MALAYSIAN COMMUNICATIONS AND MULTIMEDIA COMMISSION

INVITATION TO REGISTER INTEREST AND SUBMIT A DRAFT UNIVERSAL SERVICE PLAN

AS A

UNIVERSAL SERVICE PROVIDER UNDER THE COMMUNICATIONS AND MULTIMEDIA (UNIVERSAL SERVICE PROVISION) REGULATIONS 2002

FOR

THE DESIGN, SUPPLY, INSTALLATION, AND COMMISSIONING OF COMMUNICATIONS INFRASTRUCTURE AND DIGITAL CONNECTIVITY FOR PERAK SMART CITY PROJECT (SMART CONNECTIVITY INFRASTRUCTURE AND PERAK INTEGRATED NETWORK OPERATIONS COMMAND CENTRE)

Ref: SKMM(T)/700-ETDD/PSDD/30-002/2026(23)
Date: 10 August 2026

1. BACKGROUND

1.1. The project aims to strengthen Perak's digital infrastructure and support its transition into a Smart City by deploying a comprehensive connectivity infrastructure. Key components include a fibre network, last mile connectivity, smart poles, public Wi-Fi, and a Perak Integrated Network Operations Command Centre (PINOCC). These initiatives are designed to address urban challenges such as safety, traffic congestion, and overcrowding while enabling data-driven decision-making.

1.2. This foundation is designed to enable reliable, high-capacity connectivity across the state, facilitating efficient public services and integrated operations essential for smart city readiness.

2. GENERAL SCOPE OF WORK

2.1. The project scope encompasses the end-to-end design, supply, installation, configuration, integration, testing, and commissioning, including a one (1) year operation and maintenance of key physical and network components. These include a fibre network, smart poles, public Wi-Fi access points, last mile connectivity, fibre active equipment, Long Range Wide Area Network (LoRaWAN) and Closed-Circuit Television (CCTV) infrastructure as part of a Smart Asset Monitoring Solution. Core to this system is the establishment of a PINOCC to monitor and protect digital infrastructures in Perak and build a new data centre with high reliability to run digital applications. The PINOCC will serve as the central hub for monitoring, controlling, and managing network performance, infrastructure availability, and incident response, ensuring cohesive operation of all assets.

2.2. The Designated Universal Service Plan (DUSP) shall undertake the scope of work provided under this Project, including but not limited to the following:

2.2.1. Identify precise site locations for the installation and commissioning of communication infrastructure and digital connectivity facilities;

2.2.2. Finalise the optimal deployment design and implementation methodology to ensure a cost-effective and efficient approach;

2.2.3. Undertake project planning and coordination with relevant internal departments of the Relevant Authorities to secure all necessary permits

and approvals for installation works, ensuring a streamlined and efficient approval process;

2.2.4. Implement the installation of digital facilities in strict accordance with the approved deployment design and implementation plan; and

2.2.5. Providing one (1) year operations and maintenance services, including preventive maintenance, fault rectification, system monitoring, and technical support to ensure continuous and reliable operation throughout the project lifecycle.

2.3. For ease of reference, the scope of work under this project is divided into the following two (2) parts:

2.3.1. **Part 1** - to design, supply, install, configure, test and commission the fibre infrastructure and the development of the core fibre optic backbone network to support robust, high-capacity, and resilient network connectivity; and

2.3.2. **Part 2** - to design, supply, install, configure, test, commission, and operate last mile connectivity, fibre active equipment, the Perak Integrated Network Operations Command Centre (PINOCC), data centre and smart systems. Last-mile connectivity may be deployed using fibre, 5G, satellite, microwave, or a combination thereof, as proposed by the Interested Licensee based on site requirements and technical suitability. Additionally, the provision and installation of connectivity-enabled smart poles (via fibre, microwave, 5G connectivity or satellite), LoRaWAN and smart applications such as Public Wi-Fi, CCTV, and other digital solutions to enable integrated monitoring, management, and service delivery across the identified areas in the state.

2.4. The Interested Licensee shall select Part 1 or Part 2 or both, whichever is most relevant to their experience and expertise.

3. DETAILED SCOPE OF WORK

3.1. Part 1

3.1.1. End to end design of fibre network architecture;
3.1.2. Supply and installation of fibre optic cables;

3.1.3. Statewide network infrastructure and connectivity solutions, ensuring that fibre is ready for service;
3.1.4. Testing and commissioning of fibre infrastructure;
3.1.5. Ensure that the fibre network backbone is fully installed, tested, and commissioned; and
3.1.6. Maintenance of the fibre infrastructure for one (1) year, that includes preventive maintenance, fault rectification and technical support.

3.2. Part 2

3.2.1. Deployment of last-mile connectivity using fibre, 5G, microwave, satellite or a combination thereof, based on site requirements, coverage needs and technical suitability, to connect the identified locations, smart poles, edge devices and smart applications to the PINOCC;
3.2.2. Fibre network active equipment for the backbone;
3.2.3. Deployment of smart poles, Public Wi-Fi access points, CCTV, and edge device;
3.2.4. Configuration and integration of network connectivity;
3.2.5. Renovation and fit-out of the designated PINOCC premises;
3.2.6. Establishment, management and operation of the PINOCC and smart connectivity dashboard and visualisation layer;
3.2.7. Renovation and fit-out of the designated data centre for system hosting and supporting infrastructure;
3.2.8. Establishment, management and operation of smart surveillance and video analytics system;
3.2.9. Establishment, management and operation of events and incident management platform; smart surveillance and video analytics system; and
3.2.10. Operation and maintenance for a period of one (1) year covering PINOCC operations, CCTV monitoring systems, Wi-Fi services, and Smart infrastructure, as well as technical support and incident management.

3.3. The DUSP shall design, deploy, integrate, and commission an end-to-end Smart Connectivity solution in compliance with the overall system architecture and interoperability requirements, covering all relevant components and technology domains based on Part 1 and Part 2.

3.4. All domains shall interoperate seamlessly via secure open interfaces (e.g., REST APIs). The system architecture shall support unified login, role-based access control, centralised user management, cross-domain data dashboards, and real-time correlation of system events.

3.5. In line with the scope outlined above, the table below provides a summary of the principal components and their respective estimated quantities required for the implementation of the Smart Connectivity project.

Table 1: Summary of Key Project Components and Estimated Quantities

No.	Part	Component Category	Estimated Quantity / Range
1	**1**	Fibre Infrastructure	Backbone: 368km
2		Engineering and Deployment	1 Lot
3		Support and Maintenance	1 Year
4	**2**	Last Mile Connectivity	• Fibre :1 Lot or/and • Microwave: 1 Lot or/and • 5G: 1 Lot or/and • Satellite: 1 Lot
5		Fibre Network Active Equipment	• Fibre Equipment & Network Management System: 1 Lot • DWDM Equipment: 1 Lot • POI Equipment: 1 Lot
6		Smart Poles	300 total units whereby: 30 units: 18m Poles 270 units: 9m Poles
7		Public Wi-Fi Access Points	100 units, Wi-Fi 7 Capable
8		PINOCC	1 facility
9		Designated Data Centre	1 facility
10		Smart Asset Monitoring Solution	CCTV 600 units, 4MP H.265+ 50m IR IP67
11		Engineering, Deployment & System Integration	1 Lot
12		Systems Testing and Commissioning	1 Lot

13		LoRaWAN Gateway	50 units
14		Operation and Maintenance	1 Year

4. REGISTRATION OF INTEREST REQUIREMENTS

4.1. The Interested Licensee which wishes to register its interest to become a DUSP pursuant to this Invitation shall hold the requisite licences with a minimum validity of six (6) months from the closing date, as stated in this Invitation (or has submitted its individual licence renewal application pursuant to section 34 of the Communications and Multimedia Act 1998 (Act) to the Commission) to enable it to carry out the scope of work under this Invitation.

4.2. To undertake the work under Part 1, the Interested Licensee is required to hold a valid NFP(I), and for Part 2, to hold NFP(I), NSP(I) and ASP(C) licences providing internet access services, issued under the Act. The NFP(I) licence held by the Interested Licensee must allow the holder of the licence to own or provide the following network facilities under regulation 19 of the Communications and Multimedia (Licensing) Regulations 2000:

Part 1:

4.2.1. Fixed links and cables;

4.2.2. Towers, poles, ducts, and pits to be used in conjunction with other network facilities; and

Part 2:

4.2.3. Fixed links and cables;

4.2.4. Radiocommunications transmitters and link facilities;

4.2.5. Towers, poles, ducts, and pits to be used in conjunction with other network facilities;

4.2.6. Internet Access Service in support of network connectivity

4.3. The licensed area specified under the NFP(I) licence shall be “Malaysia”.

4.4. The Interested Licensee shall meet the following eligibility requirements:

4.4.1. Not owe any outstanding fees (e.g. licence/spectrum assignment and/or numbering assignments) or outstanding payments (e.g. liquidated damages) to the Commission;

4.4.2. Has duly submitted its Return of Net Revenue (RONR) forms to the Commission for each year without fail;

4.4.3. Has no outstanding USP Fund contribution; and

4.4.4. The Interested Licensee shall register its interest with the Commission by completing the Registration of Interest form enclosed in **Appendix A** of this Invitation.

4.5. The Interested Licensees are hereby reminded that pursuant to sub-regulation 6(1) of the USP Regulations, those who have registered their interest will be legally obliged to submit a Draft Universal Service Plan of this Invitation. An Interested Licensee who fails to comply with sub-regulation 6(1) commits an offence under the USP Regulations and shall, on conviction, be liable to a maximum fine of RM300,000.00 or imprisonment for a maximum term of three (3) years or both.

4.6. Upon acceptance of the Registration of Interest (ROI), the Commission shall provide the Interested Licensees with a secured access link to the Request for Proposal (RFP) documentation, which shall include the Draft Universal Service Plan submission requirements and detailed guidelines.

5. CLOSING DATE

Submission of Registration of Interest

5.1. All Interested Licensees shall submit the duly completed Registration of Interest Form in scanned PDF copy format as enclosed in **Appendix A** of this Invitation on or before **3:00 pm, 13 August 2026 (Thursday),** via email at peraksmartconnectivity@mcmc.gov.my.

5.2. The Interested Licensee shall make available the original ROI form, in hardcopy to the Commission, if required.

5.3. Proof of submission shall take the form of the issuance of an acknowledgement email receipt to the sender from the same email address.

5.4. The Commission shall **NOT ACCEPT** any submission of the ROI form made by way of physical copy, fax, mail and/or any other means.

5.5. Subject to the timeline for submission of the ROI, if an Interested Licensee submits multiple forms, the Commission will accept the latest submission as final.

The Interested Licensees are reminded to strictly adhere to the specified date and time and ensure that the Registration of Interest Form is submitted accordingly. In this regard, the Interested Licensee's proof of postage or other evidence of transmission shall not be accepted as proof of receipt by the Commission.