5pm	5 days per week (Sunday to Thursday), excludes Public Holidays (Both National and respective State Holidays)	Kelantan, Terengganu, Kedah, Johor.
4.	Software Support	8am to 5pm	5 days per week (Monday to Friday), excludes National Public Holidays and Selangor Holidays	All states
5.	DC and DRC Centre Support	8am to 5pm	6 days per week (Sunday to Friday), excludes National Public Holidays	All states

3. Komitmen Service Level Agreement (SLA)

- **Type 1 - SLA Bagi Sokongan Perkakasan**
  - o Three Levels of Severity
    - ➢ **Severity 1** - Any default occurring to the Hardware of the relevant Hospital/Clinic/ DC/DRC which has caused PhIS & CPS system totally not operable.
    - ➢ **Severity 2** - Any default occurring to the Hardware of the relevant Hospital/ Clinic/DC/DRC but it does not cause disruption to the entire operation of PhIS & CPS system.
    - ➢ **Severity 3** - Any default occurring on a Hardware such as PC, Notebook, Printer and Barcode Scanner.
  - o Three Category of Facility - **Category A**, **Category B** and **Category C**

- **Type 2 – SLA Bagi Sokongan *Application and System Software***
  - o Two Levels of Severity
    - ➢ **Severity 1** - Any default occurring to the Software and System in the relevant Hospital/Clinic/DC which has caused the PhIS & CPS system totally not operable.
    - ➢ **Severity 2** - Any default occurring to the Software and System in the relevant Hospital/Clinic/DC but it does not cause disruption to the entire operation of the PhIS & CPS system.
  - o Three Category of Facility - **Category A**, **Category B** and **Category C**

3.1 Ringkasan Kategori Fasiliti Bagi SLA

- **Kategori Fasiliti A**
  - Data Centre @ PDSA Putrajaya
  - Disaster Recovery Centre @ PDSA Kulim
  - 113 Hospitals - comprises of Full Based and Pharmacy Based facilities
  - 2 Institutes - comprises of Pharmacy Based facilities
  - 205 Klinik Kesihatan - majority with Full Based and Pharmacy Based facilities, minority with Inventory Based and Indent Based facilities

- **Kategori Fasiliti B**
  - 28 Hospitals - comprises of Inventory Based facilities and 11 facilities at outskirt area
  - 2 Institutes - comprises of Inventory Based facilities
  - 8 MUS / CFLN - comprises of Inventory Based facilities
  - 1 HQ - comprises of Inventory Based facilities
  - 108 PKD - comprises of Inventory Based facilities
  - 666 Klinik Kesihatan - mixture of Pharmacy Based, Inventory Based and Indent Based facilities

- **Kategori Fasiliti C**
  - 115 Kinik Kesihatan - Majority Inventory Based and Indent Based facilities which are located at outskirt and remote area

3.2 SLA Bagi Sokongan Perkakasan

		SEVERITY 1	SEVERITY 2	SEVERITY 3
Initial Response Time (IRT) ** Within Helpdesk Operation Hours*		30 min	60 min	60 min
On-Site Response Time (ORT) **after expiry of IRT*	**Category A** • **Ticket logs before 4:00PM**	• Best effort with not more than 1 Working Day	• Best effort with not more than 1 Working Day	• Best effort with not more than 1 Working Day
	• **Ticket logs after 4:00PM**	• Best effort with not more than 2 Working Day	• Best effort with not more than 2 Working Day	• Best effort with not more than 2 Working Day
	Category B • **Ticket logs before 4:00PM**	• Best effort with not more than 2 Working Day	• Best effort with not more than 2 Working Day	• Best effort with not more than 2 Working Day
	• **Ticket logs after 4:00PM**	• Best effort with not more than 3 Working Day	• Best effort with not more than 3 Working Day	• Best effort with not more than 3 Working Day
	Category C	• Best effort with not more than 5 Working Day	• Best effort with not more than 5 Working Day	• Best effort with not more than 5 Working Day
Penalty on missed ORT		RM300 per hour after ORT	RM200 per hour after ORT	RM100 per hour after ORT
Problem Resolution Time (PRT) **after expiry of ORT*		5-8 hours	6-10 hours	6-10 hours
Penalty on missed PRT		RM300 per hour after PRT	RM200 per hour after PRT	RM100 per hour after PRT

3.3 SLA Bagi Sokongan *Application and System Software*

		SEVERITY 1	SEVERITY 2
Initial Response Time (IRT) * *Within Helpdesk Operation Hours*		30 min	60 min
On-Site Response Time (ORT) **after expiry of IRT*	**Category A** • **Ticket logs before 4:00PM**	• Best effort with not more than 1 Working Day	• Best effort with not more than 1 Working Day
	• **Ticket logs after 4:00PM**	• Best effort with not more than 2 Working Day	• Best effort with not more than 2 Working Day
	Category B • **Ticket logs before 4:00PM**	• Best effort with not more than 2 Working Day	• Best effort with not more than 2 Working Day
	• **Ticket logs after 4:00PM**	• Best effort with not more than 3 Working Day	• Best effort with not more than 3 Working Day
	Category C	• Best effort with not more than 5 Working Day	• Best effort with not more than 5 Working Day
Penalty on missed ORT		RM300 per hour after ORT	RM200 per hour after ORT
Problem Resolution Time (PRT) **after expiry of ORT*		5-8 hours	6-10 hours
Penalty on missed PRT		RM300 per hour after PRT	RM200 per hour after PRT

4. Perkakasan Yang Diselenggara

Data Centre (DC) Hardware and Equipment	
Database Server	2
Application Server	2
Cloud Server	7
Web Server	2
Integration Server	1
Distribution Server	1
Synchronisation Server	1
Helpdesk, Backup & DNS Server	2
Enterprise SAN Storage	2
Enterprise Tape Backup System	1
Core Switch	2
LAN Distributed Switch	8
SAN Switch	4
Load Balancer	2
Software License Subscription	
Oracle Database	16 core license
IBM AIX, PowerVM & Power HA	4
Checkpoint Firewall & IPS	2
GlobalSign SSL	3

Disaster Recovery Centre (DRC) Hardware and Equipment	
Database Server	1
Application Server	1
Cloud Server	6
Web Server	1
Integration & Synchronisation Server	1
Helpdesk & Distribution Server	1
NMS, Backup & DNS Server	2
Enterprise SAN Storage	2
Enterprise Tape Backup System	1
Core Switch	1
LAN Distributed Switch	4
SAN Switch	3
Software License Subscription	
Oracle Database	8 core license
IBM AIX	2
Checkpoint Firewall & IPS	2

4. Perkakasan Yang Diselenggara

	Hospital, CFLN, MUS, PKD, KK, JKN, HQ	Pusat Latihan PhIS
Server	1,051	15
UPS	905	
PC	7,110	273
Notebook	819	
Pencetak Laser	1,614	14
Pencetak Termal Label (Standard)	1,946	15
Pencetak Termal Label (High-end)	127	
Ipad	158	6
Barcode scanner	83	
MyKad Reader	15	
Wireless Access Point	73	
Core Switch	45	
Distributed Switch	1,274	12
Fibre Module	96	
Server Rack 42U	138	
Server Rack 24U	211	
Server Rack 15U	1	
Server Rack 9U	13	
Server Rack 6U	474	5
Projektor		10

5. Struktur Tadbir Urus Projek
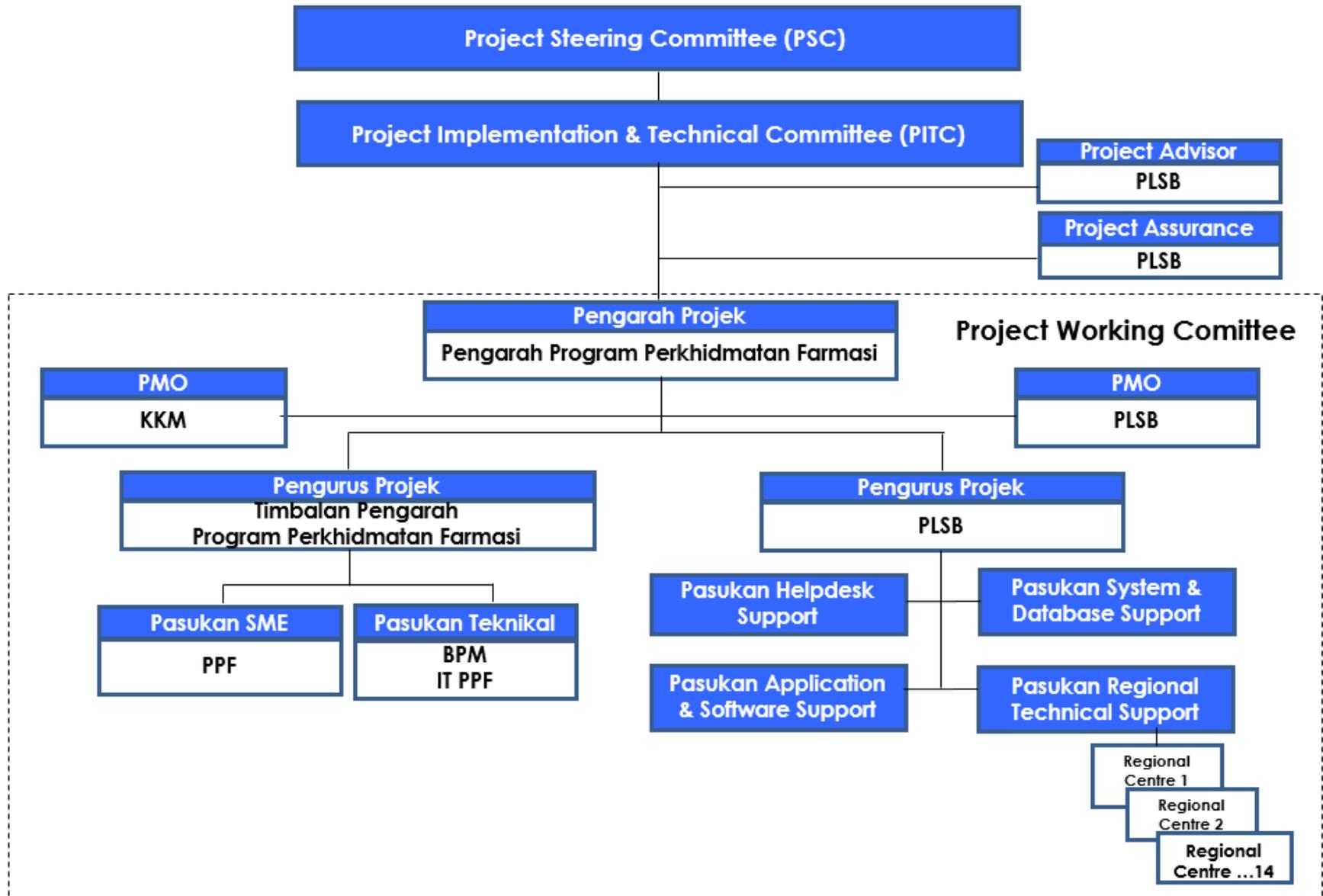
6. Keahlian Jawatankuasa Projek

Project Steering Committee	Project Implementation & Technical Committee	Project Working Committee
Pengerusi **TKSU(P)** **Keahlian** • **Pengarah Kanan Farmasi (Pengerusi Ganti)** • **SUB Bahagian Pengurusan Maklumat** • **SUB Bahagian Perolehan &Penswastaan** • **SUB Bahagian Kewangan** • **Pengarah Program Perkhidmatan Farmasi** • **Pengarah Bahagian Perkembangan Perubatan** • **Pengarah Bahagian Pembangunan Kesihatan Keluarga** • **Penasihat Undang-Undang** • **Pharmaniaga Logistik Sdn. Bhd.** **Pemantauan : Mesyuarat 2 kali setahun** **Urusetia : BPM**	**Pengerusi** **SUB(BPM)** **Keahlian** • **TSUB (P) BPM (Pengerusi Ganti)** • **TSUB (R) BPM** • **Pengurus Projek** • **Project Working Committee** • **Ketua IT JKN Selangor** • **Ketua IT Hospital Kuala Lumpur** • **Pharmaniaga Logistik Sdn. Bhd.** **Pemantauan : Mesyuarat 4 kali setahun dan jika perlu** **Urusetia BPM**	**Pengarah Projek** • **Pengarah Program Perkhidmatan Farmasi** **Pengurus Projek** • **Timbalan Pengarah Program Perkhidmatan Farmasi** **Keahlian** • **TSUB (P) BPM (Pengerusi Ganti)** • **BPM KKM** • **PPF KKM** • **Wakil Bahagian KKM** • **Pharmaniaga Logistics Sdn. Bhd.** **Pemantauan: Mesyuarat setiap bulan dan jika perlu** **Urusetia : PPF**

PMO KKM & PLSB

Nota : Pelantikan keahlian PSC dan PITC Perjanjian Konsesi masih terpakai untuk perjanjian Interim ini.

7. Terma Rujukan (TOR) Project Steering Committee

Project Steering Committee (PSC)

1. Menentukan arahtuju dan polisi menyeluruh mengenai PhIS dan CPS;

2. Meluluskan dan mengesahkan keputusan-keputusan utama berhubung PhIS dan CPS;

3. Menentukan apa-apa permintaan terhadap sebarang perubahan oleh Kerajaan;

4. Menentukan pelaksanaan PhIS dan CPS di lokasi yang ditetapkan oleh kerajaan.

5. Menyelesaikan sebarang pertikaian berhubung dengan PhIS dan CPS.

7. Terma Rujukan (TOR) Project Implementation & Technical Committee

Project Implementation & Technical Committee (PITC)

1. Menilai dan mengesahkan *deliverables* dan cadangan kepada sebarang perubahan;

2. Menentukan polisi, prosedur, *standard* dan tindakan terbaik untuk pengguna;

3. Memastikan kualiti *deliverables* adalah selaras dengan spesifikasi seperti yang termaktub di dalam perjanjian;

4. Membantu sebarang perubahan inisiatif pengurusan untuk Kerajaan;

5. Memastikan latihan yang sesuai untuk pengguna;

6. Menilai laporan kemajuan pelaksanaan PhIS dan CPS yang dikemukakan oleh Pharmaniaga;

7. Melaporkan status perkembangan dan pelaksanaan PhIS dan CPS kepada *Project Steering Committee* termasuk semua laporan yang dikemukakan oleh Pharmaniaga.

7. Terma Rujukan (TOR) Project Working Committee

Project Working Team

1. Merancang aktiviti selaras dengan hala tuju dan strategi pelaksanaan projek
2. Menyediakan jadual pelaksanaan secara terperinci
3. Melaksanakan projek mengikut skop dan jadual yang telah ditetapkan
4. Mencadangkan penguatkuasaan terma-terma kontrak kepada *Project Implementation & Technical Committee*
5. Mengenalpasti isu dan masalah pelaksanaan projek dan cadangan penyelesaian
6. Memantau kemajuan pelaksanaan projek berdasarkan kontrak serta jadual-jadual yang telah dipersetujui
7. Menyemak dan memastikan serahan projek melalui proses jaminan kualiti serta menepati standard yang ditetapkan
8. Menilai laporan ujian yang dilaksanakan oleh Pharmaniaga
9. Melaporkan status projek kepada *Project Implementation & Technical Committee*
10. Menyemak laporan perbelanjaan Projek PhIS dan CPS
11. Menyemak laporan SLA dan SLG

Terima kasih