

Appx 'C'

(Ref Para 10 (d) of DDG IT letter
No B/04001/Policy/SW/DDG It
(T&P) dt as in Digital Sign

CHECK LIST TO BE ATT WITH SOC FOR THE PROPOSAL

| Ser No | Mandatory Details | |
|--------|--|---|
| 1. | Name of proj (incl ver). | Moodle Learning Management System for MCEME |
| 2. | Name of sponsor. | Military College of EME |
| 3. | Type of Sw(Bespoke/COTS/ Customized). | COTS |
| 4. | Brief justification/ endorsement on reqmt for devp of Sw appl. | Incl in SoC |
| 5. | Aim, Scope and purpose incl utility, beneficiaries and tgt users. | |
| 6. | To be hosted on internet/ ADN with brief justification. | |
| 7. | Being devp in house or through IT funds. | |
| 8. | Usability of proposed appls by other arms/ services/or/est. | |
| 9. | Hw and IT infrastructure reqd in the form of Virtual Machines at Data Centre (incl memory, storage and processing capb). | |
| 10. | Brief details of content of the proposed Sw appl. | |
| 11. | Endorsement by Head of Br/Svc/ Fmn. | Endorsed |
| 12. | Details of user base. | Incl in SoC |
| 13. | Envisaged cost of entire proj incl license fees and maint. | |
| 14. | Projected dt of completion incl maj timelines. | NA |
| 15. | Brief details of Sw platform and tech stack proposed for devp of appl incl op sys dependencies (if any). | |
| 16. | Brief details of proposed network and bandwidth reqmts. | Incl in SoC |
| 17. | Brief details of OS & Sys software reqmts. | |
| 18. | Brief details of proposed data security measures incl backup of data. | NA |
| 19. | Brief details of proposed Database Engine to be used in the appl. | |
| 20. | Detls of Sw architecture and COTS Sw proposed to be utilised. | Incl in SoC |
| 21. | Detls of proposed architecture - Centralised/ Federated/Hybrid. | |
| 22. | Brief details of proposed utilization of Public Key Infra (PKI) and Iden and Access Mgt (IAM) | |
| 23. | Technology dependencies (if any). | NA |
| 24. | Database reqmt. | NA |
| 25. | Enhancement/ upgradation (incl patch mgt/ Sw updt procedure and mechanism. | Incl in SoC |
| 26. | Details of licensing (if any). | Open Source Community Edition. License Version can be procured for customisation. |

| S No | Pre Devp-Stag – To be submitted for grant of IPA | Response of Stakeholder |
|--------|--|-------------------------|
| Sigs-7 | | |
| 1. | Hardware Reqmt. To be rationalized by developer with supported load calculation. | NA |
| 2. | Bandwidth Reqmt. No of concurrent users access the appl on ADN to be highlighted, Common user bandwidth to be utilized on dedicated bandwidth to be provided. | |
| 3. | Encryption. IACA SSL cert to be incorporated for secure HTTPS connection (TLS 1.3 should be impl). | |
| 4. | IAM. Appl developer to design and devp the apps for integ with IAM (SAML 2.0 needs to be followed). | |
| 5. | Ports. 443 port to be used for hosting, any addl port reqd should be justified. | |
| 6. | Software. Sponsor Dte to provn for licensed OS and reqd software for the appl. | |
| ACG | | |
| 1. | Advisory on Appl Security: Evolving (URD) User Requirement Document (Hosted at ACG Website – Web/Apl Devp – Test & Eval Advisories). | NA |
| 2. | Impl of Secure Coding Prac in IA : HCL Appl Scan VS Code Sweep (ACG letter No B/511106/ArCyGp/T-3/T&E dt 01 Aug 2023). | |
| 3. | Advisory on Cyber Security Parameter for Websites hosted within ADN (Hosted at ACG Website – Web/Apl Devp – Test & Eval Advisories). | |
| 4. | Guideline for Indian Govt Website (GIGW 3.0). | |
| ASDC | | |
| 1. | Platform to be used - check and render advice on long term Sp incl the End of life. | NA |
| 2. | Database to be used - check and render advice on Long Term Sp incl the End of life. | |
| 3. | Software architecture and COTS Sw dependencies - native/ Webbased/centralized/decentralized, offline/online mode, Selection criteria of COTS Sw etc. | |
| 4. | Integration reqmt with other Sw (online/ offline) - recommend apps alongwith the requisite formats of exch. | |
| 5. | Usability of Sw by other arms/services/fmns/orgs - advise sponsor fm scalability pt of view. | |

| S No | Post Devp-Stag – To be submitted for grant of IPA | Response of Stakeholder |
|---------------|---|--|
| Sigs-7 | | |
| 1. | <u>OS & Software.</u> (a) OS and software used in appl should be activated (Licensed) if applicable. (b) The OS and the software used should not be outdated. (c) The appl should not use vulnerable scripts and libraries. | Licensed software Latest version of OS is used No vulnerable scripts & libraries exist |
| 2. | <u>Hardware Resources.</u> (a) The hardware resource used by the appl should be justified by the sponsor Dte with valid calculations. (b) Stress testing of the appl is done with the anticipated concurrent users to check the hardware utilization of the appl. (c) A website with up to 1000 concurrent users should not consume more than 8 CPU cores and 16 GB RAM. (d) A relational database server (Mysql/Mssql/Postgres) with 1000 concurrent users should not consume more than 24 CPU and 48 GB RAM. (e) A web appl server with 1000 concurrent users should not consume more than 16 CPU and 32 GB RAM. (f) A Geospatial server (GIS) with 1000 concurrent users should not consume more than 32 CPU and 64 GB RAM. | Already impl |
| 3. | <u>Compliance.</u> (a) Websites should follow GISW present. (b) All the downloaded data (PDF) should be watermarked. (c) <u>Links.</u> (i) No broken links to be present. (ii) All the website / appl linked in the page should be vetted. (iii) Only whitelisted SW (as per ACG guidelines) links to be provided for download. (d) Metatags should be enabled. (e) No direct streaming of video/ Audio. | Impl NA Impl NA NA |
| 4. | <u>IAM.</u> (a) IAM integ to be completed (SAML 2.0) (b) Encrypted login and logout to be implemented. (c) User list (usernames in domain) to be on-boarded should be shared with AHCC. (d) Two factor authentication if reqd should be impl with IACA DSC TOKEN. | NA |

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| 5. | <p><u>Deployment Arch.</u></p> <p>(a) Sponsor Dte to give a pstn explaining the entire workflow on the sw appl alongwith its detailed dply architecture.</p> <p>(b) Sponsor Dte / developer to explain all the intended functionalities and feature of the appl.</p> <p>(c) Clarify any ambiguities or discrepancies with the devp team before commencing the vetting process.</p> <p>(d) Strict version control to be adhered during the iterative process of vetting.</p> <p>(e) The apps requiring PKI services, must have inbuilt OCSP and CRL protocols for certificate validation.</p> | |
| 6. | <p><u>Performance / Stability Testing.</u></p> <p>(a) Appl / Website initial loading on the browser should not be more than 4 MB (screenshot att at Appx A).</p> <p>(b) The max response time for the appl / website should not be more than 5 seconds.</p> <p>(c) The appl should not crash when load tested with anticipated concurrent users.</p> | |
| 7. | <p><u>Functional Testing.</u></p> <p>(a) Perform testing of each incl function and feature of the web appl.</p> <p>(b) Validate input field, forms, button navigate and interactive elements.</p> <p>(c) Verify proper data validation, error msgs and expected outcomes.</p> | |
| 8. | <p><u>Compatibility Testing.</u></p> <p>(a) Should be compatible with older supported versions of browsers (Chrome/ edge/ firefox).</p> <p>(b) Should be compatible with different versions of third-party plugins or framework.</p> <p>(c) Regression Testing - Retest previously identified issuer after fixes have been implemented.</p> <p>(d) Ensure that fixes have not introduced new problems or unintended side effects.</p> | |
| 9. | <u>Encryption.</u> IACA SSL cert to be incorporated for secure HTTPS connection (TLS 1.3 or latest should be impl). | Impl |
| 10. | <u>Forms Regqd.</u> GIGW cert, DNS regn form, DGMI (MI-11) content vetting form, Watermarking cert, SSL regn and SRDP regn form are reqd to be submitted to DG Sigs for hosting on ADN. | NA |
| <u>ACG</u> | | |
| 1. | Advisory on Single Window Clearance Initiative (ACG letter ref B/51106/ArCyGp/T-3/T&E/Adv1 dt 24 Aug 2023). | |
| 2. | Advisory on Tech Vetting for whitelisting of Sw for ADN dply (DG Sigs letter ref B/46850/IT/Sigs 7 (a) dt 03 Mar 2022). | |

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| 3. | User Friend Guidelines for expediting Vetting if Website/ Web Appl (Hosted at ACG Website – Web/Appl Devp – Test & Eval Advisories). | |
| 4. | CERT Advisory No 08/2023 in conduct of Vulnerability Analysis of Sw of IA by CERT-IN Empanelled Firms (Hosted at ACG Website- Web/Appl Devp –Test & Eval Advisories). | |
| 5. | Advisory No 12-2016 on Hardening of Web Server, How to make VDI for Web testing, Web Testing Tool, Patch Mgt and OS (Hosted at ACG Website – Web/Appl Devp – Test & Eval Advisories). | |
| 6. | Further, for the better transparency and user awareness, real-time appl vetting status is hosted on ACG Website (ACG Website – Web/Appl Devp – Wev/Appl Vetting Status). | |
| 7. | CERT Advisory No 13/2023 on API Security. | |
| <u>DDGIT</u> | | |
| 1. | Fwd VDI of final Sw appl. | |
| 2. | Fwd data dictionary of data and meta data. | NA |
| 3. | Obtain Whitelisting Cert. | |