

NANCY SMART PRICING POLICIES

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Alexandros DIMOS
8Bells LTD

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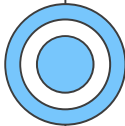
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NANCY



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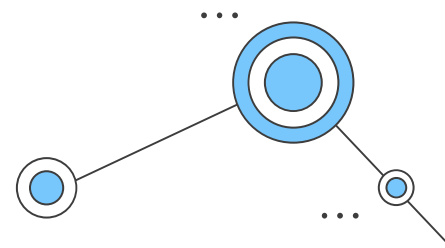
Specializing in Defence, Security, Space, Telecommunications, Cybersecurity, eHealth and Environmental Protection, with disruptive IT solutions



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Eight Bells, following a specific development plan, invests in high value-added staff by creating new job positions.



NANCY – At a Glance



NANCY: A secure and intelligent architecture for the beyond the fifth generation (B5G) wireless network.



Duration: January 2023 – December 2025



Funding Scheme: Research & Innovation Action | **Budget:** €5.999.800

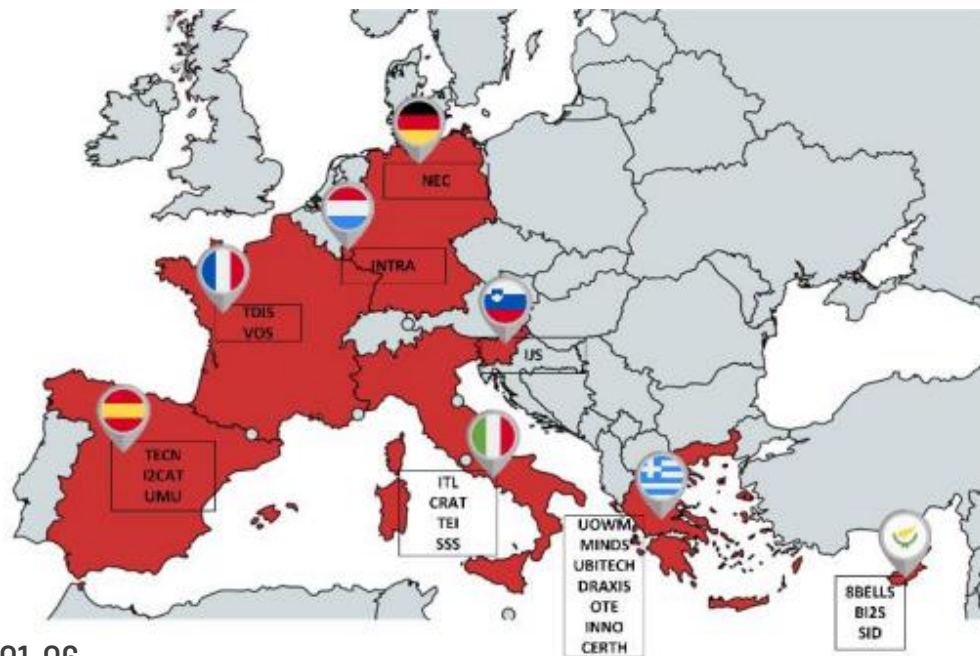


Horizon Europe

Call: HORIZON-JU-SNS-2022

Topic: HORIZON-JU-SNS-2022-STREAM-A-01-06

GA Number: 101096456

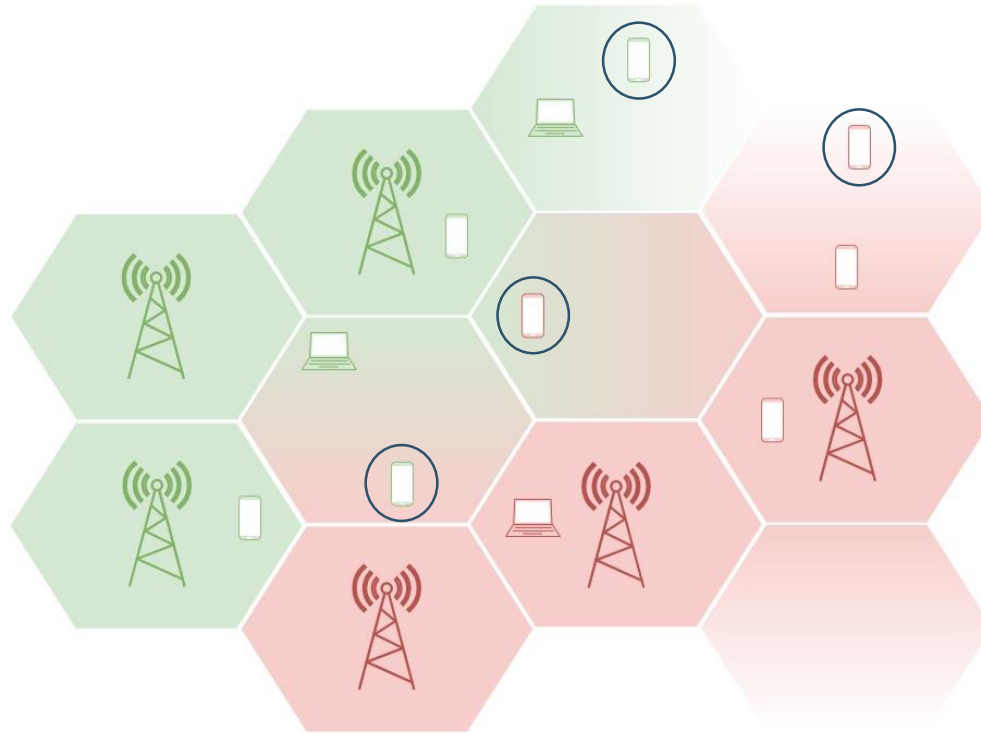


Smart Pricing Policies – Motivation



➤ Depiction of how a RAN operates over an area.

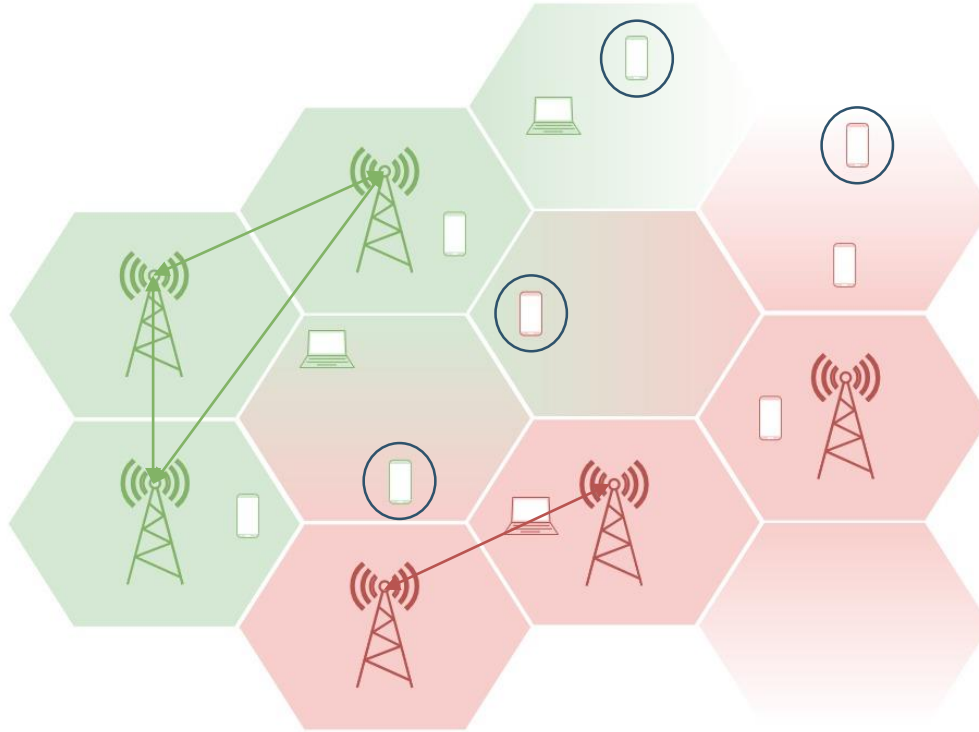
Smart Pricing Policies – Motivation



RAN -Current Shortcomings:

- Some devices are not under the area of coverage of their provider's Base Stations.
- This is inevitable since smart devices will move in and out of such areas at some point or another.
- Poor Quality of Service, high latency, low bandwidth etc.

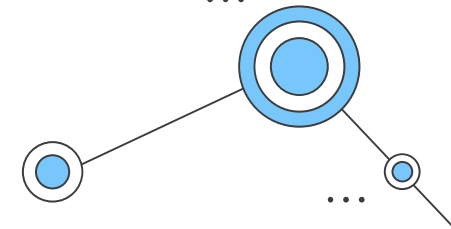
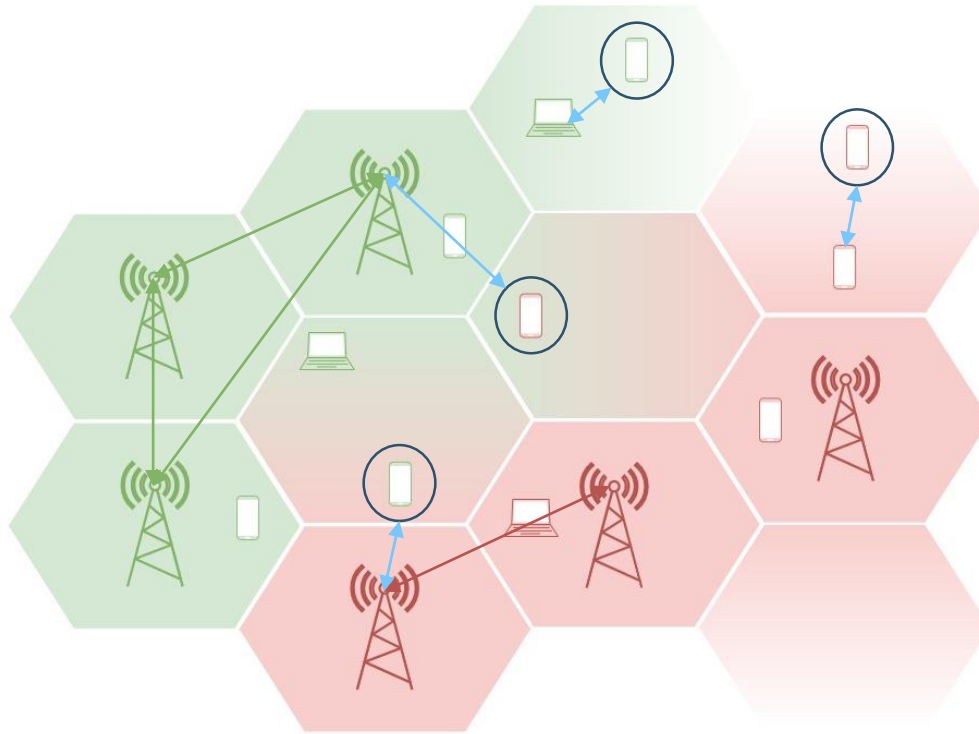
Smart Pricing Policies – Motivation



RAN-Current State:

- Network resource sharing schemes (e.g. CoMP) already exist and allow infrastructure elements (e.g. Base Stations) to communicate and cover an area cooperatively.
- None of the existing schemes and mechanisms consider the coordination between infrastructure elements of different providers.

Smart Pricing Policies – Beyond SotA



RAN-Expansion:

- Other providers or even customers could become part of the network and expand it.

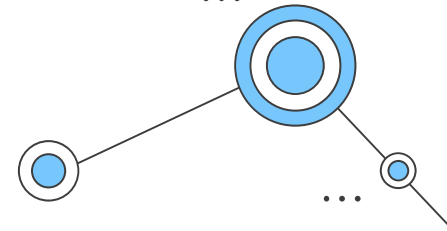
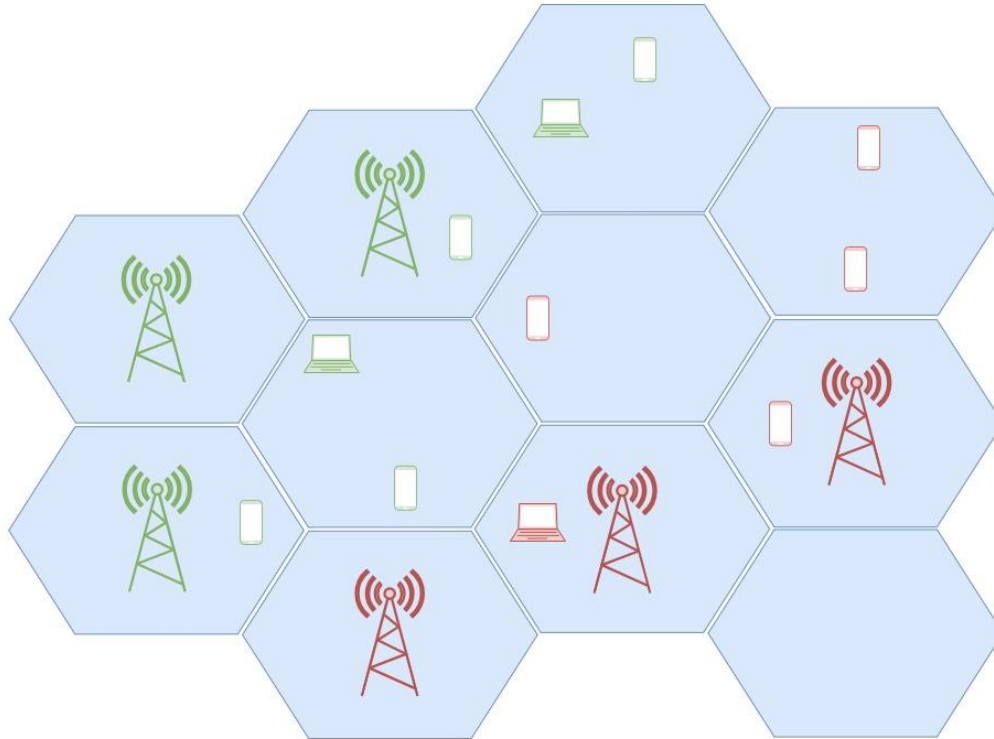
Challenges:

- Why would an Internet provider lease his equipment to attend to another provider's customer?
- Why would customers lease their equipment to enhance the current infrastructure?

Solution:

- NANCY's Smart Pricing Policies introduce new monetary incentives to both parties.

Smart Pricing Policies – NANCY RAN



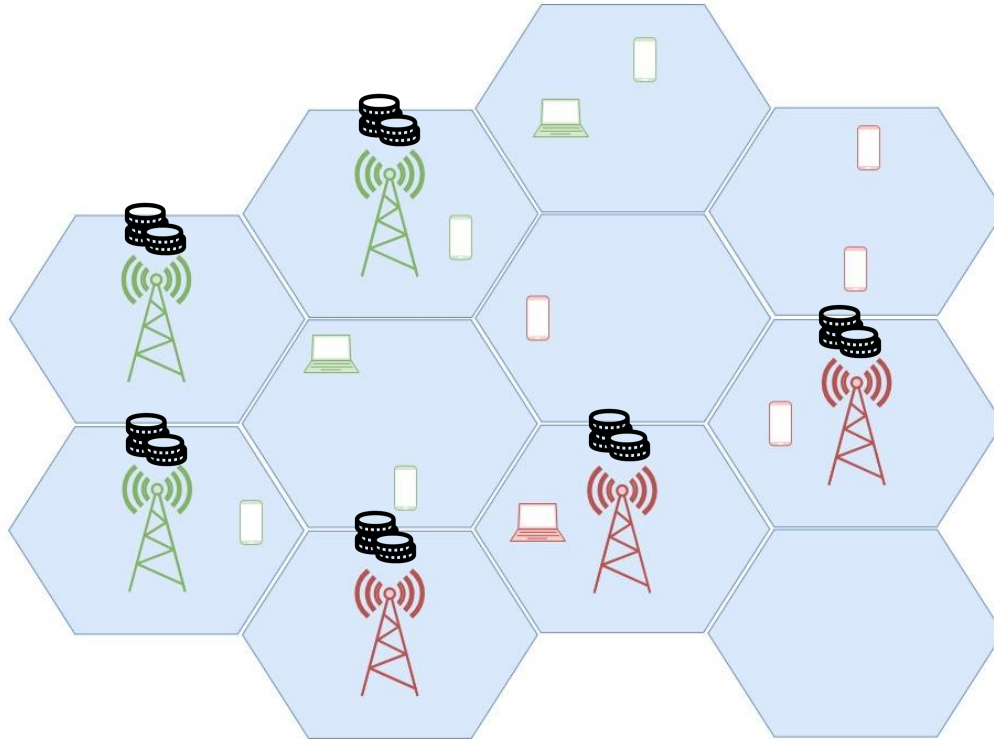
Innovations:

- Cooperation between provider's infrastructure.
- Utilization of customer equipment, e.g. smart phones, personal computers etc.

Added Value

- These new features lead to a more unified, dynamic and cooperative RAN.

Smart Pricing Policies – Implementation



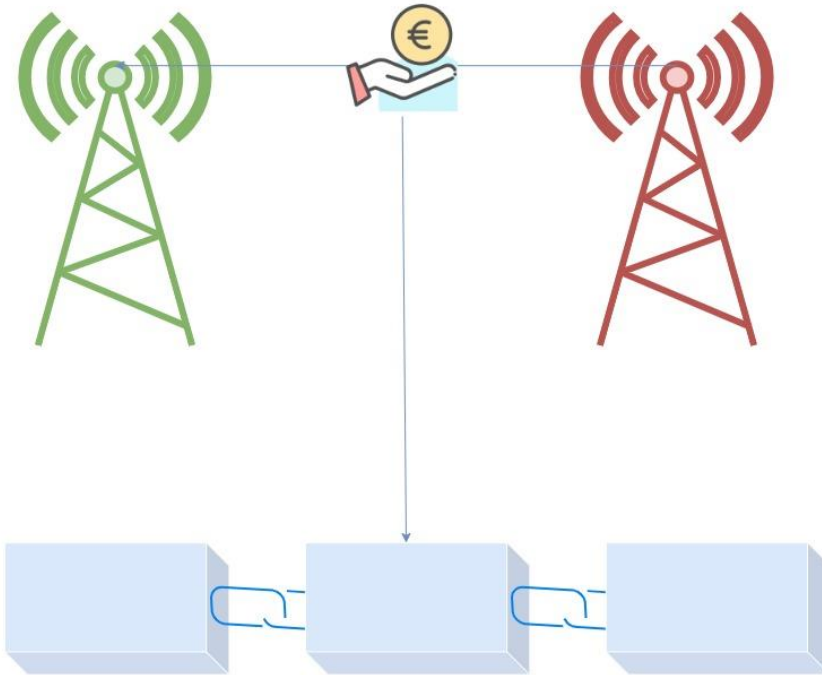
Game Theory:

- Decisions on the best strategy for each user in the Network.

Decisions based on:

- Bids from the providers, for leasing their infrastructure.
- Network resources.

Smart Pricing Policies – Integration



Integration:

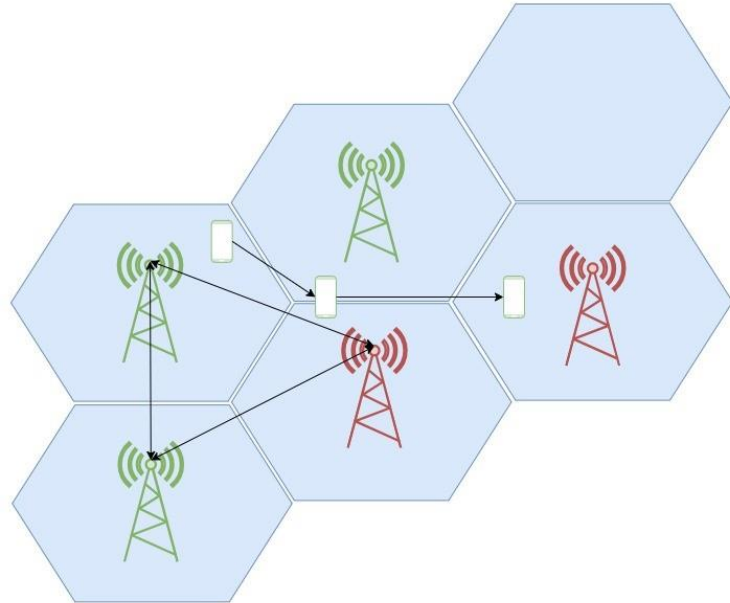
- The number of contracts and transactions between multiple infrastructure elements leads to a very dynamic and decentralized ecosystem.
- Blockchain technology is ideal for such an environment.
- NANCY can create an accurate and secure transaction history.

Smart Pricing Policies – Provider's Benefit

Why not a simpler static pricing policy for the equipment leasing?

- Dynamic nature of RANs with multiple infrastructure elements cooperating.
- User equipment constantly moves from access point to access point.
- A static pricing policy does not take into account the network resources and network traffic between network components.

NANCY's smart pricing policies take into account those elements and create fair deals between the partners.

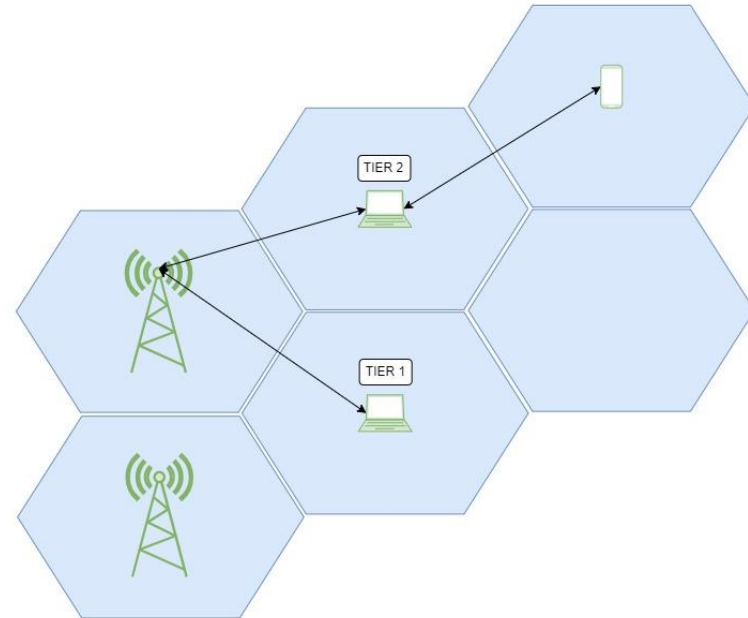


Smart Pricing Policies – User's Benefit

Why should an ordinary person decide to be part of the infrastructure?

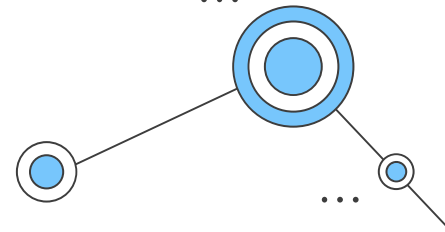
- Monetary rewards from his provider.
- A tier-system based on the person's contribution could be established.
- The provider also benefits since his network coverage area expands.

NANCY's smart pricing policies could make possible such a relationship between providers and their customers.



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Smart Pricing Policies – Conclusion



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B5G/6G era.



New financial
opportunities for
providers and
users.



Decentralization.

Thank you for your attention!

Alexandros Dimos, R&D Engineer
alekos.dimos@8bellsresearch.com

Stay in touch!



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14/12/2023, Athens, INFOCOM World 2023 ...



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