

Contract for the delivery of PCIe gen 4 Protocol Analyser

(hereinafter the "Contract")

Buyer Contract No: 204/2019

Seller Contract No: 001/NOV/2019

concluded within the meaning of provisions of Section 2079 et seq. of Act No 89/2012, the Civil Code, as amended (hereinafter the "Civil Code"), between

the Buyer:

Name (business name): **CESNET, interest association of legal entities**
Registered in: the Register of Associations kept by the Municipal Court in Prague, file no L 58848
Registered office: Zikova 1903/4, 160 00 Prague 6
ID No: 63839172
Tax ID: CZ63839172
Bank details: Komerční banka, a.s., Prague 6 Branch
Account No: 19-8482200297/0100
Represented by: Ing. Jan Gruntorád, CSc., based on a written mandate by the Board of Directors

and

the Seller:

Name (business name): FLOWCAD POLAND SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ SPÓŁKA KOMANDYTOWA
Registered in: The Commercial Register at "SĄD REJONOWY GDAŃSK-PÓŁNOC W GDAŃSKU, VII WYDZIAŁ GOSPODARCZY KRAJOWEGO REJESTRU SĄDOWEGO"
Registered office: ul. Sądziecka 2A, 80-298 Gdańsk, Poland
ID No (REGON): 221515753
Tax ID: PL 9571059801
Bank details: SANTANDER BANK POLSKA SA
Account No: IBAN PL63 1090 1098 0000 0001 1868 1724 SWIFT: WBKPPLPP
Represented by: Tomasz Górecki, president

1. Introductory provisions

- 1.1. This Contract sets out the content of the legal relationship between the aforementioned parties. In case of doubt, the provisions of this Contract shall be construed in accordance with the tender specifications specified in the tender documentation, including the annexes to the performance of the public contract entitled "PCIe gen 4 Protocol Analyser", hereinafter the "Public Contract", which is an inseparable part of this Contract as Annex 2, as well as in accordance with the Seller's tender submitted for the performance of this Public Contract, the technical and price parts of which form Annex 1 to this Contract.
- 1.2. Performance under this Contract is acquired by the Buyer to obtain a solution that ensures the contracting authority's ownership of the PCI Express Protocol Analyser with support for the upcoming (fourth) generation of this standard. The Seller is always obliged to take this into account during the delivery and performance.

2. Subject-matter of the contract

- 2.1. The subject-matter of this Contract is the Seller's obligation to deliver/provide the following to the Buyer:
 - 2.1.1. **Delivery** of the PCI Express Protocol Analyser for the 4.0 PCIe x16 bus according to the technical parameters and requirements of the contracting authority specified in the tender documentation of the Public Contract, in particular in Annex 1 thereto.

The Buyer undertakes to hand over the existing Teledyne LeCroy Summit T3-16 (Buyback) to the Seller (or carrier) at the place specified in paragraph 5.2. The transport costs in this case are part of the price of

performance according to Article 3. (the costs are borne by the seller). The equipment returned according to this paragraph shall be indicated in the handover protocol referred to in paragraph 6.1.

The Seller shall deliver to the Buyer the hardware (hereinafter the “HW”) and possibly also the necessary software/firmware (hereinafter the “SW”) stated in the Seller's tender for performance of the Public Contract, the technical and price parts of which form the Annex 1 thereto.

The Seller guarantees that:

- the delivered goods are new, unused, genuine and fully functional and that the Seller is entitled to deliver them to the Czech Republic;
- it obtained the SW products in accordance with legal regulations and that it is entitled to deliver them.

2.1.2. Warranty

The delivery will also include the provision of a guarantee for the quality and proper functioning of the delivered equipment pursuant to the provisions of Section 2113 et seq. of Act No 89/2012, the Civil Code (hereinafter the “Civil Code”).

2.2. The Buyer undertakes to pay the Seller the price specified below for a properly provided performance.

3. Price for the subject-matter of performance

- 3.1. The total price for the performance of this Contract is CZK **4 000 000,- excluding VAT**.
- 3.2. Detailed price specification is provided in Annex 1 to this Contract.
- 3.3. The price for performance of this Contract was determined on the basis of the Seller's tender submitted to the procurement procedure for the Public Contract and it includes all fees and all other costs relating to the performance of the subject-matter of the Contract and it is the maximum admissible price. The price includes warranty and software support.
- 3.4. The seller don't apply VAT in accordance with applicable and effective legal regulations.

4. Terms of payment

- 4.1. The price for performance of this Contract shall be paid by the Buyer to the Seller on a one-time basis based on the Seller's invoice (hereinafter the “Invoice”), which the Seller is entitled to issue after properly providing the performance (see paragraphs 6.1. and 6.2.).
- 4.2. The invoice must, as an annex, include the relevant handover report signed by the authorized person of the Buyer (see paragraph 6.1. of this Contract), otherwise it does not create the obligation of the Buyer to pay.
- 4.3. The invoice is due within 30 days from the date of its delivery to the Buyer. The invoice must contain all the particulars of a proper accounting and tax document within the meaning of the relevant legal provisions. The invoice must also contain **a reference to this Contract** (the contract number in the header of this Contract). If the invoice does not have the appropriate particulars, the Buyer is entitled to return it to the Seller within the maturity date for completion or correction without being in default with the maturity date; the maturity period starts to run again from the delivery of a duly completed or corrected document.
- 4.4. The Buyer shall pay the Seller for the performance of this Contract by non-cash transfer to the Seller's account provided on the cover page of this Contract, or to the account indicated on the invoice.
- 4.5. The Buyer does not provide advance payments.

5. Period and place of the performance

- 5.1. The period of performance is determined as follows:
 - 5.1.1. **the delivery of HW and SW** according to paragraph 2.1.1. shall be executed by the Seller no later **than 100 days from the date of conclusion of this Contract**;
 - 5.1.2. **the warranty** for the delivered HW is agreed to be **12 months**. The warranty starts on the day of signing the handover report (see paragraph 6.1.).
- 5.2. The place of performance – the delivery of HW/SW – is the workplace of the contracting authority at VUT Brno, Faculty of Information Technology, Božetěchova 1/2, Brno, Czech Republic.

6. The method of handover and the rights and obligations of the parties in the course of performing the contract

- 6.1. Handover of the performance (delivery) shall take place upon delivery of the subject-matter of performance on the basis of the handover report signed by the representatives of both parties. The Buyer is entitled to refuse to accept the performance if it is defective at the moment of the handover. The performance is considered delivered and the Seller's obligation to deliver the goods is performed only at the moment of handover of the non-defective goods to the Buyer.
- 6.2. In regard to warranty, a duly provided performance shall mean the due and timely provision of such performance in accordance with the terms and conditions specified in the tender documentation or in this Contract.
- 6.3. Defects / faults / malfunctions shall be reported by the Buyer under warranty support:
 - on phone number: +1(408)653-1260
 - by email: psgsupport@teledynelecroy.com
 - in the customer portal: <https://teledynelecroy.com/support/user/userregisterform.aspx>

The Seller undertakes to notify the Buyer immediately of any change in contact details for reporting defect, at least 48 hours before the new contacts start to be used.
- 6.4. The Seller undertakes to remove defects within the warranty within 30 days from the date of their reporting by the Buyer or to supply the Buyer with new equipment. Defective equipment for repair in case of claiming warranty rights, repaired equipment or new equipment in case of replacement will always be handed over at the place of performance according to paragraph 5.2.
- 6.5. Rights stemming from defective performance are governed by the provision of Section 2099 et seq. of the Civil Code, unless otherwise specified in this Contract.
- 6.6. The Buyer undertakes to provide the Seller with proper cooperation in the course of delivery of HW and SW. If the Buyer fails to cooperate, the period of performance will be extended by the length of the time period when the Seller could not comply with its obligations due to the failure to cooperate.
- 6.7. The Seller is obliged to deliver only genuine and new HW and SW products, and the Seller is required to provide proof of their origin at the Buyer's request at any time. The Seller is also obliged to promptly provide the relevant certificates and attestations for the delivered HW and SW at the Buyer's request, for example (but not limited to) that the delivered HW and SW complies with the relevant technical standards and legal regulations valid in the Czech Republic.
- 6.8. The Seller undertakes to provide the Buyer with servicing even in the event that the defects (faults) of the delivered HW or individual components arise from improper storage or placement, unprofessional intervention or manipulation, mechanical damage by the Buyer, or by using the HW contrary to the manufacturer's technical conditions or due to natural disaster; the price for service actions in these cases is not a part of the price for performance of this Contract and will be agreed upon by the parties in advance if the situation allows for it.
- 6.9. By signing this Contract, the Seller further undertakes:
 - 6.9.1. not to assign its rights or obligations to any third party without the Buyer's prior written consent;
 - 6.9.2. to compensate the Buyer for damage caused by a prospective subcontractor;
 - 6.9.3. to ensure maximum flexibility in the performance of the subject-matter of the Public Contract, especially in addressing the justified needs of the Buyer that arise during the performance of the contract

7. The right of ownership, risk of damage to property and regulation of intellectual property rights

- 7.1. The right of ownership will pass to the Buyer at the moment of full payment of the price for performance of this Contract (Article 3).
- 7.2. The risk of damage passes to the Buyer at the moment the equipment is delivered and handed over to the Buyer at the place of performance.
- 7.3. If the Seller's performance under this Contract is the provision of any third party SW, the Seller shall ensure that all necessary rights (licenses) to use such SW are transferred to the Buyer to perform the purpose of this Contract under the following conditions:
 - 7.3.1. the Buyer shall be entitled to use all SW to exercise the right to the extent necessary for proper use of the subject-matter of the performance;
 - 7.3.2. the right to use (the license) must be granted for an indefinite period;
 - 7.3.3. the price of the license is included in the total price of performance according to Article 3 of this Contract.

8. Liability

- 8.1. All parties are responsible for delay, defects and damage caused. The conditions and consequences of liability are based on this Contract and on generally binding legal regulations, in particular the Civil Code. The parties undertake to make every effort to prevent damage and to minimize the damage incurred.
- 8.2. None of the parties shall be liable for any damage caused as a result of circumstances that exclude liability within the meaning of the Civil Code (Section 2913(2)). The parties undertake to notify the other party without undue delay of liability excluding circumstances that arise and prevent the proper performance of the Contract and they undertake to exercise maximum effort to avert and overcome them.
- 8.3. The Seller is responsible for ensuring that the goods delivered and handed over under this Contract will be unused (new) at the date of delivery, fully functional and will comply with the requirements set out in the tender documentation.
- 8.4. The Seller is responsible for having been entitled to provide a license for the SW to the required extent pursuant to paragraph 7.3. of this Contract.

9. Compensation for damage, contractual penalties and withdrawal

- 9.1. Compensation for damage incurred by one party to another is governed by the provisions of the Civil Code.
- 9.2. The Buyer is entitled to a contractual penalty amounting to 0.1% of the total price of performance excluding VAT for each commenced day of delayed handover during the period of performance pursuant to paragraph 5.1.1, but no more than 10% of the total price of performance pursuant to Article 3 of this Contract, which does not affect the right to compensation for possible damage, which may be caused, inter alia, by the fact that the Buyer will not be entitled to receive a subsidy intended to finance the Public Contract. The Buyer shall be entitled to set off any claim for a contractual penalty under this paragraph against the price the Buyer will be obliged to pay under this Contract. The Buyer has the right to withdraw from this Contract or to terminate it with immediate effect in the event of the Seller's delay in delivering performance for a period exceeding 15 days.
- 9.3. If during the implementation of the performance it becomes clear that the properties (in particular technical properties) of the delivered goods and/or services are demonstrably contrary to the information provided by the Seller in the procurement procedure for this Public Contract, the Buyer shall have the right for a contractual penalty of CZK 300,000. At the same time, the Buyer shall have the right to withdraw from this Contract; however, such withdrawal will not affect the Buyer's right for the contractual penalty and the claim for compensation for damage.
- 9.4. If during the implementation of the performance it becomes clear that the Seller provided the Buyer with SW whose author or rights holder is a third party and the Seller was not entitled to provide this SW, the Buyer is entitled to a contractual penalty of CZK 100,000 for each individual breach of this obligation and for a claim for compensation for damage. In such a case, the Buyer shall also be entitled to request the Seller to secure the license to the necessary extent (without additional payments by the Buyer), and if such obligation is not performed by the Seller within 30 days of delivery of this request, the Buyer shall have the right to withdraw from the Contract. However, the Buyer's right to compensation of damage and the contractual penalty referred to in this paragraph shall remain unaffected.
- 9.5. If the Buyer is in default in payment of an invoice duly made out by the Seller on the due date of the invoice, the Seller shall be entitled to late payment interest of 0.1% of the outstanding amount for each commenced day of default in payment. The Seller is entitled to withdraw from this Contract if the Buyer is in default in payment of the purchase price (its part) for more than 15 days.
- 9.6. Both parties have the right to withdraw from this Contract in the event of a repeated default by the other party to perform any obligation under this Contract. Claims for compensation for damage and contractual penalties until the date of withdrawal shall remain unaffected (the damage may include, inter alia, the costs incurred to the Buyer to carry out a new procurement procedure).
- 9.7. The amount of compensation for damage in accordance with this Contract in any direction and of any party is not limited. No provision in regard to the contractual penalty or the actual payment shall affect the parties' claim for compensation for damage.
- 9.8. Any of the parties may, under the terms of this Contract, withdraw only from a part of the Contract, unless this is precluded by the nature of the performance.
- 9.9. The effects of withdrawal from the Contract (termination) will become effective when the written statement of will expressing the withdrawal (termination) is delivered to the other party.

10. Final provisions

- 10.1. The parties shall cooperate with each other and provide each other with all the information necessary for the proper performance of their respective obligations. The parties are obliged to inform the other party of any facts that will, are or may be important for the proper performance of the Contract.
- 10.2. The parties shall inform each other of any organisational change (e.g. change of telephone numbers, address, bank connection, etc.) without undue delay.
- 10.3. The parties are obliged to perform their obligations arising from this Contract so that there is no unnecessary delay in complying with individual deadlines and that there are no default regarding the maturity of individual monetary obligations.
- 10.4. All notifications between the parties relating to or stemming from the Contract must be made in writing and demonstrably delivered to the other party to the address specified in the Contract, unless otherwise specified or agreed upon by the parties.
- 10.5. By signing this Contract, the Seller acknowledges and agrees that:
 - 10.5.1. the Seller becomes, in accordance with Section 2(e) of Act 320/2001, on Financial Control in Public Administration, as amended, a person obliged to cooperate in the performance of financial control; as part of this control, the Seller is obliged to allow inspection in accordance with the conditions stipulated by the mentioned Act and shall allow authorized inspection bodies access to those parts of the tender, contract and related documents that are subject to protection under special legal regulations (e.g. business secrets, classified information) provided that the requirements laid down by legal regulations (e.g. Act No 255/2012, on Inspection, as amended) are met;
 - 10.5.2. the Seller is obliged to contractually ensure that the subsidy provider's representatives and, if applicable, other authorized persons are entitled to control its prospective subcontractors in a similar way;
 - 10.5.3. in addition to Act No 134/2016, on Public Procurement, the procurement procedure, the performance of the Public Contract and the subsequent control are also pursuant to other legal regulations (especially Act No 320/2001, on Financial Control in Public Administration and Act No 255/2012, on Inspection (Inspection Code)).
- 10.6. The Seller acknowledges that pursuant to Section 219 of Act No 134/2016, On Public Procurement, as amended, the Buyer is obliged to publish this Contract on its contracting authority profile.
- 10.7. The contractual relationship established by this Contract is governed by the Civil Code.
- 10.8. The effective date of this Contract is the date of signature by the last party.
- 10.9. This Contract was prepared in 2 originals, one of which will be received by the Buyer and one by the Seller.
- 10.10. The parties declare that the Contract was prepared according to their true and free will, they have read the Contract, agree with its content and in witness whereof they attach the signatures of their responsible representatives.

For the Buyer:
Done in Prague, on (see the electronic
signature)

For the Seller:
Done in Gdańsk, on (see the electronic
signature)

Ing. Jan Gruntorád, CSc.
Director

Tomasz Górecki
President

List of annexes to the Contract:

- Annex 1: Equipment delivery specification - technical and price part of the Seller's tender
Annex 2: Tender documentation of the Public Contract (the main document and Annex 1)



Annex 1 to the Contract
Equipment delivery specification - technical and price part of the Seller's tender

FlowCAD

COVER SHEET OF THE TENDER

Procurement:

„PCIe gen 4 Protocol Analyser“

Contracting authority:	CESNET, zájmové sdružení právnických osob Žitkova 1903/4, 160 00 Praha 6 IČ: 63839172
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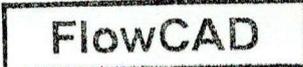
Supplier identification data: Par. 28 sec. 1 letter g) of the Act No. 134/2016 Coll., On Public Procurement (hereinafter the "Act")	
Supplier (business name)	FlowCAD Poland Spółka z ograniczoną odpowiedzialnością Sp. K.
Registered seat (place of business in case of natural person) (full address)	ul. Sąsiedzka 2A 80-298 Gdańsk Poland
Legal form	limited liability company limited partnership
Identification number	REGON: 221531887
Tax identification number	PL 9571060431
Registration in public register	the commercial register
Data box identifier	
Web pages	www.FlowCAD.pl
Contact person of the Supplier	
Name	Tomasz Górecki
Phone	+48 665 68 22 55
E-mail	tgorecki@FlowCAD.pl
Total bid price excl. VAT	4.000.000,- CZK
VAT rate	we don't apply VAT
VAT amount	
Total bid price incl. VAT	
Date	27-09-2019
Name of the person authorized to act on behalf of the supplier	Tomasz Górecki
Signature (stamp) (can be replaced by an electronic signature)	<div style="text-align: center;"> FLOWCAD POLAND SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ SP. K. ul. Sąsiedzka 2A 80-298 Gdańsk NIP: 9571060431 REGON: 221531887 www.FlowCAD.pl Tel: +48 66 732 74 77</div>
Authorization details	

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Tomasz Górecki

FlowCAD

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www.FlowCAD.pl

Gdańsk, 2019-09-27

Information about the technical and business terms and conditions offered by the contractor

FlowCAD Poland Spółka z ograniczoną odpowiedzialnością Sp. K. will deliver a new "PCI Express Protocol Analyzer for the 4.0 PCIe x16 bus" in form of a trade-up for the existing Teledyne LeCroy Summit T3-16 Analyzer.

The new "PCI Express Protocol Analyzer for the 4.0 PCIe x16 bus" fulfills all technical requirements mentioned in:

Annex 1 to the Tender Documentation
Technical specification of the subject of the contract
Public tender „Protocol analyzer PCIe gen 4“

Total tender price, the performance of the whole subject-matter of the public contract including trade-up cost is 4.000.000,-- CZK excl. VAT.

	Price in CZK excl. VAT	VAT rate in %	price in CZK incl. VAT
Total tender price, performance of the whole subject-matter of the public contract	4.000.000,-- CZK	We don't apply VAT	

FlowCAD offers following configuration of Teledyne LeCroy equipment:

QTY	Product numb	Product Description
1	PE090AAA-X	Summit T416 (licensed as a Gen4 x16 analyzer at 8GB, no probes or cables) Hardware/Software Bundle
1	PE183UIA-X	G4x16 MultiPort Capable Interposer (includes G4x16 Interposer Card)
2	PE021UCA-X	G4 x1, x4, x8 Y-Cable

On the next pages the datasheets of Protocol Analyzer (PE090AAA-X) and Interposer (PE183UIA-X) are provided.



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Tomasz Górecki - President

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 ul. Sąsiedzka 2A, 80-298 Gdańsk

NIP: PL9571060431 REGON: 221531887

Summit™ T416 Analyzer for PCI Express® 4.0



Key Features

Find errors fast

- One button error check
- Fast upload speed
- Large trace memory
- Powerful triggering/filtering

See and understand the traffic

- Get useful information
- More choices of data views
- More ways to analyze data
- Custom decoding and reports

Data capture

- 100% data capture at 16.0 GT/s on all link widths up to x16

Deep memory buffer

- Up to 128 GB depth

PCIe storage protocols supported

- NVMe Express
- NVMe-MI
- SATA Express (ATA/AHCI-PCIe)
- SCSI Express (SOP-PQI)

Virtualization protocols

- SRIOV
- MRIOV
- ATS

Out of band signaling

- SMBus
- CLKREQ#
- WAKE#
- PERST#

Supports MultiPort™ analysis

BitTracer™

The Summit T416 is Teledyne LeCroy's highest performance PCI Express analyzer, and offers advanced features such as: support for PCI Express Spec 4.0; data rates of 2.5 GT/s, 5.0 GT/s, 8.0 GT/s, and 16.0 GT/s; full data capture on bidirectional link widths of x1, x2, x4, x8 and x16; and up to 128GB of trace memory. The product is ideal for high-performance protocol development for add-in boards, servers and workstations, and for customers currently working on PCIe 3.0 or who wish to support PCIe 4.0.

Flexible Hardware

The Summit T416 PCIe 4.0 Protocol Analyzer is a high-end analyzer that offers important analysis features for new Gen4 application development. While sharing application compatibility with the previous protocol analyzer platforms, the Summit T416 can record traces at speeds of 2.5, 5.0, 8.0 and 16.0 GT/s. Capturing is performed by connecting a Gen4 interposer to the Device Under Test (DUT). Interposers are offered in link widths of x1, x4, x8 and x16. Know that your data is accurate through reliable and complete decodes of Transaction Layer Packets (TLPs), Data Link Layer Packets (DLLPs), and all primitives for PCI Express for up to 16 lanes. Setting up and taking a trace is simple to do without the worry of extra plugin platforms or complex networking issues.

The Summit T416 for PCI Express 4.0 utilizes the CATC Trace™, Spreadsheet View, LTSSM State View, Bit Tracer View and other focused views to assist users in analyzing how PCI Express protocol components work together in diagnosing problems. These various interfaces help find errors fast by using

the powerful triggering, filtering and error reporting. View meaningful reports about performance and protocol behavior in real time, and post captured traffic. These diverse views create a powerful and an intuitive expert software system, embedding detailed knowledge of the protocol hierarchy and intricacies as defined in the protocol specification. Graphical displays have been optimized for fast and easy navigation through a captured traffic session. Users are alerted as violations are detected at all levels of the protocol layering, and can easily drill down to areas of interest or collapse and hide fields that are not relevant. Protocol data can be viewed in several ways from logical to chronological, and by events unique to PCI Express.

All Teledyne LeCroy protocol analysis feature a hierarchical display of protocol traffic summaries, detailed error reports, powerful scripting, and the ability to create user-defined test reports, which allow developers to troubleshoot intricate problems and finish their projects on time. Users of Teledyne LeCroy systems appreciate the rich library of decodes and analysis capabilities that are available on all of Teledyne LeCroy's PCIe test tools.

The Summit T416 is up to the challenge by offering decoding for Storage protocols like NVMe Express and SATA Express. DataCenter monitoring technology such as NVMe-MI and out-of-band SMBus signaling which is decoded and synchronized with PCI Express can be analyzed for protocol traffic issues. If IO virtualization is important SRIOV and MRIOV is also decoded and analyzed.

Want to get down to the byte level and see traffic just before lane alignment? BitTracer™ software option records the bytes exactly as they come across the link, allowing debugging of PHY layer problems and combining the features of a logic analyzer format with a decoded protocol analyzer format.

Specifications	
Host Machine Minimum Requirements	Microsoft Windows® 10, Windows 8, Windows Server, Windows 7, Windows Server 2008R2; 2 GB of RAM; Storage with at least 1 GB of free space for the installation of the software and additional space for recorded data; display with resolution of at least 1024x768 with at least 16-bit color depth; USB 2.0 port and/or 100/1000baseT Ethernet; For optimal performance, please refer to our recommended configuration in the product documentation.
Recording Memory Size	Summit T416 Protocol Analyzer: Up to 128 GB
Data Rates Supported	2.5 GT/s, 5.0 GT/s, 8.0 GT/s and 16.0 GT/s (PCI Express 4.0)
Ports	Summit T416 Protocol Analyzer: Downstream and Upstream reference clock inputs, USB 3.0 Type B connector, Trigger in and out, 1 GB/s ethernet port, Sync in/out port
Display Panel	Summit T416 Protocol Analyzer: 122x32 Pixel Graphic display
LEDs	Power LED, Status LED, Trigger LED, Four Data Rate LEDs (2.5 GT/s, 5.0 GT/s, 8.0 GT/s, 16.0 GT/s), 32 Activity LEDs (2 per lane—Tx/Rx—for 16 lanes), Training LED
Dimensions and Weight	Summit T416 Protocol Analyzer: 114 x 19 x 207 mm (16.99" x 3.45" x 14.35"), 5.4 Kg (12 lb) Slot Interposer: 100 x 198 x 170 mm (3.9" x 7.8" x 6.7"), 1.4 Kg (3 lb)
Power Requirements	100-240 VAC, 50-60 Hz, 230W
Environmental	Operating: 0 to 55°C (32 to 131°F) Non-operating: -20 to 80°C (-4 to 176°F) Humidity: 10 to 90% non-condensing

Additional Features

- ✓ Protocol Hierarchical Display
- ✓ Spreadsheet View
- ✓ Queue Utilization
- ✓ NVMe
- ✓ SATA Express
- ✓ NVMe-MI
- ✓ SMBus
- ✓ ZeroTime™ Search
- ✓ Dword View
- ✓ LTSSM View
- ✓ Header Field Viewer
- ✓ Config Spec Viewer
- ✓ TLP Packet Script Decoding
- ✓ Timing Calculator
- ✓ Trigger/Filter Control
- ✓ Performance Metrics
- ✓ Expert Triggering
- ✓ Trace Expert
- ✓ Expert Graphical Bus Utilization View
- ✓ Verification Script Engine
- ✓ 1 GB/s Ethernet & USB 3.0

Ordering Information

Product Description

Summit T416 (licensed as a Gen4 x16 analyzer at 8GB, no probes or cables)
 Summit T416 (licensed as a Gen4 x8 analyzer at 8GB, no probes or cables)
 Summit T416 (licensed as a Gen4 x4 analyzer at 8GB, no probes or cables)

Gen4x1 Interposer (includes Gen4x1 Interposer Card and (2) two high speed connector cables)
 Gen4x4 Interposer (includes Gen4x4 Interposer Card and (2) two high speed connector cables)
 Gen4x8 Interposer (includes Gen4x8 Interposer Card and (4) four high speed connector cables)
 Gen4x16 Interposer (includes Gen4x16 Interposer Card and (4) four high speed connector cables)

Product Code

PE090AAA-X
 PE091AAA-X
 PE092AAA-X

 PE125UIA-X
 PE124UIA-X
 PE123UIA-X
 PE122UIA-X



Local sales offices are located throughout the world.
 Visit our website to find the most convenient location.
 1-800-5-LeCroy • teledynelecroy.com



TELEDYNE LECROY
 Everywhere you look™

PCI Express® 4.0 MultiPort Interposer

For Summit™ T416 and T48



Specifications

Dimensions	Gen4 x1 to x8: 167 x 190mm (6.6" x 7.5") Gen4 x16: 167 x 231mm (6.6" x 9.1")
Link Width	x1, x4, x8 or x16
Data Rates	2.5 GT/s, 5.0 GT/s, 8.0 GT/s and 16.0 GT/s (Gen4)
System Compatibility	Gen4 16x compatible with Summit T416 Gen4 1x 4x 8x compatible with Summit T416 and T48

Ordering Information

Product Description	Product Code
G4x1 MultiPort Interposer (includes G4x1 Interposer Card and requires one PE021UCA-X PCIe Y-Cable or one PE020UCA-X Straight Cable if MultiPort enabled)	PE180UIA-X
G4x4 MultiPort Interposer (includes G4x4 Interposer Card and requires one PE021UCA-X PCIe Y-Cable or one PE020UCA-X Straight Cable if MultiPort enabled)	PE181UIA-X
G4x8 MultiPort Interposer (includes G4x8 Interposer Card and requires one PE021UCA-X PCIe Y-Cable)	PE182UIA-X
G4x16 MultiPort Interposer (includes G4x16 Interposer Card and requires two PE021UCA-X PCIe Y-Cables)	PE183UIA-X

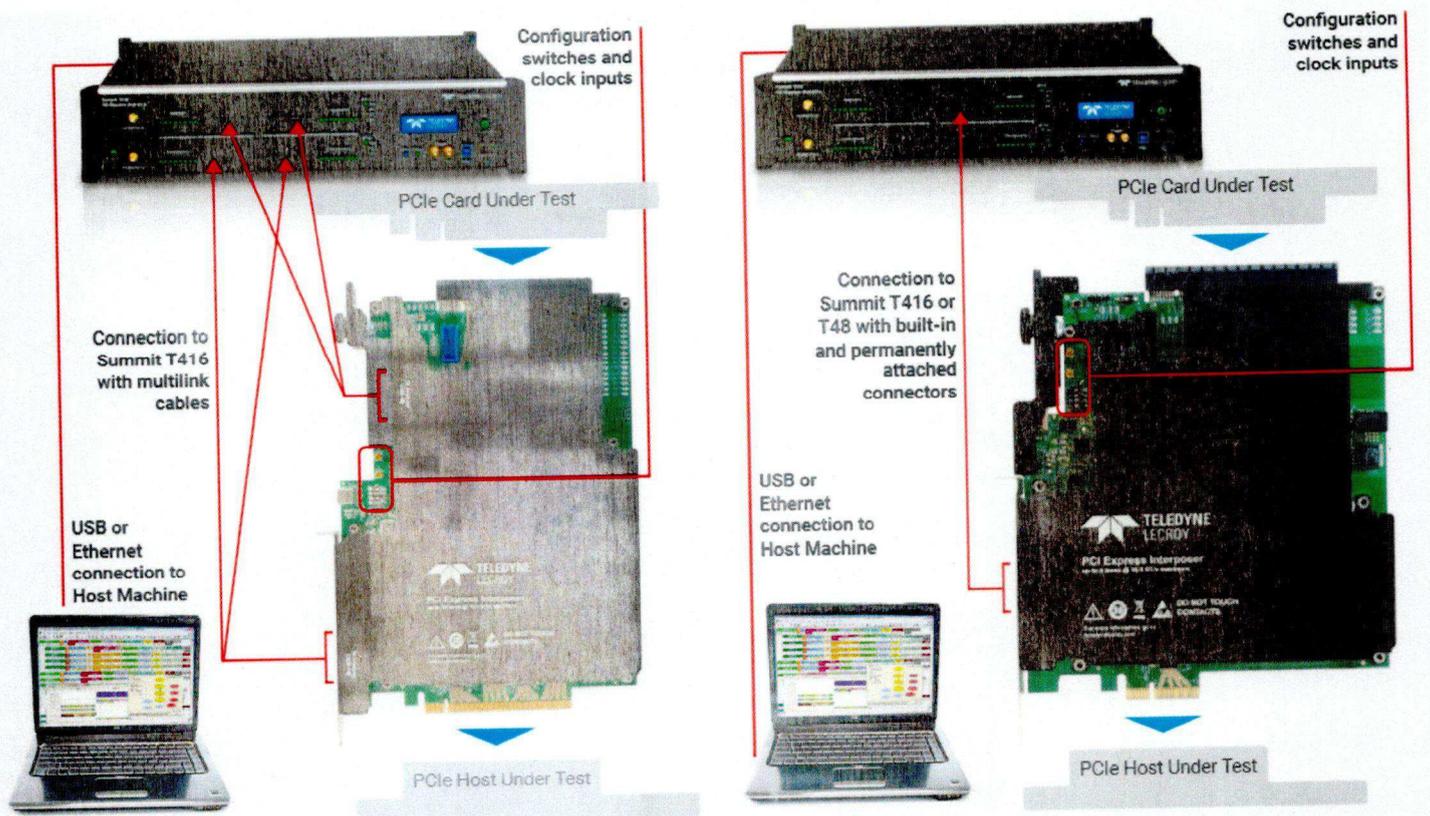
The Teledyne LeCroy PCI Express Interposer provides a simple and easy-to-use way to probe Gen4 PCI Express traffic between a host and PCIe® add-in card. The interposer assures reliable data transmission while providing 100% capture of all data traffic flowing through the PCIe CEM slot interface. Connecting the interposer to a Teledyne LeCroy Summit Gen4 analyzer allows decoding and display of data flowing in both directions and across all lanes, and will display data traffic using the industry-standard CATC Trace™ data display, along with a wide range of traffic and error reports.

The Gen4 MultiPort Interposer supports data rates of 2.5, 5.0, 8.0, and 16.0 GT/s, and is available in four configurations: x1, x4, x8 and x16. Each configuration supports lesser link widths (e.g., the x4 configuration supports x4, x2 and x1 through the x4 PCIe connector mounted on the card, but cannot support greater than x4 since the host slot connector is limited to x4).

The Gen4 Interposer, in combination with a Summit Gen 4 analyzer, provides the user a complete suite of test capability, including the ability to test products to the PCI Express 4.0

specification, analyze SMBus out of band signaling and allow recording and analysis of low power modes supported through CLKREQ# and SRIS. The new Gen4 Interposer is a powerful and versatile tool for all developers working with PCIe 4.0 add-in cards.





Connecting the PCI Express Interposer

1. Install the Interposer into the host system PCIe connector.
2. Install the PCIe add-in card under test (DUT) into the connector on the interposer. Note that PCIe add-in cards with edge connectors smaller than the connector are inserted, the connection will negotiate to the lesser lane width.
3. Connect 12V DC using the AC adapter supplied with the interposer. Make sure that the AC adapter is turned on.
4. Connect the Summit T416 Analyzer (or other compatible Teledyne LeCroy PCIe 4.0 protocol analyzer) to the interposer using up to 4 high speed connector cables, as indicated in the diagram above. Follow cable labeling.
5. If testing SRIS, refer to the clock configuration tables in the manual to properly set the clocks.
6. Connect the analyzer to a host machine using the Ethernet or USB port on the back panel of the Summit analyzer.
7. Install the software on the host machine.
8. Power on the protocol analyzer, then power on the host system.
9. Use the Teledyne LeCroy software application to monitor, record and view PCI Express traffic in the PCIe add-in card DUT system.



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Annex 2 to the Contract
Tender documentation of the Public Contract
(the main document and Annex 1)

Tender Documentation

within the meaning of Act No 134/2016, on Public Procurement, as amended (hereinafter the “Act”)

Name of public contract:

“Gen 4 PCIe Protocol Analyser”

Below-the-threshold public delivery contract
Simplified below-the-threshold procedure

Contracting authority of the public contract:

CESNET, interest association of legal entities

Zikova 1903/4

160 00 Prague 6

ID No: 63839172

registered in the Register of Associations kept by the Municipal Court in Prague, file no L 58848

Reference number: 1027/2019

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1. Basic information

1.1. Identification of the contracting authority

Name: CESNET, interest association of legal entities
 Registered office: Zikova 1903/4, 160 00 Prague 6
 ID No: 63839172
 registered in the Register of Associations kept by the Municipal Court in Prague, file no L 58848

1.2. Negotiating on behalf of the contracting authority

The contracting authority's governing body is the contracting authority's board of directors. The person authorized to perform legal acts related to this public contract is

- Ing. Jan Gruntorád, CSc., Director of the Association, on the basis of written authorization by the Board of Directors or
- Ing. Helmut Sverenyák, Deputy Director of the Association, based on written authorization by the Board of Directors (in the absence of the Director of the Association), or
- person authorized by the Director of the Association (in the absence of the Director and Deputy Director of the Association).

1.3. Contact point for procurement procedure:

Organisational and legal department

Name	Phone	e-mail
Mgr. Vojtěch Široký	+420 234 680 216	zakazky@cesnet.cz
JUDr. Jana Zmatlíková	+420 234 680 243	zakazky@cesnet.cz

1.4. Communication and delivery

- 1.4.1. All official communications and actions relating to this public contract by both the contracting authority and the evaluation committee (e.g. providing explanations, amendments or additions to the tender documentation, the evaluation commission's request for explanation of tenders, notification of exclusion from the procurement procedure, notification of selection of the most suitable tender, etc.), and by the parties (e.g. requests for explanation, amendments or additions to tender documentation, submission of tenders, explanations of tenders, objections, etc.) shall be, pursuant to provision of the Section 211 of the Act, carried out solely through the contracting authority's electronic tendering tool E- ZAK (<http://zakazky.cesnet.cz/>, hereinafter the "E-ZAK System"). For this purpose, registration of contractors (participants) in the E-ZAK system is required. **The contracting authority points out that for outgoing communication (including tender submission) the E-ZAK system usually requires a qualified certificate for electronic signatures issued by one of the qualified trust service providers**(see <http://www.mvcr.cz/clanek/seznam-kvalifikovanych-poskytovatelu-sluzeb-vytvarejicich-duveru-a-poskytovanych-kvalifikovanych-sluzeb-vytvarejicich-duveru.aspx>).
- 1.4.2. In accordance with Section 53(5) of the Act, the contracting authority reserves the possibility to publish a notification of exclusion of a tenderer and a notice of selection of a contractor on the contracting authority's profile (<http://zakazky.cesnet.cz/>). In such a case, the notifications shall be deemed to have been delivered to all tenderers at the time of their publication.
- 1.4.3. Except for the cases referred to in paragraph 1.4.2 above, the contracting authority also warns the participants (contractors) that, in order to avoid confusion and in accordance with general legal regulation, the date of delivery of legal acts is
- the day on which the contracting authority delivers a message to the participant to its registered E-ZAK account (i.e. the moment when the participant is able to read the message in the E-ZAK system);

- the day on which the participant (contractor) will deliver (hand over) the message to the contracting authority in the E-ZAK system (i.e. the moment when the contracting authority is able to read the message in the E-ZAK system).

In regard to this, and for the sake of substitutability, the contracting authority recommends that the contactors have more contact persons (e-mails) listed in their registered account in the E-ZAK system.

1.4.4. In justified cases (e.g. malfunction of the E-ZAK system, force majeure, etc.), the contracting authority also allows alternative delivery in accordance with Section 211 of the Act, however, delivery via the E-ZAK system is primary. The contracting authority warns the contractors that the reason for alternative delivery outside the E-ZAK system is not the mere fact that the contractor does not possess a qualified certificate for electronic signatures.

1.5. Provision of tender documentation

Tender documentation shall be provided exclusively in electronic form by unrestricted remote access through the electronic tool referred to in paragraph. 1.4. - the E-ZAK system. The contracting authority does not require any payments for the provision of the tender documentation.

1.6. Purpose of the contract

The purpose of this public contract is to obtain a solution that ensures the contracting authority's ownership of the PCI Express Protocol Analyser with support for the upcoming (fourth) generation of this standard. Thus, in line with the current development in the field of technology, this equipment will allow the analysis of bus data traffic at the highest possible speeds allowed by this specification (16 GT/s). The equipment will be used for further development of programmable acceleration cards for network monitoring, developed within the activity of the contracting authority.

1.7. The terms "participant or tenderer" in this tender documentation mean a participant in the procurement procedure within the meaning of Section 47 of the Act. The terms participant and contractor have the same meaning for the purposes of this tender documentation, unless it is implied otherwise from the context.

2. Preliminary market consultations

2.1. This tender documentation was prepared exclusively by the contracting authority; no information given in this tender documentation is the result of preliminary market consultations.

3. Subject-matter of the public contract

3.1. The subject-matter of this procurement procedure is the selection of the most economically optimal tender for the delivery of equipment listed below in this tender documentation.

3.2. Classification of the subject-matter of the public contract

CPV code 38300000-8, name - Measuring instruments

3.3. Description of the subject-matter of the performance

3.3.1. The subject-matter of this public contract is the delivery of the PCI Express Protocol Analyser for the 4.0 PCIe x16 bus in accordance with the technical parameters specified in Annex 1 to this tender documentation. An appropriate mid-bus probe to monitor the traffic between the host system and the PCIe card being tested must also be included. Delivery can be realized in the form of

- upgrade of the existing Teledyne LeCroy Summit T3-16 Analyser owned by the contracting authority or
- delivery of a new device; in this case, the contracting authority offers the existing Teledyne LeCroy Summit T3-16Analyser for exchange (buy-back, etc.).

3.3.2. The contracting authority requires a minimum warranty period of 12 months for the delivered equipment.

3.4. Binding requirements of the contracting authority

The information and data contained in this tender documentation, including its annexes, define the contracting authority's binding requirements for performance of the public contract. The participant is obliged to fully and unconditionally respect these requirements when preparing its tender. The participant is not entitled to make changes to the contracting authority's requirements for performance of the public contract. Not accepting or changing the contracting authority's requirements set out in this tender documentation, including the draft (binding template) of the contract, may be considered a failure to meet the tender conditions, with the consequence of excluding the participant from further participation in the procurement procedure.

3.5. Handover and acceptance of the performance

The handover of the delivery shall take place after the delivery of the new equipment or after the upgrade of current equipment is completed. Detailed conditions of the handover and its acceptance are provided in Annex 2 to this tender documentation (binding draft contract), in Article 6.

3.6. Other conditions for performance

Other, especially business terms and conditions for performance are set out in Annex 2 to this tender documentation.

3.7. The contracting authority requires that in order to demonstrate its ability to provide the performance required by the contracting authority, the participant clearly states in its tender how it meets the (especially technical) requirements of the contracting authority specified in Annex 1, for example by providing commentary on Annex 1 or by providing a datasheet for the offered HW, which will clearly demonstrate compliance with the contracting authority's requirements.

3.8. **The contracting authority warns the participants that it is not legally possible to amend the tenders after the deadline for submission of tenders except in cases specified in Section 46(1) of the Act. This applies even to the eventual explanation of tenders in the context assessing the conditions of participation in the procurement procedure, assessing extremely low tender price and evaluation of tenders, etc. by the contracting authority, or evaluation committee. In this regard, the contracting authority recommends to the contractors in the event of any uncertainty to utilize the possibility to submit a request to the contracting authority for an explanation of the tender documentation (see paragraph 1.4. of this tender documentation).**

At the same time, the contracting authority warns the contractors that it is not authorized to negotiate with the tenderers about the submitted tenders.

4. Period and place of the performance of the public contract

4.1. The period and place of the performance of this public contract are specified in Annex 2 to this tender documentation.

5. Inspection of the place of performance (Section 97 of the Act)

5.1. Due to the subject-matter and method of the performance, the contracting authority will not organise an inspection of the place of performance.

6. Conditions for qualification of participants

In this procurement procedure, the contracting authority requires each participant to prove:

- basic competence (Sections 74-76 of the Act and paragraph 6.1. below)
- professional competence (Section 77 of the Act and paragraph 6.2. below)

6.1. Requirements for demonstrating basic competence

<p>Basic competence requirements are met by a contractor (Section 74 of the Act):</p>	<p>Method of demonstrating compliance with basic competence requirement in relation to the Czech Republic (Section 75 of the Act) *:</p>
<p>who has not been lawfully convicted of an offense listed in Annex 3 to the Act or of a similar offense under the law of the country of the contractor's registered office in the last 5 years prior to the commencement of the procurement procedure; expunged convictions are disregarded;</p>	<p>Submission of an extract from the Criminal Register.</p> <p><u>Note:</u></p> <ol style="list-style-type: none"> 1) <i>If the participant is a legal person, it shall provide the extract from the Criminal Register both in relation to the legal person itself and in relation to all governing bodies (e.g. limited liability company) or all members of the governing body (e.g. joint stock companies).</i> 2) <i>If the governing body of the participant or a member of the governing body of the participant is a legal person, the extract from the Criminal Register shall be provided by the participant both in relation to the legal person itself and to the person representing the legal person in the contractor's governing body of this legal person, or in relation to every member of the legal person's governing body.</i> 3) <i>If a branch of a company participates in the procurement procedure and,</i> <ol style="list-style-type: none"> a) <i>the company is a foreign legal person, the basic competence condition must be met by the legal person and the branch manager;</i> b) <i>the company is a Czech legal person, the condition in question must be met by the persons referred to in point 2) and the branch manager.</i>
<p>who has no tax arrears due in the Czech Republic or in the country of its registered office;</p>	<p>By submission of:</p> <ol style="list-style-type: none"> 1) Confirmation of the competent tax authority and 2) written affirmation in relation to excise duty.
<p>who has outstanding arrears of premiums or statutory late payment interests for public health insurance in the Czech Republic or its country of residence;</p>	<p>By submission of a written affirmation.</p>
<p>who has no outstanding arrears of premiums or statutory late payment interest for social security insurance and state employment policy contributions in the Czech Republic or in its country of residence;</p>	<p>By submission of a certificate from the relevant District Social Security Administration.</p>
<p>- who is not in liquidation (Section 187 of the Civil Code),</p>	<p>By submission of an extract from the Commercial Register or by submission of a</p>

<ul style="list-style-type: none"> - against whom no bankruptcy decision was issued (<i>Section 136 of Act No 182/2006, on Bankruptcy and Its Resolution (the Insolvency Act), as amended</i>), - against whom forced administration was not ordered pursuant to another legal regulation (e.g. <i>Act No 21/1992, on Banks, as amended, Act No 87/1995, on Credit unions and certain related measures and on the amendment of the Czech National Council Act No 586/1992, on Income Taxes, as amended, Act No 363/1999, on insurance and on amendments to some related laws (the Insurance Contract Act)</i>) or against whom a similar measure was not taken under the law of the country of the contractor's registered office. 	<p><i>written affirmation if it is not registered in the Commercial Register.</i></p>
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* *Note: Documents demonstrating basic competence in accordance with the Section 74 of the Act (i.e. listed in the table above) must demonstrate compliance with the competence requirements no later than 3 months before the tender submission date - i.e. the relevant extract must not be older than 3 months before the tender submission date.*

6.2. Requirements for demonstrating professional competence

6.2.1. The contractor demonstrates the compliance with the professional competence requirements in relation to the Czech Republic by submission of:

- a) an extract from the Commercial Register or other similar register, if another legal regulation requires registration in such register; (*note: the document referred to in this point must demonstrate compliance with the competence requirements no later than 3 months before the tender submission date – i.e. the relevant extract must not be older than 3 months before the tender submission date*).

6.3. Possible methods of demonstrating competence

The participant can demonstrate its competence:

- by submission of documents listed above in sections 6.1. and 6.2. **Chyba! enalezen zdroj odkazů.** (simple copies of documents are sufficient in the tender) and/or
- by submission of an affirmation on the compliance of competence requirements by the participant (the template that constitutes Annex 3 to this tender documentation may be used) and/or
- by submission of an extract from the qualified contractors list (see section 6.4. below) and/or
- by submission of a certificate from an approved system of certified contractors (see section 6.5. below); and/or
- by European Single Procurement Document (see section 6.6. below)

6.4. Qualified contractors list

6.4.1. A contractor may demonstrate the relevant part of the competence by submission of an extract from the qualified contractors list (Section 226 et seq. of the Act). This extract substitutes the document(s) demonstrating:

- basic competence according to Section 74 of the Act or paragraph 6.1. of this tender documentation and
- professional competence according to Section 77 of the Act or paragraph 6.2. of this tender documentation to the extent to which the data in the submitted extract demonstrate compliance with the stipulated professional competence requirements.

6.5. System of certified contractors

6.5.1. A contractor may demonstrate the relevant part of the competence by submitting a certificate issued in an approved system of certified contractors (Section 233 et seq. of the Act). The contractor is considered to be qualified to the extent indicated on the certificate.

6.6. European Single Procurement Document (Section 87 of the Act)

6.6.1. European Single Procurement Document means a written affirmation by the tenderer proving its qualification, including through another person, replacing documents issued by public administration authorities or third parties on a form made available in the e-Certis information system.

6.6.2. European Single Procurement Document demonstrates compliance with the requirements for participation in this procurement procedure.

6.7. Demonstration of subcontractor qualification (Section 85 of the Act)

6.7.1. The contracting authority requires the tenderer to submit documents proving the basic competence according to Section 74 of the Act (paragraph 6.1. of this tender documentation) and professional competence according to Section 77 of the Act (paragraph 6.2.1. letter a) of this tender documentation) of its subcontractors to the same extent and in the same way as the tenderer.

6.8. Common provisions for qualification

6.8.1. The documents required in this section of the tender documentation can be submitted in a form of a simple copy; however, the contracting authority is entitled to require the submission of the original or of a certified copy of the document in accordance with the procedure provided under Section 53(4) of the Act. Prior to the conclusion of the contract, the contracting authority will always request the submission of originals or certified copies of qualification documents from the selected contractor, unless they have been submitted in the procurement procedure.

6.8.2. If there is a change in the qualification of a participant or subcontractor, it is necessary to proceed according to Section 88 of the Act.

6.8.3. If the qualification was obtained abroad, it shall be proved by documents issued under the law of the country in which it was obtained, to the extent required by the contracting authority.

6.8.4. In the case of joint participation of contractors, the basic and professional competence referred to in paragraph 6.2.1. letter a) of this tender documentation shall be demonstrated independently by each contractor.

6.9. Consequence of failure to demonstrate qualification

6.9.1. If a participant fails to demonstrate its qualification in the full (required) scope, it may be excluded from participation in the procurement procedure in accordance with Section 48 of the Act.

6.9.2. The contracting authority may require to replace the subcontractor who fails to demonstrate compliance with the contracting authority's competence requirements or for which the contracting authority demonstrates the reasons for its incompetence pursuant to Section 48(5) of the Act. In such a case, the contractor must replace the subcontractor at the latest by the end of a reasonable deadline set by the contracting authority. If the contractor fails to do so, the contracting authority may exclude the participant from the procurement procedure.

7. Business conditions and terms of payment

7.1. The binding business conditions and terms of payment of the contracting authority are specified in Annex 2 to this tender documentation (binding draft contract).

8. Draft contract

- 8.1. The participant is not obliged to include the draft contract for performance of the public contract in the tender, however, by submitting the tender, the participant agrees with the binding draft contract specified in Annex 2 to this tender documentation. The contract shall at least have the following annexes: the technical and price part of the participant's tender, tender documentation (main document and Annex 1) and the conditions of the guarantee.
- 8.2. The contract with the selected contractor shall be completed amended with appropriate information (identification and contact details of the contractor, etc.). The contractual/business terms and conditions must not be modified to the detriment of the contracting authority; such a change may be considered as non-compliance with the tender conditions, with the consequence of excluding the tenderer from the procurement procedure. The participant may not in any way exclude or limit the rights of the contracting authority stated in the business terms and conditions or in other parts of the tender documentation.

9. Method of tender price preparation

9.1. Basic requirements of the contracting authority

- 9.1.1. The tender price shall be stated in the tender as the total amount for the performance of the entire public contract to the required extent, including all fees and all costs related to the performance of the public contract, taking into account all the contracting authority's requirements under this tender documentation, including annexes.
- 9.1.2. The total tender price shall include all the performance requested by the contracting authority in this tender documentation (paragraph 3.3.). Participants shall indicate in the tenders the price broken down according to the following template table:

	Price in CZK excl. VAT	VAT rate in %	price in CZK incl. VAT
Total tender price, performance of the whole subject-matter of the public contract			

9.2. Conditions for exceeding the tender price

It is not possible to exceed the total tender price for the performance of this public contract in the required extent.

10. Evaluation criteria and tender evaluation method

- 10.1. Tenders will be evaluated according to the basic evaluation criteria - the lowest tender price in CZK without VAT.
- 10.2. The contracting authority notifies the participants about its right to carry out the so-called "preliminary evaluation" (Section 39(4) of the Act), i.e. the right to evaluate tenders first and after that to only assess the tender which placed first in the evaluation. If the best-evaluated tender fails to meet the conditions for participation in the procurement procedure, then other tenders will be assessed according to their placement in the evaluation.

11. Requirements and conditions for the preparation of tenders

11.1. Required particulars of tenders:

11.1.1. Each participant's tender shall include:

- a) data and documents demonstrating the qualification of the contractor;
- b) the required technical information (see Article 3 of this tender documentation), including an indication of the manner of performance of the contract being offered (upgrade/replacement - see paragraph 3.3.1.);
- c) the data necessary to evaluate the tender, i.e. the total tender price broken down in accordance with paragraph 9.1.2.

- d) a list of subcontractors, if known to the tenderer, and information on which part of the contract each subcontractor will perform.

11.1.2. Suggested method of preparation of the tender:

- Cover letter of the tender (prepared in accordance with the template provided in Annex 4 of this tender documentation)
- Table of Contents with page numbers
- Evidence of qualification
- Technical and price part - information about the technical and business terms and conditions offered by the contractor
- Proof of authorization of a person to act on behalf of the participant (e.g. power of attorney), if the legal proceeding on behalf of the participant are carried out by a person other than the person authorized to act as the governing body of the participant or the holder of the procuration.

The tender can be submitted in Czech and/or English.

12. Time limit for submission of tenders and tender period.

- 12.1. **The time limit for submission of tenders expires on 30. 9. 2019 at 11:00 AM.** Tenders received after this time limit will not be made available to the contracting authority.
- 12.2. The contracting authority does not set a tender period.

13. Method of submitting tenders

- 13.1. Tenders shall be submitted in writing in electronic form by means of the E-ZAK system (see paragraph 1.4.; hereinafter the "electronic tender").
- 13.2. The technical requirements and conditions of electronic submission of tenders are specified in the user manual for contractors, which can be downloaded from the contracting authority's profile (<https://zakazky.cesnet.cz/>), on the home page.
- 13.3. The contracting authority does not confirm the submission of the electronic tender; the confirmation is a part of the E-ZAK system and each vendor has access to it in their user account.
- 13.4. The contracting authority notifies the contractors of the possibility to test the settings of the internet browser and the system from which the tenders will be sent, including a test of sending the electronic tender - for detailed information see https://zakazky.cesnet.cz/test_index.html.
- 13.5. A contractor may submit only one tender in the procurement procedure.
- 13.6. At the same time, the contractor that submitted a tender in the procurement procedure must not at the same time be a person through which another contractor demonstrated its qualification in the same procurement procedure.
- 13.7. The contracting authority shall exclude a tenderer that has submitted several tenders separately or jointly with other contractors, or has submitted a tender and at the same time is the person through which another tenderer demonstrates its qualification in the same procurement procedure.

14. Opening of tenders

- 14.1. The opening of tenders will be done by making the content of the electronic tender available to the contracting authority immediately after the time limit for submission of tenders has expired. Opening of the electronic tenders takes place without the presence of participants' representatives.
- 14.2. After opening the tenders, the contracting authority will publish a report on the opening of tenders on the contracting authority's profile (<http://zakazky.cesnet.cz/>).

15. Obligations of the selected contractor

- 15.1. The selected contractor is obliged to provide the contracting authority with the necessary cooperation for the conclusion of the contract for performance of the public contract.
- 15.2. In the framework of the provision of cooperation pursuant to paragraph 15.1., the selected contractor is obliged to submit the originals or certified copies of documents demonstrating the qualification of the contractor according to paragraphs 6.1. and 6.2.
- 15.3. In the event that the contracting authority fails to obtain information on the beneficial owner of the contractor pursuant to the Act on selected measures against legitimisation of proceeds of crime and financing of terrorism (hereinafter the "beneficial owner") from the register of beneficial owners pursuant to the Act on the Public Registers of Legal and Natural Persons and on the Register of Trusts (see Section 122(4) of the Act), the contracting authority shall also ask the selected contractor to submit an extract from the register similar to the register of beneficial owners or
 - a) to disclose the identification data of all persons who are the beneficial owners pursuant to Act No 253/2008, on selected measures against legitimisation of proceeds of crime and financing of terrorism, as amended, and
 - b) to provide documents showing the relationship of all persons referred to in point (a) to the contractor; these documents are in particular:
 - extract from the Commercial Register or other similar register,
 - list of shareholders,
 - the decision of the governing body to pay the profit share,
 - memorandum and articles of association or formation charter.

16. Reservations and rights of the contracting authority

- 16.1. Based on the market research, the contracting authority **estimated the value** of this public contract at **CZK 4,000,000 excl. VAT**. The contracting authority reserves the right to:
 - exclude from the procurement procedure the participants (tenderers) whose tender price is higher than the estimated price and/or
 - cancel the procurement procedure if all tenders contain a tender price higher than the aforementioned estimated price of the public contract.
- 16.2. In the event that the data stated in the tender change by the time of conclusion of the contract with the selected participant, the relevant participant is obliged to inform the contracting authority about such a change in writing and without delay.
- 16.3. The contracting authority notifies the participants that it accepts inquiries (requests for explanation of tender documentation) within the meaning of Section 98 of the Act and provides answers only in writing through the electronic tool E-ZAK (<https://zakazky.cesnet.cz/>) - see paragraph 1.4.
- 16.4. The contracting authority does not accept variants of the tender.
- 16.5. The contracting authority reserves the right to verify the information provided by the participant with third parties and the participant is obliged to provide all necessary cooperation in this respect.
- 16.6. The contracting authority warns the participants that other legal regulations outside the law apply to the procurement procedure, to the performance of the contract and to the follow-up inspection (further specified in Annex 2 to this tender documentation).
- 16.7. The contracting authority requires that, in the event of joint participation of several contractors (joint performance of the public contract), all contractors submitting a joint tender are jointly and severally liable.

In Prague on (see electronic signature)

(signed electronically on 11-09-2019)

Ing. Jan Gruntorád, CSc.
Director
CESNET, interest association of legal entities
based on written mandate by the Board of Directors

Annex 1 to the Tender Documentation
Technical specification of the subject of the contract
Public tender „Protocol analyzer PCIe gen 4“

Annex 1: Technical specification

The subject of performance is delivery of the PCI Express gen 4 protocol analyzer for x16 bus width. A bus probe (“slot interposer”) for bidirectional capture of traffic between the host system’s x16 CEM slot and an add-in card with all other necessary supplements (for example interconnect and power cables) must be included. Any software required to work with the device must be also included with a time-unlimited license.

The whole analyzer system must meet all of the following requirements:

- lossless bi-directional capture of data traffic flowing through the PCIe x16 slot for all conceivable data rates according to PCI Express specification, revision 4.0 (2.5 – 16GT/s)
- compatibility with the previous PCIe protocol specs
- size of the capture buffer 8 GB or more
- decode and display of captured transactions with the ability to filter and search
- support for spread-spectrum bus clocking
- manual or programmable (triggered) recording
- external trigger input
- capture triggers must support all of following:
 - invalid symbol, training set, negative acknowledgments (NAK), read error
 - packet or a sequence (ordered set) of given type and content
 - sequence of link or packet events with at least four states
- capture storage qualify filters
- tracking of flow control credits