# *dacoso* Customer Briefing Center for Quantum Safe Solutions

The dacoso Customer Briefing Center (CBC) in Langen near Frankfurt am Main is a permanently operated demonstration environment for quantum-safe networking. It hosts QKD and key-management components from multiple vendors alongside Layer 1–3 encryption systems with embedded post-quantum cryptography (PQC) and symmetric key encryption (SKE), supplied by Adtran, ADVA Network Security. Nokia, Fortinet, ID Quantique and Quantum Optics Jena. An adjacent Technical Briefing Center (TBC) enables customer-specific proof-of-concepts under realistic conditions, including mobile rack-based setups that can be deployed on customer premises on request.

Fig. 1 *dacoso* Customer Briefing Centre for Quantum Safe Solutions

## A: Brief Information

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| **Testbed Title** | *dacoso* Customer Briefing Center for Quantum Safe Solutions |
| **Start Point** | *dacoso* Customer Briefing Center (CBC), Monzastraße 5, 63225 Langen |
| **End point** | |
| **Institution/Organization** | *dacoso* GmbH – Customer Briefing Center (CBC) |
| **Contact** | David Haas, david.haas@dacoso.com |
| | Marc Könn, marc.koenn@dacoso.com |
| **Status** | Active |

## B: Technical Information

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| **Type of Transmission** | Fiber |
| **Length [km]** | ~60 |
| **Losses [dB]** | ~12 |
| **Supported Wavelengths [nm]** | Quantum-Channels for C-band (1530–1560 nm) and 850 nm |
| **Type of Fiber** | Single mode |

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| **Type of Deployment** | In-house |
| **Polarization Stabilization** | No |
| **Quantum Communication Infrastructure** | |
| **Available Infrastructure for external Parties** | The dacoso Customer Briefing Center is accessible for interested partie, a visit to demonstrate a fully-fledged quantum-safe ecosystems can be arranged with our contact persons. The CBC hosts quantum-safe components from multiple QKD and KMS vendors as well as Layer 1 to Layer 3 encryption systems with embedded quantum-safe cryptography (PQC and SKE) from Adtran, Nokia, and Fortinet.<br>Fiber spools enable laboratory demonstrations of fiber-optic transmission distances of up to 60 kilometers. Quantum channels are operated in the C-band and in the 850 nm short-wavelength band. |

## C: Additional Information

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| **Linked Projects** | • QuNET: https://qunet-initiative.de<br>• QuNET+ ISQKMS: QuNET+ISQKMS — Kommunikationstechnologien und Cybersicherheit<br>• EuroQCI \| QCI-CAT: https://qci-cat.at<br>• EuroQCI \| SEQRET: https://seqret-project.eu |
| **Press Release and Publications** | • dacoso CBC: https://dacoso.com/en/customer-briefing-center<br>• Quantensicherheit: 5 Mythen über die Sicherheit von morgen<br>• IT-Sicherheit trifft Connectivity: dacoso Group mit neuer Strategie auf Wachstumskurs<br>• Wenn Netzwerke Quantenangriffe belächeln: Highspeed + Highsecurity aus einem Guss<br>• Towards National Quantum Communication in Europe: Planning and Sizing Terrestrial QKD Networks |
| **Demonstrated Milestone** | • Fully functional, vendor-interoperable demonstration of QKD links feeding keys from a central KMS into multiple encryptor platforms.<br>• PQC hybridization achieved via key derivation at either KMS or encryptor level.<br>• A mobile-rack subset of the setup has been deployed for on-site customer PoCs. |

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| **Outlook** | The testbed is continuously updated to track the latest releases from partner vendors, keeping it at the leading edge for demonstrating a full terrestrial QKD ecosystem — from key generation to encryption — under realistic operating conditions. |
| **Suggested Use Cases** | • Quantum Secure Key as a Service (QSKaaS) on a dedicated infrastructure layer, provider model<br>• Quantum-safe data center interconnect (DCI)<br>• Quantum-safe AI data center NOC/SOC operations |
| **Other Comments/ Information** | The dacoso CBC complements the research-driven testbeds in this catalogue with a customer-facing demonstration and PoC environment. It translates QKD and PQC building blocks validated in academic and research settings into vendor-interoperable, deployment-ready solutions for enterprise, financial-services, and KRITIS customers across the DACH region — bridging the gap between laboratory demonstration and operational rollout. |

Fig. 2 CBC portable rack Installation with Encryptor Technologies and QKD-Platforms