



Procurement of Consultancy Services as Systems Integrator for the
Supply, Delivery, Installation, and Maintenance of the Philippine
Identification System (PhilSys)

Government of the Republic of the Philippines

PHILIPPINE STATISTICS AUTHORITY

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ANNEX G

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ANNEX G - Service Level Agreement

1. Application of Liquidated Damages with respect to SLAs
 - a. Liquidated Damages shall be levied for not meeting a specified service level.
 - b. The liquidated damages applicable for each SLA is determined by a Severity level attached to it.
 - c. The levels of SLAs and the associated Liquidated Damages are defined as per the following table:

Table 1. Severity Levels and Liquidated Damages

Severity Level	Liquidated Damages as a percentage of payment (excl. of taxes, duties and levies) applicable
5	5%
4	4%
3	3%
2	2%
1	1%

- d. Liquidated damages applicable for a quarterly cutoff performance review of the SI will be computed on the total amount payable (exclusive of applicable taxes, duties and levies) for a quarter as specified in the Payment Schedule and consistent with **1.g.** above.
- e. The liquidated damages applicable for all SLAs which have not been met during the cutoffs will be summed up to arrive at the cumulative liquidated damages applicable for the corresponding payment schedule.
- f. The cumulative liquidated damages thus computed shall not exceed 10% of the payment (exclusive of applicable taxes, duties and levies) due to the SI for that quarter.
- g. In case of non-compliance to a SLA on more than one occasion during a reporting cutoff, the Severity level for the corresponding SLA shall be elevated to the immediate next higher Severity level (i.e., if the base Severity level for a SLA is 2, it will be elevated to Severity level 3) and liquidated damages shall be computed accordingly.
- h. In case there are successive breaches of SLA's for two reporting cutoffs, PSA can issue show cause notice to the SI to explain their non-performance. SI needs to explain writing the action taken to prevent such recurrences in future. This is without prejudice to other rights of PSA.
- i. The percentage of LD applicable to the SI should be auto-computed either through (i) the Enterprise Management System or (ii) other systems proposed by the SI. Regardless of options, the PSA shall review the automation of the LD before deployment.

2. Definitions of measurement and reporting intervals

- a. **Measurement interval:** For each of the SLAs, the Reporting interval has been broken down into multiple Measurement intervals. This has been done to provide the SI an opportunity to rectify any SLA non-compliance during a particular measurement interval in the remaining measurement intervals available in the Reporting interval.
- b. **Measurement interval computations:** For each of the SLAs, all observations regarding the SLA recorded will be aggregated and the SLA will be computed for every measurement interval. The applicable percentage of liquidated damages will be the average of the liquidated damages computed for each measurement interval.
- c. **Reporting interval:** Reporting interval for all SLAs is set on a quarterly basis, with the nominated date of the last calendar date of the quarter (known as cutoff). The percentage of LD to be applied for a Reporting interval is computed as an average of the LD percentages computed for each of the Measurement intervals.

3. Incidents and Service Desk Tickets

3.1. Categories of tickets

Tickets can be raised in the EMS tool under the following categories:

- a. **Incidents:** All issues identified either through periodic testing procedures manually or through automated tools as well as those identified through security advisories or OEM advisories affecting one or more software or hardware components in the IT infrastructure shall be logged as incidents. The priority of incidents shall be assigned as per the procedure defined in **clause 3.3 of this Annexure**.
- b. **Service Desk Tickets:** All requests logged by PSA authorized users will be treated as Service Desk tickets. All service desk tickets shall be tracked through the service desk tool and it should be accessible to all PSA authorized users. For service desk tickets, the priority shall be assigned by the user raising the ticket and the same should not be modified by the SI. All SLAs relating to service desk tickets shall be computed on the basis of the service desk ticket priority assigned by the user. The EMS should keep a log of any changes to priority of tickets with timestamp.

3.2. Assignment of Asset Criticality

Criticality of IT assets will be assigned by PSA or agencies nominated by PSA. SI should ensure that **ITAM** tool is kept up to date with the assigned criticality levels and criticality of IT assets is automatically cascaded into the EMS tool and is automatically tagged through the Service Desk and Incident Management Tools when new incidents, service requests or problems are logged.

3.3. Priority of tickets

- a. The priority of tickets and ticket management process will be implemented by SI as per PSA's policies and procedures in force during the tenure of the contract.
- b. PSA may review and revise the below definitions based on emerging business needs over time.
- c. The revised definitions will be applicable from the following quarter after notification of the revisions by PSA.
- d. The priority of tickets shall be measured as per the table below.

Table 2. Priority of Tickets

Priority of tickets			
Impact	High	Medium	Low
Entire organization	P1	P1	P3
Large group (>20 persons)	P1	P2	P3
Small group (<=20 persons)	P2	P3	P4
One person	P2	P3	P4

The tickets are classified according to their urgency. A ticket is categorized as 'Low' when the incident does not affect users for performing their functions. A ticket is categorized as 'Medium' when the incident prevents users from performing a portion of their functions. A ticket is categorized as 'High' when the user cannot perform his/her work.

4. SLA Categories

Following five categories of SLAs have been defined for effective administration of the contract.

- a. **Core Services SLAs:** These are designed around the core public facing services of PhilSys which are enrolment, authentication, eKYC and the corresponding APIs which are exposed to external user agencies of the ID system.
- b. **IT Operations and Managed Services SLAs:** These SLAs drive the delivery of key IT operations and managed services rendered by the SI. These also cover the ITIL defined processes for service delivery, the Network Operations Center and end user services for PSA's internal users and ecosystem partners.
- c. **Information Security SLAs:** These are designed to ensure that adequate care is taken by the SI on Information Security of PhilSys components and that key processes and procedures are in place.
- d. **Application Development and Maintenance SLAs:** Software applications form the core of PhilSys. These SLAs revolve around the key software application and are designed to ensure

that adequate care is taken during the course of application development and its ongoing maintenance including production support.

5. SLAs for Core PhilSys Applications

5.1. Delivery of Key PhilSys Services

Table 3. SLA for Delivery of Key PhilSys Services

Parameter	Description																		
Definition of SLA	Registration Processing Time or Response time for Delivery of key PhilSys Services																		
Scope of SLA	The scope of SLA includes: Registration, Authentication, eKYC, TSP/RP Authentication System																		
SLA Targets	<table border="1"> <thead> <tr> <th>Service</th> <th>Target</th> <th>Severity Level</th> </tr> </thead> <tbody> <tr> <td>Registration</td> <td>200,000 registrations processed within 24 hours from uploading</td> <td>2</td> </tr> <tr> <td>Simple or Demographic Authentication</td> <td>Response time of 2 seconds from the time the Authentication packet was received by AMS</td> <td>2</td> </tr> <tr> <td>OTP Authentication</td> <td>Response time of 2 seconds from the time OTP challenge response was received by AMS</td> <td>2</td> </tr> <tr> <td>Biometric Authentication</td> <td>Response time of 2 seconds from the time biometric data was received by AMS</td> <td>2</td> </tr> <tr> <td>e-KYC Authentication</td> <td>Response time of 2 seconds from the time biometric data or OTP challenge response was received by AMS</td> <td>2</td> </tr> </tbody> </table>	Service	Target	Severity Level	Registration	200,000 registrations processed within 24 hours from uploading	2	Simple or Demographic Authentication	Response time of 2 seconds from the time the Authentication packet was received by AMS	2	OTP Authentication	Response time of 2 seconds from the time OTP challenge response was received by AMS	2	Biometric Authentication	Response time of 2 seconds from the time biometric data was received by AMS	2	e-KYC Authentication	Response time of 2 seconds from the time biometric data or OTP challenge response was received by AMS	2
	Service	Target	Severity Level																
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	e-KYC Authentication	Response time of 2 seconds from the time biometric data or OTP challenge response was received by AMS	2																
Tool used for SLA monitoring	To be implemented as part of EMS. Please refer Scope of Work of EMS.																		

Parameter	Description
Process to capture raw data for SLA calculations	Automated monitoring using EMS. Any custom scripting required to enable fully automated monitoring should be performed by the SI.
SLA calculation	<p>SLA for Registration:</p> <p>Step 1: Compute the 95th percentile of the elapsed time of registration transactions from uploading to PSN generation for the target measurement interval.</p> <p>Step 2: If the value of the 95th percentile is less than or equal to 24 hours, the SI has met the SLA target.</p> <p>Step 3: If the value of the 95th percentile is greater than 24 hours, the LD is in effect.</p> <p>SLA for Simple or Demographic Authentication:</p> <p>Step 1: Compute the 95th percentile of the response times for simple authentication transactions for the target measurement interval.</p> <p>Step 2: If the value of the 95th percentile is less than or equal to 2 seconds, the SI has met the SLA target.</p> <p>Step 3: If the value of the 95th percentile is greater than 2 seconds, the LD is in effect.</p> <p>SLA for OTP Authentication:</p> <p>Step 1: Compute the 95th percentile of the response times for OTP authentication transactions for the target measurement interval.</p> <p>Step 2: If the value of the 95th percentile is less than or equal to 2 seconds, the SI has met the SLA target.</p> <p>Step 3: If the value of the 95th percentile is greater than 2 seconds, the LD is in effect.</p> <p>SLA for Biometric Authentication:</p> <p>Step 1: Compute the 95th percentile of the response times for biometric authentication transactions for the target measurement interval.</p> <p>Step 2: If the value of the 95th percentile is less than or equal to 2 seconds, the SI has met the SLA target.</p>

Parameter	Description
	<p>Step 3: If the value of the 95th percentile is greater than 2 seconds, the LD is in effect.</p> <p>SLA for e-KYC Authentication:</p> <p>Step 1: Compute the 95th percentile of the response times for e-KYC authentication transactions for the target measurement interval.</p> <p>Step 2: If the value of the 95th percentile is less than or equal to 2 seconds, the SI has met the SLA target.</p> <p>Step 3: If the value of the 95th percentile is greater than 2 seconds, the LD is in effect.</p> <p>NOTE: <i>If the cause of the Registration records exceeding the SLA targets is due to ABIS, these registration records shall be excluded from SLA computation.</i></p>
LD calculation	The SLA value and the LD will be calculated based on the severity levels defined.
Measurement Interval	Monthly
Reporting Interval	Quarterly cut-off
Reports or Data to be submitted, if any	Automated SLA dashboard in EMS tool (technical) and BIAS (operations)

5.2. Availability of PhilSys Core Applications

Table 4. Availability of PhilSys Core Applications

Parameter	Description
Definition of SLA	% of uptime of PhilSys applications
Scope of SLA	The scope of SLA includes all PhilSys applications

Parameter	Description		
SLA Targets	Application or Module	Uptime target (%)	Severity Level
	IDMS	99.5%	2
	AMS (Authentication and e-KYC)	99.5%	2
	PhilSys Web Portal	99.5%	2
	Mobile App	99.5%	2
	EMS and SLA Monitoring	99.5%	2
Tool used for SLA monitoring	To be implemented as part of EMS. Please refer Scope of Work of EMS.		
Process to capture raw data for SLA calculations	<p>Automated monitoring using EMS. Any custom scripting required to enable fully automated monitoring should be performed by the SI.</p> <p>For measurement of PhilSys Web Portal, polling will be done every 60 seconds using an automated script.</p> <p>For every poll by the script, PhilSys Web Portal will be considered as available if all the respective URL / sub-URLs are available during that poll. In case any of the sub-URL is down during a poll, the portal will be considered as down until the next successful (available) poll.</p>		
SLA calculation	<p>Formula: Availability % = {1- [(Total Downtime – Planned Downtime) / (Total Time)]}*100</p> <p>Planned Downtime: refer to Planned Downtime SLAs</p> <p>Total Time : 24x7 measured over a period of one month.</p>		
LD calculation	The SLA value and the LD will be calculated based on the severity levels defined.		
Measurement Interval	Monthly		
Reporting Interval	Quarterly cutoff		
Reports or Data to be submitted, if any	Automated SLA dashboard in EMS tool (technical) and BIAS (operations)		

5.3. Planned Down Time

- a. A large system like PhilSys will need down time to manage upgrades, patches or any other maintenance activities. The SI shall ensure that all such activities be carried out by notifying all stakeholders ahead of time and get the same approved by PSA.
- b. Downtime can be 1.5 times the given values if it is during non-peak hours from 9 pm to 7 am to encourage downtime during off peak hours.
- c. Following are the SLA targets and Severity levels for planned down times.

Table 5. SLA targets and Severity levels for planned down times

S. No	Parameter – Planned Down time	SLA target - Planned downtime duration not to exceed	Severity level
1	AMS (Authentication and e-KYC)	3 Hours per quarterly cutoff	1
2	Registration	3 Hours per quarterly cutoff	1
3	CRM and CCM	6 Hours per quarterly cutoff	1
4	PhilSys Web Portal	3 Hours per quarterly cutoff	1

- d. In case any of the above planned downtimes are not utilized during a given quarterly cutoff, the SI may carry forward the downtime allocations. Such unutilized planned downtimes should be utilized within the same calendar year. For example, if planned downtimes are unutilized during Q1 of a calendar year, such planned downtime can be carried forward until the end of Q4 of the same calendar year. Similarly, if planned downtimes are not utilized during Q1 and Q3 of a calendar year, the cumulative downtime available can be utilized until the end of Q4 of the same calendar year. However, if any planned downtime is available in Q4 and not utilized in Q4, such downtime cannot be carried forward to the next calendar year.

6. SLAs for IT Operations and Managed Services

- a. The start date for commencement of SLAs related to implementation of PhilSys Application Version_1 is on the date of launching of Version_1.
- b. The start date for commencement of SLAs related to implementation of PhilSys Application Version_2 is on the date of launching of Version_2.
- c. The start date for commencement of SLAs related to implementation of PhilSys Application Version_3 is on the date of launching of Version_3.
- d. The start date for commencement of SLAs related to implementation of PhilSys Application Version_4 is on the date of launching of Version_4.
- e. All SLAs are in effect right after the Go-live until the conclusion of the contract.

6.1. Minimum Resource Availability for 24x7 support resources

Table 6. Minimum Resource Availability for “24x7 support resources”

Parameter	Description	
Definition of SLA	This SLA applies to the availability of designated “24x7 Support resources” in a month. The attendance logged by the designated “24x7 Support resources” will be used to compute the monthly availability.	
Scope of SLA	This SLA will be applicable to designated “24x7 Support resources”. SI is required to maintain the resources as required by PSA.	
Tool used for SLA monitoring	N/A	
Process to capture raw data for SLA calculations	Manual or by using attendance data from the PSA’s attendance system	
SLA number	Target	Applied Severity level
Monthly availability, for “24x7 Support resources” (including applicable leaves and PSA holidays in a month since these resources are expected to be deployed on 24x7 basis)	Monthly availability: 100%	0
	Monthly availability: between 95% to 100%	1
	Monthly availability: <= 95%	2
SLA calculation	Calculation of total number of hours logged per month by designated Support (24x7) resources.	
LD calculation	The SLA value and the LD will be calculated based on the severity levels defined	
Measurement Interval	Monthly	

Reports or Data to be submitted, if any	Automated SLA dashboard in BIAS
Reporting Interval	Quarterly cutoff
Note	<p>If the number of designated “Support 24x7 resources” is 4, total number of monthly hours that should be logged in a month of 30 days is 720 (=30x24), for monthly availability of 100%. [For a 24x7 position, 4 resources are assumed in the staffing plan to provide for weekly time off for the resources]</p> <p>Any of the designated ‘Support 24x7’ resources for whom replacement is initiated by PSA will be excluded from this calculation.</p>

6.2. Backup SLAs

The backup and recovery solution aim to backup host file system, VMs, Software Defined-Storage, and databases. SLAs are defined to measure the availability of backup solution and successful data backup through compliance to backup schedule. The SLA dashboard shall show the status of these SLAs in real-time.

Backup Solution Availability

Table 7. Backup Solution Availability SLA

Parameter	Description
Definition of SLA	The availability of functioning backup solution during the measurement interval.
Scope of SLA	Backup and restore solution
SLA Targets	Target backup host availability is 99.5%
Tool used for SLA monitoring	To be implemented as part of EMS. Please refer to Scope of Work of EMS.
SLA calculation	Formula: Availability % = $\{1 - [(Total\ Downtime - Planned\ Downtime) / (Total\ Time)]\} * 100$ Planned Downtime: refer to Planned Downtime SLAs Total Time: 24x7 measured over a period of one month.
Severity Level	1
LD calculation	The SLA value and the LD will be calculated based on the severity levels defined
Measurement Interval	Monthly
Reports or Data to be submitted, if any	Automated SLA dashboard in EMS tool (technical) and BIAS (operations)

Compliance to Backup Schedule SLA

Table 8. Compliance to Backup Schedule

Parameter	Description
Tools, methods or scripts to be used to measure SLA	Custom scripts integrated with SLA Management Tool
Process to capture data or measure the parameter	Logs from the backup tool showing the date, time stamp (start and end time), device label/id, content backed up, size of backup
SLA calculation	NA
SLA target	100%
Severity level for computation of Liquidated Damages	1
Assumptions, if any	The SI should implement custom scripts to enable the measurement of various metrics when such functionalities are not available out of the box in standard EMS tools.
Measurement interval	Monthly
Reporting interval	Quarterly
Reports or Automated SLA dashboard in EMS tool (technical) and BIAS (operations)	Monthly report of the analysis of the backup logs. This report shall be available online for real time analysis (for any selected date and time range) along with weekly, monthly, canned reports in xls and PDF formats.
Data to be submitted, if any	

6.3. Ticket Management SLAs

Ticket Response Time SLA

Table 9. Ticket Response Time

Parameter	Description										
Scope of SLA	Applies to all Tickets (Incidents and Service Requests)										
Tools, methods or scripts to be used to measure SLA	EMS - Service Request Management tools to be implemented by SI										
Process to capture data or measure the parameter	<p>In order to measure the QoS, it is important to monitor the service response time and service request resolution time and escalation reports, if any.</p> <p>The SI can either use customized scripts or customization of tools necessary for measuring the SLAs.</p> <p>Once a ticket is logged through one of the agreed channels, the priorities have to be set using agreed channels for tickets based on PSA requirements to meet and tune the business objectives.</p> <p>Measurement of SLA Response Time is measured from the time of creation of the ticket until the “In Progress” status update.</p> <table border="1"> <thead> <tr> <th>Priority</th> <th>Response time</th> </tr> </thead> <tbody> <tr> <td>P1</td> <td>15 minutes</td> </tr> <tr> <td>P2</td> <td>60 minutes</td> </tr> <tr> <td>P3</td> <td>2 hours</td> </tr> <tr> <td>P4 - Service Request</td> <td>1 Day</td> </tr> </tbody> </table>	Priority	Response time	P1	15 minutes	P2	60 minutes	P3	2 hours	P4 - Service Request	1 Day
Priority	Response time										
P1	15 minutes										
P2	60 minutes										
P3	2 hours										
P4 - Service Request	1 Day										
SLA calculation	<p>Formula:</p> <p><i>Response time % for P1 tickets</i> = Number of P1 tickets opened during the period and for which response is provided within defined timelines during the period / Number of P1 tickets opened during the period</p> <p><i>Response time % for P2 tickets</i> = Number of P2 tickets opened during the period and for which response is provided within defined timelines during the period / Number of P2 tickets opened during the period</p>										

Parameter	Description						
	<p><i>Response time % for P3 tickets</i> = Number of P3 tickets opened during the period and for which response is provided within defined timelines during the period / Number of P3 tickets opened during the period</p> <p><i>Response time % for P4 tickets</i> = Number of P4 tickets opened during the period and for which response is provided within defined timelines during the period / Number of P4 tickets opened during the period</p>						
SLA target	Response Time compliance = 85%						
Severity level for computation of Liquidated Damages	1						
Assumptions, if any	The SI should implement custom scripts to enable the measurement of various metrics when such functionalities are not available out of the box in standard Service Request tools.						
Measurement interval	Monthly						
Reporting interval	Quarterly						
Reports or Data to be submitted, if any	<p>Automated SLA dashboard in BIAS</p> <p>A maximum of twenty (20) reports on ticket response time shall be finalized during the joint project planning</p>						
Illustration of LD computation	<table border="1"> <thead> <tr> <th>SLA target</th> <th>Achievement</th> <th>LD applicable %</th> </tr> </thead> <tbody> <tr> <td>Response Time compliance =85%</td> <td>80%</td> <td>1% corresponding to severity level 1</td> </tr> </tbody> </table>	SLA target	Achievement	LD applicable %	Response Time compliance =85%	80%	1% corresponding to severity level 1
	SLA target	Achievement	LD applicable %				
Response Time compliance =85%	80%	1% corresponding to severity level 1					

Ticket Resolution Time SLA

Table 10. Ticket Resolution Time

Parameter	Description
Scope of SLA	Applies to all tickets
Tools, methods or scripts to be used to measure SLA	EMS - Service Request Management tools to be implemented by SI

Parameter	Description										
Process to capture data or measure the parameter	<p>The SI can either use customized scripts or customization of tools necessary for measuring the SLAs.</p> <p>Once a ticket is logged through one of the agreed channels, the priorities have to be set using agreed channels for tickets based on PSA's requirements to meet and tune the business objectives.</p> <p>Measurement of SLA Response time is the time from incident creation until the "Work in Progress" status update with assignment by SI. Resolution Time is the time from incident creation until the "Resolved" status update.</p> <table border="1" data-bbox="516 726 1255 932"> <thead> <tr> <th data-bbox="516 726 859 768">Priority</th> <th data-bbox="859 726 1255 768">Resolution time</th> </tr> </thead> <tbody> <tr> <td data-bbox="516 768 859 810">P1</td> <td data-bbox="859 768 1255 810">8 Hours</td> </tr> <tr> <td data-bbox="516 810 859 852">P2</td> <td data-bbox="859 810 1255 852">2 Days</td> </tr> <tr> <td data-bbox="516 852 859 894">P3</td> <td data-bbox="859 852 1255 894">5 days</td> </tr> <tr> <td data-bbox="516 894 859 932">P4 - Service Request</td> <td data-bbox="859 894 1255 932">15 days</td> </tr> </tbody> </table>	Priority	Resolution time	P1	8 Hours	P2	2 Days	P3	5 days	P4 - Service Request	15 days
Priority	Resolution time										
P1	8 Hours										
P2	2 Days										
P3	5 days										
P4 - Service Request	15 days										
SLA calculation	<p>Formula:</p> <p><i>Resolution time % for P1 tickets</i> = Number of P1 tickets opened during the period and for which resolution is provided within defined timelines during the period / Number of P1 tickets opened during the period</p> <p><i>Resolution time % for P2 tickets</i> = Number of P2 tickets opened during the period and for which resolution is provided within defined timelines during the period / Number of P2 tickets opened during the period</p> <p><i>Resolution time % for P3 tickets</i> = Number of P3 tickets opened during the period and for which resolution is provided within defined timelines during the period / Number of P3 tickets opened during the period</p> <p><i>Resolution time % for P4 tickets</i> = Number of P4 tickets opened during the period and for which resolution is provided within defined timelines during the period / Number of P4 tickets opened during the period</p>										
SLA target	Resolution Time % = 85%										

Parameter	Description						
Severity level for computation of Liquidated Damages	1						
Assumptions, if any	The SI should implement custom scripts to enable the measurement of various metrics when such functionalities are not available out of the box in standard Service Request tools.						
Measurement interval	Monthly						
Reporting interval	Quarterly						
Reports or Data to be submitted, if any	<p>Automated SLA dashboard in BIAS</p> <p>A maximum of twenty (20) reports on ticket resolution time shall be finalized during the joint project planning including but not limited to:</p> <ol style="list-style-type: none"> Root cause analysis report identifying the problem that cause the incident and actions to address the problem. <ul style="list-style-type: none"> - For P1 incidents, report submitted within 5 days from the creation of the P1 incident - For P2 incidents, report submitted at the end of the month for all P2 incidents during the month 						
Illustration of LD computation	<table border="1"> <thead> <tr> <th>SLA target</th> <th>Achievement</th> <th>LD applicable %</th> </tr> </thead> <tbody> <tr> <td>Resolution Time compliance =85%</td> <td>80%</td> <td>1% corresponding to severity level 1</td> </tr> </tbody> </table>	SLA target	Achievement	LD applicable %	Resolution Time compliance =85%	80%	1% corresponding to severity level 1
	SLA target	Achievement	LD applicable %				
Resolution Time compliance =85%	80%	1% corresponding to severity level 1					

7. Information Security SLAs

7.1. Incident Management

Will be managed with the Ticket Management SLAs specified above. All incidents from SIEM, Firewall, etc. will be automatically logged and priority tagged into the Ticket Management tool and the Ticket management SLAs will become applicable from the time of logging.

7.2. Compliance to schedule of periodic information security activities

Table 11. Compliance to schedule of periodic IS activities

SLA Description	Compliance to schedule of periodic IS activities														
Scope of SLA	<p>Applies to all periodic IT operations activities described in Volume-II of RFP and information security activities to be carried out by the SI as described in Volume-II – Information Security (Scope of Work). This will include but not be limited to:</p> <ol style="list-style-type: none"> 1. BCP/DR drills 2. Quarterly Security Training and Awareness Exercise 3. Quarterly configuration audit for Attack Surface Reduction 4. Vulnerability assessment 5. Quarterly access reconciliation 6. Weekly scan for malware 7. Any other periodic activity described Information Security Scope of Work 														
Tools, methods or scripts to be used to measure SLA	SI should create a detailed calendar of activities and submit to PSA at commencement of the contract and update the same on an annual basis or as and when additional activities are added to SI’s scope for periodic conduct.														
Process to capture data or measure the parameter	Submission of respective deliverables upon completion of the scheduled activity and weekly project updates submitted by SI to PSA.														
SLA calculation	(Number of scheduled activities completed by SI during a quarter / Number of scheduled activities during the quarter as per plan) x 100%.														
Severity level for computation of Liquidated Damages	<table border="1" data-bbox="492 1178 1333 1465"> <thead> <tr> <th data-bbox="492 1178 911 1220">SLA %</th> <th data-bbox="911 1178 1333 1220">Severity Level</th> </tr> </thead> <tbody> <tr> <td data-bbox="492 1220 911 1262">100%</td> <td data-bbox="911 1220 1333 1262">None</td> </tr> <tr> <td data-bbox="492 1262 911 1304"><100% to >=95%</td> <td data-bbox="911 1262 1333 1304">1</td> </tr> <tr> <td data-bbox="492 1304 911 1346"><95% to >=90%</td> <td data-bbox="911 1304 1333 1346">2</td> </tr> <tr> <td data-bbox="492 1346 911 1388"><90% to >=85%</td> <td data-bbox="911 1346 1333 1388">3</td> </tr> <tr> <td data-bbox="492 1388 911 1430"><85% to >=80%</td> <td data-bbox="911 1388 1333 1430">4</td> </tr> <tr> <td data-bbox="492 1430 911 1472"><80%</td> <td data-bbox="911 1430 1333 1472">5</td> </tr> </tbody> </table>	SLA %	Severity Level	100%	None	<100% to >=95%	1	<95% to >=90%	2	<90% to >=85%	3	<85% to >=80%	4	<80%	5
SLA %	Severity Level														
100%	None														
<100% to >=95%	1														
<95% to >=90%	2														
<90% to >=85%	3														
<85% to >=80%	4														
<80%	5														
Assumptions, if any	NA														
Measurement interval	Quarterly														
Reporting interval	Quarterly														

SLA Description	Compliance to schedule of periodic IS activities		
Reports or Automated SLA dashboard in BIAS Data to be submitted, if any	Submission of respective deliverables upon completion of the scheduled activity		
Illustration of LD computation	SLA target	Achievement	LD applicable %
	Compliance % =100%	94%	2%

8. SLAs for Software Development and Maintenance

- a. **Applicability of the SLAs:** SLA under this category will be activated upon signing of the contract and will be applicable till the end of the contract period.
- b. All application-related issues will be categorized as per the ‘Defect Matrix’ [refer to the table below], which will be used to calculate SLAs and the corresponding LD pertaining to application-related issues. The salient points of this ‘Defect matrix’ include the following:
 - o All defects will be classified under 4 types (Blocker, Critical, Major, Minor) based on “severity”.
 - o Classification of a defect will be based on specific scenarios outlined in the table below.
 - o The issue tracking tool will auto-classify a defect based on these scenarios.
 - o For ‘Blocker’, ‘Critical’ and ‘Major’ defect types, a pre-defined number of workaround scenarios will have to be adopted by the SI as the first-course of action. The SI is expected to ensure that these workaround scenarios are applied at the earliest, as per the turnaround time (“TAT”) defined in the table below. Subsequently, the SI is also expected to fix the corresponding defect as per the specified TAT.
 - o SLAs are also defined for defect counts in the production and UAT environments. These SLAs are computed on the basis of a weighted average count of defects pertaining to all the 4 categories.
- c. For all defects, the following conditions shall apply:
 - o Severity of ‘each’ defect will be assigned by the PSA Helpdesk [based on end user request or type of issue logged] and can be changed only at the discretion of PSA. The decision of PSA on the type and severity of defect will be final and binding.
 - o All application related defects that are caused by OEM technology components (for e.g. COTS products), will be the sole responsibility of the SI and shall be required to comply with the TAT, for the corresponding severity, as mentioned in the ‘Defect Matrix’ table.

Table 12. Defect Matrix

Type	Applicable Defect Scenarios	Workaround Scenarios	Turnaround time (TAT) for Workaround	Expected Turnaround time (TAT) for Defect Fix
Blocker	<p>a. Application hangs/ unresponsive/ crashes;</p> <p>b. Application has memory leak causing restart within 24 hours;</p> <p>c. Application throws exception/ returns error response on more than 1% of daily requests;</p> <p>d. Application latency more than “5x of benchmarked value” on more than 1% of daily requests;</p> <p>e. Application returns wrong result on more than 1% of daily requests;</p> <p>f. Application has security issue other than zero-day defect</p>	<ul style="list-style-type: none"> • Rollback • Restart using scripts • Additional instances to handle load 	8 hours from reporting of the defect	<p>For defects with ‘Low’ or ‘Moderate complexity = 7 days;</p> <p>For defects with ‘High’ complexity = 15 days;</p> <p>Note:</p> <ul style="list-style-type: none"> • Defect scenarios (a) to (e) will be applicable after a ‘grace period’, for all new enhancements, at the discretion of PSA; • All ‘blocker’ defects will be categorized as ‘Low’ or ‘Moderate’ complexity by default. If any defect fix has dependencies on multiple modules, it may be categorized as ‘High’ complexity only with PSA’s approval
Critical	<p>a. Application has memory leak</p>	<ul style="list-style-type: none"> • Rollback • Restart using scripts 	24 hours from reporting of the defect	For defects with ‘Low’ or ‘Moderate’ complexity = 15 days;

Type	Applicable Defect Scenarios	Workaround Scenarios	Turnaround time (TAT) for Workaround	Expected Turnaround time (TAT) for Defect Fix
	<p>causing restart within 7 days;</p> <p>b. Application throws exception/ returns error response on more than 0.1% of daily requests;</p> <p>c. Application latency more than 5x benchmarked value on more than 0.1% of daily requests;</p> <p>d. Application returns wrong result on more than 0.1% of daily requests;</p>	<ul style="list-style-type: none"> Additional instances to handle load 		<p>For defects with ‘High’ complexity = 30 days;</p> <p>Note:</p> <ul style="list-style-type: none"> Defect scenarios (a) to (d) will be applicable after a ‘grace period’, for all new enhancements, as determined by PSA; All ‘critical’ defects will be categorized as ‘Low’ or ‘Moderate’ complexity by default. If any defect fix has dependencies on multiple modules, it may be categorized as ‘High’ complexity only with PSA’s approval;
Major	<p>a. Application throws exception/ returns error response on less than 0.1% of daily requests;</p> <p>b. Application latency more than 5x benchmarked value on less than 0.1% of daily requests;</p> <p>c. Application returns wrong result on less than</p>	<ul style="list-style-type: none"> Rollback Restart using scripts Additional instances to handle load 	24 hours from reporting of the defect	<p>For defects with ‘Low’ or ‘Moderate’ complexity = 30 days;</p> <p>For defects with ‘High’ complexity = 45 days;</p> <p>Note:</p> <ul style="list-style-type: none"> Defect scenarios (a) to (c) will be applicable after a ‘grace period’, for all new enhancements, as determined by PSA; All ‘major’ defects will be categorized as ‘Low’ or ‘Moderate’

Type	Applicable Defect Scenarios	Workaround Scenarios	Turnaround time (TAT) for Workaround	Expected Turnaround time (TAT) for Defect Fix
	0.1% of daily requests;			complexity by default. If any defect fix has dependencies on multiple modules, it may be categorized as 'High' complexity only with PSA's approval
Minor	<p>a. Low-impact issues (Incorrect UI labels, incorrect validation messages, etc.) in the applications.</p> <p>b. All Information requests will also be classified under this category.</p>	Not applicable	Not applicable	<p>For defects with 'Low' or 'Moderate' complexity = 45 days;</p> <p>For defects with 'High' complexity = 60 days;</p> <p>Note</p> <ul style="list-style-type: none"> All 'minor; defects will be categorized as 'Low' or 'Moderate' complexity by default. If any defect fix has dependencies on multiple modules, it may be categorized as 'High' complexity only with PSA's approval;

8.1. SLA Turnaround Time (TAT) for defects in Production environment

In a live production environment, a defective software introduced into the system will trigger an incident ticket, and appropriate SLA will apply based on impact and ticket priority level. The support team will have to do whatever it takes to meet the incident ticket SLA.

Table 13. TAT for defects in Production environment

Parameter	Description	
Definition of SLA	Turn Around Time (TAT) for the fixing of defects, identified in the Production environment and classified as per the ‘Defect matrix’ above.	
Scope of SLA	The scope of this SLA is to measure the TAT for defects in Production.	
Tool used for SLA	To be implemented by SI	
Process to capture raw data for SLA calculations	Automated [by using the Issue Tracking tool]. Any integration, between the SLA monitoring tool and the Issue Tracking tool, for measurement of this SLA, will be the responsibility of SI.	
Defect Severity	Target (TAT)	Applied Severity level
Blocker	Workaround successfully applied within 8 hours	0
	Workaround applied more than 8 hours	1
	Every additional Days Variance for fixing the defect	Increases by 1
Critical	Workaround within 24 hours	0
	Workaround applied more than 24 hours	1
	Every additional Days Variance for fixing the defect	Increases by 1
Major	Workaround within 24 hours	0
	Workaround applied more than 24 hours	1
	Every additional Days Variance for fixing the defect	Increases by 1
SLA calculation	<p>Days Variance = (Actual time in days taken to resolve the defect from the date of reporting) – (Expected TAT for defect, based on defect severity and complexity level).</p> <p>Computed as an average for all defects reported through the Issue Tracking Tool.</p>	
LD calculation	The SLA value and the LD will be calculated as per the severity levels defined	
Measurement Interval	Monthly	
Reporting Interval	Quarterly	

