

CyberSG R&D Programme Office  
(CRPO)

GRANT CALL – TRANSLATION AND  
INNOVATION  
RULES AND GUIDELINES

## 1. Overview

- 1.1. The CyberSG R&D Programme Office (CRPO) is a new national centre at Nanyang Technological University, Singapore. CRPO will focus its efforts on three main thrusts to advance cybersecurity comprehensively: cutting-edge research and development, advancements in technology and translational development, and fostering ecosystem/industry growth and training.
- 1.2. CRPO aspires to propel Singapore to the forefront of cybersecurity innovation and implementation, fuelled by funding from the Cybersecurity Agency of Singapore (CSA). This financial backing empowers CRPO to finance visionary projects proposed by diverse entities, including Research Institutes based in Singapore (RIs), Institute of Higher Learning (IHLs), and Industries based in Singapore. The scope of these initiatives spans the entire Technology Readiness Level (TRL) spectrum, from nascent concepts at TRL 1 to advanced, field-tested solutions at TRL 9, all within the dynamic realm of cybersecurity.
  - 1.2.1. CRPO serves as a key research translation centre, driving the conversion of research into tangible outcomes. It establishes a strong governance framework for translational activities, fosters an inclusive ecosystem for talent development and communication, and collaborates with NTUitive Pte Ltd (“NTUitive”) to streamline IP management. CRPO aims to create a user-friendly policy framework for SMEs and MNCs, facilitating the adoption of innovative cybersecurity inventions. It is more than a funding entity, acting as a catalyst for the holistic advancement of Singapore's cybersecurity landscape.
  - 1.2.2. In Frontier Research and Development, the emphasis is on enhancing core cybersecurity capabilities through fundamental research and addressing societal challenges with moon-shot initiatives. Translation and Industry-Driven Technology Development involve translating fundamental research into commercial potential, creating a local cybersecurity innovation platform, and catalyzing industry growth through grant management and collaborations with governmental and private partners.
  - 1.2.3. The third thrust, Translation and Innovation, aims to demonstrate cybersecurity capabilities. Translation and Innovation will be done through incubators, training, and hackathons, while providing cybersecurity technology training to industries and schools. CRPO aims to raise awareness and adoption of cybersecurity technologies, develop a strong talent pool, and facilitate talent flow across sectors through various schemes.

- 1.3. CRPO is set to initiate the CRPO Grant Call – Translation and Innovation to back the advancement of cyber technologies and innovation addressing tangible issues with transparency and accountability. The goal is to generate national benefits for Singapore.
- 1.4. The CRPO Grant Call is a competitive funding initiative aimed at fostering research projects that push the boundaries of cyber technologies within Singapore-based Institutes of Higher Learning (IHLs)<sup>1</sup>, Research Institutes (RIs)<sup>2</sup>, and Industry Partners<sup>3</sup>. We enthusiastically invite proposals from diverse and collaborative teams, including academics, researchers, scientists, engineers, domain experts, and other professionals, to contribute to the advancement of cutting-edge cyber technology science.
- 1.5. For details regarding the timeline of the CRPO Grant Call – Translation and Innovation and the submission deadline for proposals, kindly review Section 6.

## 2. Scope of Grant Call

- 2.1. Aligned with the aforementioned goals and directions, this grant call will concentrate on cybersecurity research.
- 2.2. **Translation and Innovation Grants:** Translational and Innovation Grants aim to seed strategic research collaborations among local cybersecurity research communities, industry and government agencies with the intent to build capabilities within the local ecosystem. Projects should either demonstrate the use of cybersecurity technologies for a commercial application or group of applications, or to address identified use cases and challenges. CRPO will help to de-risk the adoption of cyber related technologies by providing grants which will enable SMEs to de-risk technologies beyond technology readiness level (TRL) 7 and accelerate adoption by industry. NTU envisions various collaboration models to bring in CRPO to industry and government agencies.
- 2.3. The proposed opportunities and focus areas shall include and not limited to:
  - 2.3.1. **Experiments and field trial grants** aim to obtain the industry validation of cybersecurity technologies by conducting deployment and field trials in anchor industry partner's premises.

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<sup>1</sup> Institutes of Higher Learning (IHLs): Such as National University of Singapore (NUS), Nanyang Technological University (NTU), Singapore Management University (SMU), Singapore University of Technology and Design (SUTD), Singapore Institute of Technology (SIT), Singapore University of Social Sciences (SUSS), (refer to the complete list here: [https://www.ica.gov.sg/reside/LTVP/apply/graduate-from-an-institute-of-higher-learning-seeking-employment-in-singapore/list\\_ihl](https://www.ica.gov.sg/reside/LTVP/apply/graduate-from-an-institute-of-higher-learning-seeking-employment-in-singapore/list_ihl)).

<sup>2</sup> Research Institutes (RIs): Such as the Agency for Science, Technology and Research (A\*STAR) institutes.

<sup>3</sup> Industry Partners: Singapore based companies and Singapore based Start-ups.

The industry collaborator is required to provide a suitable unconstrained environment to deploy and collect data to assess the feasibility of the project. One example of a field trial experiment is: integration with industry player's product and deploy in an application scenario e.g., in a hospital. These could be, for example, applying homomorphic encryption and enabling data exchange and secure multi-party computation by MAS or Credit Bureau of Singapore without revealing client raw data by participating entities. In these scenarios, it requires security at storage (data at rest), security during communication (data on the move from point A to point B), and security during computation and data analytics (security during computation) and enables secure multiparty or federated learning.

**2.3.2. Proof-of-concept (POC) grants** aim to demonstrate the feasibility of cybersecurity technologies for a commercial application or group of applications. These projects can be awarded to local SMEs or researchers from various institutions. Industrial collaboration will be in the form of support from an industry player or group of players. Industry players could participate by sharing their data, infrastructure, or providing a platform to demonstrate the feasibility of the project and business case. These projects will be evaluated on innovation, the business and market potential. POC projects seek to introduce cybersecurity technologies into new frontiers. Some examples of POC projects are: demonstration of cybersecurity algorithms in complex healthcare applications and data sharing across hospital groups or other data sharing across government agencies to enable analytics without compromising on data privacy or data leakage.

**2.3.3. Proof-of-value (POV) grants** aim to demonstrate the economic viability of cybersecurity technologies in a specific application scenario, or as a new feature, or a new product. POV projects are mainly targeted for industry validation and to develop go to market (GTM) strategy either independently as a start-up or together with the industry partner as a strategic enhancement to their core business. POV projects are expected to have an anchor start-up or industry collaborator, with co-funding from the industry collaborator. The desired end result of such projects is the adoption and integration of cybersecurity technologies into the start-up/industry collaborator's core business/products. Some examples of POV projects are translate knowledge or CRPO IP to be adopted by an anchor start-up/industry or demonstrate a new application or feature that has economic and/or performance benefits.

**2.3.4. Industry driven grants** play a crucial role in the development and deployment of cutting-edge cybersecurity solutions. These grants are often backed by both private and public sector entities, creating a collaborative

effort to enhance the security landscape. By pooling resources and expertise, these grants enable the creation of innovative technologies and strategies that address emerging threats and vulnerabilities in the digital space.

2.4. The grant applicant(s) is responsible for defining the proposed research, problem scope, technical approach, and potential impacts of the proposal. Additionally, proposals must explicitly address the following key points:

- Alignment of the proposal with CRPO's objectives and direction.
- Explanation of the novelty of the research and the significant research challenge it aims to address.
- Clarification of potential industry applications or impact.
- Presentation of the translation plan.
- Explanation of the relevance of the research to Singapore.

### 3. Funding Support

3.1. CRPO intends to unveil ten (10) Translation and Innovation Grants aimed at soliciting innovative approaches to enhance the cybersecurity landscape of both Singapore and the global community. The initiative seeks breakthrough POC, POV, experiments and field trial ideas that can propel advancements in cybersecurity technologies. Each challenge offers funding of up to Singapore Dollars One Million (\$1,000,000) for a selected grant applicant, supporting a duration of 1 to 1.5 years for each project.

3.2. The grant calls will be released as CRPO Summer Grant Call, CRPO Winter Grant Call and CRPO Spring Grant Call. The first call is set to release sometime in July 2024. Please look at Section 6 for the planned timeline of Translation and Innovation Grants.

3.3. The proposal shall be based on a realistic budget with appropriate justifications that correspond to the scope of work to be accomplished.

3.4. The total cost of each project includes all approved direct costs<sup>4</sup> and indirect research costs/overheads<sup>5</sup>. All expenditure budgeted should be inclusive of any applicable Goods and Services Taxes (GST) at the prevailing rates.

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<sup>4</sup> Direct costs are defined as the incremental cost required to execute the project. This excludes in-kind contributions, existing equipment and the cost of existing manpower as well as building cost. Supportable direct costs can be classified into expenditure on manpower (EOM), expenditure on equipment (EQP), other operating expenses (OOE) and overseas travel (OT).

<sup>5</sup> Indirect costs are expenses incurred by the research activity in the form of space, support personnel, administrative and facilities expenses, depending on the host institution's prevailing policy. Host institutions will be responsible for administering and managing the support provided by CRPO for the indirect costs of research, if any.

- 3.5. The corresponding budget requested includes 30% Indirect Research Costs (IRC).
- 3.6. For all direct cost items proposed for the project, please refer to Annex C – Guidelines for the Management of CRPO Grants, including the list of “Non-Fundable Direct Costs” and note the following:
- Host Institutions must strictly comply with their own procurement practices.
  - Host Institutions must ensure that all cost items are reasonable and are incurred under formally established, consistently applied policies and prevailing practices of the host institution.
  - All items/services/manpower purchased/engaged must be necessary for the R&D work.
- 3.7. Research Scholarships are not eligible for support under the CRPO Grant Call.
- 3.8. Funds awarded cannot be used to support overseas R&D activities. All funding awarded must be used to carry out the research activities in Singapore.

#### **4. Project Deliverables and Outcomes**

- 4.1. Each project is expected to produce most, if not all, the following deliverables:
- Translation, Technologies deployed, including licences.
  - Publications in top tier journals and conferences.
  - Industry R&D jobs.
  - PhDs and Masters trained.
- 4.2 In addition to the above deliverables, grant applicants may state deliverables applicable to the project.

#### **5. Eligibility**

- 5.1. The grant call is open to researchers from all Singapore-based Institutes of Higher Learning (IHLs), Research Institutes (RIs) and Industry Partners<sup>6</sup>.

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<sup>6</sup> National University of Singapore (NUS), Nanyang Technological University (NTU), Singapore Management University (SMU), Singapore University of Technology and Design (SUTD), Singapore Institute of Technology (SIT), Singapore University of Social Sciences (SUSS), A\*STAR Research Institutes, Singapore based companies and Singapore based Start-ups.

- 5.2. At the point of application, the Principal Investigator (PI) must hold a full-time<sup>7</sup> appointment in one of the eligible institutions. The PI must be a subject matter expert in the proposed domain, with strong record of publications in the proposed domain's conferences and journals.
- 5.3. Lead PI must be from the IHLs or the RIs and the Co-PI can be from the Industry Partners.
- 5.4. If applicable, Co-PIs must hold a full-time appointment in one of the eligible institutions at the point of application. At least one of the Co-PIs must be a subject matter expert in the proposed domain. For industry partner, the Co-PIs must hold full-time appointments at the company.
- 5.5. Researchers from Medical Institutions<sup>8</sup>, Singapore based companies and Singapore based Start-ups, private sector, and other entities are eligible to apply as Collaborators.
- 5.6. Company collaboration(s) with in-kind contributions is encouraged, but not compulsory.
- 5.7. The team must have the right skills and experience to deliver the project and demonstrate sufficient engagement with stakeholders to scope the proposal.
- 5.8. The overseas collaborators and/or visiting experts may be invited to Singapore on short term engagements to assist with specific project tasks. In this arrangement, the costs of airfare, accommodation and per diem can be budgeted under the other operating expenses of the project.
- 5.9. Only research conducted in Singapore may be funded under CRPO Grant Call – Translation and Innovation. Please refer to Annex B – Terms and Conditions of CRPO Grant.
- 5.10. Lead PI and Co-PIs should note that parallel submissions are not allowed – i.e., applicants must never send similar versions or part(s) of the current proposal application to other agencies or grants for funding (or vice versa). The proposals should not be funded, or currently considered for funding, by other agencies. Details of all grants currently held or being applied for by the Lead PI and Co-PIs in related areas of research must be declared in Annex A - CRPO Grant Call Proposal Template.

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<sup>7</sup> Defined as at least 9 months of service a year based in Singapore or 75% appointment.

<sup>8</sup> Researchers from Medical Institutions in Singapore who hold at least 25% joint appointment in a Singapore-based IHL and/or A\*STAR RI may apply as Lead PI or Co-PI. If awarded, the grant will be hosted in the IHL / A\*STAR RI.

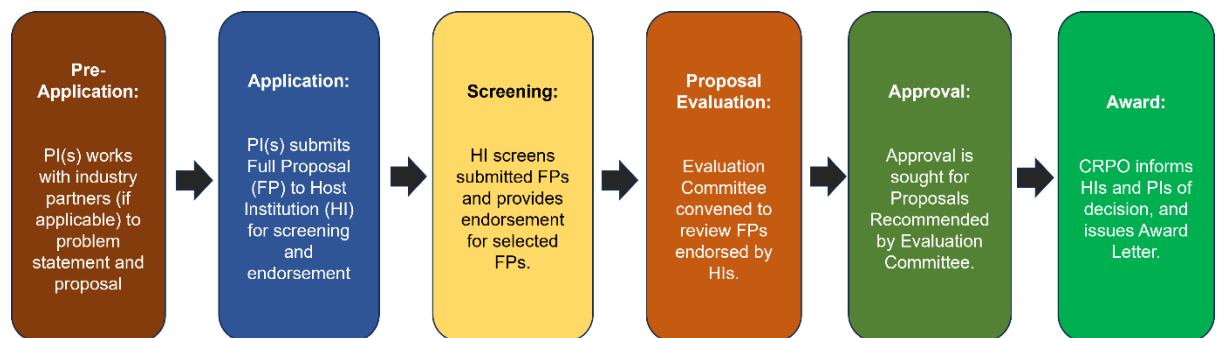
## 6. Review and Selection

6.1. Full proposals are to be submitted using the Proposal Template for CRPO Research Call in Annex A and must also adequately address the pointers stated therein.

6.2. Full proposals will be reviewed by the Evaluation Committee, based on the quality of the proposals in the key aspects listed in Section 2 as well as the following:

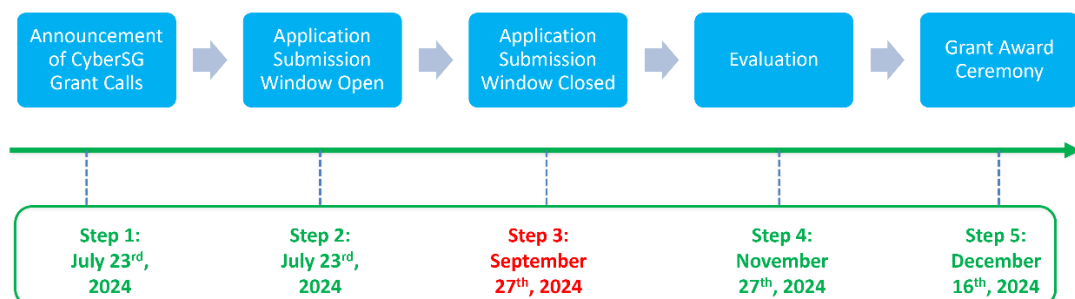
- Past research accomplishments of the PI, Co-PI and any collaborators
- Project management plan

6.3. An illustration of the application, review and selection process is shown below:



6.4. The review will be carried out by the CRPO Evaluation Committee but based on reviews of the proposals solicited from local and overseas experts.

6.5. The example summer timeline<sup>9</sup> for Translation and Innovation CRPO Grant Call is shown below:



<sup>9</sup> Timeline is subject to change and based on CRPO decisions.



6.6. The review process is expected to take approximately 6 weeks. All decisions are final with no right of appeals.

6.7. Please note that respective IHLs' or RIs' internal deadline for full proposal submission may differ. However, all proposals selected and endorsed by the Host Institutions must be submitted via email to CRPO@ntu.edu.sg according to the above timeline.

6.8. CRPO reserves the right to reject late or incomplete submission, and submissions that do not comply with application instructions.

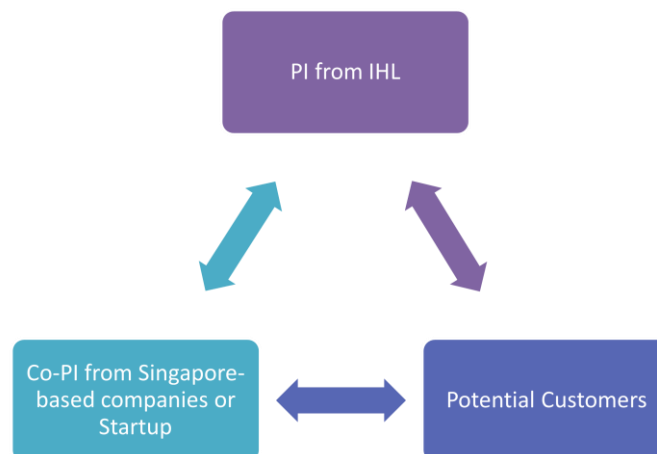
## 7. Team Structure

7.1. One Lead-PI from Singapore-based Institutes of Higher Learning (IHLs) and Research Institutes (RIs) to conduct fundamental research.

7.2. One industry Co-PI from Singapore-based companies or startup to identify and translate IPs with commercial potential.

7.3. Potential customer collaborators who are willing to adopt the developed security solutions and provide requirement feedback.

7.4. An illustration of the team structure and the collaboration between the teams is shown below:

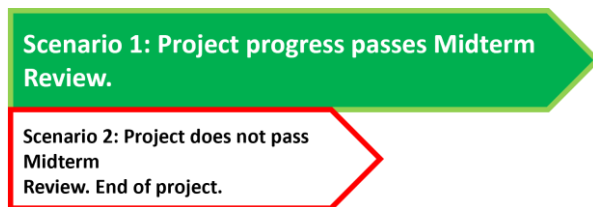


## 8. Research Project Performance Assessment

8.1. Successful teams will undergo a mid-term review on its project progress approximately 6 months after the grant has been awarded and into commercialization.

8.2. Nearing approx. 12 to 18 months i.e., the end of the project, the team is expected to provide mature products atop the R&D outputs.

- 8.3. The grant awarded teams receive benefits from marketplace and enter a virtuous cycle of R&D and commercialization.
- 8.4. The performance and potential of the team's research project will be evaluated during a midterm review i.e., approx. 6 months after the project has been awarded, which will be carried out by the Evaluation Committee . Teams will be required to give a presentation for the review. The project will be assessed primarily based on the progress of promised deliverables and quality of research outcomes.
- 8.5. If the team passes the midterm review, funding support for the team to continue the research project will be made available. CRPO reserves the rights to terminate, after midterm review or at any point in time, a project that does not meet the minimum expectations of progress and achievement, upon recommendation by the Evaluation Committee.



- 8.6. The Evaluation Committee may also make recommendations to maximise the outcomes of funded projects which include, but are not limited to, adjustments to proposed durations, and qualifying only certain components of a project to proceed to completion.
- 8.7. Teams will be required to give a presentation after the end of project term and within 4 weeks for final assessment.

## 9. Application

- 9.1. All applicants must fully comply with CRPO Grant Call Rules and Guidelines, Annex B – Terms and Conditions of CRPO Grant and Annex C - Guidelines for the Management of CRPO Grant, which can be downloaded from [www.ntu.edu.sg/crpo](http://www.ntu.edu.sg/crpo).
- 9.2. Interested applicants should submit the CRPO Grant Application Form and other supporting documents in PDF (and Word if applicable). All applications must be submitted through the Host Institution via email to [CRPO@ntu.edu.sg](mailto:CRPO@ntu.edu.sg) according to the timeline specified in Section 6.
- 9.3. Only complete application with the endorsement of the relevant institutional authority/director of research (or equivalent), will be accepted by CRPO.
- 9.4. Late submissions or submissions from individual applicants without the endorsement of the relevant institutional authority/director of research (or equivalent), will not be entertained.

## 10. Other Guidelines and Information

### 10.1. Proposal Content

- 10.1.1. The Proposal must adhere to the page limit, prescribed format and address the points as stated in Annex A-Proposal Template for CRPO Grant Call.
- 10.1.2. When applicable, a letter of support from the industry partner(s) is required. Commitment by the industry partner to provide the relevant proprietary datasets, a portion of project costs in cash and in kind will be viewed favourably.
- 10.1.3. Letter of support is required from the end customer for the deployment or end usage of the solution or the industry partner on the translation plan and deployment.
- 10.1.4. Research support office from the IHLs and/or Research institutes are required to ensure that information submitted by their researchers is complete and compliant with the requirements outlined in the application guidelines. Failure to do so will result in rejection without review.

### 10.2. Intellectual Property

- 10.2.1. Intellectual Property ("IP") developed under the grant call ("Research IP") shall be co-owned by the Institutions and Collaborators in accordance with their inventive or creative contributions, where such agreed terms shall be set out in a written agreement between the Institutions. The Investigators and Collaborators shall identify and disclose to the Institutions, details of all such Research IP. The IP arrangement is "Solely Developed Solely Owned and Jointly Developed Jointly Owned".
- 10.2.2. The Institutions shall keep and maintain a fully comprehensive and updated list of all such Research IP and make such details available to CRPO and/or the grantors for inspection at any time.
- 10.2.3. The Institutions shall grant CRPO a non-exclusive, non-transferable, sub-licensable, perpetual, irrevocable, worldwide, royalty-free right and license to use, modify, reproduce and distribute the Research IP for research, development and/or commercial purposes (The "CRPO License").
- 10.2.4. Except the rights expressly licensed or otherwise provided in this Rules and Guidelines or Annex B – Terms and Conditions of CRPO Grant, the Institutions shall in any event retain all rights, title and interest in all Research IP and shall have the free and unfettered right to use and commercialise (which include granting licenses to third parties) the

Research IP for any purpose on a non-exclusive basis without seeking the consent of CRPO.

10.2.5. Management of all Research IP shall have reference to and be guided by the Public Sector Master Research Collaboration Agreement (PS MRCA) and key principles of the Singapore National IP Protocol for Publicly Funded R&D. In general, Research IP may be open sourced for research and experimentation and licensed for commercial deployment.

10.2.6. The Institutions shall use best efforts to ensure that the Research IP is properly managed and wherever feasible, fully exploited, and commercialised (including being made available for research and development or commercial purposes). Where required to do so by CRPO, the Institutions shall attend such meetings as CRPO may direct to discuss the potential for exploitation and commercialisation of Research IP.

10.2.7. The Institutions shall reserve a royalty-free, irrevocable, worldwide, perpetual and non-exclusive right for the Singapore Government and public sector agencies to Research IP for their statutory functions, non-commercial and R&D purposes.

10.2.8. The IP terms in Clause 10.2 of this Rules and Guidelines are deemed to be incorporated into the Terms & Conditions of CRPO Grant (Annex B).

### 10.3. Ethics and Confidentiality

10.3.1. All the Investigators, Collaborators, staff, and students working on the project must comply with the relevant local laws or regulations governing the research.

10.3.2. All teams are responsible for ensuring that ethical issues relating to their respective projects are identified and brought to the attention of the relevant regulatory bodies for approval. Approval to undertake the research must be granted before any work requiring approval begins.

10.3.3. Ethical issues should be interpreted broadly and may encompass, among other things, relevant codes of practice, the involvement of human participants, tissue or data in research, the use of animals, research that may result in damage to the environment and the use of sensitive economic, social or personal data.

10.3.4. The work should be conducted under strict international, national, and/or institutional guidelines on privacy and confidentiality protection of personal data use.

10.3.5. Whenever possible, all datasets used should be de-identified and anonymised, and/or proper consents and approvals should be obtained for the use of the data.

10.3.6. All the Investigators, Collaborators, staff, and students working on health and biomedical related projects should obtain CITI certification(<https://about.citiprogram.org/en/homepage/>) on biomedical data use or similar training and certification.

## 10.4. Project Support and Facilitation

CRPO is equipped with common research-engineering capabilities to facilitate or support the Cyber Security community. With respect to the grant call, the potential resources that applicants may leverage include:

10.4.1. **iTrust Testbeds:** iTrust is the proud host of several world-class testbeds and lablets. These testbeds and lablets together constitute a one-of-a kind facility for research and training in the design of safe and secure large-scale cyber physical systems. The testbeds aid in the design and testing of devices that fall under the Internet of Things. The lablets support training programs in the area of Cyber Physical Systems. The following testbeds and lablets are available to researchers at iTrust and its partners across the world. You can find more information here: <https://itrust.sutd.edu.sg/testbeds/>

10.4.2. **NCL Testbeds:** National Cybersecurity R&D Lab (NCL), established in 2015 and funded under the National Cybersecurity R&D (NCR) Programme. NCL aim is to provide support to the Singapore cybersecurity R&D community in terms of their research experimentation and testing requirements. NCL offers computing resources and controlled experimentation environments to facilitate collaborative research among academia, government bodies, and industry. The infrastructure comprises a cluster of 300+ nodes with diverse provisioning mechanisms, security data, and security services. OpenStack, an open-source cloud computing infrastructure software project, serves as the foundation for managing the NCL infrastructure. In addition to Compute and Baremetal, NCL also supplies a range of GPU servers to accommodate the growing requirements of AI research. You can find more information here: <https://ncl.sg/>

10.4.3. **NICE Facility:** National Integrated Centre for Evaluation (NiCE) @ NTU is a collaboration between Cyber Security Agency of Singapore (CSA) and NTU. Strategically located in NTU to leverage on their knowledge, expertise and experience in software and hardware assurance, NiCE will be a one-stop facility for product testing, inspection and evaluation. You can find more information here: <https://www.ntu.edu.sg/nice>

### 10.4.4. Facilitating Cyber Security Collaborations and Innovation

10.4.5. **Industry Connections and Matchmaking:** In our pursuit of advancing cybersecurity, CRPO endeavors to bridge the gap between industry and

innovators. We actively collect, curate, and regularly update a comprehensive repository of the skillsets, needs, and interests within the Cyber Security industry. This valuable information is readily accessible on our website, empowering interested applicants to explore potential partnerships seamlessly. Whether you're seeking a collaboration or looking for a specific skillset, our platform acts as a dynamic hub for industry matchmaking.

**10.4.6. System Engineering and Rapid Prototyping:** At the heart of CRPO's capabilities lies a versatile engineering pool equipped with expertise in software and network engineering, web services, privacy-preserving applications, and AI/ML. This dedicated team, comprising the CRPO, stands ready to contribute to project prototyping and Proof of Concept (PoC) development. Leverage the collective skillset of CRPO's engineering talent to fast-track your project from conceptualization to tangible results, ensuring efficiency and innovation.

**10.4.7. Guidance on Translational Opportunities:** Entrepreneurs, researchers, and visionaries are encouraged to engage with CRPO in a dynamic exchange of ideas. We extend an open invitation for applicants to connect with us, seeking advice and insights on the translational efforts related to their cybersecurity concepts. Our experts are available to address queries, provide guidance, and share valuable perspectives on navigating the landscape of translational endeavors. Unlock the potential of your ideas with CRPO's collaborative and supportive ecosystem.

10.4.8. In essence, CRPO serves as a catalyst for synergy within the Cyber Security realm, offering a platform where industry needs meet innovative solutions. From industry matchmaking to hands-on project support and insightful guidance, CRPO is committed to propelling the field forward through collaboration and knowledge exchange. Connect with us and embark on a journey of transformative cybersecurity innovation.

## 10.5. Alignment with CRPO's Research Focus:

10.5.1. Requests for resources detailed in Section 10.4 should align seamlessly with the current research focus of CRPO. It is imperative that applicants, in their proposals, clearly articulate how their resource needs directly contribute to and complement the ongoing research priorities of CRPO. This alignment is pivotal in ensuring that the resources requested contribute meaningfully to the advancement of our collective research objectives.

10.5.2. **Quantification of Resource Needs:** Applicants are expected to provide a clear and quantifiable assessment of their resource requirements within their proposals. This includes specifying the type and quantity of resources needed from CRPO to facilitate their research endeavors. This information will be critically evaluated as an integral part of the proposal request process, aiding in the efficient allocation of resources.

**10.5.3. Justification for Resource Requests:** Recognizing the constraints of limited resources, applicants must provide compelling justifications for their resource requests. The onus is on the applicants to elucidate how the requested resources align with the objectives of their research and why they are integral to the success of their projects. CRPO reserves the right to evaluate and, if necessary, turn down requests that do not meet the criteria of strategic alignment and justification.

**10.5.4. Cost Implications and Facilities:** Applicants should be mindful of the specific costs associated with the facilities mentioned in Section 10.4. Clearly outlining the budgetary requirements in their proposals will enhance the transparency of resource needs. This ensures that both CRPO and the applicants have a comprehensive understanding of the financial implications involved.

**10.5.5. Availability Considerations:** It is important to note that, due to various factors, some of the resources listed may not be immediately available. Applicants should be prepared to incorporate flexibility into their timelines, understanding that certain resources may require additional lead time for procurement or allocation.

**10.5.6.** In summary, CRPO values the strategic alignment, quantification, and justification of resource requests within the context of our research priorities. We encourage applicants to thoroughly assess their needs, articulate them clearly in their proposals, and engage in a collaborative dialogue with CRPO to optimize the utilization of available resources.

## **11. Contact Information**

**11.1. For any enquiries, please contact [CRPO@ntu.edu.sg](mailto:CRPO@ntu.edu.sg)**