

Design, development, integration, implementation, operation and maintenance of National Logistics Portal (Marine)

**Indian Ports Association (IPA)**

**Design, development, integration, implementation, operation and maintenance of National Logistics Portal (Marine)**

**RFP No.: IPA/PGAV/NLP-Marine/2020**

**Dated 28-09-2020**

**Corrigendum No.: IPA/PGAV/NLP-Marine/2020/Corrigendum-5**

**Dated 19-11-2020**

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**Modification/Deletion/Addition in RFP**

Sr. No.	RFP Document Reference (Section No., Page No.)	Content of the RFP requiring clarification	Response (Modification/ Deletion/ Addition)
1.1	Volume 1, Clause 4.5 Pre-Qualification Criteria	Pre-qualification criteria for bidder	<b>Modification:</b> Please refer to Annexure 1.1 for updated prequalification criteria.
1.2	Volume 1, Clause 4.6 Technical bid Evaluation	Schedule I – Evaluation criteria for the proposed solution	<b>Modification:</b> Please refer to Annexure 1.2 for updated Technical Bid evaluation criteria.
1.3	Volume 1, Request for Proposal Data Sheet (Page no 7 and 8)	<p>10. Last date and time (deadline) for receipt of proposals in response to tender notice</p> <p>[26/10/2020]: [1500 HRS]</p> <p>11. Last date and time (deadline) for receipt of Bid fees and EMD in response to tender notice</p> <p>[26/10/2020]: [1500 HRS]</p> <p>Date, time and venue of opening of Technical Proposals received in response to the tender notice</p>	<p><b>Modification:</b></p> <p>10. Last date and time (deadline) for receipt of proposals in response to tender notice</p> <p>[03/12/2020]: [1500 HRS]</p> <p>11. Last date and time (deadline) for receipt of Bid fees and EMD in response to tender notice</p> <p>[03/12/2020]: [1500 HRS]</p> <p>Date, time and venue of opening of Technical Proposals received in response to the tender notice</p> <p>[03/12/2020]: [1530 Hrs] Indian Ports Association 1st Floor, South Tower, NBCC Place, Bhisham Pitamah Marg, Lodhi Road, New Delhi 110 003</p>

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		[26/10/2020]: [1530 Hrs] Indian Ports Association 1st Floor, South Tower, NBCC Place, Bhisham Pitamah Marg, Lodhi Road, New Delhi 110 003	
1.4	Volume 1, Clause 4.5 Pre-Qualification Criteria	Project of value	<p><b>Addition:</b></p> <p>In case of projects other than lumpsum projects (eg: BOT, BOOT etc.), bidder can submit the project value as the 'revenue earned by the bidder for the services on the project' rendered till date with self-certification which is certified by statutory auditor or Client certificate stating duration of project along with the project value.</p>
1.5	Volume 1, Clause 4.8 Award Criteria	ii. The bidder shall be technically evaluated out of 1000 marks. All the bidders who secure overall minimum of 60% (600 Marks out of 1000 across all the components together) shall be considered as technically qualified. Technical score of all bidders shall be calculated on the basis of the following formula: (Refer RFP)	<p><b>Modification:</b></p> <p>ii. The bidder shall be technically evaluated out of 1000 marks. All the bidders who secure overall minimum of 60% (600 marks) out of 1000 across all the components together shall be considered as technically qualified. Technical score of all bidders shall be calculated on the basis of the following formula: (refer RFP)</p> <p>The bidder with the highest final score shall be treated as the best evaluated bid. In the above example, Bidder 1 will be treated as best evaluated Bid.</p>

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		The bidder with the highest final score shall be treated as the best evaluated bid. In the above example, Bidder 4 will be treated as best evaluated Bid.	
1.6	Volume 1, Clause 2.2.2 Consortium of Firms	The consortium must provide the details of formation of the consortium, percentage of stake of each consortium member and the role of each member of the consortium with reference to this project	<p><b>Modification:</b></p> <p>The consortium must provide the details of formation of the consortium, percentage of stake of each consortium member (The lead bidder should be responsible for works which are estimated to be at least 50% of the total value of the contract) and the role of each member of the consortium with reference to this project</p>
1.7	Volume 1, Clause 4.5 Pre-Qualification Criteria	CMMi Certificate	<p><b>Addition:</b></p> <p>In case of expiry of CMMI certificate during the bid process, bidder can submit the CMMI certificate along with signed undertaking (Annexure 1.6) on bidders letter head on a condition that he/she will submit a valid CMMI certificate at the time of signing the contract (if awarded) otherwise bidder will be disqualified.</p>
1.8	Volume 1, Request for Proposal Data Sheet (Page no 7 and 8)	6. Earnest Money Deposit Rs. 1.19 Crore (Rupees One Crore nineteen thousand only), in the form of Bank Guarantee issued by a Indian Nationalized / Scheduled Bank and	<p><b>Modification:</b></p> <p>Rs. 1.19 Crore (Rupees One Crore nineteen thousand only), in the form of Bank Guarantee issued by a Indian Nationalized / Scheduled / commercial Bank and drawn in favour of Indian Ports Association, payable at New Delhi valid for 6 months from the date of submission of bid</p>

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		drawn in favour of Indian Ports Association, payable at New Delhi valid for 12 months from the date of submission of bid	
1.9	Volume 1, Clause 5 Constitution of Project Team	xii. Failure of deputing such key person in all those meeting will be treated as breach of contract. Each such failure shall attract a penalty. Three such cases shall lead to cancellation of contract by forfeiting the BG.	<p><b>Modification:</b></p> <p>Failure of deputing such key person in all those meeting without any prior approval from IPA will be treated as breach of contract. Each such failure shall attract a penalty. Three such cases shall lead to cancellation of contract by forfeiting the BG</p>
1.10	Volume 1, Clause 3.2.1 Bidders' queries	IPA would facilitate a Workshop with incumbent service provider of PCS 1.x before Pre-Bid meeting to provide a comprehensive understanding of current landscape. The date and venue would be notified later.	<p><b>Addition:</b></p> <p><b>PCS 1.x workshop Date &amp; Time:</b> [10/11/2020]: [1230 HRS]</p> <p>Workshop done over teams call</p> <p>Refer to annexure 2.5 for response to the specific questions asked during the workshop.</p> <p>In addition to the clarification provided during the workshop, the details of the current application are given in annexure 2.6. Also, the bidder may refer to the PCS 1x portal (shared in the RFP) for the latest information regarding the application.</p>

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1.11	Volume 1, Clause 9.2 PQ Form 2 - Certificate of Conformity/ No Deviation	PQ Form 2 - Certificate of Conformity/ No Deviation	<b>Modification:</b> Please refer to Annexure 1.3 for updated PQ2 Form 2
1.12	Volume 1, Clause PQ Form 3 - Financial Capability	PQ Form 3 - Financial Capability	<b>Modification:</b> Please refer to Annexure 1.4 for updated PQ2 Form 3
1.13	Volume 1, Clause 9.5 PQ Form 5 - Details of Experience of Bidder in Various projects	9.5 PQ Form 5 - Details of Experience of Bidder in Various Projects  18. Revenues from PCS Operations (in millions)	<b>Modification:</b> <b>'Revenues from PCS or other community system operations (in millions)'" Pls refer Annexure 1.1</b>
1.14	Volume 1, Clause 9.10 Tech Form 3 - Profile of Proposed Resources	Tech Form 3 - Profile of Proposed Resources	<b>Modification:</b> <b>Please refer to Annexure 1.5 for updated Tech Form 3.</b>
1.15	Volume 1, Clause 11.2 Summary (Part A & B) of Commercial Proposal	Part A: Milestone based payments and Part B: On-actual Payment	<b>Modification:</b> Contract to Bidder will be for 3 years (1-year development and 2 years O&M). The contract may be extended by IPA for additional 2 years. For purpose of QCBS evaluation, IPA would consider the quoted cost of Part A for 1yr (implementation) + 2 yrs (O&M) which would also include the stabilization and fine tuning phase for 3 months as given in the financial format. However, the bidder is required to quote the price for the additional 2 years of possible extension (Part B)  <b>Please refer to Annexure 1.7 for updated commercial formats</b>
1.16	Section 2.3 Sub-Contracting	Sub-contracting shall be subject to the following conditions: i.	<b>Addition</b> Sub-contracting shall be subject to the following conditions: i. All sub-contracting arrangements must form part of the bid. ii. All sub-contracting contracts must be

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		<p>All sub-contracting arrangements must form part of the bid. ii. All sub-contracting contracts must be entered into by the bidder / lead bidder. iii. The Purchaser provides the flexibility to bidders to sub-contract part of the work, provided it is not more than 50% of the estimated fair value of the contract. However allowing sub-contracting should not dilute the responsibility &amp; liability of the bidder/lead member. iv. Any changes in sub-contractors shall be approved by IPA prior to conclusion of any contract between the bidder and the sub-contractor. v. IPA retains the right to request discontinuation of sub-contracting of activities at any time during the contract period. vi. IPA reserves</p>	<p>entered into by the bidder / lead bidder. iii. The Purchaser provides the flexibility to bidders to sub-contract part of the work, provided it is not more than 50% of the estimated fair value of the contract. However, allowing sub-contracting should not dilute the responsibility &amp; liability of the bidder/lead member. iv. Any changes in sub-contractors shall be approved by IPA prior to conclusion of any contract between the bidder and the sub-contractor. v. IPA retains the right to request discontinuation of sub-contracting of activities at any time during the contract period. vi. IPA reserves its right to subject the sub-contractors to security clearances as it deems necessary. <b>vii. No sub-contractor should be blacklisted by any government authority</b></p>



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		its right to subject the sub-contractors to security clearances as it deems necessary.	
<b>Volume 2</b>			
2.1	Acronyms Page 4		<b>Addition</b> DGLL - Directorate General of Lighthouses and Lightships NVOCC - Non-Vessel Operating Common Carrier
2.2	Section 1.4 page 9	The support and Maintenance will be for four years thereafter Therefore, the Project is for five years from signing of contract	<b>Modification</b> The Project is for Three years from signing of contract extendable by another two years. The support and Maintenance will be for Two years (out of the contractual period of 3 yrs) which is further extendable by another two years  <b>The maintenance of the current application, PCS1x will be done by the incumbent vendor (M/s Portall) till the implementation phase of this project is completed. In case of any delays in implementation, the maintenance contract with the incumbent vendor will get extended for maintenance of PCS1x only.</b> Beyond 3 yrs, IPA may consider extending the contract. IPA reserves the right to charge for the services rendered on a transaction model/on pro-rata basis as per the quotation given by the bidder for possible 2 yr extension/ any other model. However, IPA would decide the same at the end of 3 years.
2.3	Section 2.1.4 page 13	The module shall help users find insurance and LOC service providers	<b>Modification</b> The module shall help users find insurance and LC (Letter of Credit) service providers
2.4	Section 2.7.3 page 33	IPA can subscribe for the licenses through	<b>Modification</b>

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		SPLA model and pay monthly or Annual Payments, depending on the subscriptions.	The Licences will not be supplied by IPA. The bidder has to factor the cost of same, Bidder may consider SPLA licenses or Perpetual Licences in name of IPA.
2.5	Section 3.3.10 page 58	It is expected by IPA that the bidder who qualify to provide clouds services will also comply with the mandatory information security requirements applicable for cloud deployment models of “MeitY’s “Provisional Empanelment of Cloud Service Offerings of Cloud Service providers (CSPs)”.	<b>Modification</b> It is expected by IPA that the bidder who qualify to provide cloud services will also comply with the mandatory information security requirements applicable for cloud deployment models of “MeitY’s Empanelment of Cloud Service Offerings of Cloud Service providers (CSPs)”.
2.6	Section 4.2 page 108	Project Milestone Plan	<b>Modification</b> <b>Please refer to Annexure 2.1</b> Project deliverables in section 4.3 are mapped to Project Milestone Plan
2.7	Section 5.1.4 page 114	Key Personnel	<b>Modification</b> <b>Please refer to annexure 2.3 for Key personnel</b>
2.8	Section 7.2 page 134	The BIDDER shall escalate and co-ordinate with SDC and IPA for problem	<b>Modification</b> The Bidder shall escalate and co-ordinate with IPA for problem resolution wherever required.

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		resolution wherever required.	
2.9	Section 7.4 page 135	Provision and supervision of personnel for the helpdesk. Minimum qualification requirements for personnel for this process are stated in the document.	<b>Modification</b> Provision and supervision of personnel for the helpdesk. Minimum qualification requirements for personnel for this process are B.E./B.Tech./MCA/M. Tech/MBA with minimum 3 years of work experience
2.10	Section 8.2.1 page 143	The primary DC and the disaster recovery site should be in different seismic zones within India	<b>Deletion</b> <b>Clause deleted</b> as per Meity guidelines
2.11	Section 8.2.1 page 143	CSP should be empanelled under MeitY's "Provisional Empanelment of Cloud Service Offerings of Cloud Service providers (CSPs)"	<b>Modification</b> CSP should be empanelled under MeitY's Empanelment of Cloud Service Offerings of Cloud Service providers (CSPs)" The bidder may host the designed solution on a public/private cloud.
2.12	Section 8.2.1 page 143	Addition of new clause	<b>Addition</b> Should be compliant with latest Guidelines for the Protection of National Critical Information Infrastructure

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2.13	Section 8.4.3 page 152	DR Objectives RTO 4 Hrs. RPO 30 mins	<b>Modification</b> RTO 120 mins RPO 15 mins Bidder to ensure RTO/RPO is met and there is no data loss during transition from DC to DR. DRM tool should be used for replication from primary site and DR site.
2.14	Section 8.8 Annexure VII page 180	Modules proposed in NLP-Marine: Cargo Service Platform	<b>Modification</b> Cargo and Carrier Service Platform
2.15		Addition of new clause	<b>Addition</b> Refer Annexure 2.2 for Application Performance Monitoring requirements
2.16	Section 2.5 page 22	Architecture should be scalable (to cater to increasing load of internal and external users and their transactions) and capable of delivering high performance for the entire life cycle of the applications. Data model, interface designs, and other components should be designed as per industry standards and best practices.	<b>Modification</b>  Architecture should be scalable (to cater to increasing load of internal and external users and their transactions) and capable of delivering high performance for the entire life cycle of the applications. <b>The solution should be based on Microservices and enterprise-based architecture, cloud native, provide cloud support and support for all major Open Source software products.</b> Data model, interface designs, and other components should be designed as per industry standards and best practices.
2.17	Section 2.7.4 page 33	Addition of new clause	<b>Addition</b> Refer Annexure 2.4 for IT security requirements

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2.18	Section 8.4.3	> 99.99% Loss of Data due to unavailability / failure of infrastructure	<b>Modification</b> > 99.5% Loss of Data due to unavailability / failure of infrastructure (As per Meity guidelines for Guidelines for User Departments on Service Level Agreement for Procuring Cloud Services)
2.19	Section 3.1 page 49- Bullet point 12	Implementation and Onboarding of stakeholders conduct road shows and events.	<b>Addition</b> Bidder would conduct roadshows along with IPA. 1 roadshow would be held in each port which equals to a total of 12 events comprising of approximately 25 stakeholders. Travel and lodging would be borne by the bidder. Arrangements for the roadshows would be done by the ports. PGAs will be handled by IPA and technical support will be provided by the bidder.
2.20	Section 3.1 page 50	Latch-on service	<b>Addition</b> During the period of 3 years, SI shall have an obligation to provide latch on for 30 LSPs. For every latch on, above 30 LSPs, IPA shall pay the SI per Latch on a pro-rata basis as per the financial quotation. If the bidder is unable to complete the latch on for 30 LSPs within a period of 3 years from the date of award of the contract, the bidder shall be liable to pay a penalty of <b>INR 1 Lac per month</b> until the completion of latch on for 30 LSPs.  Integration with banks, payment aggregators are excluded under LSP category
2.21	Section 2.1.4 page 13	Addition	<b>Addition</b> IPA already has a system of bank reconciliation (daily sum functionality of PCS 1x). The same has to be taken forward. Invoice generation will be part of scope
2.22	Section 3 page 47	IPA will have complete ownership and will transact directly with the MeitY Certified Cloud Solution provider while the Service Provider will facilitate the management of the	<b>Modification</b> IPA will have complete ownership and will transact directly with the MeitY Certified Cloud Solution provider while the Service Provider will facilitate the management of the solution. Solution provider to propose the optimum model for rules of engagement and ownership to IPA. <b>End user license would be in the name of IPA and tripartite agreement would get signed between CSP, SI and IPA</b>

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		solution. Solution provider to propose the optimum model for rules of engagement and ownership to IPA.	
2.23	Section 8.2.1 page 145	Refer Annexure II for further information's	<b>Modification</b> To be read as "Refer Annexure IV of RFP for further information"
2.24	Section 7.4 (c) page 135	The Physical space for the helpdesk and any other required infrastructure shall be provided by the BIDDER	<b>Modification</b> The Physical space for the helpdesk and any other required infrastructure shall be provided by the BIDDER. <b>Bidder to provide all hardware associated with the helpdesk (considering the current hardware with IPA is end of life). After the end of contract, the same has to be handed over to IPA.</b>
2.25	Section 2.5 page 22	Architecture should be scalable (to cater to increasing load of internal and external users and their transactions) and capable of delivering high performance for the entire life cycle of the applications.	<b>Modification/Addition</b> Architecture may use web adaptor for better management of cluster of application servers.
2.26	Section 2.5 page 22	Solution design shall include, the design of the application architecture, user interface, database structures,	<b>Modification</b> Solution design shall include, the design of the application architecture, user interface, database structures, security architecture, network architecture, deployment architecture, <b>Publish/Subscribe, event driven service-oriented architecture</b> etc.

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		security architecture, network architecture, deployment architecture etc.	
2.27	Section 8.8	Annexure VII- Information required for sizing NLP marine	<b>Modification</b> The anticipated number of business transactions provided are high level estimations provided by IPA. While designing their solutions, the bidders are expected to make their own overall estimations considering all the requirements, based on their experience and thus quote appropriately.
2.28	Section 4.2	Project is divided into 3 phases: Phase1- Implementation; Phase 2- Stabilisation and baseline Phase III- Operations and maintenance	<b>Modification</b> The total contract duration is 3 yrs: The Stabilisation and fine-tuning phase would run in parallel with the O&M phase. Go-live = T+12 months= T1 Stabilisation= T1+3 months O&M = T1+ 2 yrs
2.29	Section 5	Bill of Material	<b>Modification</b> Indicative information for DC and DR cloud infrastructure environment may be read as ' <i>Indicative information for DC and DR cloud infrastructure environment for public/private cloud.</i> '
2.30	Section 4.3	Project Deliverables	<b>Addition</b> <b>D18:</b> Master Design Document covering 30 Latch on integration and interfacing requirements for all functionalities as envisaged in the project Development and deployment of latch on services; Source code; Testing  Milestone completion certificate along with documents to support milestone completion claim
<b>Volume 3</b>			

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3.1	Section 10 Terms of Payments and Penalties. Page 60	Addition of new clause	<p><b>Addition:</b>  <b>Clause 10.2 in Volume 3 of the RFP</b>  <b>Operation Level Agreements</b></p> <p>An operational-level agreement (OLA) defines the interdependent relationships in support of a service-level agreement (SLA). OLA will be applicable on IPA and it describes the responsibilities of IPA towards National Logistics Portal (Marine), including the process and timeframe for delivery of the services.</p> <table border="1" data-bbox="931 563 2024 1380"> <thead> <tr> <th data-bbox="931 563 1137 600">Service</th> <th data-bbox="1137 563 1397 600">Parameter</th> <th data-bbox="1397 563 1585 600">Target</th> <th data-bbox="1585 563 2024 600">Penalty</th> </tr> </thead> <tbody> <tr> <td data-bbox="931 600 1137 1074" rowspan="2">Payments to Service Provider</td> <td data-bbox="1137 600 1397 1074" rowspan="2">IPA shall make payments to the Bidder at the times and in the manner set out in the RFP. IPA will make payments to Bidder within 30 days of receipt of invoice(s) and all necessary supporting documents.</td> <td data-bbox="1397 600 1585 699">&lt; =30 working days</td> <td data-bbox="1585 600 2024 699">No Penalty</td> </tr> <tr> <td data-bbox="1397 699 1585 1074">&gt;30 working days</td> <td data-bbox="1585 699 2024 1074">8% interest per annum of the amount due shall be charged.</td> </tr> <tr> <td data-bbox="931 1074 1137 1278" rowspan="2">Acceptance</td> <td data-bbox="1137 1074 1397 1278" rowspan="2">IPA to notify the Service Provider in writing three weeks either stating that the applicable Deliverable is accepted / rejected in the</td> <td data-bbox="1397 1074 1585 1278">&lt; Three Weeks for either acceptance/ response/ rejection</td> <td data-bbox="1585 1074 2024 1278">No Penalty</td> </tr> <tr> <td data-bbox="1397 1278 1585 1380">Within one week of receiving</td> <td data-bbox="1585 1278 2024 1380">No Penalty</td> </tr> </tbody> </table>	Service	Parameter	Target	Penalty	Payments to Service Provider	IPA shall make payments to the Bidder at the times and in the manner set out in the RFP. IPA will make payments to Bidder within 30 days of receipt of invoice(s) and all necessary supporting documents.	< =30 working days	No Penalty	>30 working days	8% interest per annum of the amount due shall be charged.	Acceptance	IPA to notify the Service Provider in writing three weeks either stating that the applicable Deliverable is accepted / rejected in the	< Three Weeks for either acceptance/ response/ rejection	No Penalty	Within one week of receiving	No Penalty
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				<p>form delivered by the Service Provider or describing with reasonable particularity any deficiencies that must be corrected prior to acceptance of such Deliverable. If the Service Provider does not receive any such notice from IPA by the end of three weeks, the Service Provider shall promptly notify IPA in writing that no such notice has been received. If the Service Provider does not receive the required notice within seven (7) days after IPA receives such written notification from</p>	<p>written notice from Service provider about no notice from IPA of either acceptance/ response/ rejection in 3 weeks</p>	<p>Deemed Acceptance of the deliverable</p>

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				the Service Provider, such Deliverable will be deemed to be accepted by IPA.		
			<b>Response to LSPs</b>	IPA should respond for LSPs (Latch on Service Provider) approval within 10 days of request.	Responds within 10 days	No Penalty
					No response within 10 days	Deemed Acceptance of the request
3.2	Volume 3, Page 26 INDEMNIFICATION & LIMITATION OF LIABILITY, Clause 16.e)	The liability of either Party (whether in contract, tort, negligence, strict liability in tort, by statute or otherwise) for any claim in any manner related to this Agreement, including the work, deliverables or services covered by this Agreement, shall be the payment of direct damages only which shall in no event exceed half of the total contract value payable under this Agreement. The liability cap given	<b>Modification:</b> The liability of either Party (whether in contract, tort, negligence, strict liability in tort, by statute or otherwise) for any claim in any manner related to this Agreement, including the work, deliverables or services covered by this Agreement, shall be the payment of direct damages only which shall in no event exceed half of the total contract value payable under this Agreement. The liability cap given under this <b>Clause shall</b> not be applicable to the indemnification obligations set out in Clause 16 and breach of clause 12.4 - 'Safety and Security' and clause 18 - 'Confidentiality'.			

Sr. No.	RFP Document Reference (Section No., Page No.)	Content of the RFP requiring clarification	Response (Modification/ Deletion/ Addition)
		under this Clause c shall not be applicable to the indemnification obligations set out in Clause 16 and breach of clause 12.4 - 'Safety and Security' and clause 18 - 'Confidentiality'.	
3.3	Volume 3, Page 34 Assignment, Clause 25.4 b)	Subject to Clause 4.4, the Service Provider shall not be permitted to assign its rights and obligations under this Agreement to any third party except its affiliates, group companies or any other entity under the common management or control.	<b>Modification:</b> Subject to <b>Clause 6</b> , the Service Provider shall not be permitted to assign its rights and obligations under this Agreement to any third party except its affiliates, group companies or any other entity under the common management or control.
3.4	Volume 3, Page 30, Assignment, Clause 21.1)	The Service Provider shall have no liability in the case of breach of this warranty due to (i) use of the deliverables on any environment (hardware or software) other than the environment recommended or approved by the	<b>Deletion:</b> Clause 21.1) of Volume 3 of the RFP deleted

Sr. No.	RFP Document Reference (Section No., Page No.)	Content of the RFP requiring clarification	Response (Modification/ Deletion/ Addition)
		<p>Service Provider, (ii) the combination, operation, or use of some or all of the deliverables with information, software, specifications, instructions, data, or materials not approved by the Service Provider; (iii) the deliverables having been tampered with, altered or modified by IPA without the written permission of the Service Provider, or (iv) use of the deliverables otherwise than in terms of the relevant documentation.</p>	
3.5	<p>Volume 3, Page 10 Non-fulfilment of the Service Provider's Conditions Precedent, Clause 4.4.(b)</p>	<p>In the event that the Agreement fails to come into effect on account of non-fulfilment of the Service Provider's Conditions Precedent, IPA or its nominated agencies shall not be liable in any manner whatsoever to the Service Provider</p>	<p>In the event that the Agreement fails to come into effect on account of non-fulfilment of the Service Provider's Conditions Precedent, the Purchaser or its nominated agencies shall not be liable in any manner whatsoever to the Service Provider and the Purchaser shall forthwith forfeit the <b>Earnest Money Deposit</b></p>

Sr. No.	RFP Document Reference (Section No., Page No.)	Content of the RFP requiring clarification	Response (Modification/ Deletion/ Addition)																			
		and IPA shall forthwith forfeit the Performance Guarantee.																				
3.6	Volume 3, Page 62 SLA During Phase I and II: Implementation and Stabilization	1) Adherence to timeline for Go-live  2) Substitution of resources from those CVs provided during the technical evaluation	<p><b>Modification:</b></p> <table border="1"> <thead> <tr> <th data-bbox="949 427 994 459">#</th> <th data-bbox="994 427 1178 459">Parameter</th> <th data-bbox="1178 427 1518 459">Metric</th> <th data-bbox="1518 427 1738 459">Penalty</th> <th data-bbox="1738 427 1944 459">Measurement</th> </tr> </thead> <tbody> <tr> <td data-bbox="949 459 994 842">1</td> <td data-bbox="994 459 1178 842">Adherence to timeline for Go-live</td> <td data-bbox="1178 459 1518 842">Up to 4 calendar weeks delay from the timelines as mentioned Volume II  Delay beyond 4 weeks up to 8 calendar weeks  Any delay beyond 8 calendar weeks</td> <td data-bbox="1518 459 1738 842">No Penalty  INR 20,000 per week delay per milestone  INR 80,000 per week delay per milestone</td> <td data-bbox="1738 459 1944 842">Go-live certificate</td> </tr> <tr> <td data-bbox="949 842 994 1386">2</td> <td data-bbox="994 842 1178 1386">Substitution of resources from those CVs provided during the technical evaluation</td> <td data-bbox="1178 842 1518 1386">No substitution of resources will be allowed whose CVs to have been provided along with the technical bid for the Contract period from the commencement of Project (other than unavoidable reasons e.g. death, disability, departure from the firm, etc.)</td> <td data-bbox="1518 842 1738 1386">Penalty of INR 50,000 per substitution of resources whose CVs have been provided along with the technical bid Substitution shall have to be made within 10 days failing which LD clause as</td> <td data-bbox="1738 842 1944 1386">Request submitted for substitution along with project plan or thereafter.</td> </tr> </tbody> </table>					#	Parameter	Metric	Penalty	Measurement	1	Adherence to timeline for Go-live	Up to 4 calendar weeks delay from the timelines as mentioned Volume II  Delay beyond 4 weeks up to 8 calendar weeks  Any delay beyond 8 calendar weeks	No Penalty  INR 20,000 per week delay per milestone  INR 80,000 per week delay per milestone	Go-live certificate	2	Substitution of resources from those CVs provided during the technical evaluation	No substitution of resources will be allowed whose CVs to have been provided along with the technical bid for the Contract period from the commencement of Project (other than unavoidable reasons e.g. death, disability, departure from the firm, etc.)	Penalty of INR 50,000 per substitution of resources whose CVs have been provided along with the technical bid Substitution shall have to be made within 10 days failing which LD clause as	Request submitted for substitution along with project plan or thereafter.
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						per RFP shall be applicable										
3.7	Volume 3 Page 60 Annexure H - SERVICE LEVEL AGREEMENT Clause 8	8. Commencement and Duration of this Agreement  Agreement shall commence on the date of Go-Live (hereinafter the "SLA Effective Date") and shall, unless terminated earlier in accordance with its terms or unless otherwise agreed by the Parties, expire on the date on which this Agreement expires or terminates, which shall be a period of FOUR years after Go-Live.	<b>Modification:</b> Agreement shall commence on the date of Go-Live (hereinafter the "SLA Effective Date") and shall, unless terminated earlier in accordance with its terms or unless otherwise agreed by the Parties, expire on the date on which this Agreement expires or terminates, which shall be a period of <b>Two years after Go-Live extendable up to Four years after Go Live.</b>													
3.8	Volume 3 Page 11 Change of Control Clause 6 (e)	Any change in the constitution or internal reorganization of the entity (Service Provider) will be subject to prior approval of IPA.	<b>Modification:</b> Any change in the constitution or internal reorganization of the entity (Service Provider) will be <b>intimated to IPA.</b>													
3.9	Volume 3 Page 70 SLA Parameters during Operations		<b>Addition:</b> <table border="1" data-bbox="922 1267 2036 1359"> <thead> <tr> <th data-bbox="922 1267 1171 1359">Parameter</th> <th data-bbox="1171 1267 1433 1359">Baseline</th> <th data-bbox="1433 1267 1695 1359">Performance</th> <th data-bbox="1695 1267 2036 1359">Breach</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="background-color: black; height: 20px;"></td> </tr> </tbody> </table>						Parameter	Baseline	Performance	Breach				
Parameter	Baseline	Performance	Breach													

Sr. No.	RFP Document Reference (Section No., Page No.)	Content of the RFP requiring clarification	Response (Modification/ Deletion/ Addition)															
	and Maintenance Period- Helpdesk Response time		<p>Inbound Calls Abandonment Rate* Call abandonment rate (unanswered calls by helpdesk agents) This measures % of calls that were requested for an agent but got disconnected before being answered by the agent. Only calls that get disconnected after 20 seconds from transfer using IVRS options will be considered for computation of this SLA.</p>	<table border="1"> <thead> <tr> <th data-bbox="1171 288 1319 347">Metric</th> <th data-bbox="1319 288 1435 347">Score</th> </tr> </thead> <tbody> <tr> <td data-bbox="1171 347 1319 1319">&lt;=3%</td> <td data-bbox="1319 347 1435 1319">3</td> </tr> </tbody> </table>	Metric	Score	<=3%	3	<table border="1"> <thead> <tr> <th data-bbox="1435 288 1583 347">Metric</th> <th data-bbox="1583 288 1700 347">Score</th> </tr> </thead> <tbody> <tr> <td data-bbox="1435 347 1583 1319">&gt;3% &amp;&lt;=5%</td> <td data-bbox="1583 347 1700 1319">1.5</td> </tr> </tbody> </table>	Metric	Score	>3% &<=5%	1.5	<table border="1"> <thead> <tr> <th data-bbox="1700 288 1848 347">Metric</th> <th data-bbox="1848 288 2045 347">Score</th> </tr> </thead> <tbody> <tr> <td data-bbox="1700 347 1848 1319">&gt;5%</td> <td data-bbox="1848 347 2045 1319">-1</td> </tr> </tbody> </table>	Metric	Score	>5%	-1
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Sr. No.	RFP Document Reference (Section No., Page No.)	Content of the RFP requiring clarification	Response (Modification/ Deletion/ Addition)						
			Inbound Calls Response time* Response time for the calls received at the call center (i.e. the time taken to answer a call landing at the help desk excluding the IVRS time).	<=20 seconds	3	> 20 seconds and <=30 seconds	1.5	>30 seconds	-1
3.10	Volume 3 Page 27 Force Majeure events Clause 17.2 a)	a) A Force Majeure shall include, without limitation, the following: <input type="checkbox"/> war, hostilities, or warlike operations (whether a state of war be declared or not),invasion, act of foreign enemy, and civil war; <input type="checkbox"/> strike, sabotage, lockout, embargo, import restriction, port congestion, lack of usual means of public transportation and communication, industrial dispute,	<b>Modification:</b> a) A Force Majeure shall include, without limitation, the following: <input type="checkbox"/> war, hostilities, or warlike operations (whether a state of war be declared or not),invasion, act of foreign enemy, and civil war; <input type="checkbox"/> strike, sabotage, lockout, embargo, import restriction, port congestion, lack of usual means of public transportation and communication, industrial dispute, shipwreck, shortage or restriction of power supply, epidemics, quarantine, and plague; <input type="checkbox"/> earthquake, landslide, volcanic activity, fire, flood or inundation, tidal wave, typhoon or cyclone, hurricane, storm, lightning, or other inclement weather condition, nuclear and pressure waves, or other natural or physical disaster including a pandemic or epidemic which may include <b>COVID-19 or epidemic declared as Force majeure event by the central Govt.</b> , or any central or state governmental order which hinders the Parties to carry out the obligations/performance under this Agreement or SLA.						



Sr. No.	RFP Document Reference (Section No., Page No.)	Content of the RFP requiring clarification	Response (Modification/ Deletion/ Addition)
		<p>shipwreck, shortage or restriction of power supply, epidemics, quarantine, and plague;</p> <p><input type="checkbox"/> earthquake, landslide, volcanic activity, fire, flood or inundation, tidal wave, typhoon or cyclone, hurricane, storm, lightning, or other inclement weather condition, nuclear and pressure waves, or other natural or physical disaster including a pandemic or epidemic, or any central or state governmental order which hinders the Parties to carry out the obligations/performanc e under this Agreement or SLA.</p>	
3.11	Volume 3 Page 24 Suspension Clause 15.4 e)		<p><b>Addition:</b> e) In case the suspension period exceeds 3 months, either of the parties have the right to terminate the contract as per the terms and conditions of the RFP.</p>
3.12	Volume 3 Page 39		<p><b>Addition:</b> SCHEDULE I – DEFINITIONS</p>

Sr. No.	RFP Document Reference (Section No., Page No.)	Content of the RFP requiring clarification	Response (Modification/ Deletion/ Addition)	
	SCHEDULE I – DEFINITIONS		Term	Definition
			Insurance Cover	<ul style="list-style-type: none"> <li>• <b>Insurance:</b> The successful bidder shall take out and keep in force a policy or policies of insurance against all liabilities of the successful bidder at common law or under any statute in respect of accidents to persons who shall be employed by the contractor in or about the site for the purpose of carrying out the works on the site.</li> <li>• <b>Insurance of materials and installations:</b> The successful bidder shall take out and keep in force a Policy or policies of Insurance for all materials irrespective of whether used up in the portion of work already done or kept for the use in the balance portion of the work until such works are provisionally handed over. For this purpose, the works are deemed to have been provisionally handed over when provisional acceptance certificate is issued for the locations.</li> <li>• <b>Non-compliance:</b> IPA may, at its election, terminate this agreement upon the failure of the service provider, or notification of such failure, to maintain the required insurance coverage. Inadequate insurance coverage for any reason shall not relieve Service Provider of its obligations under this agreement</li> </ul>

Design, development, integration, implementation, operation and maintenance of National Logistics Portal (Marine)

**Annexure 1.1: Pre-Qualification Criteria (Clause 4.5 of Volume 1)**

**4.5 Pre-Qualification Criteria**

- i. The prospective bidders shall enclose documentary evidences in support of the Pre-Qualification Criteria along with the Bid.
- ii. An indicative format for the Pre-Qualification Proposal is as follows:

S. No.	Criteria	Pre-qualification Criteria Description	Supporting Document	Response (Yes / No)	Reference in Response to Pre-Qualification Bid (Section # and Page #)

The Pre-Qualification criteria for Bidders is as follows:

**Pre-qualification criteria**

SI no	Criteria	Pre-qualification criteria description	Required documentary evidence	
1	Financial Strength	<p>The bidder must have an average annual turnover of at least <b>Rs 17.89 Crores</b> (or its equivalent in foreign currency) in any last 3 financial years (i.e. FY 2016-17, 2017-18 and 2018-19 or <b>FY 2017-18, 2018-19 and 2019-20</b>).</p> <p>* For conversion of US Dollars to Rupees, the rate of conversion shall be Rupees 72.00 [Rupees Seventy-Two] to a US Dollar. In case of any other currency, the same shall first be converted to US Dollars as on the date 60 (sixty) days prior to the Application Due Date, and the amount so derived in US Dollars shall be converted into Rupees at the aforesaid rate. The conversion rate of such currencies shall be the daily representative exchange rates published by the International Monetary Fund for the relevant date.</p> <p>Note: In case the consortium partner is a MSME or a Start-up registered with DIPP , turnover requirement is dispensed with</p>	<p>Extracts from the audited Balance sheet and Profit &amp; Loss statements</p> <p>And</p> <p>Certificate from the Statutory Auditor as per format "PQ Form 3"</p>	<p>Single Bidder- Bidder</p> <p>Consortium- Any Consortium member</p>

SI no	Criteria	Pre-qualification criteria description	Required documentary evidence	
2	Positive net worth	<p>The bidder must have positive net worth as of March 31, 2019 or March 31, <b>2020</b></p> <p>For the purpose of this criterion, net-worth of only the bidding entity will be considered. Net-Worth of any parent, subsidiary, associated or other related entity will not be considered.</p> <p>Net Worth shall mean (Subscribed and Paid-up capital + Reserves) less (Revaluation reserves + miscellaneous expenditure not written off + reserves not available for distribution to equity shareholders).</p>	Duly certified statement from the statutory auditor for the year 2018-19 OR 2019-20 as per format "PQ Form 3"	Single Bidder- Bidder Consortium- The lead Bidder or any consortium members should have positive-Net-worth as on 31st March 2019 <b>or 31st March 2020</b>
3	Incorporation of the Firm, Legal Entity	<p>The bidder could be</p> <ul style="list-style-type: none"> <li>· A company incorporated in India under the Companies Act, 1956 or Companies Act 2013 (as amended till date), and subsequent amendments thereto</li> <li>Or</li> <li>· An entity registered under LLP Act 2008 and subsequent amendments thereto.</li> <li>Or</li> <li>· Partnership firms registered under Indian Partnership Act, 1932</li> </ul> <p>The bidder must have been operating for the last 5 years as on the date of publishing of tender notice (including name change/ impact of mergers or acquisitions)</p>	Copy of Certificate of Incorporation	Single Bidder- Bidder Consortium- Lead Bidder

Design, development, integration, implementation, operation and maintenance of National Logistics Portal (Marine)

SI no	Criteria	Pre-qualification criteria description	Required documentary evidence	
4	Criteria related to Government Regulation	The Bidder shall not be declared ineligible for corrupt & fraudulent practices either indefinitely or for a particular period of time by any State/Central Government/ PSU/ Autonomous Body (Under Any government law) in India as on last date of submission of the Bid.	An undertaking from Authorized Signatory as per format "PQ Form 7"	Single Bidder- Bidder  Consortium- All Consortium members

SI no	Criteria	Pre-qualification criteria description	Required documentary evidence	
5	<p>Execution of similar project at National level in any country. *</p> <p>*Similar projects shall include Port Community System or Trade Community System or Cargo Community System or National Single Window for EXIM trade or Maritime and Port Single Window "</p> <p>Consists of :</p> <ul style="list-style-type: none"> <li>• Study of the system &amp; Optimization/re-engineering</li> <li>• Design of the solution</li> <li>• Development</li> <li>• Training &amp; Implementation</li> <li>• Operation and maintenance services</li> </ul> <p><b>*Community system referred to above means any e-business project related to trade/transport and ease of doing business involving multiple stakeholders in a community</b></p>	<p>The Bidder or one of its Associates must have experience of successful Go- Live / completed/ operational (<b>ongoing and at least the development phase should have been completed</b>) projects during the last Seven years (as on the last date of bid submission) in:</p> <p>At least one project of similar nature viz. implementation, operation and maintenance of maritime/port community projects of value# of INR <b>47.55 Crores</b>.(or its equivalent in foreign currency) and above</p> <p>Or</p> <p>in two projects each of value of <b>Rs 29.72 Crores</b> (or its equivalent in foreign currency) and above</p> <p>Or</p> <p>in three projects each of value of <b>Rs 23.78 Crores</b> (or its equivalent in foreign currency) and above.</p> <p>For the project cited, the project should be successfully operational for at least 12months (after project Go-Live).</p>	<p>In case of the project under Non- Disclosure Agreement (NDA), Company Secretary of the bidder or certifying authority of bidder should provide the certificate of completion + completion certificate from the client. Bidder to produce WO at the time of contract signing.</p> <p>OR</p> <p>Work Order + Completion Certificates from the client</p> <p>OR</p> <p>Work Order + Self Certificate of Completion (Certified by the Statutory Auditor)</p> <p>OR</p> <p>Work Order + Phase Completion Certificate (for ongoing projects) from the client/Statutory Auditor</p> <p>.</p> <p>Please provide project details as per format "PQ Form 5"</p>	<p>Single Bidder- Bidder</p> <p>Consortium- Any consortium member</p>

SI no	Criteria	Pre-qualification criteria description	Required documentary evidence	
6	Criteria related to Quality of Service Delivery	The bidder should a minimum (CMMi) Level 3	Copy of valid certificate* issued to the Bidding Organization by respective agencies	Single Bidder- Bidder Consortium- Any Consortium member
7	Other Criteria	The bidder / Lead Bidder in case of consortium must submit EMD* (Refer Proposal Data Sheet for amount) to IPA as per tender format  <b>*Bid Security (also known as Earnest Money) is to be obtained from the bidders except Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or are registered with the Central Purchase Organisation or the concerned Ministry or Department.</b>	Bank Guarantee against EMD shall be submitted by Bidder Please provide as per format "PQ Form 4"	Single Bidder- Bidder Consortium- Lead Bidder
8		MoU between lead bidder and Consortium members shall have to be submitted as per the conditions of consortium	MoU agreement  Please provide as per format "PQ Form 6"	Single Bidder- Not Applicable Consortium- All consortium members jointly
9		The bidder must submit Tender fees in form of Demand Draft (DD) to IPA.	Demand Draft of Tender fees shall be submitted by Bidder	Single Bidder- Bidder Consortium- Lead Bidder

**Note: All self-certificates shall be duly signed and Stamped by Authorized signatory of the Bidder Firm unless specified otherwise**



Design, development, integration, implementation, operation and maintenance of National Logistics Portal (Marine)

**Annexure 1.2: Technical bid Evaluation (Clause 4.6 of Volume 1)**

- iii. Method of evaluation of selection of successful Bidder and award of contract to bidder shall be based on QCBS (Quality cum Cost Based System) The bidder shall be technically evaluated out of 1,000 marks for the parameters given in Schedule 1. All the bidders who secure overall minimum of 60% (600 Marks) out of 1,000 across all the components given in the schedule) will be considered as technically qualified

Schedule I – Evaluation criteria for the proposed solution

#	Evaluation Criteria for the proposed solution	Max Marks
<b>A</b>	<b>Bidder Experience</b>	<b>500</b>
A.1	Community System Project Implementation	100
A.2	Large Scale National I level Project Implementation	80
A.3	Domain Knowledge - end to end lifecycle	100
A.4	IT infrastructure – cloud-based hosting	80
A.5	Mobile Application expertise in IT projects	80
A.6	IPCSA+ISO 27001; ISO 20000-1; +SEI CMM Level 3/4/5	60
<b>B</b>	<b>Resources Requirements</b>	<b>300</b>
B.1	Project Manager (no. 1)	20
B.2	Domain Experts (nos. 1)	20
B.3	Functional/ BPR Consultants (nos. 5)	75
B.4	IT experts (nos 5)	75
B.5	Mobile developers (nos. 2)	30
B.6	Solution Architect (no. 1)	20
B.7	IT infrastructure specialist (no 1)	15
B.8	Security Expert (no. 1)	15
B.9	Cloud/ data centre & BCM specialist (no. 1)	15
B.10	Trainers / Change Management Specialist (nos 2)	15
<b>C</b>	<b>Proposed Solution</b>	<b>200</b>
C.1	Solution overview	60
C.2	Technical Design	70
C.3	Technical Presentation	70
	<b>TOTAL</b>	<b>1000</b>

SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
TOTAL		1000	
A	Bidder experience	500	
A.1	<p>The Bidder/ any member of consortium must have experience of successful Go-Live/ completed/ ongoing project-of minimum value INR 23.78 Crores (or its equivalent in foreign currency) during the last seven years (as on the last date of bid submission) in a project of similar nature viz. implementation, operation and maintenance of community system solutions which may include Port Community System or Trade Community System or National Single Window for EXIM trade, Maritime and Port Single Window comprising of the following components:</p> <ul style="list-style-type: none"> <li>- Study of the system &amp; Optimization/ re- engineering</li> <li>- Design of the solution</li> <li>- Development / customization and Integration with other external parties</li> <li>- Training &amp; Implementation</li> <li>- Operation and maintenance services</li> </ul> <p>Each of the above component will be awarded 10 marks subject to a maximum of 50 marks per project. The bidder can submit up to a maximum of 2 projects.</p> <p><b>* Community system referred to above means any e-business project related to trade/transport and <u>ease of doing business</u> involving multiple stakeholders in a community.</b></p>	100	<p>In case of the project under Non- Disclosure Agreement (NDA), Company Secretary of the bidder or certifying authority of bidder should provide the certificate of completion + completion certificate from the client OR</p> <p>Work Order + Completion Certificates from the client; OR</p> <p>Work Order + Self Certificate of Completion (Certified by the Statutory Auditor or Chartered Accountant or Company Secretary); OR</p> <p>Work Order + Phase Completion Certificate (for ongoing projects) from the client</p> <p>Please provide project details as per format "Tech Form 9"</p>

SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
A2	<p>The Bidder/ any member of consortium must have experience of successful Go-Live/ completed/ ongoing project of minimum value INR 23.78 Crores or its equivalent in foreign currency) during the last seven years (as on the last date of bid submission) of National level IT System Integration projects - other than the projects given in Criteria A1. The projects cited should contain all of the following components mandatorily:</p> <ul style="list-style-type: none"> <li>- Study of the system &amp; Optimization/ re- engineering</li> <li>- Design of the solution</li> <li>- Development / customization and Integration with other external parties</li> <li>- Training &amp; Implementation</li> </ul> <p>More than 6 projects: (80 marks)                      &gt;4 or &lt;= 6 Projects: (40 marks)                      &gt; 2 or &lt;= 4 Projects: (20 marks)                      1 to 2 projects: (10 marks)</p>	80	<p>In case of the project under Non- Disclosure Agreement (NDA), Company Secretary of the bidder or certifying authority of bidder should provide the certificate of completion + completion certificate from the client</p> <p>OR</p> <p>Work Order + Completion Certificates from the client;</p> <p>OR</p> <p>Work Order + Self Certificate of Completion (Certified by the Statutory Auditor or Chartered Accountant or Company Secretary);</p> <p>OR</p> <p>Work Order + Phase Completion Certificate (for ongoing projects) from the client</p> <p>Please provide project details as per format "Tech Form 9"</p>
A.3	The Bidder / any consortium member should have experience of successful Go-Live/ completed/ ongoing project of minimum value INR 10.00 Lakhs (or its	100	In case of the project under Non- Disclosure Agreement

SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
	<p>equivalent in foreign currency) and have sound domain knowledge with experience in the operations of stakeholder organizations of cargo communities in the last Seven years. Projects/ products developed, implemented, operated and maintained for any of the following stake holders * will be considered.</p> <ul style="list-style-type: none"> <li>a. Ports/ Terminals</li> <li>b. Shipping Lines</li> <li>c. CFS / ICD</li> <li>d. Multi-modal operators / Consolidators</li> <li>e. Shipping agents/ Freight forwarders</li> <li>f. Any other allied agencies such as Customs House Agent (CHA), Importer, Exporter, Customs , Rail Transport Operator , Road Transport Operator , Banks , Stevedore , Surveyor , Port Health Organisation (PHO), Plant Quarantine Organisation (PQO) , Mercantile Marine Department (MMD) , Immigration , Tank Farm Operator , Container Agent , Barge Owner Operator , Navy; Coast Guard , Inland Waterways , Stakeholders involved in Coastal movement , Empty Yard , Freight Forwarders , Ship Chandler , NVOCC , DGLL , Bunker Supplier*</li> </ul> <p>Each of the following four parameters will be awarded 5 marks subject to a maximum of 20 marks per project. Bidder can submit up to a maximum of 4 projects.</p> <p>The above projects should contain all of the below mentioned phases:</p> <ul style="list-style-type: none"> <li>- Technical Design</li> <li>- Projects/ products development</li> <li>- Implementation</li> <li>- Operation and Maintenance</li> </ul> <p><b>Only those projects that meet the above criteria will be considered for evaluation:</b></p> <p><b>Additional 20 marks</b> would be awarded if the number of stakeholders (across the projects) cited by the bidder are unique as follows</p> <ul style="list-style-type: none"> <li>&gt; <b>20 unique* stakeholders</b> (20 marks)</li> <li>&gt; <b>15 and &lt;=20 unique stakeholders</b> (15 Marks)</li> <li>&lt;= <b>15 unique stakeholders</b> (10 marks)</li> </ul> <p><b>*Unique Stakeholders:</b></p>		<p>(NDA), Company Secretary of the bidder or certifying authority of bidder should provide the certificate of completion + completion certificate from the client</p> <p>OR</p> <p>Work Order + Completion Certificates from the client;</p> <p>OR</p> <p>Work Order + Self Certificate of Completion (Certified by the Statutory Auditor or Chartered Accountant or Company Secretary);</p> <p>OR</p> <p>Work Order + Phase Completion Certificate (for ongoing projects) from the client</p> <p>Please provide project details as per format "Tech Form 9"</p>

SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
	Ports/ Terminals, Shipping Lines, CFS / ICD, Multi-modal operators / Consolidators, Shipping agents/ Freight forwarders, Customs House Agent (CHA), Importer, Exporter, Customs , Rail Transport Operator , Road Transport Operator , Banks , Stevedore , Surveyor , Port Health Organisation (PHO), Plant Quarantine Organisation (PQO) , Mercantile Marine Department (MMD) , Immigration , Tank Farm Operator , Container Agent , Barge Owner Operator , Navy; Coast Guard , Inland Waterways , Stakeholders involved in Coastal movement , Empty Yard , Freight Forwarders , Ship Chandler , NVOCC , DGLL , Bunker Supplier.		
A.4	<p>The bidder / any member of the consortium should have been carrying/ carried out the following activities related to IT transformation projects at national level in community solutions (solutions involving multiple stakeholders) similar to the proposed system in the -last Seven years involving the following components.</p> <ul style="list-style-type: none"> <li>- Design of cloud solution including sizing of IT infrastructure components on cloud</li> <li>- Installation &amp; commissioning on cloud</li> <li>- Application migration and data migration to cloud</li> <li>- Operation, administration &amp; maintenance on cloud</li> <li>- Security Management on cloud</li> </ul> <p>Each of the above parameters will be awarded 4 marks subject to a maximum of 20 marks per project. Bidder can submit up to a maximum of 4 projects for a total score of 80</p>	80	<p>In case of the project under Non- Disclosure Agreement (NDA), Company Secretary of the bidder or certifying authority of bidder should provide the certificate of completion + completion certificate from the client</p> <p>OR</p> <p>Work Order + Completion Certificates from the client;</p> <p>OR</p> <p>Work Order + Self Certificate of Completion (Certified by the Statutory Auditor or Chartered Accountant or Company Secretary);</p> <p>OR</p> <p>Work Order + Phase</p>

SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
			Completion Certificate (for ongoing projects) from the client Please provide project details as per format "Tech Form 9"
A5	<p>The Bidder / any member of consortium must have a successful Go-Live / completed / ongoing <b>National level projects involving mobile application development on android, iOS etc.</b> of value more than <b>INR 1.0 Crore</b> (or its equivalent in foreign currency) during the last Seven years (as on the last date of bid submission) including any of the following components:</p> <p>a) Workflow based mobile application (10 marks)                      b) Analytics and reporting (10 marks)                      c) payment gateway integration or any other third party integration (10 marks)                      d) application performance monitoring/management (10 marks)</p> <p>Only those projects that meet the above criteria will be considered for evaluation:</p> <p>Each of the above parameters will be awarded 10 marks subject to a maximum of 40 marks per project. Bidder can submit up to a maximum of 2 projects for a total score of 80.</p>	80	<p>In case of the project under Non- Disclosure Agreement (NDA), Company Secretary of the bidder or certifying authority of bidder should provide the certificate of completion + completion certificate from the client</p> <p>OR</p> <p>Work Order + Completion Certificates from the client;</p> <p>OR</p> <p>Work Order + Self Certificate of Completion (Certified by the Statutory Auditor or Chartered Accountant or Company Secretary);</p> <p>OR</p> <p>Work Order + Phase Completion Certificate (for ongoing projects) from the client</p>

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SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
			Please provide project details as per format "Tech Form 9"
A.6	<p>Bidder/any member of consortium being a member of IPCSA (10 marks)</p> <p>Bidder/any member of consortium being ISO 27001 Standard certified (15 marks)</p> <p>Bidder/any member of consortium being ISO 20000-1 Standard certified (15 marks)</p> <p>Bidder/any member of consortium being CMMi- standard certified .</p> <p>CMMi level 3 (12 marks)</p> <p>CMMi level 4 (16 marks)</p> <p>CMMi level 5 (20 marks)</p>	60	<p>Proof of membership from IPCSA</p> <p>Copy of ISO 27001 Certificate</p> <p>Copy of ISO 20000-1 Certificate</p> <p>Copy of CMMi-L3/L4/L5 certificate</p>
B	Resource Requirement (Bidder/any member of consortium forming the project team)	300	
B.1	<p>Project Manager (Full Time Employee with min 1 year with bidder organisation)</p> <p><b>Qualification:</b> MTech / MBA/ MS/ Degree equivalent to MTech in case of degree outside of India from premier institutes as per current NIRF (National Institutional Ranking Framework) rankings (applicable in case of degrees in India) ( 7 Marks)</p> <p>If Individual profile has graduate degree from college ranking between 1 to 100 in 2020 or post-graduation degree from applicable college ranking between 1 to 100 in 2020: 7 marks</p> <p>If Individual profile has graduate degree from college ranking between 101 to 200 in 2020 or post-graduation degree from applicable college ranking between 101 to 200 in 2020: 5 marks</p> <p>If Individual profile has graduate degree from any other or post-graduation degree from any other college: 3 marks</p> <p>else 0 marks will be awarded</p>	20	<p>Self-certified experience certificate</p> <p>Please provide resource details as per format "Tech Form 3"</p>

SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
	<p>For graduate degree or post-graduation degree obtained from outside India, the QS World University Rankings® 2021 would be considered.</p> <p>If Individual profile has graduate degree from college ranking between 1 to 350 or post-graduation degree from applicable college ranking between 1 to 350: 7 marks</p> <p>If Individual profile has graduate degree from college ranking between 351 to 700 or post-graduation degree from applicable college ranking between 351 to 700: 5 marks</p> <p>If Individual profile has graduate degree or post-graduation degree from any other college: 3 marks</p> <p>else 0 marks will be awarded</p> <p><b>Professional experience:</b> At least 10 yrs. of total work experience <b>(4 Marks)</b>, (For every additional year of relevant experience 1 marks will be awarded with maximum up to <b>9 marks</b> for this criteria ) Should have worked on at least one project cited in <b>criteria A1 / A2/ A3 or similar projects</b></p> <p><b>Certification:</b> PMP/ Prince 2 / Six Sigma/ IIPPM(I2P2M)/ ITIL <b>(4 marks)</b></p>		
B2	<p>Domain Experts (nos. 1) (Full Time Employee with min 1 year with bidder organisation)</p> <p><b>Qualification.</b> B.E./B.Tech./MCA/M. Tech/MBA/ MS/ Degree equivalent to MTech in case of degree outside of India from premier institutes as per current NIRF (National Institutional Ranking Framework) rankings <b>(8 marks)</b></p> <p>If Individual profile has graduate degree from college ranking between 1 to 100 in</p>	20	<p>Self-certified experience certificate</p> <p>Please provide resource</p>



SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
	<p>2020 or post-graduation degree from applicable college ranking between 1 to 100 in 2020: 8 marks                      If Individual profile has graduate degree from college ranking between 101 to 200 in 2020 or post-graduation degree from applicable college ranking between 101 to 200 in 2020: 6 marks                      If Individual profile has graduate degree from any other or post-graduation degree from any other college: 4 marks                      else 0 marks will be awarded                      For graduate degree or post-graduation degree obtained from outside India, the QS World University Rankings® 2021 would be considered.</p> <p>If Individual profile has graduate degree from college ranking between 1 to 350 or post-graduation degree from applicable college ranking between 1 to 350: 8 marks</p> <p>If Individual profile has graduate degree from college ranking between 351 to 700 or post-graduation degree from applicable college ranking between 351 to 700: 6 marks</p> <p>If Individual profile has graduate degree or post-graduation degree from any other college: 4 marks</p> <p>else 0 marks will be awarded</p> <p><b>Professional experience:</b> At least 8 yrs. of total work experience with any of the following stake holders or their allies will be considered.(6 marks) (For every additional year of relevant experience 0.5 marks will be awarded with maximum up to 12 marks for this criteria)                      a. Ports/ Terminals                      b. Shipping Lines                      c. CFS / ICD</p>		<p>details as per format "Tech Form 3"</p>

SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
	<p>d. Multi-modal operators / Consolidators                      e. Shipping agents/ Freight forwarders                      f. Any other allied agencies (Please refer clause 1.3 of RFP volume 2 of 3 - total 27 stakeholders)</p> <p>Should have worked on at least two projects cited in criteria A3 or similar projects</p>		
B3	<p>Functional/ BPR Consultants ( no 5) – (Full Time Employee with min 1 year with bidder organisation)</p> <p><b>Qualification.</b> B.E./B.Tech./MCA/M. Tech/MBA / MS/ Degree equivalent to MTech in case of degree outside of India from premier institutes as per current NIRF (National Institutional Ranking Framework) rankings (<b>6.5 marks</b> per resource)</p> <p>If Individual profile has graduate degree from college ranking between 1 to 100 in 2020 or post-graduation degree from applicable college ranking between 1 to 100 in 2020: 6.5 marks</p> <p>If Individual profile has graduate degree from college ranking between 101 to 200 in 2020 or post-graduation degree from applicable college ranking between 101 to 200 in 2020: 4.5 marks</p> <p>If Individual profile has graduate degree from any other or post-graduation degree from any other college: 2.5 marks                      else 0 marks will be awarded</p> <p>For graduate degree or post-graduation degree obtained from outside India, the QS World University Rankings® 2021 would be considered.</p> <p>If Individual profile has graduate degree from college ranking between 1 to 350 or post-graduation degree from applicable college ranking between 1 to 350: 6.5 marks</p>	75	<p>Self-certified experience certificate</p> <p>Please provide resource details as per format “Tech Form 3</p>

SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
	<p>If Individual profile has graduate degree from college ranking between 351 to 700 or post-graduation degree from applicable college ranking between 351 to 700: 4.5 marks</p> <p>If Individual profile has graduate degree or post-graduation degree from any other college: 2.5 marks</p> <p>else 0 marks will be awarded</p> <p><b>Professional experience:</b> At least 8 yrs. of total work experience with expertise in study and optimisation of processes for any of the following will be considered.(2 marks per resource, for every additional year of relevant experience 0.5 marks will be awarded with maximum up to <b>6 marks</b> for this criteria )</p> <ul style="list-style-type: none"> <li>a) Workflow based processes</li> <li>b) Business process re-engineering</li> <li>c) payment gateway processes</li> <li>d) third party integration related processes</li> <li>e) optimisation of processes</li> </ul> <p>Should have worked on at least one project cited in criteria A1 / A3 or similar projects</p> <p><b>Certification:</b> TOGAF or Zachman framework or any other relevant certification (<b>2.5 Marks</b> per resource)</p> <p>Each of the resource shall be awarded of 15 marks subject to a maximum of 75 marks for 5 resources</p>		
B4	<p>IT experts (no 5) – (Full Time Employee with min 1 year with bidder organisation)</p> <p><b>Qualification:</b> B.E./B.Tech./MCA/M. Tech/MBA/ MS/ Degree equivalent to MTech in case of degree outside of India from premier institutes as per current</p>	75	Self-certified experience certificate

SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
	<p>NIRF (National Institutional Ranking Framework) rankings <b>(6 marks per resource)</b>                      If Individual profile has graduate degree from college ranking between 1 to 100 in 2020 or post-graduation degree from applicable college ranking between 1 to 100 in 2020: 6 marks                      If Individual profile has graduate degree from college ranking between 101 to 200 in 2020 or post-graduation degree from applicable college ranking between 101 to 200 in 2020: 4 marks                      If Individual profile has graduate degree from any other or post-graduation degree from any other college: 2 marks                      else 0 marks will be awarded                      For graduate degree or post-graduation degree obtained from outside India, the QS World University Rankings® 2021 would be considered.</p> <p>If Individual profile has graduate degree from college ranking between 1 to 350 or post-graduation degree from applicable college ranking between 1 to 350: 6 marks</p> <p>If Individual profile has graduate degree from college ranking between 351 to 700 or post-graduation degree from applicable college ranking between 351 to 700: 4 marks</p> <p>If Individual profile has graduate degree or post-graduation degree from any other college: 2 marks</p> <p>else 0 marks will be awarded</p> <p><b>Professional experience:</b> At least 8 yrs. of total work experience with expertise in IT transformation projects consist of any of the following; <b>(2 marks per resource) (For every additional year of relevant experience 0.5 marks will be awarded with maximum up to 6.5 marks for this criteria )</b>                      - Design of IT application solution.</p>		<p>Please provide resource details as per format “Tech Form 3”</p>

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SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
	<p>- IT application development / installation / commissioning                      - Operation, administration &amp; maintenance of large scale IT applications                      - Worked on any of upcoming IT technology e.g. robotic process automation, blockchain, artificial intelligence, etc. for enterprise level of IT applications                      - Database / cloud / API integrations with IT applications</p> <p>Should have worked on at least one project cited in criteria A2 / A4 / A5 or similar projects</p> <p><b>Certification:</b> Certifications related to any of the technologies mentioned in the RFP <b>(2.5 Marks per resource)</b></p> <p>Each of the resource shall be awarded of 15 marks subject to a maximum of 75 marks for 5 resources</p>		
B5	<p>Mobile app developers (nos 2) (Full Time Employee with min 1 year with bidder organisation)</p> <p><b>Qualification:</b> B.E./B.Tech./MCA/M. Tech/MBA / MS/ Degree equivalent to MTech in case of degree outside of India from premier institutes as per current NIRF (National Institutional Ranking Framework) rankings <b>(6 marks per resource)</b></p> <p>If Individual profile has graduate degree from college ranking between 1 to 100 in 2020 or post-graduation degree from applicable college ranking between 1 to 100 in 2020: 6 marks</p> <p>If Individual profile has graduate degree from college ranking between 101 to 200 in 2020 or post-graduation degree from applicable college ranking between 101 to 200 in 2020: 4 marks</p> <p>If Individual profile has graduate degree from any other or post-graduation degree from any other college: 2 marks                      else 0 marks will be awarded</p> <p>For graduate degree or post-graduation degree obtained from outside India, the QS World University Rankings® 2021 would be considered.</p>	30	<p>Self-certified experience certificate</p> <p>Please provide resource details as per format "Tech Form 3"</p>

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SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
	<p>If Individual profile has graduate degree from college ranking between 1 to 350 or post-graduation degree from applicable college ranking between 1 to 350: 6 marks</p> <p>If Individual profile has graduate degree from college ranking between 351 to 700 or post-graduation degree from applicable college ranking between 351 to 700: 4 marks</p> <p>If Individual profile has graduate degree or post-graduation degree from any other college: 2 marks</p> <p>else 0 marks will be awarded</p> <p><b>Professional experience:</b> At least 8 yrs. of total work experience with expertise in work experience in designing, developing, implementing and maintaining mobile apps <b>(4 Marks per resource, for every additional year of relevant experience 0.5 marks will be awarded with maximum up to 6.5 marks for this criteria )</b></p> <p>Should have worked on at least one project cited in criteria A2/A5 or similar projects</p> <p><b>Certification:</b> Certifications related to any of the technologies mentioned in the RFP <b>(2.5 Marks per resource)</b></p> <p>Each of the resource shall be awarded of 15 marks subject to a maximum of 30 marks for 2 resources</p>		
B6	<p>Solution Architect (no 1) (Full Time Employee with min 1 year with bidder organisation)</p> <p><b>Qualification:</b> B.E./B.Tech./MCA/M. Tech/MBA/ MS/ Degree equivalent to</p>	20	Self-certified experience certificate

SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
	<p>MTech in case of degree outside of India from premier institutes as per current NIRF (National Institutional Ranking Framework) rankings (<b>7 Marks</b>)</p> <p>If Individual profile has graduate degree from college ranking between 1 to 100 in 2020 or post-graduation degree from applicable college ranking between 1 to 100 in 2020: 7 marks</p> <p>If Individual profile has graduate degree from college ranking between 101 to 200 in 2020 or post-graduation degree from applicable college ranking between 101 to 200 in 2020: 5 marks</p> <p>If Individual profile has graduate degree from any other or post-graduation degree from any other college: 3 marks else 0 marks will be awarded</p> <p>For graduate degree or post-graduation degree obtained from outside India, the QS World University Rankings® 2021 would be considered.</p> <p>If Individual profile has graduate degree from college ranking between 1 to 350 or post-graduation degree from applicable college ranking between 1 to 350: 7 marks</p> <p>If Individual profile has graduate degree from college ranking between 351 to 700 or post-graduation degree from applicable college ranking between 351 to 700: 5 marks</p> <p>If Individual profile has graduate degree or post-graduation degree from any other college: 3 marks else 0 marks will be awarded</p> <p><b>Professional experience:</b> At least 8 yrs. of total work experience in architecting solution for projects out of which at least one project for a community system (5 Marks),(For every additional year of experience 0.5 marks will be awarded with maximum up to <b>8.5 marks</b> for this criteria )</p>		<p>For Individual accomplishments: Certificate from conference or concept paper number along with conference details or public domain link for resources qualifying the criteria, or any documentary proof of evidence.</p> <p>Please provide resource details as per format “Tech Form 3”</p>

SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
	<p>Should have worked on at least one project cited in criteria A3 or similar projects</p> <p><b>Certification:</b> TOGAF or Zachman framework and additional framework or Certifications related to any of the technologies mentioned in the RFP <b>(4.5 marks)</b></p>		
B7	<p>IT infrastructure Specialist (no 1) (Full Time Employee with min 1 year with bidder organisation)</p> <p><b>Qualification:</b> B.E./B.Tech./MCA/M. Tech/ MS/ Degree equivalent to MTech in case of degree outside of India from premier institutes as per current NIRF (National Institutional Ranking Framework) rankings <b>( 5 Marks)</b></p> <p>If Individual profile has graduate degree from college ranking between 1 to 100 in 2020 or post-graduation degree from applicable college ranking between 1 to 100 in 2020: 5 marks</p> <p>If Individual profile has graduate degree from college ranking between 101 to 200 in 2020 or post-graduation degree from applicable college ranking between 101 to 200 in 2020: 3 marks</p> <p>If Individual profile has graduate degree from any other or post-graduation degree from any other college: 1 mark else 0 marks will be awarded</p> <p>For graduate degree or post-graduation degree obtained from outside India, the QS World University Rankings® 2021 would be considered.</p> <p>If Individual profile has graduate degree from college ranking between 1 to 350 or post-graduation degree from applicable college ranking between 1 to 350: 5 marks</p> <p>If Individual profile has graduate degree from college ranking between 351 to 700 or post-graduation degree from applicable college ranking between 351 to 700: 3 marks</p>	15	<p>Self-certified experience certificate</p> <p>Please provide resource details as per format "Tech Form 3"</p>



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SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
	<p>If Individual profile has graduate degree or post-graduation degree from any other college: 1 marks</p> <p>else 0 marks will be awarded</p> <p><b>Professional experience:</b> At least 8 yrs. of total work experience as IT infrastructure expert (<b>2 Marks</b>),(For every additional year of experience 0.5 marks will be awarded with maximum up to <b>5 marks</b> for this criteria ) Should have worked on at least one projects cited in criteria A2/ A4 or similar projects.</p> <p><b>Certification:</b> CCNP/HP-AIS/AWS-CSA/MCSD-Cloud &amp; Infra (<b>5 marks</b>)</p>		
B8	<p>Security expert (no. 1) (Full Time Employee with min 1 year with bidder organisation)</p> <p><b>Qualification:</b> B.E./B.Tech./MCA/M. Tech/ MS/ Degree equivalent to MTech in case of degree outside of India from premier institutes as per current NIRF (National Institutional Ranking Framework) rankings (<b>5 Marks</b>)</p> <p>If Individual profile has graduate degree from college ranking between 1 to 100 in 2020 or post-graduation degree from applicable college ranking between 1 to 100 in 2020: 5 marks</p> <p>If Individual profile has graduate degree from college ranking between 101 to 200 in 2020 or post-graduation degree from applicable college ranking between 101 to 200 in 2020: 3 marks</p> <p>If Individual profile has graduate degree from any other or post-graduation degree from any other college: 1 mark else 0 marks will be awarded</p> <p>For graduate degree or post-graduation degree obtained from outside India, the QS World University Rankings® 2021 would be considered.</p>	15	<p>Self-certified experience certificate</p> <p>Please provide resource details as per format "Tech Form 3"</p>

SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
	<p>If Individual profile has graduate degree from college ranking between 1 to 350 or post-graduation degree from applicable college ranking between 1 to 350: 5 marks</p> <p>If Individual profile has graduate degree from college ranking between 351 to 700 or post-graduation degree from applicable college ranking between 351 to 700: 3 marks</p> <p>If Individual profile has graduate degree or post-graduation degree from any other college: 1 marks</p> <p>else 0 marks will be awarded</p> <p><b>Professional experience:</b> At least 8 yrs. of total work experience as IT security expert (2 Marks),(For every additional year of experience 0.5 marks will be awarded with maximum up to 5 marks for this criteria )</p> <p>Should have worked on at least one projects cited in criteria A2/ A4 / A5 or similar projects.</p> <p><b>Certification:</b> CISSP / CISM (5 marks)</p>		
B9	<p>Cloud/ data centre &amp; BCM specialist (no. 1) (Full Time Employee with min 1 year with bidder organisation)</p> <p><b>Qualification:</b> B.E./B.Tech./MCA/M. Tech/MBA/ MS/ Degree equivalent to MTech in case of degree outside of India from premier institutes as per current NIRF (National Institutional Ranking Framework) rankings ( 5 Marks)</p> <p>If Individual profile has graduate degree from college ranking between 1 to 100 in 2020 or post-graduation degree from applicable college ranking between 1 to 100 in 2020: 5 marks</p>	15	<p>Self-certified experience certificate</p> <p>Please provide resource</p>

SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
	<p>If Individual profile has graduate degree from college ranking between 101 to 200 in 2020 or post-graduation degree from applicable college ranking between 101 to 200 in 2020: 3 marks</p> <p>If Individual profile has graduate degree from any other or post-graduation degree from any other college: 1 mark else 0 marks will be awarded</p> <p>For graduate degree or post-graduation degree obtained from outside India, the QS World University Rankings® 2021 would be considered.</p> <p>If Individual profile has graduate degree from college ranking between 1 to 350 or post-graduation degree from applicable college ranking between 1 to 350: 5 marks</p> <p>If Individual profile has graduate degree from college ranking between 351 to 700 or post-graduation degree from applicable college ranking between 351 to 700: 3 marks</p> <p>If Individual profile has graduate degree or post-graduation degree from any other college: 1 marks else 0 marks will be awarded</p> <p><b>Professional experience:</b> At least 8 yrs. of total work experience in cloud computing technologies (IaaS/PaaS/SaaS), large scale data centres, implementation and support of cloud solution, DR site planning, designing and execution, data recovery etc. <b>(2 Marks),(For every additional year of experience 0.5 marks will be awarded with maximum up to 5 marks for this criteria )</b> Should have worked on at least two projects cited in criteria A4 or similar projects</p>		<p>details as per format “Tech Form 3”</p>

SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
	<p><b>Certification:</b> Cloud solution architecture certification AWS/Microsoft/Google/Oracle/ equivalent <b>(5 marks)</b></p>		
B10	<p>Trainers / Change Management Specialist (no 2) (Full Time Employee with min 1 year with bidder organisation)</p> <p><b>Qualification:</b> Any graduation degree from recognised university / institute <b>(2 mark per resource)</b>                      If Individual profile has graduate degree from college ranking between 1 to 100 in 2020 or post-graduation degree from applicable college ranking between 1 to 100 in 2020: 2 marks                      If Individual profile has graduate degree from college ranking between 101 to 200 in 2020 or post-graduation degree from applicable college ranking between 101 to 200 in 2020: 1 mark                      If Individual profile has graduate degree from any other or post-graduation degree from any other college: 0.5 marks                      else 0 marks will be awarded                      For graduate degree or post-graduation degree obtained from outside India, the QS World University Rankings® 2021 would be considered.</p> <p>If Individual profile has graduate degree from college ranking between 1 to 350 or post-graduation degree from applicable college ranking between 1 to 350: 2 marks</p> <p>If Individual profile has graduate degree from college ranking between 351 to 700 or post-graduation degree from applicable college ranking between 351 to 700: 1 marks</p> <p>If Individual profile has graduate degree or post-graduation degree from any other college: 0.5 marks</p> <p>else 0 marks will be awarded</p>	15	<p>Self-certified experience certificate</p> <p>Please provide resource details as per format “Tech Form 3”</p>

SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
	<p><b>Professional experience: (3 Marks per resource)</b>  <b>Total years of experience = 8 years</b>                      and at least 2 yrs. of total work experience in all of the following,                      a) Conducting large scale awareness, training, promotional programs .                      b) Expertise in development of course material for training on technical area                      Should have worked on at least one of project cited in criteria A1 / A2 or similar projects</p> <p><b>Certification:</b> Client certificate for providing trainings to more than 30 people over a period of time in two or more Indian government organisations <b>(2.5 marks per resource)</b></p> <p>Each of the resource shall be awarded of 7.5 marks subject to a maximum of 15 marks for 2 resources</p>		
C	Proposed Solution	200	
C1	Solution overview: a) Understanding of the objectives, challenges, risks; b) Approach & methodology for implementation within timelines c) Approach towards integration with external systems d) Detailed project plan Risk mitigation measures e) Change management strategy f) Promotional strategy g) Project Governance framework	60	Signed Technical Bid,  Tech Form 4,5,6,7
C2	Technical design: a) NLP exchange platform design- agile and configurable b) Process workflow designs c) Integration with third parties and external APIs d) Cloud deployment along with Disaster Recovery approach e) scalability, reliability and fault tolerance; f) Application and cloud Security; g) Automated measurement & monitoring h) Data migration and integration with NLP platform i) Process re-engineering approach j) Audit logging	70	

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SI. No.	PARAMETER	MAX MARKS	EVIDENCE TO BE SUBMITTED
	k) Approach for bootstrapping l) Performance and SLA monitoring		
C3	Technical Presentation (Additional Marks shall be awarded on the basis of specific information submitted by the bidder, clarifications by bidder during the presentation) a) Understanding of the challenges b) Governance framework c) Demo of the proposed system <b>along with cloud design framework</b> d) Question and Answers	70	Presentation, demonstration and Q&A

NOTE: Wherever self-certification or certification by statutory auditor has been submitted by the bidder and he happens to be a successful bidder, he has to produce either work order or agreement or certification from the client for the purpose. In case of NDA with a client, the work order would have to be produced at the time of contract signing.

The Bidders will be invited for an in-person / virtual technical presentation to a designated IPA evaluation panel on a pre-decided day, date and time. Only designated 'key resources' are required to present the specific sections as per table below. In this technical presentation, Bidders should cover projects cited in the proposal and substantiate fulfilment of project evaluation criteria through demonstration. IPA reserves the right to verify project citations submitted by bidders through independent agencies or alternative sources.

Bidders that score at least 600 marks (60%) in the technical evaluation stage, would be considered technically qualified. Commercial Bids of only such technically qualified bidders shall further be opened.

Sub-Criteria	Presenters (following resources would be preferred for presentation for the mentioned sections- if presented)
NLP Solution Overview	Program Manager and 'Solution Architect, Functional / BPR consultant' and include up to 3 additional key resources
Understanding of challenges.	IT Expert and Domain Expert and include up to 3 additional key resources
Overall Technical Design and approach	IT Expert and Solution Architect

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<b>Sub-Criteria</b>	<b>Presenters (following resources would be preferred for presentation for the mentioned sections- if presented)</b>
Demonstration of solution	Solution Architect and IT Expert and include up to 3 additional key resources
PCS 1.x maintenance & usability for NLP scope	Program Manager and Solution Architect and Domain Expert and include up to 2 additional resources
High level design for cloud infrastructure	Solution Architect and IT Infrastructure specialist and Cloud / data centre specialist
High Level Design for workflows, Mobile Applications, Business Intelligence and analytics	Solution Architect and Mobile developer and include up to 2 additional key resources
High level design for third party integrations	Solution architect/Functional / BPR Consultant and Domain Expert and IT / Security Expert.
High level design for BPR and process optimisation	Functional / BPR Consultant and Program Manager and Domain Expert
Training, capacity building and helpdesk plan	Program Manager and Trainer and include up to 2 additional resources

B	Resources Requirements	Maximum Marks			Total No of resources	Total Maximum Marks
		Qualification	Personal Experience	Certification		
B.1	Project Manager (no. 1)	7	9	4	1	20
B.2	Domain Experts (nos. 1)	8	12	0	1	20
B.3	Functional/ BPR Consultants (nos. 5)	6.5	6	2.5	5	75
B.4	IT experts (nos 5)	6	6.5	2.5	5	75
B.5	Mobile developers (nos. 2)	6	6.5	2.5	2	30
B.6	Solution Architect (no. 1)	7	8.5	4.5	1	20
B.7	IT infrastructure specialist (no 1)	5	5	5	1	15

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B	Resources Requirements	Maximum Marks			Total No of resources	Total Maximum Marks
		Qualification	Personal Experience	Certification		
B.8	Security Expert (no. 1)	5	5	5	1	15
B.9	Cloud/ data centre & BCM specialist (no. 1)	5	5	5	1	15
B.10	Trainers (nos 3)	2	3	2.5	2	15
<b>Total</b>					<b>20</b>	<b>300</b>



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**Annexure 1.3: PQ Form 2 - Certificate of Conformity/ No Deviation Undertaking**

**<<To be submitted on the Company Letter head of the Lead Bidder>>**

**Date:**

**To  
Managing Director,  
Indian Ports Association,  
1st Floor, South Tower, NBCC Place,  
Bhishma Pitamah Marg,  
Lodhi Road, Institutional Area,  
New Delhi – 110003**

**Reference: Tender No IPA/PGAV/NLP-Marine/2020 September 2020 and its subsequent Addenda, Corrigenda, Amendments and  
Tender for Design, development, integration, implementation,  
operation and maintenance of National Logistics Portal (Marine)**

- 1. This is to certify that, the specifications of the solution which I/ We have mentioned in the Technical bid, and which I/ We shall deliver if I/ We am/ are awarded the work, are in conformity with the minimum specifications of the bidding document and that there are no deviations of any kind from the requirement/specifications.**
- 2. Also, I/ we have thoroughly read the tender and by signing this certificate, we hereby submit our token of unconditional acceptance to all the terms & conditions of the bidding document without any deviations.**
- 3. I/ We also certify that the price I/ we have quoted is inclusive of all the cost factors involved in the end-to-end implementation and execution of the project, to meet the desired Standards set out in the bidding Document.**

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- 4. We hereby provide full & unconditional compliance to all clauses, sub clauses, annexures & subsequent Addenda, Corrigenda, Amendments, Tender including but not limited to Conditions of the Contract, Network Infrastructure & Technical Requirements, Functional Requirement Specifications (FRS) , Technical Requirement Specifications (TRS) in the Tender under Reference**

**We hereby declare No Deviation to Tender under Reference. This Undertaking shall supersede all deviations/observations/remarks/comments, if any, in our Bid Response, without any prejudice to the purchaser.**

**At a later date, if any deviation is observed in our Bid response with respect to Tender under Reference, the same shall stand withdrawn at no incremental “time and/or commercial & price” implication to the Purchaser.**

**Thanking you,  
Yours faithfully**

**(Signature of the Authorized signatory of the Bidding Organization)**

**Name :**

**Designation :**

**Date :**

**Company Seal :**

**Business Address :**

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**Annexure 1.4: PQ Form 3 - Financial Capability**

**<<To be completed by the Bidder / In case of consortium, by each partner as appropriate to demonstrate that they meet the requirements>>**

**<<On the letterhead of the Chartered Accountant>>**

**<<To be submitted along with Audited Financial Statements>>**

**Date:**

**To**

**Managing Director, Indian Ports Association,  
1st Floor, South Tower, NBCC Place,  
Bhishma Pitamah Marg,  
Lodhi Road, Institutional Area,  
New Delhi – 110003**

**Dear Sir,**

**We have examined the books of accounts and other relevant records of <<Bidder / consortium Partner Name along with registered address>>. On the basis of such examination and according to the information and explanation given to us, and to the best of our knowledge & belief, we hereby certify that the annual turnover and Net worth for the three years i.e. from FY 2016-17 / FY 2017-18 to FY 2018-19 / FY 2019-20 are as per details given below:**

<b>Information from Balance Sheets (in Indian Rupees)</b>			
	<b>2016-17 OR 2017-18</b>	<b>2017-18 OR 2018-19</b>	<b>2018-19 OR 2019-20</b>
<b>Annual Turnover</b>			
<b>Net worth</b>			

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**(Signature of the Chartered Accountant/Statutory Auditor)**

**Name :**

**Designation :**

**Membership Number :**

**Date :**

**Company Seal :**

**Business Address :**

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**Annexure 1.5: Tech Form 3 - Profile of Proposed Resources 1**

<<Name of the Bidder / Consortium Member >><Please refer Schedule 1 Evaluation criteria B1 to B10>>

1	Name of the employee	
2	Designation	
3	Date of Birth	
4	Nationality	
5	Qualifications / Institute Name	
6	Yrs. of relevant experience	
7	Professional Certifications Note:	Please attach copies of relevant certificates
8	Languages known (R,W,S)	
9	Employment Record	(Starting with present position list in reverse order)
10	Details of projects	(Give an outline on the experience most pertinent to tasks mentioned in the project) Maximum of 5 projects vide Table ..... in Page
11	Name of Project	
12	Client(s)	
13	Year	
14	Location	
15	Salient features of project	
16	Role assigned	
17	Activities performed	

**(SI No 11 to 17 may be repeated for each project)**

**I certify that to the best of my knowledge and belief, this biodata correctly describes myself, my qualifications, and my experience.**

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**Date:**

**Place**

**Signature of the employee**

**Authorized Signatory**

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**Annexure 1.6: Undertaking in case of expired CMMI Certificate**

**<<To be submitted on the Company Letter head of the Bidder / Consortium Partner>>**

**Date:**

**To  
Managing Director,  
Indian Ports Association,  
1st Floor, South Tower, NBCC Place,  
Bhishma Pitamah Marg,  
Lodhi Road, Institutional Area,  
New Delhi – 110003**

**Subject: Undertaking for submission of valid CMMI certificate during signing of contract (if awarded) against submitted expired CMMI certificate during bid submission for Tender No IPA/PGAV/NLP-Marine/2020 September 2020.**

**Dear Sir,**

- 1. In response to the tender No. \_\_\_\_\_ Dated for “<>”, I \_\_\_\_\_ hereby declare that presently our Company/ Firm is having CMMI level \_\_ certificate, having date of expiry as <date> (copy of certificate attached)**
- 2. I declare that my company / firm is in process of renewing CMMI certificate and shall submit the copy of valid CMMI certificate at the time of contract signing.**
- 3. I further declare that we are compliant with all other pre-qualification criteria in reference tender and subsequent corrigendum.**
- 4. If this declaration / undertaking is found to be non-compliant and I failed to submit valid CMMI certificate during signing of contract, then the security may be forfeited in full and the tender if any to the extent accepted may be cancelled.**

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**Thanking you,  
Yours faithfully**

**(Signature of the Authorized signatory of the Bidding Organization)**

**Name :**

**Designation :**

**Date :**

**Company Seal :**

**Business Address :**



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**Annexure 1.7: RFP Volume 1 section 11.2 Summary (Part A & B) of Commercial Proposal**

**Part A: Milestone based payments (for 3 yrs contract)**

Sr. No.	Component	Total price during implementation (including stabilisation & fine tuning)	Total Price during Operations and Maintenance (O&M)* (Unit Rate B)		Total (O&M price) (B) (B=i+ii)	Total Amount (C=A+B)	Total amount in words
			1 <sup>st</sup> Year	2 <sup>nd</sup> Year			
		Rate (A)	i	ii			
1	Design, Development Helpdesk and Implementation for NLP Marine	X					
2a	Latch on for 30 LSPs	X	X	X			
2b	API integration	X	X	X			
3	<b>O&amp;M Phase</b>						
3a	Cloud Services		X	X			
3b	Infra OEM		X	X			
3c	Application Support		X	X			
3d	Facility Management		X	X			
3e	Central and Localized Helpdesk		X	X			
3f	<b>Sub Total (O&amp;M)</b>						
4	Training & Capacity Building	X	X	X			

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Sr. No.	Component	Total price during implementation (including stabilisation & fine tuning)	Total Price during Operations and Maintenance (O&M)* (Unit Rate B)		Total (O&M price) (B) (B=i+ii)	Total Amount (C=A+B)	Total amount in words
		Rate (A)	1 <sup>st</sup> Year	2 <sup>nd</sup> Year			
			i	ii			
5	Manpower – Operations, administration & maintenance	X	X	X			
6	Other Items (Specify)						
7	Total (Sum of components)						
8	GST /Applicable Taxes						
9	Grand Total i.e. Contract price inclusive of all taxes						

**Part B: For possible extension (2 yrs extension post 3 yrs of contract period)**

Sr. No.	Component	Total Price during Operations and Maintenance (O&M) extension by 2 yrs* (Unit Rate B)			Total amount in words
		3 <sup>rd</sup> Year	4 <sup>th</sup> Year	Total (O&M price)	
		i	ii	(i+ii)	
2	O&M phase				
2a	Cloud Services	X	X		
2b	Infra OEM	X	X		
2c	Application Support	X	X		
2d	Facility Management	X	X		

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Sr. No.	Component	Total Price during Operations and Maintenance (O&M) extension by 2 yrs* (Unit Rate B)			Total amount in words
		3 <sup>rd</sup> Year	4 <sup>th</sup> Year	Total (O&M price)	
		i	ii	(i+ii)	
2e	Central and Localized Helpdesk	X	X		
2f	<b>Sub Total (O&amp;M)</b>				
3	<b>Training &amp; Capacity Building</b>	X	X		
4	<b>Manpower – Operations, administration &amp; maintenance</b>	X	X		
5	<b>Other Items (Specify)</b>				
6	<b>Total (Sum of components)</b>				
7	GST /Applicable Taxes				
8	Grand Total i.e. Contract price inclusive of all taxes				

**Please note the following:**

- Part A will be considered for QCBS evaluation of this bid
- Part B will not form part of the QCBS evaluation. This will be considered by IPA in case of a 2 year extension beyond the 3 years contract period
- The bidder is expected to provide the detailed price break up in the following tables, however as mentioned above, as part of the QCBS evaluation, the first 3 yrs will be considered

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Please refer following format for;

- 10.2.1 Design, Development and Implementation for NLP Marine
- 10.2.3 Training & Capacity Building
- 10.2.4 Manpower – Operations, administration & maintenance

S. No.	Component	Total Cost										Total Price for 3 yrs (excluding taxes, duties, levies)	GST	Any other taxes, duties, levies	Total Price for 3 yrs (including all taxes, duties, levies)	Total price for 2 yrs (extension) (including all taxes, duties, levies)
		Implementation		1 <sup>st</sup> Year		2 <sup>nd</sup> Year		3 <sup>rd</sup> Year		4 <sup>th</sup> Year						
		Unit	Price	Unit	Price	Unit	Price	Unit	Price	Unit	Price					
			1		2		3		4		5	C=(1+2+3)	D	E	C + D + E	F=4+5+D+E
1	Item 1															
2	Item 2															
3	Item 3															
4	Item 4															
	<add new lines if req>															
	Total															

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Please refer following format for;

- 10.2.2 (a) Cloud Services
- 10.2.2 (b) Infra OEM
- 10.2.2 (c) Application Support
- 10.2.2 (d) Facility Management
- 10.2.2 (e) Central and Localized Helpdesk

S. No.	Component	Total Cost								Total Price for 3 yrs (excluding taxes, duties, levies)	GST	Any other taxes, duties, levies	Total Price for 3 yrs (including all taxes, duties, levies)	Total price for 2 yrs (extension) (including all taxes, duties, levies)
		Year 1		Year 2		Year 3		Year 4						
		Unit	Price	Unit	Price	Unit	Price	Unit	Price					
			1		2		3		4	C=(1+2)	D	E	C + D + E	F=3+4+D+E
1	Item 1													
2	Item 2													
3	Item 3													
4	Item 4													
	<add new lines if req>													
	Total													

**Annexure 2.1: Project Milestone Plan (Section 4.2)**

S. No	Milestones	Timeline	Deliverable	Payments(% of payments)
		T=0 at kick off	D1	NA
1	Submission and Acceptance of Detailed Business Requirement Specifications (BRS) and Software Requirement Specifications- NLP Marine	T+2 month	D2, D3, D4, D5-1	5% of the Implementation cost
2	Solution Architecture and Design, including Logical and Functional Architecture of the NLP Marine System	T+3 months	D6-1	5% of the Implementation cost
3	Prototype of the design of the proposed NLP Marine – acceptance of the design by the stakeholders for the additional functionalities proposed in NLP - Marine	T+4 months	D7-1	5% of the Implementation cost
4	Development, integration and implementation of NLP Marine Module as per SRS	T+ 6 months	D8-1, D13	10% of the Implementation cost
5	Finalization and on-boarding of all the Latch-on applications as per the agreement signed with IPA	T+8 months	D18	5% of the Implementation cost
6	UATs	T+10 months	D14	5% of the Implementation cost
7	Training & Pilot implementation	T+11 months	D16	5% of the Implementation cost
8	Go Live	T1= T+12 months	D8, D9, D10	10% of the Implementation cost
9	Stabilization & fine tuning	T1+ 3 months	D12	10% of the Implementation cost
10	O&M	T1+ 2 yrs O&M will be for a total period of 2 yrs.	D11, D17	40% of the Implementation cost + O&M cost quoted by the bidder <i>[Equal payout in quarters at quarter end.]</i>

**Annexure 2.2: Application Performance Management:**

The proposed solution must comprehensively cover the following

1. End-user experience monitoring by capturing data on how end-to-end performance impacts the user and identifies the problem.
2. Discovery of application architecture, modelling and mapping in run-time by discovering the software and hardware components involved in application execution, and their communication paths and establishing the potential scope of problems.
3. Deep-dive in-context component monitoring to conduct deep-dive inspection of the resources consumed by, and events occurring within, the application components.
4. Application analytics to crunch the data generated, discover meaningful and actionable patterns, pinpoint the root cause of the problem, and ultimately anticipate future issues that may impact the end user.
5. The proposed solution must trace and capture every single transaction, calculate the per minute performance (average) and send the results to the platform.
6. The proposed solution should provide end to end visibility across all web, mobile applications including detailed end-user experience analysis to specifically determine:
  - Variation in application performance by location, client type, device, browser and browser version, and network connection for web requests.
  - Variation in application performance by application and application version, operating system version, device, and carrier for mobile requests.
  - Variation in application performance by slowest web requests, and the problem isolation correlated and in context to the backend application server calls.
  - Variation in application performance by slowest mobile network requests and problem isolation correlated and in context to the backend application server calls.
  - Variation in application performance by errors and crashes on mobile applications and its root cause.
  - Variation in application performance by web resource performance

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**Annexure 2.3: Section 5.1.4 Key Personnel**

S. No.	Level	Min. No. of people	Minimum onsite deployment	
			Implementation and Stabilisation	O&M
1	Project Director	1	10%	10%
2	Project Manager	1	100%	100% for first 6 months after Go-Live, 25% afterwards
3	Domain Experts (nos. 1)	1	100%	100% for first 6 months after Go-Live,
4	Functional Leads Comprises of Functional/ BPR Consultants (nos. 5) and IT experts (nos 5)	10	100%	100% for first 6 months after Go-Live, 25% afterwards
5	IT infrastructure specialist (no 1)	1	100%	100% for first 6 months after Go-Live, 25% afterwards
6	Solution Architect	1	100%	100% for first 6 months after Go-Live, 25% afterwards
7	Cloud/ data centre & BCM specialist (no. 1)	1	100%	100% for first 6 months after Go-Live, 25% afterwards
8	Mobile developers	2	100%	100% for first 6 months after Go-Live, 25% afterwards
9	Security Expert	1	100%	100% for first 6 months after Go-Live, 25% afterwards
10	Database Administrators	2	100%	100% for first 6 months after Go-Live, 25% afterwards
11	Trainers/ Change Management Specialists	2	100%	100% for first 6 months after Go-Live, 25% afterwards
12	IT Helpdesk executives at centre ( 2 seats 24*7)	8	As required	100%



## **Annexure 2.4: IT Security Requirements**

### **IT Security requirements**

The overall objective of the bidder shall be to provide NLP Marine a cyber-security framework to defend against cyber threats and risk. The bidder shall share threat, vulnerability and incident information in a timely manner.

The roles and responsibilities of bidder shall include, but not limited to, the following activities:

- a) Provide trusted mechanisms, solutions to facilitate sharing of threat, vulnerability and incident information as per the format agreed in consultation with IPA
- b) Facilitate IPA during the assessment of security environment and threat perceptions if conducted by IPA.
- c) The bidder is required to implement the security solution of IPA in line with the minimum-security requirements stated in the RFP as well as the leading standards and guidelines stated in the RFP at no additional cost to IPA. Further, any security risk / vulnerability identified during the project should be mitigated by bidder, at no additional cost to IPA. However, if IPA identifies any additional security upgradation/ components / measures, which were not covered as part of the RFP, the bidder shall be responsible for implementing it in consultation with IPA.
- d) Establishing subject matter expert committees and teams, including the Threat Intelligence and Incident Response Team, which shall provide in-depth analysis of risks to the stakeholder and provide technical, business and operational impact assessments as well as strategies to mitigate risk.
- e) Conduct process-based Risk assessment on a periodic basis
- f) Perform security services on the components that are part of the IPA environment as per security policy finalized with IPA.
- g) Reporting security incidents and resolution of the same
- h) Proactively monitor, manage, maintain & administer all security solutions
- i) The SIEM solution and the required technologies should be integrated with the third-party solutions
- j) Providing root cause analysis for all defined problems including hacking attempts.
- k) Monthly reporting on security breaches and attempts plus the action taken to thwart the same and providing the same to IPA.
- l) Maintaining documentation of security component details including architecture diagram, policies and configurations.
- m) Performing periodic review of security configurations for inconsistencies and redundancies against security policy.
- n) Performing periodic review of security policy and suggest improvements.

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- o) Performing capacity management of security resources to meet business needs.
- p) Rapidly resolving every incident/problem within mutually agreed timelines.
- q) Testing and implementation of patches and upgrades.
- r) Implementing and maintaining security rules.
- s) Performing any other day-to-day administration and support activities.
- t) Configuration, installation, integration and commissioning of the entire security solution stack.
- u) Manage generation, scheduling and storage of daily logs and incident reports
- v) Every solution shall have their own management and reporting
- w) Technology functionalities as stated for the technologies in the RFP but not limited to should be factored.
- x) The Data Centre Facility on cloud shall at a minimum implement the security toolset: Security & Data Privacy (Data & Network Security including Anti-Virus, Virtual Firewall, Single Sign on, UTM, One Time Passwords, Multi Factor Authentication, Log Analyzer / Syslog, SSL, DDOS Protection, HIDS / NIDS, Rights Management, SIEM, Integrated Vulnerability Assessment, SOC, Private Virtual Zones, Web Application Filter for OWASP Top 10 protection, Data Privacy, Data Encryption, Certifications & Compliance, Authentication & Authorization, and Auditing & Accounting)
- y) Following must be adhered for compliance and implementation wherever applicable by bidder
  - ISO 27001:2013
  - The implementation of proposed solution should be based on ISO 27002 compliance
  - ISO 27018:2019 - Code of practice for protection of personally identifiable information (PII) in public clouds
  - Cloud Security ISO Standard ISO 27017:2015,
  - Information Technology Act 2000, Section 43A, Penalty and compensation for damage to computer, computer system, etc.
  - Personal Data Protection Bill, 2018
  - The compliances should be adhered as per its latest version released
- z) All the security as per MeitY and IPA policy guidelines should be provisioned and followed.
- aa) The sizing of the security solutions should be done by the bidder based on the load estimated.
- bb) Solution deployed should be in high availability in DC and DR.

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- cc) All the proposed solution should be integrated with the SIEM solution.
- dd) All the system should have auto scalable based on the requirements
- ee) Should adhere to the ever-evolving guidelines as specified by CERT-IN (<http://www.cert-in.org.in/>)
- ff) The OEM of the offered product/service should be in Magic Quadrants for the latest report published by Gartner up to the time of closing of Tender or can be proprietary solution of the cloud vendors.

### **Security Administration**

- a. Appropriately configure the security groups in accordance with the IPA networking policies.
- b. Regularly review the security group configuration and instance assignment to maintain a secure baseline.
- c. Secure and appropriately segregate / isolate data traffic/application by functionality using DMZs, subnets etc.
- d. Ensure that the cloud infrastructure and all systems hosted on it, respectively, are properly monitored for unauthorized activity.
- e. Conducting regular vulnerability assessment and penetration testing of the systems and share report
- f. Review the audit logs to identify any unauthorized access to the IPA systems.
- g. Static and Dynamic code analysis should be conducted on the application hosted on the cloud
- h. The service shall be available online, on-demand, and dynamically scalable up or down per request for service from the end users (Government Department or Government Department's nominated agencies) with two factor authentications via the SSL through a web browser.
- i. Service shall provide scalable, redundant and dynamic storage
- j. Provide and implement security mechanisms for handling data at rest and in transit.
- k. Automated security assessment services to improve security and compliance of applications deployed on cloud by automatically assessing applications for vulnerabilities or deviations from best practices.
- l. API level security protection should be considered

Following but not limited are the minimum-security components, which the SI is required to implement as part of IPA system. The minimum requirements from each of the component are provided below.

### **Server and Endpoint Security**

- a. The solution shall support stateful Inspection Firewall, Anti-Malware, Deep Packet Inspection with HIPS, Integrity Monitoring and Recommended scan in single agent for physical, virtual and cloud instances.
- b. The solution shall have pre- and post-execution machine Learning and shall have Ransomware Protection.
- c. The solution shall support temporary patching both known and unknown vulnerabilities until the next scheduled maintenance window.
- d. The solution shall support prevention against script-based attacks used to deliver malware such as ransomware
- e. The solution shall protect against Distributed DoS attack and Platform shall have the ability to lock down/quarantine a computer (prevent all communication) except with management server.
- f. The Server Security platform shall support pre-defined lists of critical platform files for various operating platforms and/or applications (web servers, dns, etc.) and support custom rules as well.
- g. The solution shall protect against SQL injection attacks
- h. The solution shall protect against cross-site scripting (XSS) attacks
- i. The solution shall protect against common classes of attacks, including port scans, buffer overflows, Trojan horses, malformed packets, malicious HTML requests, e-mail worms, etc.
- j. The solution shall have a strong malware protection to remove Trojans, rootkits, spyware, key loggers, adware, etc.

### **Firewall**

- a. The solution shall protect & scale against dynamic latest security threats
- b. The solution shall support operating in routed & transparent mode
- c. The solution shall support QoS features like traffic prioritization, differentiated services, committed access rate for defining the QoS policies etc
- d. The solution shall support web based (HTTP and HTTPS) configuration and management
- e. The solution shall support static NAT; Policy based NAT and PAT
- f. The solution shall support dynamic routing over the VPN. The solution shall support secure socket layer, which has to be implemented by the bidder. The solution shall have IPSec VPN for both Site-Site & Remote Access VPN
- g. The solution shall have next generation firewall functionalities

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- h. The perimeter and internal firewall shall of different make.
- i. The solution shall monitor east to west traffic.

## **IPS**

- a. The solution shall perform traffic inspection based on: Signatures, Protocol anomaly, Behaviour anomaly, Reputation etc.
- b. The solution shall accurately detect the following Attack categories: -
  - Malformed traffic, Invalid Headers etc
  - Vulnerability exploitation
  - URL obfuscation
- c. The solution shall detect and block all known exploits and the underlying vulnerability
- d. The solution shall identify SSL protocol-based attacks
- e. The solution shall be capable of gathering information about network hosts and their activities such as operating platform, services, open ports, client applications, vulnerabilities, etc to assist with multiple activities such as intrusion event data correlation, elimination of false positives, policy compliance, etc

## **Anti-APT (File, Network, Email, Endpoints)**

- a. The Solution shall have ability to detect malicious traffic in Network, Email, Web and Endpoints
- b. The solution shall be able to detect and prevent advanced Malware, Zero-day attack, spear phishing attack, targeted Advanced Persistent Threat etc without relying on just Signature database
- c. The solution shall perform dynamic real-time analysis of advanced malware on the solution itself to confirm true zero-day and targeted attacks
- d. The solution shall automatically detect and confirm multistage zero-day malware and targeted attacks without prior knowledge of the malware
- e. The solution shall utilize a state-full attack analysis to detect the entire infection lifecycle, and trace the stage-by-stage analysis of an advanced attack
- f. The solution shall capture and store packet captures of traffic relevant to the analysis of detected threats
- g. The solution shall have the ability to be on-demand scanning and continuous scanning
- h. The solution must be able to perform a pre-assessment scan of the file server

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- i. The solution shall have the ability to scan and analyse emails to identify malicious attachments or URLs in real-time and quarantine emails with malicious attachments or URLs
- j. The solution shall provide ability to create a quarantine share/folder and move malicious files to that share/folder as well as the ability to create a good share/folder and the ability to move clean files to that share/folder
- k. The solution shall provide visibility into scan histories of each file scanned that are aborted, completed, or in progress
- l. The solution must support typo- squatting attack detection for all sender domain & url domain in email body.
- m. The solution may have capability to identify the payload information of APT including the origination and code information

#### **Web Application Firewall (WAF)**

- a. The solution shall provide specialized application threat protection
- b. The solution shall protect against application-level attacks targeted at web applications, must address application layer attacks from at least but not limited to OWASP Top 10 and SANS Top 25.
- c. The solution shall provide bi-directional protection against sophisticated threats like SQL injection and cross-site scripting
- d. The solution shall monitor and enforce government regulations, industry best practices and internal policies
- e. The solution shall have controls for Anti Web Defacement and provide ability to check the authorized version of the website content
- f. The solution shall prevent attacks such as encoding attacks, buffer overflows, SYN-flood type of attacks and other application specific attacks
- g. The solution shall provide ability to allow or deny a specific URL access
- h. The solution shall able to control BOT traffic and it shall able to block known bad bots and fake search engine requests
- i. The solution shall have the capability to auto-learn security profiles required to protect the environment
- j. The solution shall detect brute force attack against any part of the applications
- k. The solution shall be able to protect Cookie Poisoning and Cookie Tampering
- l. The solution shall have the capability to do vulnerability scan (by default or by integration) shall identify vulnerabilities such as XSS, SQL injection, Source code disclosure, Common web server vulnerabilities etc

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- m. The shall support Role Based Access Control for Management
- n. The shall support two Factor Authentication and SSL transactions
- o. The solution shall have ability to identify and notify solution faults and loss of performance

### **Patch Management**

- a. The solution shall scan the platforms with in the network for missing security patches. The detection shall be automated and will trigger the patch
- b. The solution shall be able to download the Windows/Linux patches as soon as it is available and published by Windows/Linux without any delay /lag to repackage the patch separately such that the Time Window for Vulnerability is least
- c. The solution shall support ability to enforce a “run-in-window” to prevent patching during restricted hours
- d. The patch deadlines shall be enforced independently of the advertise schedule
- e. The solution shall support easy transitions from pilot to production deployment
- f. The solution shall be able to determine patch dependencies prior to deployment of patches to the nodes.
- g. The solution shall rollback and backup restoration facilities shall be available
- h. Patches shall be tested before deployment.
- i. The latest fixes/ updates shall be downloaded to the Patch Management server on the same day that the patch is made available on software vendors” websites.

### **Web Gateway**

- a. The solution shall have ability to share most types of Internet connections effortlessly, allowing multiple users to simultaneously surf the web, retrieve their email, or chat with online messaging, as if they were directly connected to the Internet
- b. The solution shall have ability to handle requests from a wide variety of Web applications and Internet protocols, such as Web browsers, Messaging software, FTP and SSL and shall also support Real Time Streaming Audio/ Video
- c. The solution shall have ability to enforce advanced and flexible access-control and acceptable user policies for IPA
- d. The solution shall have ability to monitor usage in real time, and maintain per-user and per-service audit logs
- e. The solution shall have ability to stop viruses, spam and inappropriate content from entering the network
- f. The solution shall have ability to protect servers from internal or external threats

- g. The solution shall have ability to support user database and policies so that the administrators alike can limit and control users access to the web
- h. The solution shall have ability for logging, auditing, and a real-time activity and history viewer - detailed records of user activities
- i. The solution shall have ability to provide for ways to block/ control access to all executable content
- j. The solution shall have ability to provide granular access control to file downloads through file extension
- k. The solution shall have ability to provide inbound and outbound access control on User-based or group-based access policy
- l. The solution shall have ability to support scheduling priority i.e. Allow to make certain services respond more quickly than others by giving a higher priority to the forwarding of packets related to that service.
- m. The solution shall be capable on compression of static as well as perform on-demand compression of dynamically generated responses before sending them over the network
- n. The solution shall support caching and inspection of traffic which is compressed. It shall do so by decompressing the content, followed by inspection and caching (if required) and shall allow flexibility of sending the decompressed content to the end user. The solution shall also support send the compressed content to the end user.

### **Anti-DDoS**

- a. The solution shall be capable of preventing all type of DDoS attacks which impacts IPA services hosted on Internet.
- b. The solution shall allow protection parameters to be changed while a protection is running. Such change must not cause traffic interruption
- c. The solution shall protect from multiple attack vectors on different layers at the same time with combination of Network, Application and Server side attacks
- d. The solution shall provide protection for Volumetric, Protocol and Application layer based DDoS attacks
- e. The solution shall have an updated threat feed that describes new malicious traffic (botnets, phishing, etc.)
- f. The solution shall be capable to mitigate and detect both inbound and outbound traffic
- g. The solution shall provide real time detection and protection from unknown Network DDOS attacks



- h. The solution shall have mitigation mechanism for protection against zero-day DoS and DDoS attacks without manual intervention
- i. The solution shall be able to detect and block SYN Flood attacks and shall support different mechanism
- j. The solution shall provide zero-day attack protection based on learning baseline/behavioural analysis of normal traffic, zero-day attacks are identified by deviation from normal behaviour
- k. The solution shall protect from Brute Force and dictionary attacks
- l. The solution shall be able to detect and block Zombie Floods
- m. The solution shall be able to detect and block ICMP & DNS Floods
- n. The solution shall detect and mitigate from Low/Slow scanning attacks
- o. The solution shall detect and mitigate from Proxy & volumetric Scanning
- p. The solution shall support dedicated DNS protection from DDoS
- q. The solution shall support suspension of traffic/ blacklisting from offending source based on a signature/attack detection
- r. The solution shall support prevention of malware propagation attacks
- s. The solution shall support prevention of anti-evasion mechanisms

#### **Security Information and Event Management (SIEM)**

- a. The data collected by cloud platform from the infrastructure of IPA shall reside within the territory of India only. No Data in any form shall pass or store outside India
- b. The solution must be cloud based application
- c. Single view of the entire cloud estate with dashboard that provides real-time visibility
- d. Enhanced analytics capability with intuitive business intelligence query interface to help analysts identify relationships between events and system data flows so they can resolve threats quickly
- e. The solution shall provide the collection of events through customization of connectors or parsers or similar integration
- f. The SIEM receiver or log collection component must store the data locally if communication with centralized correlators is unavailable
- g. Dynamic / Static Lists: The platform must allow customers to define either whitelist or blacklists that can be used as inclusion or exemption during the correlation process. Additionally, the correlation engine shall utilize dynamic lists to provide important information such as shared user monitoring, session tracking, attack history and privileged system access

- h. Correlation Tracking: The platform must be able to correlate event data against static lists of items that the customer either allows or doesn't allow on the network (i.e. list of insecure protocols). Additionally, lists shall be automatically populated by the system for tracking things such as attacks, user sessions and other policy violations
- i. The solution shall provide a single pane of glass view for all events and incidents across the organization and shall provide Real Time Analysis and Reporting
- j. The data collected from the receiver shall be forwarded in an encrypted manner to SIEM log storage
- k. The solution shall provide Audit and Operations based report, Native support for Incident management workflow.
- l. The solution shall have a scalable architecture, catering multi-tier support and distributed deployment
- m. The solution shall be able to perform single site & multi-site correlation across the Cloud
- n. The solution shall be capable of retrieving the archived logs for analysis, correlation and reporting and for forensic purposes
- o. The solution shall have the ability of integrating with cloud intelligence system with information from global risks and use the information collected in this system in the correlation of events.
- p. Correlation rules out of the box shall be supported, so as to provide correlation on the fly as relevant to organization
- q. The solution shall have an exhaustive incident tracking system that can track, investigate and resolve events in work-flow like environment
- r. The solution shall allow the creation of unlimited number of new correlation rules, as well as the customization of existing rules
- s. The solution shall be able to collect data from new solution added into the environment, without any disruption to the ongoing data collection
- t. The solution shall provide a formula of threat which shall be customized to allow increasing or decreasing the level of risk
- u. The solution shall be able to facilitate customized dashboard creation, supporting dynamic display of events graphically
- v. The solution shall provide support storage of raw logs for forensic analysis
- w. The solution shall provide support configurable data retention policy based on organization requirement

### **Email Security**

- a. The proposed solution shall support scanning of inbound and outbound messages in real-time for Virus and spam mails
- b. The proposed solution shall support pattern-based scanning and heuristic scanning to detect document exploits
- c. The proposed solution shall stop BEC (business email compromise) using advanced heuristics, BEC scam analysis and domain intelligence to stop URL hijacking and identity spoofing
- d. The proposed solution shall support phishing detection, classification, blocking and Non delivery report protection
- e. The proposed solution shall quarantine of suspicious email
- f. The proposed solution shall support reports on security violations
- g. The proposed solution shall support blocking of phishing attacks with dedicated Web Reputation filter to protect against malicious web links in email
- h. The proposed solution shall have feature of anti-spoofing
- i. The proposed solution shall support active directory / LDAP integration
- j. The proposed solution shall support/report botnet activity originating from local mail servers
- k. The proposed solution shall help in protection against DHA(Directory Harvest attacks)
- l. The proposed solution shall support scanning based on Attachment, message size, message content, spoofed messages, arrival time and based on number of recipients
- m. The proposed solution shall support Scanning internal messages/email in real-time
- n. The proposed solution shall protect mails servers from viruses/malware, Trojans, worms, spyware and malicious URLs
- o. The proposed solution shall support social engineering attack prevention.
- p. The proposed solution shall support scanning based on email reputation and scanning.
- q. The proposed solution shall have capabilities to automatically deliver reports based on schedule to selected recipients

### **Data Loss Prevention (DLP)**

- a. The proposed solution shall help in preventing data leak from mail, network and endpoints
- b. The proposed solution shall be able to identify critical data and categorise it
- c. The proposed solution shall maintain audit logs that track administrator activity
- d. The proposed solution shall provide a very fine grained access control allowing creation of roles with any combination of permissions

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- e. The proposed solution shall be able to make custom policy
- f. The proposed solution shall allow creating policies applicable to individual users or groups.
- g. The same policy shall be applicable for the defined content in all possible locations - data at rest, data in motion and data in use
- h. The proposed solution shall provide identical detection capabilities across all threats covered (e.g., for both network and end point based products, and for both data monitoring and prevention and data discovery and protection)
- i. The proposed solution shall support segregated mechanism to define policy and content definition allowing the same content discovery definition to be used by multiple policies and each policy to act on multiple content discover definition
- j. The proposed solution shall define and implement data security in the life cycle of the data
- k. Regular data backups, with customers being able to audit their basic parameters (scope, save intervals, save times and storage duration)

**Database Activity Monitoring (DAM)**

- a. The solution shall be able to monitor all database activities and provide protection against insiders with privileged access
- b. The solution shall provide granular monitoring of database transactions with real-time alerts and prevention of breaches
- c. The solution shall provide granular monitoring of queries, objects and stored procedures with real-time alerts and prevention of breaches
- d. The solution shall provide flexible rules that allow enforcement of corporate security policy with no “false positive” alerts
- e. The solution shall provide protection of newly discovered and Zero-Day database vulnerabilities, providing immediate protection without the need for patching the database
- f. The solution shall provide multiple user roles that facilitate separation of duties
- g. The solution shall easily monitor Access to sensitive data
- h. The solution shall provide the ability to independently monitor and audit all database activity, including administrator's activity and select transactions
- i. The solution shall have the ability to generate alert on policy violations
- j. The solution shall have the ability to create custom reports and organize on a personalized portal view
- k. The solution shall have the ability to perform audits on a specific user and review all commands executed
- l. The solution shall cover all access to the database

### **Identity and Access Management (IAM)**

- a. The solution shall provide a framework for Access Management that supports service areas and can be extended across IPA systems and applications.
- b. The solution shall support user account administration processes through combination of centralized, delegated and self-service models.
- c. The solution shall support creation, modification, suspension, activation and revocation of user permissions across systems and applications from a single administration interface.
- d. The solution shall support attestation of user access across systems and applications by developing a framework used to support access certification, approvals, reporting and logging.
- e. The solution shall support a business centric approach towards access request and certifications with a role based attestation model.
- f. The solution shall provide a password management framework that supports self-service password management for IPA connected solutions and applications.
- g. The solution shall support synchronization of identity and access permission information from authoritative sources and with managed systems and applications.
- h. The solution shall support the management of privileged ID access to applications and systems by providing centralized, policy-driven, and automated processes. Solution shall provide Single Sign-On solution. It shall be possible to integrate the solution with new application/technologies and to legacy solution/applications.
- i. Directory services shall allow to create user manually as well as automated manner
- j. User ID Management: The solution shall support:
  - i. Self-Registration of Users based on workflow verifying user identity from Backend system such as Database/Directory Service/Web Service etc.
  - ii. User ID Creation/Modification/Deletion: Creation and Modification of Users data manually or automatically based on event and/or workflow or script
  - iii. User ID Lock/Unlock based on event: Locking and Unlocking of Users manually or automatically based on event or workflow
  - iv. Mass Locking / Unlocking users
  - v. Person/System user ID Support: user ids of person and system
  - vi. De-Duplication of user ids: duplicate user-ids shall not be allowed
  - vii. User ID Merging: ability to merge identities in cases where multiple identities are created for a single person

### **Brand Protection and Anti-Phishing Services**

- a. 24x365 proactive monitoring of World Wide Web etc. for phishing, brand abuse, monitoring for customer login domain, webserver referral log monitoring etc.
- b. Daily scanning of all the websites/apps of the customer to detect any type of blacklisted links, suspicious activities etc. Reporting to customer the exact nature and location of the infection for speedy removal of the infection / abnormality.
- c. Proactive monitoring of major mobile app stores and blocking/shutting down of malicious app/trojan used for the IPA.
- d. Gathering the Forensic information such as IP address, exact URL, source of attack, images, screen shots, email, account details, card details, compromised data etc. from the attacks and sharing the same with the customer.
- e. Reporting to customer in line with regulatory requirements about all the attacks and providing detailed information through email & online dashboard.
- f. Monitor all kind of incidents given below: · Phishing: · Pharming· Trojan· Brand Abuse· Compromised Servers· Domains (old / new) like the customer, Rogue Mobile Apps etc.
- g. Support many international languages in which bidder is able to communicate with the fraudsters.
- h. Legal support in the form of communication with CERT/Cyber Crime (with special permission from the customer). Technical support shall be provided on a continuous basis.
- i. Forensics capability shall have the following functionalities:
  - i. Comprehensive analysis
  - ii. Extracting critical data
  - iii. Providing critical information to the customer as per the nature of the incident.
  - iv. Ability to provide data for investigation purposes
- j. Providing advisory services in the form of:
  - i. Advisory for online threats
  - ii. Presentations in a quarter
  - iii. Review calls
  - iv. Intelligence alerts
  - v. High and low-level reports monthly
  - vi. Regular alerts on critical vulnerabilities
  - vii. Articles and white papers
  - viii. Tools and other methods used by the fraudster against the customer

## **Two Factor Authentication**

Two factor access control shall be provided for the initial registration and update of the IPA accounts.

### **Hardware Security Module (HSM)**

- a. The solution shall support Operating Systems including but not limited to Linux, Windows, Solaris, HP-UX, etc
- b. The solution shall be compliant with FIPS 140-2 Level-3 or higher
- c. The solution shall support the standard algorithms as per the CCA Guidelines
- d. The solution shall also support automatic synchronization of keys between HSM Systems
- e. The solution shall share keys between HSMs in different operating locations to enable load sharing and hardware fault tolerance
- f. The remote administration of the HSM solution shall be possible
- g. The solution shall be capable of overall key management (creation, access, archival, destruction)
- h. The solution shall support secured backup of HSM rules and settings

### **Privileged Identity Management (PIM)**

- a. The platform shall have the capability to track privileged identities or privileged account activities distinctively
- b. The platform shall be able to integrate with the proposed enterprise authentication methods – Active Directory, LDAP, RADIUS, TACACS, etc.
- c. The platform shall be able to seamlessly integrate with the existing solution and support all the Operating Systems like Windows, Linux, etc
- d. The platform shall have the capability to track privileged identities or privileged account activities distinctively
- e. The platform shall log all the admin activity and that shall be monitored.
- f. The platform shall automatically archive session recording data to external storage/ media based on time and available space.
- g. The platform shall be scalable in terms of the system administrators, target systems and the concurrent session.
- h. The platform shall be able to perform auto discovery of privileged accounts

## **Annexure 2.5: Response to specific questions asked during the workshop**

### **1. Is this platform cloud native? What module or architecture is it built on micro services or monolithic ?**

It is a monolithic application deployed on Virtual Private cloud, however middleware services ( IBM ESB / API portal ) can be reused for microservices environments

### **2. Cyber security threat prevention and application performance in the current application.**

WAF, Antivirus , DDoS, SIEM and PIM are deployed for cyber security purposes. The Antivirus solutions provides protection across the entire threat lifecycle by combining machine learning, artificial intelligence, behavioural analytics and proactive threat hunting in a single solution - all powered by Threat Graph, the security industry's largest cloud analytics platform

### **3. How is workload management being done in the current platform?**

Load balancers are deployed for workload distribution

### **4. Data governance protocol for PCS 1.x**

Data exchange happens between only registered stakeholders for whom mapping is created and if any legitimate recipient is mentioned in the message's Recipient Parties section of Message exchange method / format is defined per stakeholder i.e. Format : XML / TXT / UNEDIFACT , Distribution Method : SFTP / API

### **5. PaaS/SaaS related mention in the RFP**

The clause mentioned in **Section 8.4.2, Cloud DC and Server Security**: Secure default configuration for the guest operating system using hardened operating systems, disabling unnecessary services, etc. (with PaaS/SaaS only)".

The given point is for security requirement for Cloud DC and servers.



6. SLA Structure of PCS 1.x

Priority Levels	Response Time	Resolution Time
S1 - Critical	15 Mins	2 Hrs
S2- High	30 Mins	8 Hrs
S3 - Medium	60 Mins	16 Hrs
S4 – Low	120 Mins	36 Hrs

**Severity definition**

Severity	Type	Description
Level 1	Critical	A problem which affects large number of users / critical users in their immediate working (e.g. – Network and Security environment)
Level 2	High	A problem which affects an individual user (e.g. – Individual hardware problem, etc.)
Level 3	Medium	Changes in configuration, machines installations, IMAC & other planned activities like restore drills, network equipment maintenance, etc.
Level 4	Low	All one-time activities rose through change requests, which are not urgent.

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## Annexure 2.6: Additional details of PCS 1.x

### 2.6.1 PCS 1.x Audit related logs



<b>Customer Name</b>	Portall Infosystems Pvt. Ltd. (On Behalf Of Indian Ports Association)
<b>Site Name</b>	PCS 1x
<b>Audit Performed by</b>	SecureLayer7 Technologies Private Limited.
<b>Testing Date:</b>	7 <sup>th</sup> August 2020 to 8 <sup>th</sup> September 2020
<b>Issuing Date:</b>	6 <sup>th</sup> October 2020

**Observation:** The above site has undergone security audit and the identified security risks were reported. The content audited were based on the temporary site URL mentioned above.

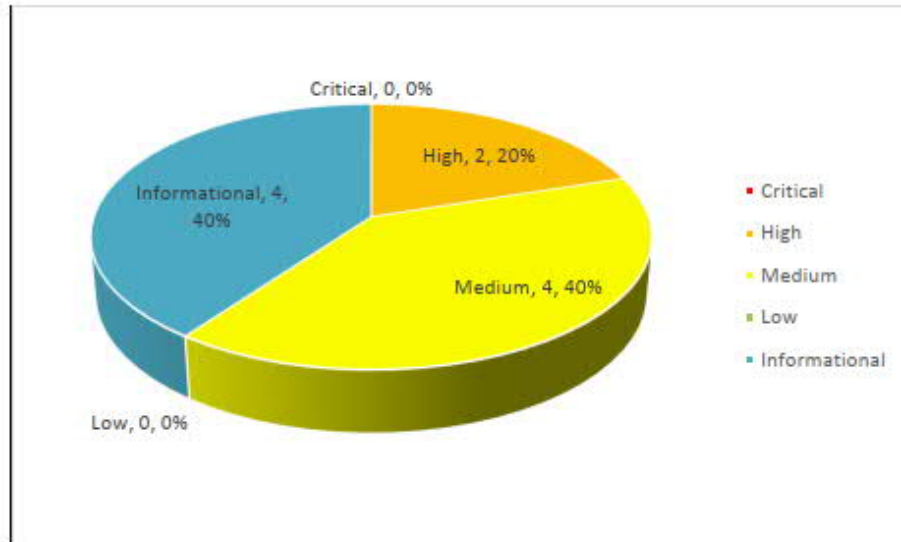
**Conclusion:** We have tested the application for OWASP top 10 vulnerabilities. The found vulnerabilities are fixed and site is free from the found vulnerabilities.

  
Signature with seal  
Sandeep Kamble  
October 6<sup>th</sup>, 2020



Below is the summarized report of the vulnerabilities.

Critical	High	Medium	Low	Informational
0	2	04	0	04



**Vulnerability Distribution with severity**

S. No	Vulnerability	Severity
1	Missing Secure Attribute in Encrypted Session (SSL) Cookie	High
2	Windows File Parameter Alteration	High
3	Autocomplete HTML Attribute Not Disabled for Password Field	Medium
4	Hidden Directory Detected	Medium
5	Missing or insecure "Content-Security-Policy" header	Medium
6	Missing or insecure "X-Content-Type-Options" header	Medium
7	Missing or insecure "X-XSS-Protection" header	Informational
8	Application Error	Informational
9	Integer Overflow	Informational
10	Internal IP Disclosure Pattern Found	Informational

## Vulnerability Details

Vulnerability Severity Level:

<b>Critical</b>	<b>0</b>
<b>High</b>	<b>02</b>
<b>Medium</b>	<b>04</b>
<b>Low</b>	<b>0</b>
<b>Informational</b>	<b>04</b>

### 1. Missing Secure Attribute in Encrypted Session (SSL) Cookie

<b>Vulnerable Systems or App</b>	<a href="https://indianpcs.gov.in/IPA_PCS/">https://indianpcs.gov.in/IPA_PCS/</a> <a href="https://indianpcs.gov.in/IPA_PCS/Login/Captha">https://indianpcs.gov.in/IPA_PCS/Login/Captha</a>
<b>Description</b>	If the HttpOnly attribute is set on a cookie, then the cookie's value cannot be read or set by client-side JavaScript. This measure makes certain client-side attacks, such as cross-site scripting, slightly harder to exploit by preventing them from trivially capturing the cookie's value via an injected script.
<b>Risk</b>	This cookie will be transmitted over a HTTP connection, therefore if this cookie is important (such as a session cookie), an attacker might intercept it and hijack a victim's session. If the attacker can carry out a man-in-the-middle attack, he/she can force the victim to make an HTTP request to steal the cookie.
<b>Evidence</b>	<pre> GET /IPA_PCS/ HTTP/1.1 User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko Connection: keep-alive Host: indianpcs.gov.in Upgrade-Insecure-Requests: 1 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,image/png,*/*;q=0.8 Accept-Language: en-US,en;q=0.9  HTTP/1.1 200 OK X-AspNet-Version: 4.0.30319 x-frame-options: SAMEORIGIN,SAMEORIGIN,SAMEORIGIN Set-Cookie: __RequestVerificationToken=L01QGV9PQIM1=YS1Liz_D0S7q5M9vY1DVS?path=/; expires=Sun, 17 Jun 2017 00:00:00 GMT; HttpOnly Expires: -1 X-Powered-By: ASP.NET X-AspNetMvc-Version: 5.2 Connection: Keep-Alive                 </pre>
<b>Severity</b>	<b>High</b>
<b>Recommendation</b>	<ul style="list-style-type: none"> <li>You should be aware that the restrictions imposed by the HttpOnly flag can potentially be circumvented in some circumstances, and that numerous other serious attacks can be delivered by client-side script injection, aside from simple cookie stealing.</li> <li>You should set the secure HttpOnly flag by including this attribute within the relevant Set-cookie directive and required to add RequiresSSL=true in web config.</li> </ul>
<b>References</b>	<ul style="list-style-type: none"> <li><a href="https://cwe.mitre.org/data/definitions/16.html">https://cwe.mitre.org/data/definitions/16.html</a></li> <li><a href="https://cwe.mitre.org/data/definitions/614.html">https://cwe.mitre.org/data/definitions/614.html</a></li> <li><a href="https://www.owasp.org/index.php/HttpOnly">https://www.owasp.org/index.php/HttpOnly</a></li> </ul>





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	<ul style="list-style-type: none"><li>• Configure the default installation of the server software as per the requirements. The servers should also be maintained and patched with the latest updates.</li></ul>
<b>References</b>	<a href="https://www.checkmarx.com/knowledge/knowledgebase/path-traversal">https://www.checkmarx.com/knowledge/knowledgebase/path-traversal</a> <a href="https://www.imperva.com/learn/application-security/parameter-tampering/">https://www.imperva.com/learn/application-security/parameter-tampering/</a>

### 3. Autocomplete HTML Attribute Not Disabled for Password Field

<b>Vulnerable Systems or App</b>	<a href="https://indianpcs.gov.in/IPA_PCS/">https://indianpcs.gov.in/IPA_PCS/</a>
<b>Description</b>	Most browsers have a facility to remember user credentials that are entered into HTML forms. This function can be configured by the user and also by applications that employ user credentials. If the function is enabled, then credentials entered by the user are stored on their local computer and retrieved by the browser on future visits to the same application.
<b>Risk</b>	If user chooses to save, data entered in these fields will be cached by the browser. An attacker who can access the victim's browser could steal this information. This is especially important if the application is commonly used in shared computers, such as cyber cafes or airport terminals.
<b>Evidence</b>	<pre> &lt;div class="col-md-3 mb-3"&gt; &lt;/div&gt; &lt;div class="col-md-3 mb-3"&gt; &lt;label for="validationTooltip02"&gt;New Password&lt;/label&gt; &lt;input class="form-control" id="newpassword" name="newpassword" type="password" value="" placeholder="Enter New Password" maxlength="15"&gt; &lt;div class="valid-tooltip"&gt; Looks good! &lt;/div&gt; &lt;/div&gt; &lt;div class="col-md-3 mb-3"&gt; &lt;label for="validationTooltip02"&gt;Confirm Password&lt;/label&gt; &lt;input class="form-control" id="confirmpassword" name="confirmpassword" type="password" value="" placeholder="Confirm New Password" maxlength="15"&gt; &lt;div class="valid-tooltip"&gt; Looks good! &lt;/div&gt; &lt;/div&gt; </pre>
<b>Severity</b>	Medium
<b>Recommendation</b>	<ul style="list-style-type: none"> <li>To prevent browsers from storing credentials entered into HTML forms, include the attribute autocomplete="off" within the FORM tag (to protect all form fields) or within the relevant INPUT tags (to protect specific individual fields)</li> </ul>
<b>References</b>	<ul style="list-style-type: none"> <li><a href="https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/autocomplete-is-enabled/">https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/autocomplete-is-enabled/</a></li> <li><a href="https://portswigger.net/kb/issues/00500800_password-field-with-autocomplete-enabled">https://portswigger.net/kb/issues/00500800_password-field-with-autocomplete-enabled</a></li> </ul>



#### 4. Hidden Directory Detected

<b>Vulnerable Systems or App</b>	<a href="https://indianpcs.gov.in/IPA_PCS/assets/">https://indianpcs.gov.in/IPA_PCS/assets/</a> <a href="https://indianpcs.gov.in/IPA_PCS/scripts/">https://indianpcs.gov.in/IPA_PCS/scripts/</a> <a href="https://indianpcs.gov.in/IPA_PCS/js/">https://indianpcs.gov.in/IPA_PCS/js/</a> <a href="https://indianpcs.gov.in/IPA_PCS/uploads/">https://indianpcs.gov.in/IPA_PCS/uploads/</a> <a href="https://indianpcs.gov.in/IPA_PCS/userlog/">https://indianpcs.gov.in/IPA_PCS/userlog/</a> <a href="https://indianpcs.gov.in/IPA_PCS/css/">https://indianpcs.gov.in/IPA_PCS/css/</a> <a href="https://indianpcs.gov.in/IPA_PCS/content/">https://indianpcs.gov.in/IPA_PCS/content/</a>
<b>Description</b>	<p>The web server is configured to display the list of files contained in this directory. This is not recommended because the directory may contain files that are not normally exposed through links on the web site that are accessible to actors outside of the intended control sphere.</p>
<b>Risk</b>	<p>An attacker can exposing the contents of a directory can lead an attacker gaining access to source code or providing useful information for the attacker to devise exploits, such as creation times of files or any information that may be encoded in file names. The directory listing may also compromise private or confidential data.</p>
<b>Evidence</b>	 <pre> GET /IPA_PCS/content/ HTTP/1.1 User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko Referer: https://indianpcs.gov.in/IPA_PCS/ Cookie: RequestVerificationToken_L0lQW90g1M1=CnF09-9dz2Ftr2p7YxB45-y2DY15P7DlQM222kpY811xYq8otC45axz48bzjpb8XrfaAKRyq86XY4AlceF8iL2P90NhtLcWd836s-_iJRo1 Connection: keep-alive Host: indianpcs.gov.in Accept: */* Accept-Language: en-US,en;q=0.9  HTTP/1.1 403 Forbidden Transfer-Encoding: chunked Connection: Keep-Alive Server: Microsoft-IIS/10.0 X-Frame-Options: SAMEORIGIN X-Powered-By: ASP.NET Date: Mon, 02 Aug 2020 12:37:39 GMT Content-Type: text/html     </pre>
<b>Severity</b>	<b>Medium</b>
<b>Recommendation</b>	<ul style="list-style-type: none"> <li>It is recommended to make sure the directory does not contain sensitive information or you may want to restrict directory listings from the web server configuration.</li> </ul>
<b>References</b>	<ul style="list-style-type: none"> <li><a href="https://www.owasp.org/index.php/Top_10_2013-A5-Security_Misconfiguration">https://www.owasp.org/index.php/Top_10_2013-A5-Security_Misconfiguration</a></li> <li><a href="https://www.acunetix.com/blog/web-security-zone/directory-listing-information-disclosure/">https://www.acunetix.com/blog/web-security-zone/directory-listing-information-disclosure/</a></li> </ul>



### 5. Missing or insecure "Content-Security-Policy" header

<p><b>Vulnerable Systems or App</b></p>	<p><a href="https://indianpcs.gov.in/IPA_PCS/Scripts/bootstrap-multiselect.min.js">https://indianpcs.gov.in/IPA_PCS/Scripts/bootstrap-multiselect.min.js</a>  <a href="https://indianpcs.gov.in/IPA_PCS/Scripts/jquery.validate.unobtrusive.min.js">https://indianpcs.gov.in/IPA_PCS/Scripts/jquery.validate.unobtrusive.min.js</a>  <a href="https://indianpcs.gov.in/IPA_PCS/assets/js/SweetAlert.js">https://indianpcs.gov.in/IPA_PCS/assets/js/SweetAlert.js</a>  <a href="https://indianpcs.gov.in/IPA_PCS/Scripts/jquery.validate.min.js">https://indianpcs.gov.in/IPA_PCS/Scripts/jquery.validate.min.js</a>  <a href="https://indianpcs.gov.in/IPA_PCS/Scripts/bootstrap-multiselect.js">https://indianpcs.gov.in/IPA_PCS/Scripts/bootstrap-multiselect.js</a></p>
<p><b>Description</b></p>	<p><b>Content Security Policy (CSP)</b> is an added layer of security that helps to detect and mitigate certain types of attacks, including Cross Site Scripting (XSS) and data injection attacks. These attacks are used for everything from data theft to site defacement to distribution of malware.  CSP is designed to be fully backward compatible. Browsers that don't support it still work with servers that implement it, and vice-versa: browsers that don't support CSP simply ignore it, functioning as usual, defaulting to the standard same-origin policy for web content.</p>
<p><b>Risk</b></p>	<p>It is possible to gather sensitive information about the web applications such as usernames, passwords, machine name and/or sensitive file locations. This is a huge problem, as browsers trust all of the code that shows up on a page as being legitimately part of that page's security origin.</p>
<p><b>Evidence</b></p>	<pre> GET /IPA_PCS/Scripts/bootstrap-multiselect.js HTTP/1.1 User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko Referer: https://indianpcs.gov.in/IPA_PCS/Registration/Index Cookie: ASP.NET_SessionId=ixtex3fqkireovjks46unha; __RequestVerificationToken=L01QW9QQIMl-CnFOS-9dz2Ftr2p7YxB4J-y2Hv15F3qiQWz22kpt811rYq8otC45az268bzjpsrKrfmASHyq8Xv4Alcef8112P9DWhLcRdS38e-_1jWol Connection: keep-alive Host: indianpcs.gov.in Accept: */* Accept-Language: en-US,en;q=0.9  HTTP/1.1 200 OK Last-Modified: Thu, 16 May 2019 11:09:42 GMT Transfer-Encoding: chunked Connection: Keep-Alive Server: Microsoft-IIS/10.0 X-Frame-Options: SAMEORIGIN X-Powered-By: ASP.NET ETag: "01f59dc7bd51:0" Date: Mon, 03 Aug 2020 12:12:04 GMT Content-Type: application/javascript     </pre>
<p><b>Severity</b></p>	<p>Medium</p>
<p><b>Recommendation</b></p>	<p>It's recommended to implement Content Security Policy (CSP) into your web application. Configuring Content Security Policy involves adding the <b>Content-Security-Policy</b> HTTP header to a web page and giving it values to control resources the user agent is allowed to load for that page</p>
<p><b>References</b></p>	<ul style="list-style-type: none"> <li>• <a href="https://www.acunetix.com/vulnerabilities/web/content-security-policy-csp-not-implemented/">https://www.acunetix.com/vulnerabilities/web/content-security-policy-csp-not-implemented/</a></li> <li>• <a href="https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/content-security-policy-csp-not-implemented/">https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/content-security-policy-csp-not-implemented/</a></li> </ul>

### 6. Missing or insecure "X-Content-Type-Options" header

<p><b>Vulnerable Systems or App</b></p>	<p><a href="https://indianpcs.gov.in/IPA_PCS/Scripts/bootstrap-multiselect.min.js">https://indianpcs.gov.in/IPA_PCS/Scripts/bootstrap-multiselect.min.js</a>  <a href="https://indianpcs.gov.in/IPA_PCS/Scripts/jquery.validate.unobtrusive.min.js">https://indianpcs.gov.in/IPA_PCS/Scripts/jquery.validate.unobtrusive.min.js</a>  <a href="https://indianpcs.gov.in/IPA_PCS/assets/js/SweetAlert.js">https://indianpcs.gov.in/IPA_PCS/assets/js/SweetAlert.js</a>  <a href="https://indianpcs.gov.in/IPA_PCS/Scripts/jquery.validate.min.js">https://indianpcs.gov.in/IPA_PCS/Scripts/jquery.validate.min.js</a>  <a href="https://indianpcs.gov.in/IPA_PCS/Scripts/bootstrap-multiselect.js">https://indianpcs.gov.in/IPA_PCS/Scripts/bootstrap-multiselect.js</a></p>
<p><b>Description</b></p>	<p>The X-Content-Type-Options response HTTP header is a marker used by the server to indicate that the MIME types advertised in the Content-Type headers should not be changed and be followed. This is a way to opt out of MIME type sniffing, or, in other words, to say that the MIME types are deliberately configured.</p>
<p><b>Risk</b></p>	<p>If an attacker can carry out XSS (Cross-site Scripting) attack by manipulating the content in a way to be accepted by the web application and rendered as HTML by the browser, it is possible to inject code in e.g. an image file and make the victim execute it by viewing the image.</p>
<p><b>Evidence</b></p>	<pre> GET /IPA_PCS/Scripts/jquery.validate.unobtrusive.min.js HTTP/1.1 User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko Referer: https://indianpcs.gov.in/IPA_PCS/Registration/Index Cookie: ASP.NET_SessionId=ixtez3fqk1rwojkar4bunhar __RequestVerificationToken=L01QQV9QQ1M1-CnPU9-9dz2Fz2p7Ys84J- Y20V15FJQ1QNH22kgY811sYg8otC45asz6SbzjpsRrfsA8Myq8MY4AlceFE1L2PDMzhLcBd338e_ljWol Connection: keep-alive Host: indianpcs.gov.in Accept: /* Accept-Language: en-US,en;q=0.9  HTTP/1.1 200 OK Last-Modified: Thu, 24 May 2018 09:02:16 GMT Transfer-Encoding: chunked Connection: Keep-Alive Server: Microsoft-IIS/10.0 X-Frame-Options: SAMEORIGIN X-Powered-By: ASP.NET ETag: "05c81e93df3d31:0" Date: Mon, 03 Aug 2020 12:12:04 GMT Content-Type: application/javascript                 </pre>
<p><b>Severity</b></p>	<p>Medium</p>
<p><b>Recommendation</b></p>	<ul style="list-style-type: none"> <li>When serving resources, make sure you send the content-type header to appropriately match the type of the resource being served. For example, if you are serving an HTML page, you should send the HTTP header:  <b>Content-Type: text/html</b></li> <li>Add the X-Content-Type-Options header with a value of "nosniff" to inform the browser to trust what the site has sent is the appropriate content-type, and to not attempt "sniffing" the real content-type.  <b>X-Content-Type-Options: nosniff</b></li> </ul>
<p><b>References</b></p>	<ul style="list-style-type: none"> <li><a href="https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/missing-content-type-header/">https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/missing-content-type-header/</a></li> <li><a href="https://owasp.org/www-project-secure-headers/#xcto">https://owasp.org/www-project-secure-headers/#xcto</a></li> </ul>



### 7. Missing or insecure "X-XSS-Protection" header

<b>Vulnerable Systems or App</b>	<a href="https://indianpcs.gov.in/IPA_PCS/Scripts/bootstrap-multiselect.min.js">https://indianpcs.gov.in/IPA_PCS/Scripts/bootstrap-multiselect.min.js</a> <a href="https://indianpcs.gov.in/IPA_PCS/Scripts/jquery.validate.unobtrusive.min.js">https://indianpcs.gov.in/IPA_PCS/Scripts/jquery.validate.unobtrusive.min.js</a> <a href="https://indianpcs.gov.in/IPA_PCS/assets/js/SweetAlert.js">https://indianpcs.gov.in/IPA_PCS/assets/js/SweetAlert.js</a> <a href="https://indianpcs.gov.in/IPA_PCS/Scripts/jquery.validate.min.js">https://indianpcs.gov.in/IPA_PCS/Scripts/jquery.validate.min.js</a> <a href="https://indianpcs.gov.in/IPA_PCS/Scripts/bootstrap-multiselect.js">https://indianpcs.gov.in/IPA_PCS/Scripts/bootstrap-multiselect.js</a>
<b>Description</b>	<p>The HTTP X-XSS-Protection response header is a feature of Internet Explorer, Chrome and Safari that stops pages from loading when they detect reflected cross-site scripting (XSS) attacks. Although these protections are largely unnecessary in modern browsers when sites implement a strong Content-Security-Policy that disables the use of inline JavaScript ('unsafe-inline'), they can still provide protections for users of older web browsers that don't yet support CSP.</p>
<b>Risk</b>	<p>It is possible to gather sensitive information about the web applications such as usernames, passwords, machine name and/or sensitive file locations.  This issue is reported as additional information only. There is no direct impact arising from this issue.</p>
<b>Evidence</b>	<pre> GET /IPA_PCS/Scripts/jquery.validate.unobtrusive.min.js HTTP/1.1 User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko Referer: https://indianpcs.gov.in/IPA_PCS/Registration/Index Cookie: ASP.NET_SessionId=xates3f9kicoojkar4bunha; __RequestVerificationToken=L01QV9QQIMl=CnF09-9ds2Ptc2p7Yx84J- y2bv15ruqIGHz2Rapt8itirYqGotC45az26Sbzjp8:trZaAZBq5MGT4Alcefsil2P9ORzhLcnd33e-_lJhul Connection: keep-alive Host: indianpcs.gov.in Accept: */* Accept-Language: en-US,en;q=0.9  HTTP/1.1 200 OK Last-Modified: Thu, 24 May 2018 09:02:16 GMT Transfer-Encoding: chunked Connection: Keep-Alive Server: Microsoft-IIS/10.0 X-Frame-Options: SAMEORIGIN X-Powered-By: ASP.NET ETag: "05c81e93df3d31:0" Date: Mon, 03 Aug 2020 12:12:04 GMT Content-Type: application/javascript </pre>
<b>Severity</b>	<b>Informational</b>
<b>Recommendation</b>	<p>Add the X-XSS-Protection header with a value of "1; mode=block".</p>
<b>References</b>	<ul style="list-style-type: none"> <li>• <a href="https://owasp.org/www-project-secure-headers/">https://owasp.org/www-project-secure-headers/</a></li> <li>• <a href="https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/X-XSS-Protection">https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/X-XSS-Protection</a></li> <li>• <a href="https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/disabled-x-xss-protection-header/">https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/disabled-x-xss-protection-header/</a></li> </ul>

## 8. Application Error

<p><b>Vulnerable Systems or App</b></p>	<p><a href="https://indianpcs.gov.in/IPA_PCS/Scripts/bootstrap-multiselect.min.js">https://indianpcs.gov.in/IPA_PCS/Scripts/bootstrap-multiselect.min.js</a>  <a href="https://indianpcs.gov.in/IPA_PCS/Scripts/jquery.validate.unobtrusive.min.js">https://indianpcs.gov.in/IPA_PCS/Scripts/jquery.validate.unobtrusive.min.js</a>  <a href="https://indianpcs.gov.in/IPA_PCS/assets/js/SweetAlert.js">https://indianpcs.gov.in/IPA_PCS/assets/js/SweetAlert.js</a>  <a href="https://indianpcs.gov.in/IPA_PCS/Scripts/jquery.validate.min.js">https://indianpcs.gov.in/IPA_PCS/Scripts/jquery.validate.min.js</a>  <a href="https://indianpcs.gov.in/IPA_PCS/Scripts/bootstrap-multiselect.js">https://indianpcs.gov.in/IPA_PCS/Scripts/bootstrap-multiselect.js</a></p>
<p><b>Description</b></p>	<p>Application error or warning messages may expose sensitive information about an application's internal workings to an attacker.  An error or warning message that may disclose sensitive information.</p>
<p><b>Risk</b></p>	<p>It is possible to gather sensitive debugging information. The message may also contain the location of the file that produced an unhandled exception</p>
<p><b>Evidence</b></p>	<pre> GET /IPA_PCS/Registration/DownloadFile?FileName=20200609081000001002 HTTP/1.1 User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko Referer: https://indianpcs.gov.in/IPA_PCS/Registration/TradeTable Cookie: ASP.NET_SessionId=ixtax3fgki9ecvjks24bunha; __RequestVerificationToken=L01GUv9Q2IMl=CnPD9-3ds2Fpx2p7Ya84J- y27Y15P-JG1QMSZ2AgpT81LrYg8oc45az243ba;jsip8KrfA8Hvg80C74Aicef81L2P50Hsh1c8d538e-1JWol Connection: keep-alive Host: indianpcs.gov.in Upgrade-Insecure-Requests: 1 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,image/apng,*/*;q=0.8 Accept-Language: en-US,en;q=0.9  HTTP/1.1 500 Internal Server Error X-AspNet-Version: 4.0.30319 x-frame-options: SAMEORIGIN,SAMEORIGIN Expires: -1 X-Powered-By: ASP.NET X-AspNetMvc-Version: 3.2 Connection: Keep-Alive Date: Mon, 03 Aug 2020 12:17:52 GMT Content-Type: text/html; charset=utf-8 Pragma: no-cache Cache-Control: no-cache, no-store Transfer-Encoding: chunked </pre>
<p><b>Severity</b></p>	<p><b>Informational</b></p>
<p><b>Recommendation</b></p>	<p>Verify that this page is disclosing error or warning messages and properly configure the application to log errors to a file instead of displaying the error to the user.  Also set custom errors instead of the Application errors.</p>
<p><b>References</b></p>	<p><a href="https://www.acunetix.com/vulnerabilities/web/application-error-message/#:~:text=Application%20error%20or%20warning%20messages,that%20produced%20an%20unhandled%20exception.">https://www.acunetix.com/vulnerabilities/web/application-error-message/#:~:text=Application%20error%20or%20warning%20messages,that%20produced%20an%20unhandled%20exception.</a>  <a href="https://www.veracode.com/security/error-handling">https://www.veracode.com/security/error-handling</a></p>



## 9. Integer overflow

<b>Vulnerable Systems or App</b>	<a href="https://indianpcs.gov.in/IPA_PCS/Registration/DownloadFile">https://indianpcs.gov.in/IPA_PCS/Registration/DownloadFile</a>
<b>Description</b>	An integer overflow occurs when you attempt to store inside an integer variable a value that is larger than the maximum value the variable can hold.
<b>Risk</b>	<ul style="list-style-type: none"> <li>• If an integer overflow happens when you calculate the length of a buffer, you may end up with a buffer overflow. A buffer overflow lets the attacker gain shell access and attempt further privilege escalation.</li> <li>• If an integer overflow happens during financial calculations, it may, for example, result in the customer receiving credit instead of paying for a purchase or may cause a negative account balance to become positive</li> </ul>
<b>Evidence</b>	<pre> GET /IPA_PCS/Registration/DownloadFile?T=aa&amp;ID=5000000000000000 HTTP/1.1 User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko Referer: https://indianpcs.gov.in/IPA_PCS/Registration/TideTable Cookie: ASP.NET_SessionId=latek3f9kireovjks24hnbaj     RequestVerificationToken=LO1QUV9QIM1cnp09-9dz2Ftr2p7Vx84J- y2DV15FJQ1QHE22KqV9L1icqCcc44szs46bjp8r3r2nAKWq9MKV4AlceF1L2P9MchLcWd33Se-_iJhcl Connection: keep-alive Host: indianpcs.gov.in Upgrade-Insecure-Requests: 1 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,image/apng,*/*;q=0.8 Accept-Language: en-US,en;q=0.9  HTTP/1.1 500 Internal Server Error X-AspNet-Version: 4.0.30319 x-frame-options: SAMEORIGIN,SAMEORIGIN Expires: -1 X-Powered-By: ASP.NET X-AspNetMvc-Version: 3.2 Connection: Keep-Alive Date: Mon, 03 Aug 2020 12:17:52 GMT Content-Type: text/html; charset=utf-8 Pragma: no-cache Cache-Control: no-cache, no-store Transfer-Encoding: chunked </pre>
<b>Severity</b>	Informational
<b>Recommendation</b>	<p>First, choose an integer type used for a variable that is consistent with the functions to be performed. In some cases, one can avoid an integer overflow by choosing an integer type that can hold all possible values of a calculation. In all cases, the proper integer type reduces the need for integer type casting, a major source of defects.</p> <p>Second, the operands of an integer operation and/or the result of it should be checked for overflow conditions.</p>
<b>References</b>	<ul style="list-style-type: none"> <li>• <a href="http://projects.webappsec.org/w/page/13246946/Integer%20Overflows">http://projects.webappsec.org/w/page/13246946/Integer%20Overflows</a></li> <li>• <a href="https://www.acunetix.com/blog/web-security-zone/what-is-integer-overflow/">https://www.acunetix.com/blog/web-security-zone/what-is-integer-overflow/</a></li> </ul>

### 10. Internal IP Disclosure Pattern Found

<b>Vulnerable Systems or App</b>	<a href="https://indianpcs.gov.in/IPA_PCS/Registration/DownloadFile">https://indianpcs.gov.in/IPA_PCS/Registration/DownloadFile</a>
<b>Description</b>	A string matching an internal IPv4 address was found on this page. This may disclose information about the IP addressing scheme of the internal network. This information can be used to conduct further attacks.
<b>Risk</b>	This information can help an attacker identify other vulnerabilities or help during the exploitation of other identified vulnerabilities.
<b>Evidence</b>	<pre> *UpFIVTC": null, *UpFIADB": null, *UpFIASH": null, *UpFICMC": null, *UpFIFAL": null, *UpFIOL": null, *existPen": null, *existTransactionID": null, *Status": null, *FILE_PATH": *\\10.20.4.123\ipadocs\IPA_PCS\Upload\YideTable\2020060981081000_KANOLA.pdf", *VerifyOTP": null, *ContactList": null, *PdAcNo": null, *PdAcType": null, *PdAcUserId": null, *PdAcCode": "INIXY1", *PdAccountList": null, *UserID": null, *PdAccountNumber": null, *PdAccountType": null, *CHACode": null, *CPACode": null, *EmpyCode": null, *ICCCode": null, *TerminalCode": null, *BranchList": null, *oldCHACode": null, *oldCPACode": null, *oldICCCode": null, *oldTerminalCode": null, *FILE_NAME": "KANOLA.pdf" </pre>
<b>Severity</b>	Informational
<b>Recommendation</b>	Prevent this information from being displayed to the user.
<b>References</b>	<ul style="list-style-type: none"> <li>• <a href="https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/internal-ip-address-disclosure/">https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/internal-ip-address-disclosure/</a></li> <li>• <a href="https://www.acunetix.com/vulnerabilities/web/possible-internal-ip-address-disclosure/">https://www.acunetix.com/vulnerabilities/web/possible-internal-ip-address-disclosure/</a></li> </ul>

Design, development, integration, implementation, operation and maintenance of National Logistics Portal (Marine)

2.6.2 **Additional Technology Stack information**

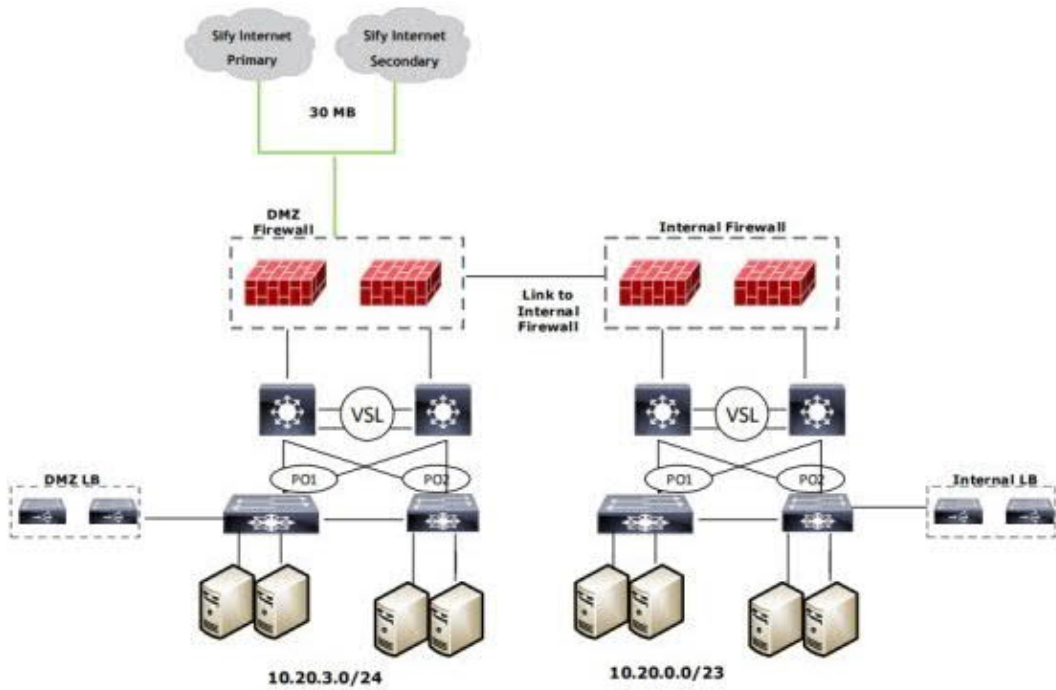
PCS Technology Stack

**PCS 1.x Software Technology Stack**

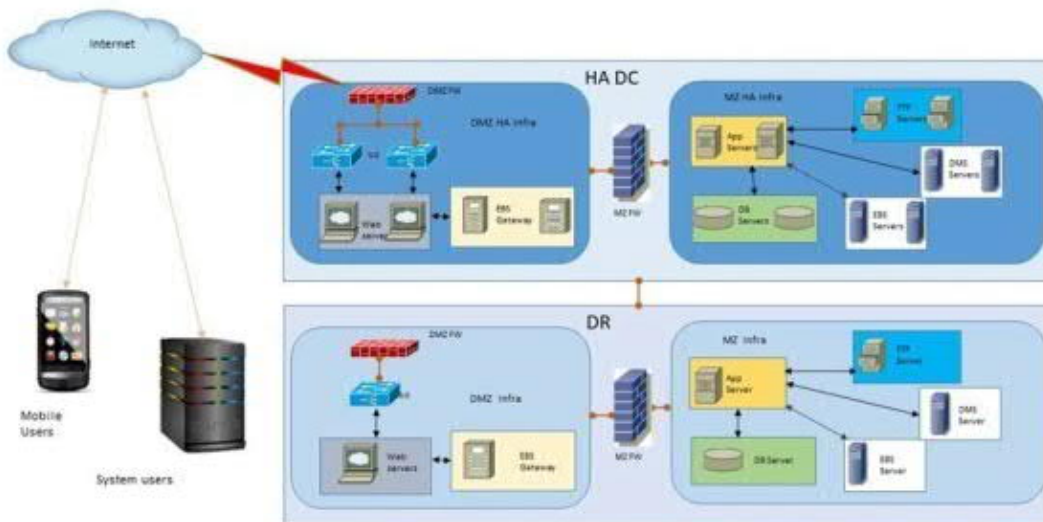
Technical Component	Description	Proposed Stack
Form Management System	A Forms Framework that governs how forms for a system should be developed.	.NET Framework 4.5 / DLL / DHTMLX / Java Scripts.
Application Framework	To standardize coding practices	.NET Framework 4.5 with Entity Framework for data management / Microsoft Core Technology
Database	To store all OLTP data	MS-SQL Enterprise Edition 2017
Reporting	To provide Management with reporting information	Based on plain HTML forms with MS-SQL Components.
Analytics / BI	To provide Management with strategic information	High Charts with MS-SQL Components ( <a href="https://www.highcharts.com">https://www.highcharts.com</a> )
Messaging System	To provide message store and forward capabilities	IBM ESB & MQ
Enterprise Search	To index and search information in both structure and unstructured forms	IBM Caching
Format Translator	To translate message/content formats from one form to another	IBM ESB
Message Routing	To route messages/contents from one endpoint (and technology) to another endpoint (and technology)	IBM ESB
ANA – <b>Authorization &amp; Authentication Component</b>	To authorised and authenticate the user who would be registered on to the portal	.NET Framework 4.5
Portal Framework – PFK	For UI header and footer generation tightly coupled with application session creation.	.NET Framework 4.5 & CSS
COMMS – <b>Email Utility</b>	Email utility to send email one to one or mass email	IBM ESB & SMTP Gateway
Events	To communicate between one end to other end using IBM queue	IBM MQ



Tech Arch PCS 1.x



DCDR Architecture: PCS 1x

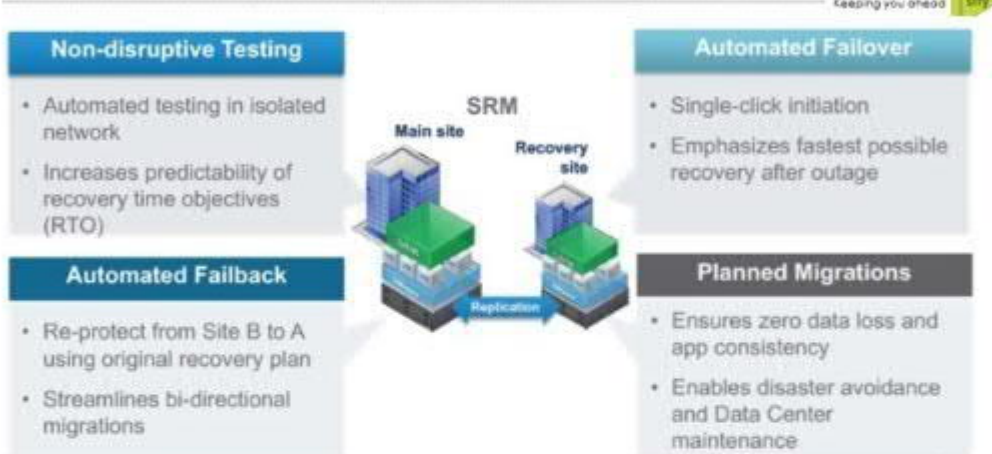




2.6.3 Additional BCP-DR information

BCP DR

AUTOMATED DR WORKFLOWS



Replication Status

Port02IPA-W11464	OK	airdvc.goinfinit.sify...	BLR-PORTALL-VR
Port02IPA-A11467	OK	airdvc.goinfinit.sify...	BLR-PORTALL-VR
IPAFTP1-NEW	OK	BLRCLDV...	VPI-BLRCLDVR01
Port02IBMII11483	OK	BLRCLDV...	VPI-BLRCLDVR01
Port02IPA-N11478	OK	BLRCLDV...	VPI-BLRCLDVR01

## PCS Backup Procedure

### 1. PCS 1x Backup procedures:

PCS 1x SI will perform backup and restore management in accordance with mutually agreed to backup and restore policies and procedures, including performance of daily, weekly, monthly quarterly and annual backup functions (full volume and incremental) for data and software maintained on Servers and storage systems including interfacing with customer's specified backup media storage facilities;

1. Backup and restore of data in accordance to defined process / procedure.
  2. 24 x 7 support for file & volume restoration requests
  4. Performance analysis of infrastructure and rework of backup schedule for optimum utilization.
  5. Generation and publishing of backup reports periodically.
  6. Maintaining inventory of onsite tapes.
  7. Forecasting tape requirements for backup.
  8. Ensuring failed backups are restarted and completed successfully within the backup cycle.
  10. Real-time monitoring, log maintenance and reporting of backup status on a regular basis.
  11. Management of storage environment to maintain performance at optimum levels.
  12. Periodic Restoration Testing of the Backup once a quarter.
  13. Periodic Browsing of the Backup Media.
  14. Interacting with Process Owners in maintaining Backup & Restoration Policies / Procedures.
  15. To provide MIS reports as per agreement
- 1.1. Application Back Up:
- 1.1.1.1. Files, applications including databases to be backed up (SECRET, CRITICAL and CONFIDENTIAL)

- 1.1.1.2. Apart from the above-mentioned point, information assets in hard format such as, but not restricted to vendor agreements, paper licenses and any other documents not necessarily in CRITICAL or SECRET or CONFIDENTIAL category, but which are required from an availability perspective; shall be digitized with smart search for ease of reference and retrieval of information, and stored on either a portal with restricted access or a server with folder level protection.
- 1.1.1.3. IT (backup) Administrator assigned and authentication details.
- 1.1.1.4. Inventory of backup media including the location of their storage and contents.
- 1.1.1.5. Record of blank (unused), discarded and destroyed media in a manner that complete history of media usage is available.
- 1.1.1.6. The request shall be sent to the HOD who shall assign the backup activity to the IT Team member.
- 1.1.1.7. Any changes done to system, which affects regular backup, shall be intimated to IT team backup initiator.
- 1.1.1.8. A suitable platform shall be deployed for backing up application configuration, OS, databases which also offers DR in the box capability.

## 1.2. Server Backups:

- 1.2.1.1. A tool-based approach shall be deployed while backing up data from servers. This shall be scheduled based on the work schedule.

- 1.2.1.2. Backup Scheduling shall be related to business risk, frequency with which data and software is changed and the criticality of the system to business operations.
- 1.2.1.3. Based on criticality a full image back up shall also be taken using tools which provide DR in a Box features.
- 1.2.1.4. Systems software, application software, data, different logs and documentation shall be backed up on a regular basis, in accordance with back-up schedule as defined below.
- 1.2.1.5. As a minimum standard for SECRET or CRITICAL or CONFIDENTIAL Servers:
  - 1.2.1.5.1. Full daily back-up of data will be done as per business requirement.
  - 1.2.1.5.2. Full weekly back-ups of all application data including its configuration are taken.
  - 1.2.1.5.3. Full monthly back-ups of all data, including operating system configuration files.
  - 1.2.1.5.4. Consolidated backup shall be taken monthly for archival. Such archives shall be stored for a year or as per business need.
  - 1.2.1.5.5. Yearly backup of all consolidated monthly tapes/media shall be taken and archived.
  - 1.2.1.5.6. Time frame for the archival will be as per the regulatory and business requirements.
- 1.2.1.6. As a minimum standard for rest of the servers:

- 1.2.1.6.1. Full monthly back-ups of all data, including operating system configuration files and applications.
- 1.2.1.6.2. Quarterly full backup, six monthly full backup and yearly full backup shall be done.
- 1.2.2. Configuration back-up of Routers, Switch, and Firewalls to be taken on monthly basis, the configuration details history to be maintained and stored on a storage system with restricted access.

### 1.3. Ad-hoc Backups:

- 1.3.1.1. Backup of the complete operating system, including all applications and data shall be taken before and after any significant changes that may affect the operating system, system or application software. The changes may be the result of a system upgrade, a planned power outage or any other event that may put the system and data at risk.
- 1.3.1.2. All ad-hoc backup shall be initiated by the data owner, who shall send a formal request for backup of the same.
- 1.3.1.3. Based on the retention period specified in the backup request form and the classification level, the media shall be stored, erased or destroyed.

### 1.4. Second Copy

- 1.4.1. Based on the policy the backup copies are copied to Secondary storage.

# Backup status report

(Total 2458 Backup Jobs Successfully Completed in the Month of Sep-2020)

## Backup job summary

Oct 27, 2020 06:09 PM

Backup job summary report

Server groups : Server groups

Servers : Servers

Agents : All

Subclients : All

Job status : Completed

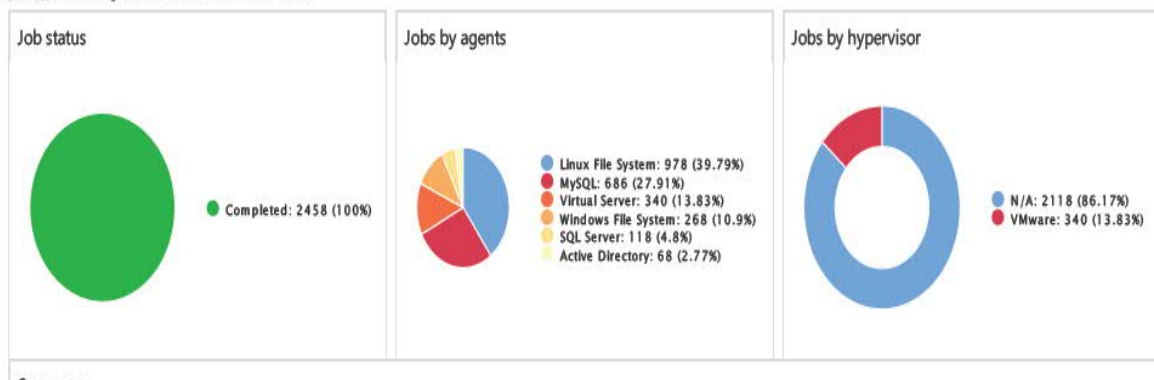
Job Types : All

Time Frame : Sep 1, 2020 12:00:00 AM Sep 30, 2020 11:59:00 PM

Time zone : CommServ

Day Start Time : 12:00 AM

Advanced : Include Aged Jobs, Include Media Deleted Jobs



## Backup Snaps

Copy	Copy Type	Status	Default ...	MediaA...	Default ...	Scratch ...	Retain
Dash_Copy_FS	Selective	<input checked="" type="checkbox"/>	BLRBKPN...	birma2	N/A	N/A	30 days

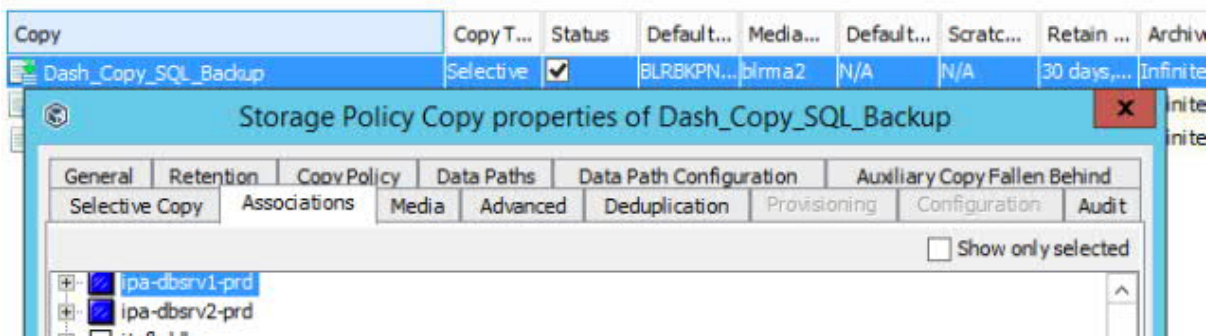
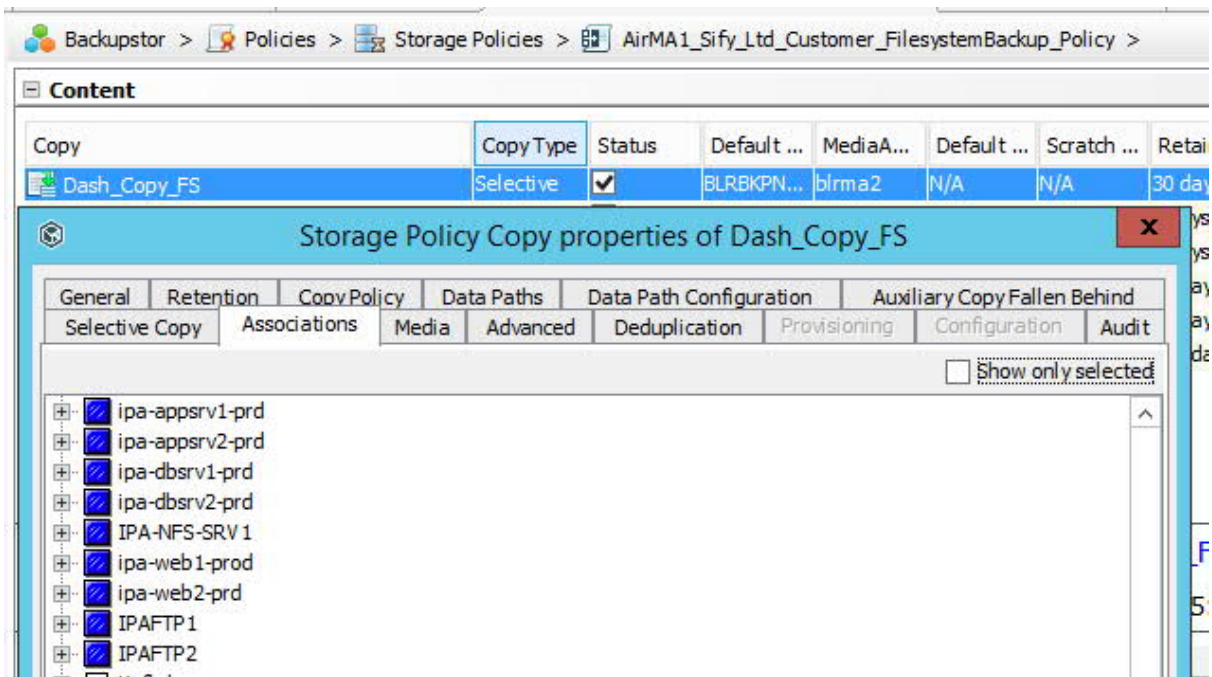
**Storage Policy Copy properties of Dash\_Copy\_FS**

General	Retention	Copy Policy	Data Paths	Data Path Configuration	Auxiliary Copy Fallen Behind
Selective Copy	Associations	Media	Advanced	Deduplication	Provisioning
					Configuration
					Audit

Show only selected

- IBMIIBESB-1
- IBMIIBESB-2

Design, development, integration, implementation, operation and maintenance of National Logistics Portal (Marine)



2.6.4 Helpdesk information and Incident Report

PCS 1x Help desk SLA report April & May 2020

Parameter - April	Baseline		SLA achieved
	Metric	Service level agreed	
Time taken for sending email response & ticket assignment from the time of registering of request.	<=8 hrs	95%	99.24%
Must be achieved within agreed timeline for resolution for at least 95% of the cases in a month	<=3 day	95%	99.49%
Resolution for High incident	<=4 hours	95%	100%
Resolution for medium level incident	<=8 hours	95%	100%
Resolution for Low level incident	<= 3 day	95%	NA
Parameter - May	Baseline		SLA achieved
	Metric	Service level agreed	
Time taken for sending email response & ticket assignment from the time of registering of request.	<=8 hrs	95%	99.45%
Must be achieved within agreed timeline for resolution for at least 95% of the cases in a month	<=3 day	95%	99.72%
Resolution for High incident	<=4 hours	95%	100%
Resolution for medium level incident	<=8 hours	95%	100%
Resolution for Low level incident	<= 3 day	95%	NA



### PCS 1x Help desk SLA report June & July 2020

Parameter - June	Baseline		SLA achieved
	Metric	Service level agreed	
Time taken for sending email response & ticket assignment from the time of registering of request.	<=8 hrs	95%	100%
Must be achieved within agreed timeline for resolution for at least 95% of the cases in a month	<=3 day	95%	100%
Resolution for High incident	<=4 hours	95%	100%
Resolution for medium level incident	<=8 hours	95%	100%
Resolution for Low level incident	<= 3 day	95%	NA

Parameter - July	Baseline		SLA achieved
	Metric	Service level agreed	
Time taken for sending email response & ticket assignment from the time of registering of request.	<=8 hrs	95%	99.51%
Must be achieved within agreed timeline for resolution for at least 95% of the cases in a month	<=3 day	95%	99.51%
Resolution for High incident	<=4 hours	95%	100%
Resolution for medium level incident	<=8 hours	95%	100%
Resolution for Low level incident	<= 3 day	95%	NA

### PCS 1x Help desk SLA report August & September 2020

Parameter - August	Baseline		SLA achieved
	Metric	Service level agreed	
Time taken for sending email response & ticket assignment from the time of registering of request.	<=8 hrs	95%	99.55%
Must be achieved within agreed timeline for resolution for at least 95% of the cases in a month	<=3 day	95%	99.77%
Resolution for High incident	<=4 hours	95%	100%
Resolution for medium level incident	<=8 hours	95%	100%
Resolution for Low level incident	<= 3 day	95%	NA

Parameter -September	Baseline		SLA achieved
	Metric	Service level agreed	
Time taken for sending email response & ticket assignment from the time of registering of request.	<=8 hrs	95%	99.59%
Must be achieved within agreed timeline for resolution for at least 95% of the cases in a month	<=3 day	95%	99.79%
Resolution for High incident	<=4 hours	95%	100%
Resolution for medium level incident	<=8 hours	95%	100%
Resolution for Low level incident	<= 3 day	95%	NA

### PCS 1x Infra Uptime and Managed Services report April – September 2020

SLA	Infra Availability	Managed Services
<b>KPI Target</b>	<b>99.9</b>	<b>95</b>
April -20	99.9	97
May -20	99.9	95
June -20	99.9	97
July -20	100	96
Aug -20	100	96
Sep -20	99.8	95

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2.6.5 SMS logs

Date	Trans Messages Sent	Trans SMS Sent	Promo Messages Sent	Promo SMS Sent	Total Messages Sent	Total SMS Sent
01-05-2020	955	956	531	531	1,486	1,487
02-05-2020	1,151	1,167	558	558	1,709	1,725
03-05-2020	652	652	460	460	1,112	1,112
04-05-2020	1,054	1,064	434	436	1,488	1,500
05-05-2020	1,205	1,211	539	540	1,744	1,751
06-05-2020	1,379	1,385	629	629	2,008	2,014
07-05-2020	1,260	1,264	652	652	1,912	1,916
08-05-2020	1,558	1,569	630	630	2,188	2,199
09-05-2020	1,198	1,207	548	548	1,746	1,755
10-05-2020	739	749	431	431	1,170	1,180
11-05-2020	985	991	589	589	1,574	1,580
12-05-2020	1,457	1,475	873	873	2,330	2,348
13-05-2020	1,299	1,309	583	583	1,882	1,892
14-05-2020	1,540	1,548	575	575	2,115	2,123
15-05-2020	1,235	1,243	664	665	1,899	1,908
16-05-2020	1,125	1,135	610	610	1,735	1,745
17-05-2020	782	784	378	378	1,160	1,162
18-05-2020	1,213	1,226	483	484	1,696	1,710
19-05-2020	1,219	1,231	609	610	1,828	1,841
20-05-2020	736	743	374	374	1,110	1,117
21-05-2020	557	561	172	172	729	733
22-05-2020	990	1,006	384	384	1,374	1,390
23-05-2020	881	882	465	466	1,346	1,348
24-05-2020	604	608	226	226	830	834
25-05-2020	1,063	1,073	291	291	1,354	1,364
26-05-2020	1,661	1,686	413	413	2,074	2,099
27-05-2020	1,268	1,279	469	469	1,737	1,748
28-05-2020	1,300	1,311	542	542	1,842	1,853
29-05-2020	1,903	1,915	669	669	2,572	2,584
30-05-2020	2,332	2,337	630	630	2,962	2,967
31-05-2020	1,402	1,406	494	494	1,896	1,900
Å	36,703	36,973	15,905	15,912	52,608	52,885

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Date	Trans Messages Sent	Trans SMS Sent	Promo Messages Sent	Promo SMS Sent	Total Messages Sent	Total SMS Sent
01-06-2020	2,331	2,345	465	465	2,796	2,810
02-06-2020	1,287	1,297	634	634	1,921	1,931
03-06-2020	1,559	1,571	578	578	2,137	2,149
04-06-2020	1,371	1,381	526	526	1,897	1,907
05-06-2020	1,242	1,251	561	561	1,803	1,812
06-06-2020	1,551	1,563	615	615	2,166	2,178
07-06-2020	480	480	254	254	734	734
08-06-2020	1,074	1,086	403	403	1,477	1,489
09-06-2020	1,081	1,093	584	584	1,665	1,677
10-06-2020	1,044	1,060	499	499	1,543	1,559
11-06-2020	1,443	1,454	468	468	1,911	1,922
12-06-2020	1,531	1,545	738	738	2,269	2,283
13-06-2020	973	981	397	397	1,370	1,378
14-06-2020	258	261	156	156	414	417
15-06-2020	1,343	1,349	500	500	1,843	1,849
16-06-2020	1,189	1,207	596	596	1,785	1,803
17-06-2020	1,411	1,414	605	605	2,016	2,019
18-06-2020	1,642	1,647	708	708	2,350	2,355
19-06-2020	1,377	1,392	2,889	2,889	4,266	4,281
20-06-2020	1,434	1,442	746	746	2,180	2,188
21-06-2020	464	464	266	266	730	730
22-06-2020	1,082	1,087	449	449	1,531	1,536
23-06-2020	1,341	1,350	701	701	2,042	2,051
24-06-2020	1,530	1,537	524	524	2,054	2,061
25-06-2020	1,480	1,485	751	751	2,231	2,236
26-06-2020	1,261	1,264	739	739	2,000	2,003
27-06-2020	1,437	1,440	599	599	2,036	2,039
28-06-2020	1,178	1,180	393	393	1,571	1,573
29-06-2020	1,408	1,437	443	443	1,851	1,880
30-06-2020	1,021	1,032	469	469	1,490	1,501
Å	37,823	38,095	18,256	18,256	56,079	56,351

Design, development, integration, implementation, operation and maintenance of National Logistics Portal (Marine)

Date	Trans Messages Sent	Trans SMS Sent	Promo Messages Sent	Promo SMS Sent	Total Messages Sent	Total SMS Sent
01-07-2020	1,398	1,410	494	494	1,892	1,904
02-07-2020	1,405	1,414	613	613	2,018	2,027
03-07-2020	1,818	1,829	736	736	2,554	2,565
04-07-2020	1,346	1,352	734	734	2,080	2,086
05-07-2020	861	861	248	248	1,109	1,109
06-07-2020	1,188	1,199	488	488	1,676	1,687
07-07-2020	1,243	1,247	576	576	1,819	1,823
08-07-2020	1,550	1,565	658	658	2,208	2,223
09-07-2020	1,698	1,717	835	835	2,533	2,552
10-07-2020	2,116	2,129	872	872	2,988	3,001
11-07-2020	1,252	1,261	598	598	1,850	1,859
12-07-2020	723	727	312	312	1,035	1,039
13-07-2020	1,319	1,332	456	456	1,775	1,788
14-07-2020	1,526	1,537	770	770	2,296	2,307
15-07-2020	1,362	1,371	586	586	1,948	1,957
16-07-2020	1,592	1,600	672	672	2,264	2,272
17-07-2020	2,280	2,291	752	752	3,032	3,043
18-07-2020	2,308	2,328	973	973	3,281	3,301
19-07-2020	1,183	1,185	531	531	1,714	1,716
20-07-2020	1,335	1,340	529	529	1,864	1,869
21-07-2020	2,816	2,828	779	779	3,595	3,607
22-07-2020	2,376	2,385	935	943	3,311	3,328
23-07-2020	1,673	1,681	841	841	2,514	2,522
24-07-2020	1,546	1,557	547	547	2,093	2,104
25-07-2020	1,051	1,061	615	615	1,666	1,676
26-07-2020	597	597	247	247	844	844
27-07-2020	1,346	1,354	524	524	1,870	1,878
28-07-2020	1,935	1,941	750	750	2,685	2,691
29-07-2020	1,542	1,546	756	756	2,298	2,302
30-07-2020	1,719	1,737	699	699	2,418	2,436
31-07-2020	2,405	2,415	1,024	1,024	3,429	3,439
Å	48,509	48,797	20,150	20,158	68,659	68,955



Design, development, integration, implementation, operation and maintenance of National Logistics Portal (Marine)

Date	Trans Messages Sent	Trans SMS Sent	Promo Messages Sent	Promo SMS Sent	Total Messages Sent	Total SMS Sent
01-08-2020	1,717	1,739	792	792	2,509	2,531
02-08-2020	175	175	163	163	338	338
03-08-2020	1,877	1,886	812	812	2,689	2,698
04-08-2020	1,824	1,848	876	876	2,700	2,724
05-08-2020	1,627	1,651	786	786	2,413	2,437
06-08-2020	1,443	1,463	509	509	1,952	1,972
07-08-2020	2,156	2,167	785	785	2,941	2,952
08-08-2020	1,612	1,623	709	709	2,321	2,332
09-08-2020	889	897	358	358	1,247	1,255
10-08-2020	2,213	2,261	754	754	2,967	3,015
11-08-2020	2,287	2,307	1,181	1,181	3,468	3,488
12-08-2020	1,511	1,524	679	679	2,190	2,203
13-08-2020	1,803	1,816	975	975	2,778	2,791
14-08-2020	1,340	1,352	711	711	2,051	2,063
15-08-2020	976	981	664	664	1,640	1,645
16-08-2020	397	401	207	207	604	608
17-08-2020	1,677	1,702	596	596	2,273	2,298
18-08-2020	1,804	1,821	862	862	2,666	2,683
19-08-2020	1,874	1,895	837	837	2,711	2,732
20-08-2020	1,411	1,421	630	630	2,041	2,051
21-08-2020	1,474	1,487	685	685	2,159	2,172
22-08-2020	1,267	1,267	639	639	1,906	1,906
23-08-2020	913	919	391	391	1,304	1,310
24-08-2020	1,632	1,644	815	815	2,447	2,459
25-08-2020	1,705	1,719	908	908	2,613	2,627
26-08-2020	2,063	2,089	935	935	2,998	3,024
27-08-2020	1,725	1,736	954	954	2,679	2,690
28-08-2020	2,051	2,064	798	798	2,849	2,862
29-08-2020	1,862	1,869	838	838	2,700	2,707
30-08-2020	844	845	362	362	1,206	1,207
31-08-2020	1,187	1,209	455	455	1,642	1,664
Å	47,336	47,778	21,666	21,666	69,002	69,444

Design, development, integration, implementation, operation and maintenance of National Logistics Portal (Marine)

Date	Trans Messages Sent	Trans SMS Sent	Promo Messages Sent	Promo SMS Sent	Total Messages Sent	Total SMS Sent
01-09-2020	1,993	2,005	913	913	2,906	2,918
02-09-2020	2,035	2,060	876	876	2,911	2,936
03-09-2020	2,257	2,270	954	954	3,211	3,224
04-09-2020	2,005	2,028	1,046	1,046	3,051	3,074
05-09-2020	1,888	1,905	1,020	1,020	2,908	2,925
06-09-2020	923	923	521	521	1,444	1,444
07-09-2020	1,903	1,916	784	784	2,687	2,700
08-09-2020	2,014	2,023	723	723	2,737	2,746
09-09-2020	2,267	2,289	1,213	1,213	3,480	3,502
10-09-2020	2,791	2,808	1,346	1,346	4,137	4,154
11-09-2020	2,621	2,640	1,481	1,481	4,102	4,121
12-09-2020	1,528	1,534	753	753	2,281	2,287
13-09-2020	669	671	424	424	1,093	1,095
14-09-2020	1,647	1,677	746	746	2,393	2,423
15-09-2020	1,861	1,886	891	891	2,752	2,777
16-09-2020	2,005	2,021	1,031	1,031	3,036	3,052
17-09-2020	2,084	2,107	1,131	1,131	3,215	3,238
18-09-2020	1,996	2,014	1,039	1,039	3,035	3,053
19-09-2020	1,737	1,745	842	842	2,579	2,587
20-09-2020	765	765	383	383	1,148	1,148
21-09-2020	1,847	1,866	743	743	2,590	2,609
22-09-2020	1,995	2,012	1,150	1,150	3,145	3,162
23-09-2020	2,188	2,203	1,151	1,151	3,339	3,354
24-09-2020	2,396	2,405	1,232	1,232	3,628	3,637
25-09-2020	2,637	2,655	1,326	1,326	3,963	3,981
26-09-2020	1,864	1,870	1,059	1,059	2,923	2,929
27-09-2020	1,308	1,312	579	579	1,887	1,891
28-09-2020	1,975	1,991	551	551	2,526	2,542
29-09-2020	1,836	1,859	840	840	2,676	2,699
30-09-2020	2,353	2,364	950	950	3,303	3,314
Å	57,388	57,824	27,698	27,698	85,086	85,522

Date	Trans Messages Sent	Trans SMS Sent	Promo Messages Sent	Promo SMS Sent	Total Messages Sent	Total SMS Sent
01-10-2020	2,936	2,974	1,384	1,384	4,320	4,358
02-10-2020	2,197	2,200	1,162	1,162	3,359	3,362
03-10-2020	2,474	2,491	1,293	1,293	3,767	3,784
04-10-2020	1,507	1,510	1,116	1,116	2,623	2,626
05-10-2020	2,141	2,167	941	941	3,082	3,108
06-10-2020	2,463	2,474	1,277	1,277	3,740	3,751
07-10-2020	2,328	2,335	1,148	1,148	3,476	3,483
08-10-2020	2,472	2,489	1,250	1,250	3,722	3,739
09-10-2020	2,027	2,035	1,065	1,065	3,092	3,100
10-10-2020	1,704	1,707	864	864	2,568	2,571
11-10-2020	830	831	552	552	1,382	1,383
12-10-2020	1,666	1,678	590	590	2,256	2,268
13-10-2020	2,009	2,023	850	850	2,859	2,873
14-10-2020	1,920	1,945	767	767	2,687	2,712
15-10-2020	2,106	2,126	948	948	3,054	3,074
16-10-2020	1,728	1,743	765	765	2,493	2,508
17-10-2020	2,158	2,163	886	886	3,044	3,049
18-10-2020	1,145	1,145	712	712	1,857	1,857
19-10-2020	1,937	1,950	832	832	2,769	2,782
20-10-2020	2,992	3,009	1,419	1,419	4,411	4,428
21-10-2020	2,573	2,586	1,324	1,324	3,897	3,910
22-10-2020	2,217	2,233	906	906	3,123	3,139
23-10-2020	2,364	2,388	1,071	1,071	3,435	3,459
24-10-2020	1,644	1,653	770	770	2,414	2,423
25-10-2020	819	820	553	553	1,372	1,373
26-10-2020	1,163	1,176	560	560	1,723	1,736
27-10-2020	1,434	1,457	508	508	1,942	1,965
28-10-2020	1,553	1,568	714	714	2,267	2,282
29-10-2020	2,165	2,185	910	910	3,075	3,095
Å	56,672	57,061	27,137	27,137	83,809	84,198

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2.6.6 PCS Active Stakeholder list

27 Stakeholders

Sr No	Stakeholder	Active
1	Port Authority	Yes
2	Shipping Lines/ Shipping Agent	Yes
3	Customs	Yes
4	Container Freight Station	Yes
5	Custom Broker	Yes
6	Importer / Exporter	Yes
7	Bank	Yes
8	Container Agent	Yes
9	Terminal Operator	Yes
10	Stevedore	Yes
11	Rail Transport Operator	Yes
12	Mercantile Marine Department (MMD)	No
13	Navy/Coast Guard	Yes
14	Ships Chandler	Yes
15	Port Health Organisation (PHO)	No
16	Transporter	Yes
17	Immigration	No
18	Surveyor	Yes
19	Tank Farm Operator	No
20	Inland Waterways	Yes
21	Coastal Shipping Operator	Yes
22	Empty Yard	Yes
23	Freight Forwarder	Yes
24	Barge Owner / Operator	Yes
25	NVOCC	Yes
26	DGLL	Yes
27	Inland Container Depot	Yes



2.6.7 API count logs

API: APR 20 to OCT 20		
Shipping Line Name	User ID	Total API Hits
HAPAG LLOYD INDIA PVT LTD	hapag002	22938
HAPAG LLOYD INDIA PVT. LTD	hapag001	21707
CMA CGM AGENCIES (INDIA) PVT LTD	sauser73	16319
CUSTOMS	cust001	14700
HAPAG-LLOYD INDIA PVT. LTD.	hapag002	11469
ORIENT OVERSEAS CONTAINER LINE LIMI	oriov010	10521
BIRENDRA YADAV	dgl001	10360
MAHENDRAN E	oriov060	4956
HAPAG-LLOYD AKTIENGESELLSCHAFT	hapagl002	4636
APM Terminals	sauser72	4231
OOCL India Private Limited	ooclpl004	4168
OOCL (INDIA) PRIVATE LIMITED	oriov030	3512
CMA CGM Agencies India Pvt Ltd	cmacgm002	3400
M/S. HAPAG-LLOYD INDIA PVT. LTD	hapag030	1628
OCEAN NETWORK EXPRESS (INDIA) PRIVATE LIMITED	oneli004	1626
OOCL India Private Limited	ooclpl002	1463
CMA CGM AGENCIES INDIA PVT LTD	cmcga042	1291
CMA-CGM AGENCIES (INDIA) PVT. LTD.	cmcga001	1240
APL INDIA PVT LTD	aplin042	973
OOCL INDIA PRIVATE LIMITED	ooclpl001	320
CMA-CGM AGENCIES (INDIA) PVT. LTD	cmcga010	137
Jawaharlal Nehru Port Trust	ptuser10	128
HAPAG LLOYD INDIA PVT. LTD	hapag020	109
OOCL (INDIA) PVT LTD	oriov040	104
TECK CHUN	ptuser11	74
ONE LINE PVT. LTD.	oneli001	21
OCEAN NETWORK EXPRESS (INDIA) PRIVATE LIMITED	oneli009	17
CHPT	chpt001	14
NEW MANGALORE PORT TRUST	nmgpt001	11
TRANSWORLD SHIPPING AGENCIES PVT LT	tsapl003	11
B.S.V. SHIPPING AGENCIES PVT. LTD	bsvsh001	8
CHAKIAT AGENCIES PVT LTD	chaki030	4
ATLANTIC GLOBAL SHIPPING PRIVATE LIMITED.	aticsh001	3
GAC SHIPPING INDIA PVT LTD	gacshp001	3
RAJA AGENCIES	rajag001	3
ADELE SHIPPING SERVICES PVT. LTD	adele001	2
GENIDSHIPPING AND LOGISTICS PVT.LTD.	genids002	2
SEAPORT SHIPPING PVT. LTD.	seart070	2
SEATRANS SHIPMANAGEMENT SERVICES PV	stran030	2

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API: APR 20 to OCT 20		
M/S.VILSONS SHIPPING PVT. LTD	vilso001	2
WORLDWIDE SHIPPING INC.	wordw020	2
DIAMOND SHIPPING AGENCIES P LTD	dmdshp001	1
M/S HARI & CO	haric001	1
JAMES MACKINTOSH & CO. PVT. LTD	james100	1
J. M.BAXI & CO.	jmbaxi080	1
KRISHYA LOGISTICS LLP	krllp001	1
MOHAN MUTHA EXPORTS PVT LTD,	mohat001	1
PEARLSHIPPINGAGENCIES	prlsh010	1
SEABRIDGE MARINE AGENCIES PVT LTD	seabm007	1
SEAWORLD SHIPPING & LOGISTICS PVT.	seash100	1
SRJ SHIPPING SERVICES	srjshi001	1
	Total	<b>142127</b>

**\* ACK\_STATUS consider - Pass, Fail, Success**

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2.6.8 PCS Banks and Payment gateway integration list

Integration Status \_ Banks & Payment Gateways

IPA PCS1x															
Status Report : Integration with Banks for Online Payment Option as on 29th October 2020															
Sr No	Bank	MbPT	KoPT	CoPT	KPL	HDC	DPT	JNPT	ChPT	MgPT	NMPT	PPT	VoCPT	VPT	Status as on 29-10-2020
<b>Live</b>															
1	Allahabad Bank											✓			Live on Production environment. DLYSUM pending
2	Andhra Bank				✓								✓	✓	Live on Production environment. DLYSUM pending
3	Axis Bank	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Live on Production environment. DLYSUM pending
4	Bank of Baroda	✓			✓	✓	✓	✓			✓				Live on Production environment
5	Corporation Bank						✓			✓	✓				Live on Production environment. DLYSUM pending
6	HDFC Bank	✓	✓	✓		✓	✓	✓		✓	✓		✓	✓	Live on Production environment
7	ICICI Bank	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	Live on Production environment. UAT testing completed for DLYSUM.
8	State Bank of India	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓			Live on Production environment. DLYSUM pending
9	Indian Overseas Bank			✓			✓		✓		✓		✓	✓	Live on Production environment. DLYSUM pending
10	IDBI Bank	✓	✓	✓	✓		✓	✓			✓		✓	✓	Live on Production environment.
11	Punjab National Bank			✓			✓								Live on Production environment.
<b>Payment Aggregator</b>															
12	Razorpay	✓		✓	✓			✓			✓			✓	Live on Production environment. DLYSUM pending
13	ICICI Pay2Corp	✓	✓			✓	✓				✓	✓	✓	✓	Live on Production environment. UAT testing completed for DLYSUM.
<b>Payment Gateway</b>															
14	BOB Payment Gateway											✓		✓	Live on Production environment
15	SBI Payment Gateway	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓			Live on Production environment
16	Kotak Mahindra														UAT Completed. Awaiting production details from Kotak Team

\*  
 IPA recommends the banks / payment gateways to be integrated with PCS 1x. Portall as the service provider facilitates the integration of the bank and payment gateway.  
 Upon completion of integration, banks approach each port and sign an agreement with the respective ports.  
 Basis the approval and intimation from port, the bank and payment gateway is enabled for transaction for that port.

## 2.6.9 Additional details for PCS 1.x Mobile application

### PCS 1x – Mobile Application

#### Functionality

- The mobile Application for IPA PCS 1x will help PCS deliver the required services in an effective manner remotely
- The PCS1x mobile app is a view only application for providing useful insights to the PCS1x registered user
- The mobile application will enable the user to avoid the trouble of logging on to PCS1x website for updates and notifications.
  - a) Vessel - The Vessel module contains the below functionalities such as:
    - Profile
    - VCN
    - Berthing
    - Pilot Memo
    - VCN Link
  - b) Customs - The Customs module contains the below modules such as:
    - IGM
    - Bill of Entry
    - Out of Charge
    - Shipping Bill
    - LEO
  - c) Finance - The Finance module contains the below modules such as:
    - PD Balance
    - Confirmation of Charges
    - Charges Request
    - Payment Status
  - d) Others
- User Menu - The User menu is accessed by clicking the menu icon (Navigation drawer icon), on the dashboard it contains the below options such as:
  - My Profile: Here the user can view his PCS1x profile details
  - Scanner: This will show the scanner page where the phone camera will be used as a scanner to scan Barcodes and QR codes
  - Rating and Feedback: This menu will allow the user to provide a feedback and rating for the services



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- Contact Us: This menu gives the user an option to send an email to the support email ID or make a call to the helpline

### Installation

- The application can be downloaded from Google Play store for free using the link [https://play.google.com/store/apps/details?id=com.portall.ipa\\_pcs\\_app&hl=en](https://play.google.com/store/apps/details?id=com.portall.ipa_pcs_app&hl=en)
- To successfully run the app post installation, it requires a requires permission such as
  - a) Allow to make Phone call
  - b) Allow to use location
- After the permission is allowed the app is fully configured on device.

### Two step Authentication

- The PCS1x mobile app is equipped with a twostep authentication namely the login credentials i.e. the username and password as well as the MPIN.
  - a) User ID and password: Kindly note only registered PCS1x users can utilise the mobile app, a new user has to login to website and register himself, the credentials which allotted to users after successful registration are valid on PCS1x mobile app.
  - b) MPIN: After entering user credentials the user will set MPIN. This helps for additional security.

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2.6.10 Updated Latch-on Modules status

PCS 1x \_ Latch on Status

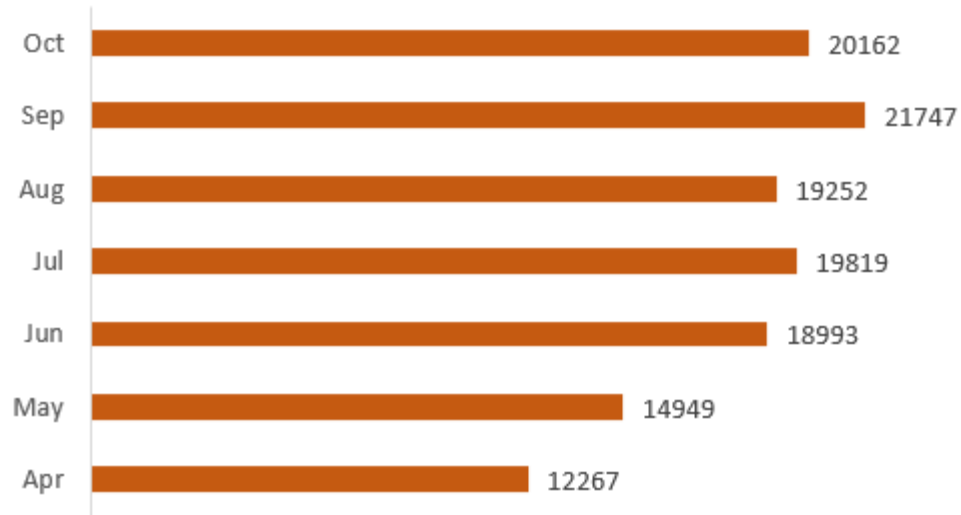
Service Provider	Service	Status as on 30 <sup>th</sup> October 2020
JMB Technologies (P-CaSO)	eBL,	eBL - Cargox and essDOCS
	Transport	Transport – Return Trucks and GOCON
	eVGM	eVGM- Portall Infosystems
ODEX	eDO	LIVE
Kale Logistics	e-VGM, e-DO and Codex Exports module at Tuticorin location.	IPA and Portall team had scheduled call with Kale team on 21 <sup>st</sup> October 2020. Awaiting Response.
Master Marine	eVGM	UAT completed. Production deployment to be done post receipt of details from Master Marine.
Bolero	Blockchain Platform	Awaiting timelines from Bolero team. Meeting conducted on 15th October 2020
LDB	Container Tracking	Live
	Vessel Tracking	UAT ongoing for API integration
PortShield (Corsenant)	RFID Tracking	Awaiting Presentation and Requirement Document
Tradelens	e-B/L	Pre-onboarding call scheduled for 4 <sup>th</sup> November 2020.
Trucksuvidha	Transport	URL received. Redirection to be enabled.
Shipsy	Cargo Booking	Awaiting Response

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2.6.11 PCS 1.x Transaction Count

Sum of Count		Port																				
Date	SEQID	Model	MsgTyp	INBOM1	INCCU1	INCOK1	INENR1	INHAL1	INHZA1ADH2	INIXY1	INJNP1	INKAT1	INMAA1	INMRM1	INMUN1	INNML1	INPAV1	INPRT1	INTUT1	INVTZ1	Grand Total	
Apr	1	Vessel	VESPRO		0	0	27	0	0	142	0	0	0	36	5	82	0	167	139	144	742	
	2	Vessel	CALINF		0	78	91	63	162	0	295	0	0	91	33	0	84	0	189	75	155	1316
	4	Vessel	BERMAN		0	35	16	59	124	0	176	0	0	92	7	0	45	0	52	79	140	825
	6	Vessel	ETAETD		1	0	3	20	9	0	50	0	0	39	5	0	0	0	0	0	83	210
	8	Vessel	PLTMEM		0	0	0	15	3	0	255	0	0	197	0	0	1	0	0	0	42	513
	10	Vessel	PAISPS		0	4	0	13	8	0	0	0	0	2	4	0	0	0	6	0	84	121
	11	Vessel	PAXLST		0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	86	94
	12	Vessel	AGDORD		293	1119	0	40	147	0	0	75	0	85	110	0	84	0	54	12	187	2206
	15	Vessel	UNBERT		0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	16	Vessel	ACKMSG		20	0	89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	109
	17	Finance	REQVAC		0	0	0	3	0	0	615	0	0	0	0	68	0	0	0	0	0	686
	18	Finance	REQCAC		0	0	0	2	0	0	1104	0	0	0	0	4	0	0	0	0	0	1110
	19	Finance	REQSAC		0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	21	Finance	PAYSTS		0	196	125	8	175	0	1150	0	0	0	10	0	109	0	278	271	54	2376
	25	Gate an	COPRAR		10	1705	0	0	239	0	0	1	0	0	0	0	0	0	0	0	0	1955
	31	Gate an	CARREQ		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
<b>Apr Total</b>					<b>324</b>	<b>3137</b>	<b>351</b>	<b>234</b>	<b>867</b>	<b>0</b>	<b>3787</b>	<b>76</b>	<b>0</b>	<b>506</b>	<b>205</b>	<b>5</b>	<b>477</b>	<b>0</b>	<b>746</b>	<b>576</b>	<b>976</b>	<b>12267</b>
May					642	5241	474	353	879	0	3780	35	0	467	359	86	509	0	756	513	855	14949
Jun					617	6101	591	342	1254	0	5676	73	0	568	345	105	564	0	849	618	1290	18993
Jul					171	7277	715	338	1268	0	5384	176	0	743	343	143	632	0	863	704	1062	19819
Aug					3	7370	609	304	1201	0	5110	303	2	607	254	289	575	28	834	663	1100	19252
Sep					3	8856	683	376	1431	0	5571	327	3	678	387	216	560	71	893	526	1166	21747
Oct					4	8052	690	278	1303	0	5225	56	1	750	445	245	607	78	872	421	1135	20162
<b>Grand Total</b>					<b>1764</b>	<b>46034</b>	<b>4113</b>	<b>2225</b>	<b>8203</b>	<b>0</b>	<b>34533</b>	<b>1046</b>	<b>6</b>	<b>4319</b>	<b>2338</b>	<b>1089</b>	<b>3924</b>	<b>177</b>	<b>5813</b>	<b>4021</b>	<b>7584</b>	<b>127189</b>

### Tran Count





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2.6.12 Response to additional PCS queries

<p>What all 3rd party integrations exist in the solution.</p>	<p>Below mentioned 3rd party integrations are live on PCS 1x:</p> <ol style="list-style-type: none"> <li>1. FOIS</li> <li>2. MoRTH (eVAHAN and eSarathi)</li> <li>3. Customs</li> <li>4. DGLL</li> <li>5. Navy</li> <li>6. Banks and Payment Gateways</li> </ol> <p>* - <b>The above list does not constitute the latch-ons.</b>  <b>Latch-ons are separately listed as required.</b></p>
<p>List of the stakeholders which use messages converted from one format to the other.</p>	<p>For sharing and receiving information with the ports, the messages are converted from / into API/XML / .txt as per the mode of integration with the Ports.</p> <p>Below are some examples:</p> <ol style="list-style-type: none"> <li>1. Data received from Customs is in XML and the same is converted into API / .txt for sharing with certain ports and CFSs as per mode of integration.</li> <li>2. Data received from ports in .txt format is converted into XML for sharing with the Navy.</li> <li>3. VESPRO received in XML and .txt is converted and shared with DGLL via API.</li> </ol>
<p>What all BI dashboards and analytics are provided by PCS?</p>	<p>The following dashboards are available:</p> <ol style="list-style-type: none"> <li>1. Vessel Status at Ports (This feature is available on the landing page of PCS 1x as a public data for all stakeholders to view)</li> <li>2. Payment and transaction volumes</li> <li>3. Operational data - Vessel Handled, Delivery Orders,</li> <li>4. Port Performance</li> <li>5. Application Performance</li> </ol>
<p>Number and types of reports given to the Ports/ IPA/ Ministry by PCS. Are the reports provided in real-time?</p>	<ol style="list-style-type: none"> <li>1. Bank Integration</li> <li>2. Stakeholder onboarding</li> <li>3. Payment Volume</li> <li>4. EDI / API Messages exchanged</li> <li>5. Delivery Orders</li> <li>6. Vessel Status at Ports</li> <li>7. PMX Status</li> <li>8. Port Performance</li> <li>9. Application Performance</li> </ol>
<p>Can the system handle PGAs. Is there a cap on the number of PGA and other Standard compliances?</p>	<p>PCS 1x is based on an open architecture and is a scalable and flexible platform.</p> <p>It can handle any number of additional users / stakeholders without any limits on the same.</p>
<p>Do you have requirements of Tracking of Goods and compliance. Are there any integration requirements which are currently not in the system?</p>	<p>Containers are tracked using LDB Container Tracking Services. For any other as requirement comes up and as advised by IPA, the same is taken up likewise.</p>
<p>How are the goods tracked - through messages or through reports.</p>	<p>Containers are tracked using LDB Container Tracking Services.</p>
<p>Is this microservice based architecture.</p>	<p>Infra and Licenses are Micro Service Enabled</p>
<p>What all browsers does the PCS1x work on?</p>	<p>Latest browsers supported are Chrome, Firefox, Internet Explorer, Mozilla, Opera, Safari</p>
<p>Is there automated patch management tool</p>	<p>Yes automated tool - ManageEngine for patch management is used for windows server and Yum repository are used for Linux servers</p>
<p>Does the system allow designing new workflow for defining new business rules/alerts through configuration without programming</p>	<p>Yes, it does allow applications as it is role based.</p>
<p>How many concurrent users are being handled by the system and what is the response time</p>	<p>Concurrency of 400 users, Average response time of 3.5 Ms</p>
<p>Average success and failure with regard to messages exchanged through PCS1.x</p>	<p>There is no failure for message exchange at PCS 1x platform</p>

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#### 2.6.13 PCS Modules, User Changes, Master tables and Message Utilization

Refer pdf Annexure 2.6.13 containing

- PCS 1x \_ Modules.pdf
- PCS 1x \_ Features & functionalities.pdf
- IPA - Master Table List.pdf
- Message Utilisation.pdf

#### 2.6.14 OTRS Data

Refer file Annexure 2.6.14-OTRS Data(Apr-Oct20).pdf

#### 2.6.15 Email Logs

Refer SMTP Logs excel sheets

#### 2.6.16 IPA IT Security Policy

Refer Annexure 2.6.16-IPA-IT-Policy 2020.pdf

**END OF THE DOCUMENT**