ΕΘΝΙΚΟ ΚΕΝΤΡΟ ΕΡΕΥΝΩΝ Ε.Π. «ΔΗΜΟΚΡΙΤΟΣ»
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Ημερομηνία : **02-07-2024**
Τόπος : **ΑΓΙΑ ΠΑΡΑΣΚΕΥΗ**
Αριθμός : **4849**
Οικονομικό Έτος : **2024**
Πρωτόκολλο Δαπάνης : **18991/02-07-2024**
Κωδικός Έργου : **12625**
Επιστημονικός Υπεύθυνος : **ΠΑΠΑΔΟΠΟΥΛΟΣ ΟΜΗΡΟΣ**

ΧΡΗΜΑΤΙΚΟ ΕΝΤΑΛΜΑ ΠΛΗΡΩΜΗΣ

των παρακάτω δικαιούχων με το ποσό των: **#δύο χιλιάδων τετρακοσίων ευρώ# (2.400,00 €)**
από το έργο με τίτλο «Deploying advanced national QCI systems and networks in Greece - HellasQCI» που χρηματοδοτείται μέσω του προγράμματος «Digital-EDIH, Digital Europe Programme (DIGITAL)» με τραπεζικό λογαριασμό GR5001720090005009108438776.

Επωνυμία				Επάγγελμα			
ΚΟΡΑΚΗΣ ΑΝΤΩΝΙΟΣ				ΜΗΧΑΝΙΚΟΣ Η/Υ			
Παραστατικό	Ημερομηνία	Κατηγορία Δαπάνης			Καθαρή Αξία	Αξία ΦΠΑ	Συνολική Αξία
70	01/07/2024	61-00-2 Αμοιβές τρίτων με σύμβαση έργου και Παροχής Υπηρεσιών		Τιμολόγιο	2.400,00	0,00	2.400,00
Πρωτόκολλο Υποχρέωσης	Ανάληψης	Α.Δ.Α. Ανάληψης Υποχρέωσης	Αιτιολογία				

18460/27-06-2024	Ρ1ΧΗ469ΗΕΒ-ΙΣΝ	Σύμβαση:27494, Α.Δ.Α.:6ΗΠΔ469ΗΕΒ-Π2Ρ

(01/06/2024 - 30/06/2024) «WP2 Design of the HellasQCI and interoperability with EuroQCI (M1-M30), T2.1 Definition of the HellasQCI Use Cases, The task aims to define HellasQCI use cases for the T2.2 layered architecture design. It will define the operational KPIs for each use case, including key communication, key management, and Quantum layers. Key generation and consumption rates, key refresh rate, and link distances will be identified. The task will also provide the final configuration of QKD technology, end nodes, dark fiber infrastructure, topology design, trusted nodes, and a key management system for key storage management, optimal routing, QoS, and secure communication at national and international levels. T2.4 Participation in the EuroQCI initiative and collaboration with the DIGITAL topic 3 project (co-ordination and support action [CSA]) and with other EuroQCI projects. HellasQCI will collaborate with other EU Member States to design and build an EuroQCI system architecture for a large-scale deployment of a quantum key exchange (QCI) spanning the EU. The cooperation will involve lessons learned and exchange of experiences in building robust, interoperable, and secure QKD systems and networks. HellasQCI will offer space and terrestrial installations for equipment and interoperability use cases. The European Commission will support the EuroQCI initiative, with project partners contributing to collaboration efforts, technology gap analysis, interoperability, and communication. WP3 Implementation and operation of the HellasQCI (M1-M30). Task - T3.1 Phase 0 Network emulation and experimental setup. This task will implement Phase 0 of the project, preparing for full scale implementation of testbeds in Phases 1 and 2 in T3.2 and T3.3. The focus is on characterizing available fiber infrastructure, defining interfaces with 5G/FTTH facilities, emulating key network functions of the relayed and switched QKD approach, developing network integration tools for the switched QKD approach, and developing a hybrid PUF/PQC/QKD authentication scheme. The task will also interact with T2.2 to provide feedback for the overall HellasQCI architecture. T3.2 Phase 1 Network Implementation to support terrestrial use cases. This task oversees the procurement process, performs acceptance testing, and operates the HellasQCI infrastructure for phase 1 use cases. It also updates and reconfigures the software stack for monitoring and controlling the HellasQCI infrastructure. Task - T3.3 Phase 2 Network Implementation to support space and terrestrial use cases. The Eagle-1 satellite will launch the 2nd phase of the project, installing QKD equipment and putting the HellasQCI infrastructure into operation. This will enable the execution of use cases defined in T2.1. If the satellite isn't operational, remote links will be simulated using a tool. WP4 Demonstation of the Use Cases (M6-M30). Task - T4.1 Monitoring and coordination of the use cases demonstration. The task will coordinate use case demonstrations and communicate with testbeds in WP3. GRNET will supervise progress in GOV, IND, and EDU sectors, providing green light for completed use cases. The task will establish a pool of available QKD resources, optimize resource consumption, and schedule execution based on infrastructure availability. This task will be initiated after use case definition in T2.1. WP5 Trainings in QCI and QKD systems and networks (M1-M30). Task - T5.2 Research and Education communities' trainings. The HellasQCI training branch will be implemented for research and academic communities, with AUTH, GRNET, NKUA, and FORTH preparing theoretical and experimental activities. Lectures will focus on Quantum Cryptography principles and scientific pillars, while hands-on training will include labscale single-photon experiments and transmission performance of QKD systems. T5.3 Technical and security communities' trainings. The task aims to provide hands-on training to technical and security communities on cryptography, quantum key distribution, and QKD infrastructure. It focuses on theoretically perfect secrecy cryptographic systems like "One Time Pad," and enables trainees to use and understand the operation of the QKD infrastructure. T5.4 End-users trainings. The task involves training non-technical staff on quantum communication, security enhancements, and technology features. It includes two tutorial sessions: 1) a high-level overview of quantum cryptography, secure data transmission, and infrastructure description; and 2) user interface training to familiarize end users with system capabilities and operating principles. Στο πλαίσιο του πακέτου εργασίας WP2 Design of the HellasQCI and interoperability with EuroQCI (M1-M30), Task - T2.5 Connections and collaborations with Quantum Technologies Flagship projects, Task 2.5 monitors Quantum Flagship projects and proposes collaborations between them and HellasQCI. It aims to showcase advanced QKD research prototypes and support its use cases. The HellasQCI consortium will also closely monitor Quantum Internet initiatives, integrating entanglement distribution in deployed HellasQCI segments. Στο πλαίσιο του πακέτου εργασίας WP3 Implementation and operation of the HellasQCI (M1-M30), Task - T3.4 Network management, alignment with European QKD standards, security and certification, The task consists of three subtasks: Network Management,

Standardisation and Certification, and Security. Network Management will monitor the HellasQCI infrastructure and correct faults, with the GRNET Network Operations Center (NOC) performing these actions. Standardisation and Certification will link HellasQCI with European and international SDOs activities in Quantum communication, ensuring compliance with existing standards and contributing to SDOs Working Groups. Security will focus on system security at both architecture and implementation levels, with frequent penetration tests to evaluate system security and expose vulnerabilities. Στο πλαίσιο του πακέτου εργασίας WP4 Demonstation of the Use Cases (M6-M30), T4.3 Industrial Sector: Critical infrastructures and ICT industry, The task aims to demonstrate industrial sector use cases targeting critical infrastructure and ICT applications, as well as inter-domain connectivity between governmental and industrial sites. NKUA, GRNET, and MOH will work on the critical infrastructure use case, using DV-QKD resources for initial evaluation. Phase 1 will use a CV-QKD system to coexist with classical channels, while Phase 2 will use an OGS-GRNET QKD link for secure QKD connections between MOH refinery campus and headquarters. COSM, GRNET, and NKUA will use QKD for secure inter-DC connectivity, quantum secure transport, and quantum security layer.», με παραδοτέα: « D2.1 Detailed definition of the use cases KPI and their implementation strategy. D2.1 Detailed definition of the use cases KPI and their implementation strategy. D2.6 - Report on the collaboration of HellasQCI and Quantum Flagship Initiatives. Report on the connections between HellasQCI and QF initiatives, including the results of joint activities/demos. D3.1 - First report on Phase 0 testing. D3.2 - Second report on Phase 0 testing. Deliverable D3.3 - The HellasQCI management and control plane. Deliverable D3.5 - Phase 2 HellasQCI implementation. Deliverable D3.6 - First network management report. Deliverable D3.7 - Final network management report. Deliverable D3.8 - Security architecture. Deliverable D3.9 - Security evaluation. Deliverable D5.2 - Final report on training activities for academic & research communities Highlights of training activities for research and academic communities including the summary/links with training materials. Deliverable D5.3 - Final report on training activities for security & IT experts Highlights of training activities for

Κρατήσεις	Αξία
ΟΓΑ Χαρ.	9,60
Φόρος	480,00
Χαρτ.	48,00

Συνολική Αξία Εντάλματος

Καθαρή Αξία	Αξία ΦΠΑ	Συνολική Αξία	Σύνολο Κρατήσεων	Πληρωτέο
2.400,00	0,00	2.400,00	537,60	1.862,40

Ο Εκκαθαριστής

Π.Ο.Υ
Μαρίνα Φονταρά

Ράικος Νικόλαος