Advancing the Security of Today's Critical Infrastructure

- A look into RPKI, QKD and IoT in internetworking architectures -

Wataru Ohgai, JPNIC
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João Moreno Falcão, DC-IS3C
Michal Krelina, QuDef BV

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IGF 2024 WS #198 Advancing IoT Security, Quantum Encryption & RPKI

Organizers:

- Athanase Bahizire
- **Nicolas Fiumarelli**
- Yug Desai

Speakers:

- **João Moreno Falcão**
- **Wataru Ohgai**
- Shifa Sorene Assefa
- Sofia Silva Berenguer
- Maria Luque
- Khyati Mehta

Objectives of the Session

- **Understand** advanced cybersecurity.
- **Discuss** opportunities and challenges.
- **Engage** with experts in the field.

Key Technologies

- Quantum Key Distribution (QKD)
- Resource Public Key Infrastructure (RPKI)
- Internet of Things (IoT) Security

Experts on Stage

- QKD: **Michal Krelina**, QuDef BV
- RPKI: **Nicolas Fiumarelli**, MANRS Steering Committee
- IoT Security: **João Moreno Falcão**, DC-IS3C
- Moderator: **Wataru Ohgai**, JPNIC

QKD in Digital Infrastructure

- How can QKD improve security?
- Challenges: Scalability, cost.
- Adoption timeline?

RPKI for Internet Security

- Importance of RPKI in routing.
- Challenges in adoption.
- New approaches for deployment?

IoT Security Standards

- Role in critical sectors.
- Interoperability challenges.
- Contribution of international standards.

Questions/Comments from the Floor

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