Leafcloud: Truly Green Cloud

leafcloud

Introduction to Leafcloud

🌿 Carbon Negative Cloud Provider

Leafcloud is a revolutionary cloud provider that goes beyond carbon neutrality to actively reduce carbon emissions. By rethinking the fundamental idea of IT infrastructure, Leafcloud has achieved a net negative carbon footprint.

🌍 Decentralized Server Placement

Unlike traditional datacenters, Leafcloud places its servers where heat is needed the most. By strategically locating servers in urban areas, Leafcloud uses server waste heat directly where it's used to heat tap water, assisting the green transition

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Challenges to Digital Sustainability

🐞 Greenwashing by Big Tech

- Many big tech companies claim to be green or taking steps towards sustainability, but their actions often fall short of their promises.

- Greenwashing, the practice of making misleading or unsubstantiated claims about the environmental benefits of a product, service, or company, is prevalent in the tech industry.

⚡ Energy Consumption

- AI is leading to an increase in carbon emmsions from big tech, when their targets are to become net zero or negative in 10-20 years.

- Their record profits prevent them from taking corrective measures, and the market is not informed enough to see the holes in their arguments.

😈 Dominance in the debate

- The way they present information makes it feel as if they are the cutting edge of what's on the market, while promoting industry standard or incremental improvements.

- The opaque (or lack of) reporting by providers means purchasers and regulators are unaware of the standards they should be demanding.

Writing Papers and Co-authoring Whitepapers

Strategy

To convince governments and large organizations of the non-sustainability of big tech, we need papers and whitepapers:

1. Identify the key issues: Analyze the current practices of big tech companies and identify the areas where their approach to sustainability is lacking.

2. Conduct research: Gather data where possible and conduct research to support these claims and provide evidence for the negative impact of big tech's approach to sustainability.

3. Write papers: Write papers that highlight the issues and propose alternative solutions for a more sustainable approach.

4. Co-author whitepapers: Collaborate with other experts and organizations to co-author whitepapers that carry more weight and influence in the industry.

5. Disseminate the papers: Publish the papers and whitepapers in reputable journals, conferences, and industry events to reach a wider audience and create awareness about the issues.

By following this strategy, we aim to raise awareness among purchasers, regulators, and executives, drive conversations, and push for change in the industry.

The drama of (not) deleting data in the public domain

How to get rid of the "better safe than sorry" strategy

03-07-2024
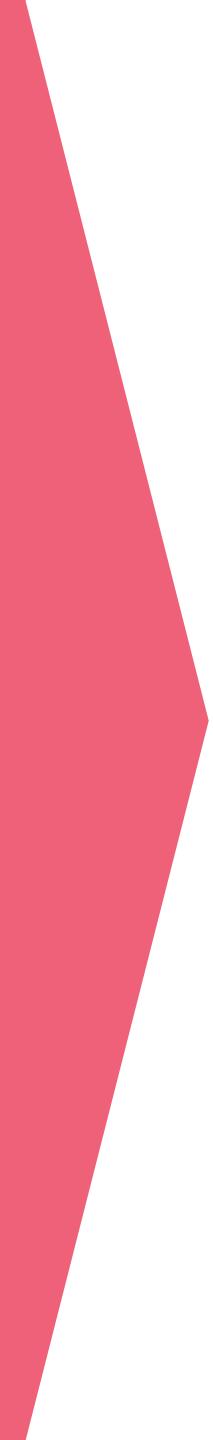
Who	What	How
Leonieke Mevius Sustainability Advisor IT **Municipality of Amsterdam**	Archive Law and the open Government Act are the main barriers why any public servant is hesitant to remove data, using the better safe then sorry principle. To be able to remove data a **data removal strategy** is needed. The strategy should at least contain a removal guideline, which should follow the law, for all types of data that exists within the municipality.	- Map the law restrictions to a data model - Figure out the psychology behind the data removal anxiety - Use AI to create data removal strategy - Create a data classification model, with clear removal rules - .... - .. - .

dr.ir. Marco Martens, 2024-07-03

KB, National Library of the Netherlands
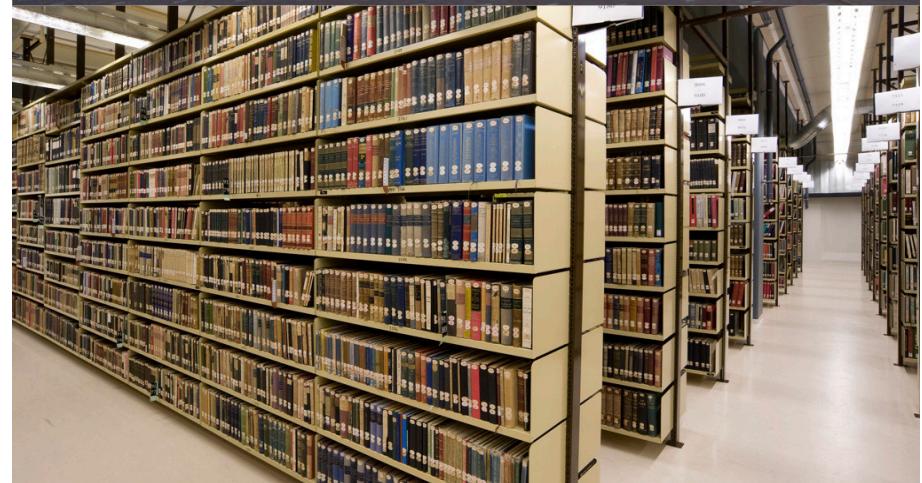
The library of the future ???

KB ⟩ national library
of the netherlands

About the KB

- > 120 km of physical items
  - Newspapers
  - Books
  - Magazines
  - Others (posters, postcards, maps, …)
- > 2 PB of data in the cloud
  - Digitised collections
  - Digital-only collections
- > 3 million Dutch users per year, online and visiting

KB〉national library of the netherlands

Challenges
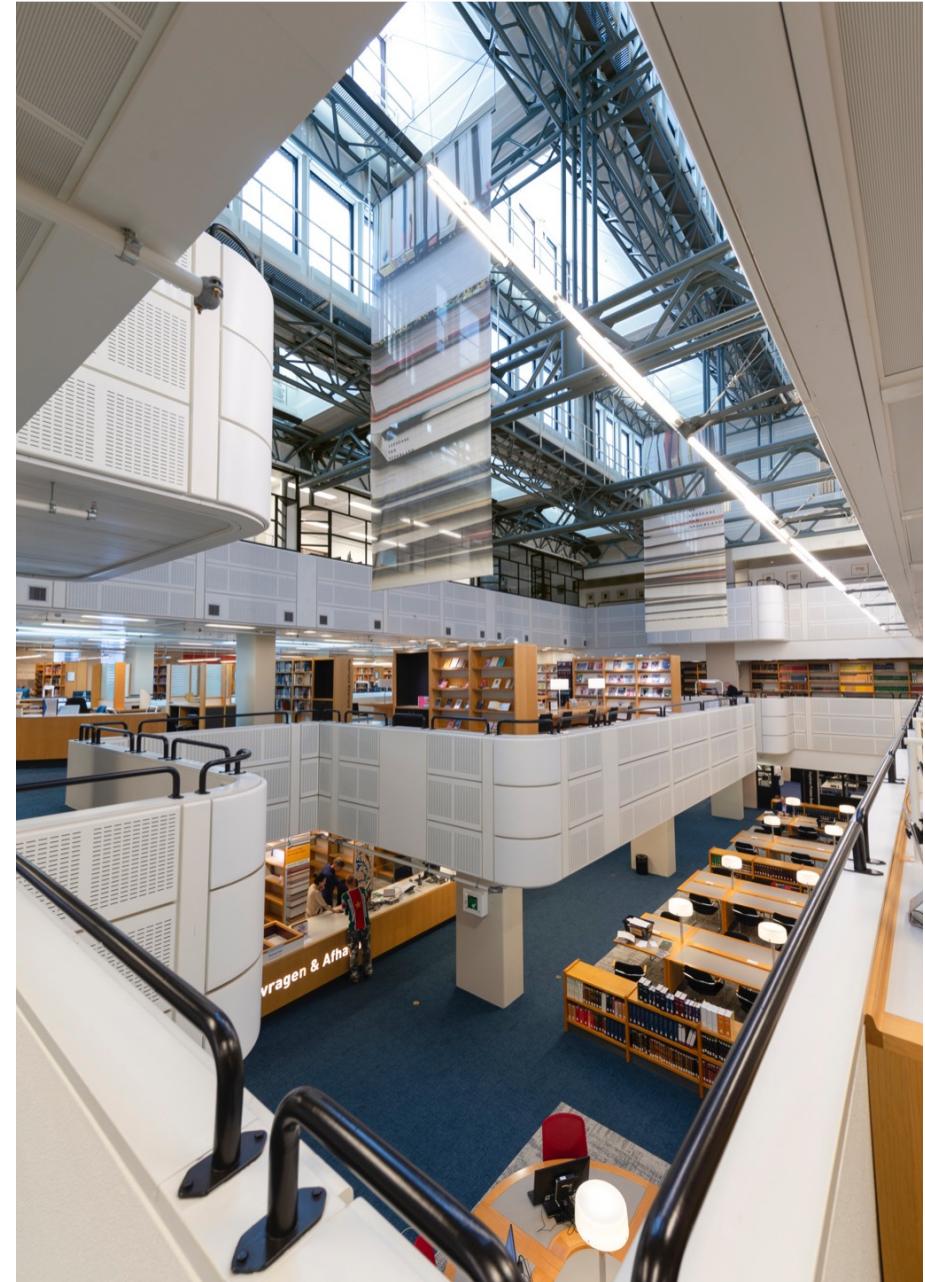
- Sustainability
  - Reducing energy usage (SDG 13)
  - Reducing waste from data centres (SDG 11 & 12)
- Accessibility (SDG 4, 10 & 16)
  - Digital and physical
  - Multi-modal (text & speech)
  - Special needs (impairments)

KB national library of the netherlands

3
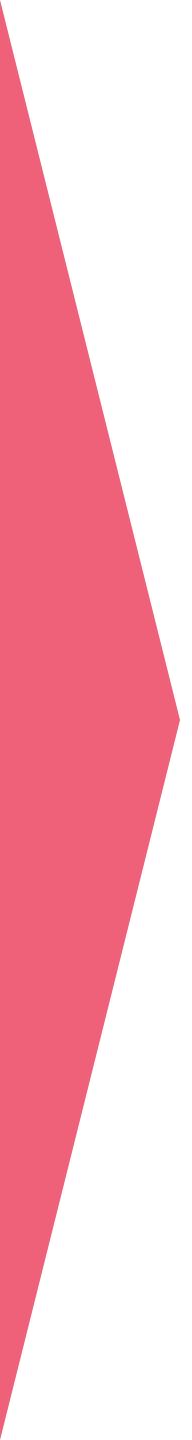
Help

- Optimisation
  - File size & storage
  - Processing power when digitising / OCR
  - Layered approach
  - Metadata creation
- Future proof
  - More accessibility
  - More sustainability
  - More services

GOAL: Optimal mix digital and physical collections

Industry Pitch
IT & Sustainability

DISC – July 3, 2024

Prepared by:
Jannie Minnema

WHO ARE WE?

01 JULY 2024

vodafone Ziggo

Our brands vodafone Ziggo hollands nieuwe. vodafone business Ziggo zakelijk

3.52 mln
fixed services households

5.64 mln
mobile Services customers

1.54 mln
households are customers with both Vodafone and Ziggo

6,791
employees with a permanent contract

7
offices

6,054
mobile Transmitter masts

100
stores

Our parent companies
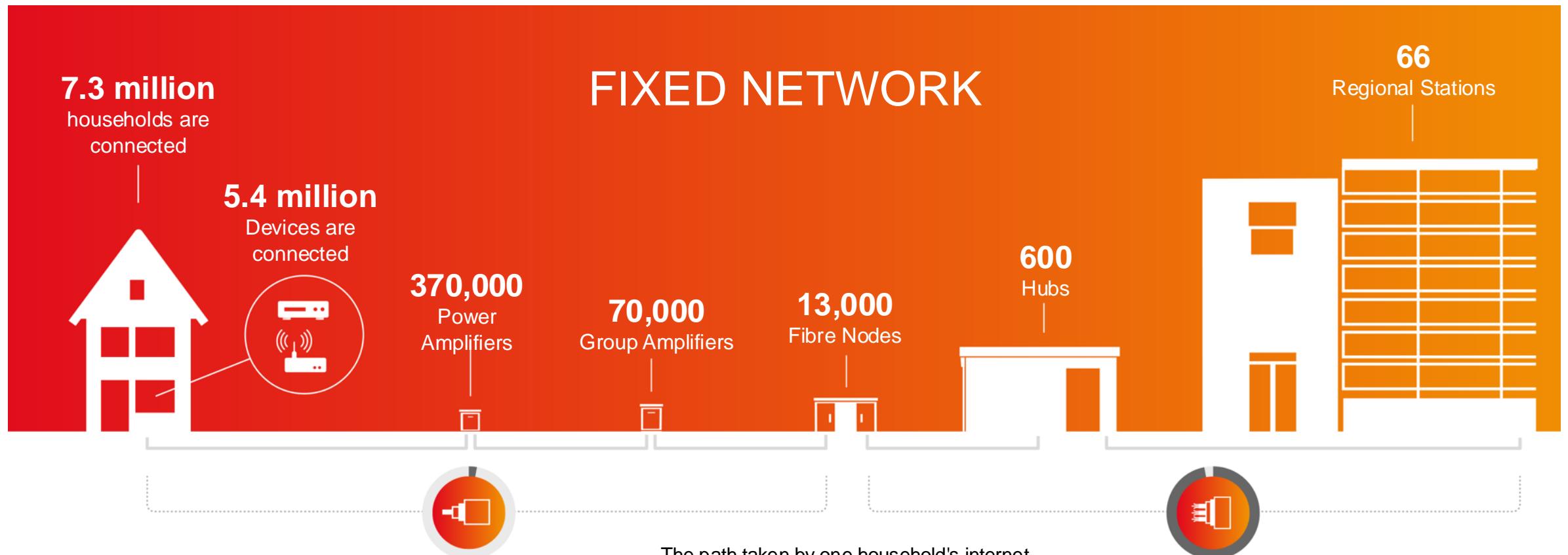
Liberty Global

Vodafone Group

Network 2023

FIXED NETWORK

7.3 million
households are connected

5.4 million
Devices are connected

370,000
Power Amplifiers

70,000
Group Amplifiers

13,000
Fibre Nodes

600
Hubs

66
Regional Stations

3%
via coax cable

The path taken by one household's internet signal is 97% through fibre optic across the Ziggo network. The last part, from the neighbourhood to the living room, goes via coax cable.

97%
via fibre-optic cable

Network 2023

6,054
Mobile Transmitter masts

5.64 million
Mobile Services
Customers

MOBILE NETWORK

66
Regional Stations

600
hubs

Internet of Things

Hospitals

Dike monitoring

The connection of a mobile phone to our network is established via radio signals to the nearest antenna. VodafoneZiggo's antennas are installed on transmission towers or situating on top of tall buildings to ensure coverage across the Netherlands. A significant portion of the connection occurs underground, via the fixed network.

WHAT IS OUR CHALLENGE?

01 JULY 2024

SUSTAINABILITY

Green coding as an element of a more sustainable IT landscape

There are a number of initiatives going on within IT with regard to making the IT-landscape more sustainable. One of these initiatives is green coding and this article explains what it is, what the current status is and what the plans are for the future.

Green coding is an emerging practice for developing an environmentally friendly IT-landscape. One aspect of green coding is carefully choosing and applying a programming language for a development. Different programming languages each have different properties for using a computer's computing power. By choosing the right programming language for a development, developers can reduce the amount of energy used by an application.

Programming language is energy efficient

CHALLENGES

AWARENESS AND KNOWLEDGE

Over time, with knowledge, insights and awareness the field will develop. Are we doing the right things (really?) and is everybody speaking the same language.

DATA QUALITY AND AVAILABILITY

What is it that we want to measure and is the data we need available?.

MEASURE AND EXECUTE

What do we measure? Do we have a baseline?

What do we execute on (and who is responsible)

LANDSCAPE COMPLEXITY

Working in a complex landscape – with many interdependencies and changes – we need to optimize the whole chain, for today and for tomorrow.

HOW TO HELP?

01 JULY 2024

HOW TO HELP

AWARENESS AND KNOWLEDGE

Insights and knowledge

DATA QUALITY AND AVAILABILITY

MEASURE AND EXECUTE

Share common practice

LANDSCAPE COMPLEXITY

Specific topics

Industry Pitch
IT & Sustainability

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