

INTEGRATION OF DISTRIBUTED PHOTOVOLTAIC SYSTEMS IN THE SMART ENVIRONMENT THROUGH FOG COMPUTING ARCHITECTURE

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OUTLINE

- Introduction
- System architecture
- Implementation and results
- Conclusion



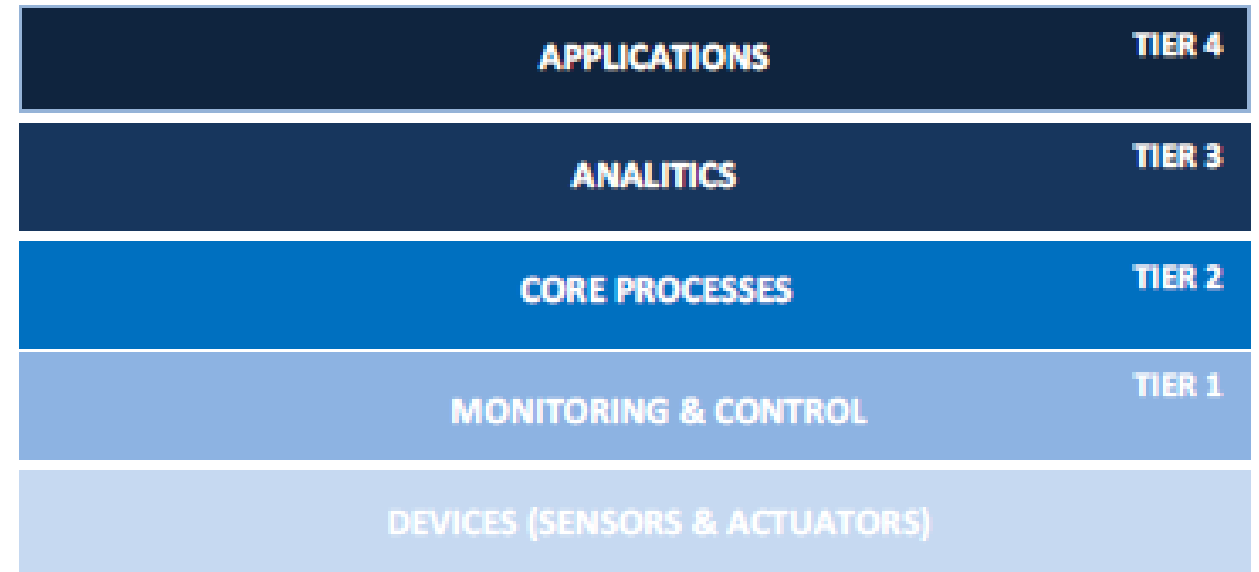
Introduction

- Making environment smart strategy
- High level of integration and systems interoperability
- Improving operations and maintenance
- Distributed Energy Resources
- Urban environments
- Energy reliability



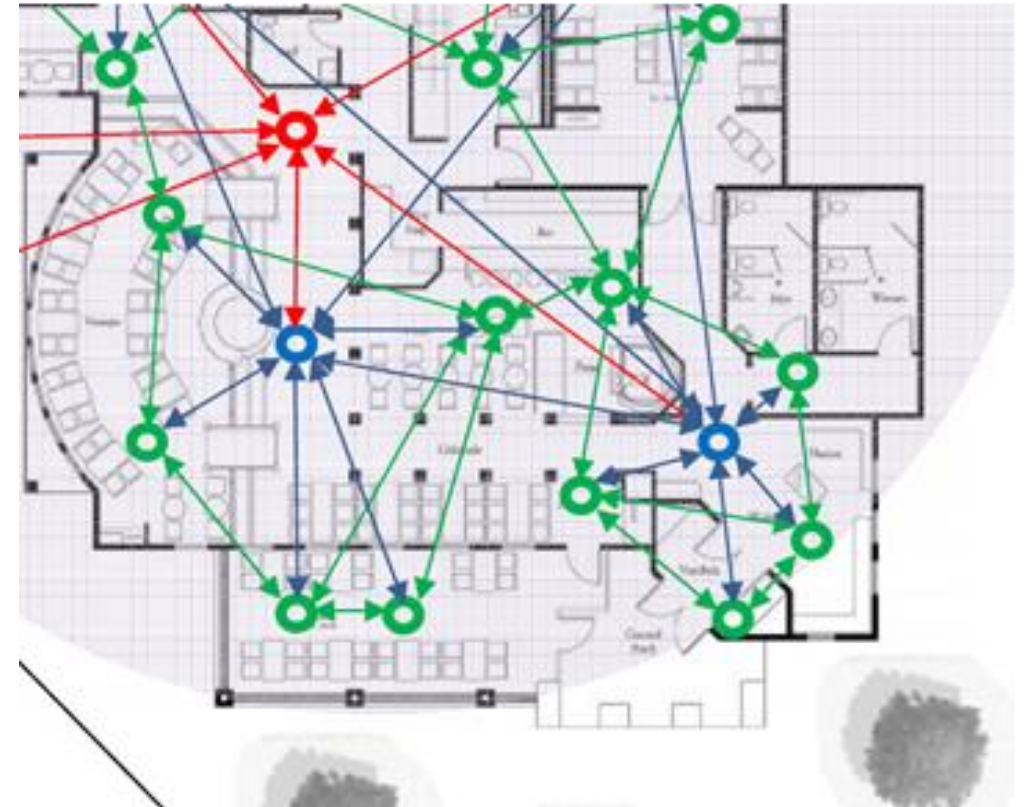
System architecture

- Fog computing architecture
- Benefits:
 - increased performance
 - energy efficiency
 - reduced latency
 - quicker response time
 - scalability
 - better localized accuracy



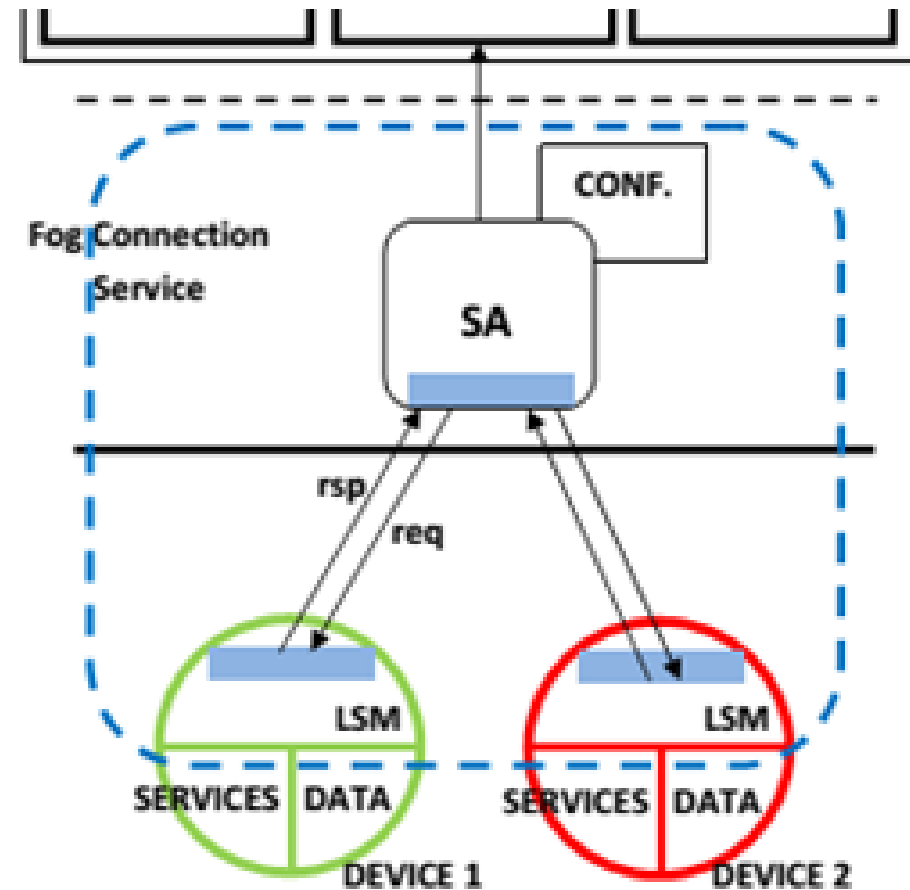
System architecture

- Tiered architecture
- Functionalities vary based on its role and position
- Deployment view of particular indoor sensor node system



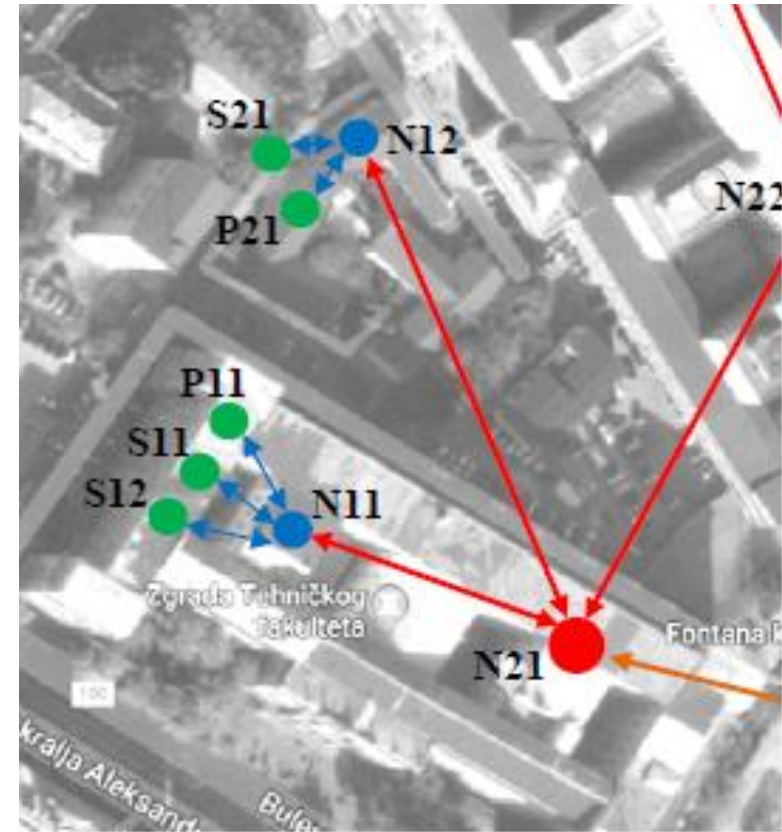
Implementation and results

- Integration of sensing nodes in distributed application
- Based on reference fog architecture
- Goal is to lower the pressure on the data transfer at the higher tiers



Implementation and results

- Deployment view of the integrated sensor nodes
- Tiered fog architecture
- Local area



Conclusion

- Efficient way of integrating distributed PV systems
- Smart environment based
- Adequate for real-time or near real-time constrained application
- In future - smart environment map with different groups of sensors



Thank you.

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