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**AfICTA**  
*Africa ICT Alliance*

## Africa's Digital Agenda: The Role of Digital Infrastructure and Connectivity

Speaking

**Date:** 7th December, 2022

**Time:** 13:30 - 14:30 (UTC)

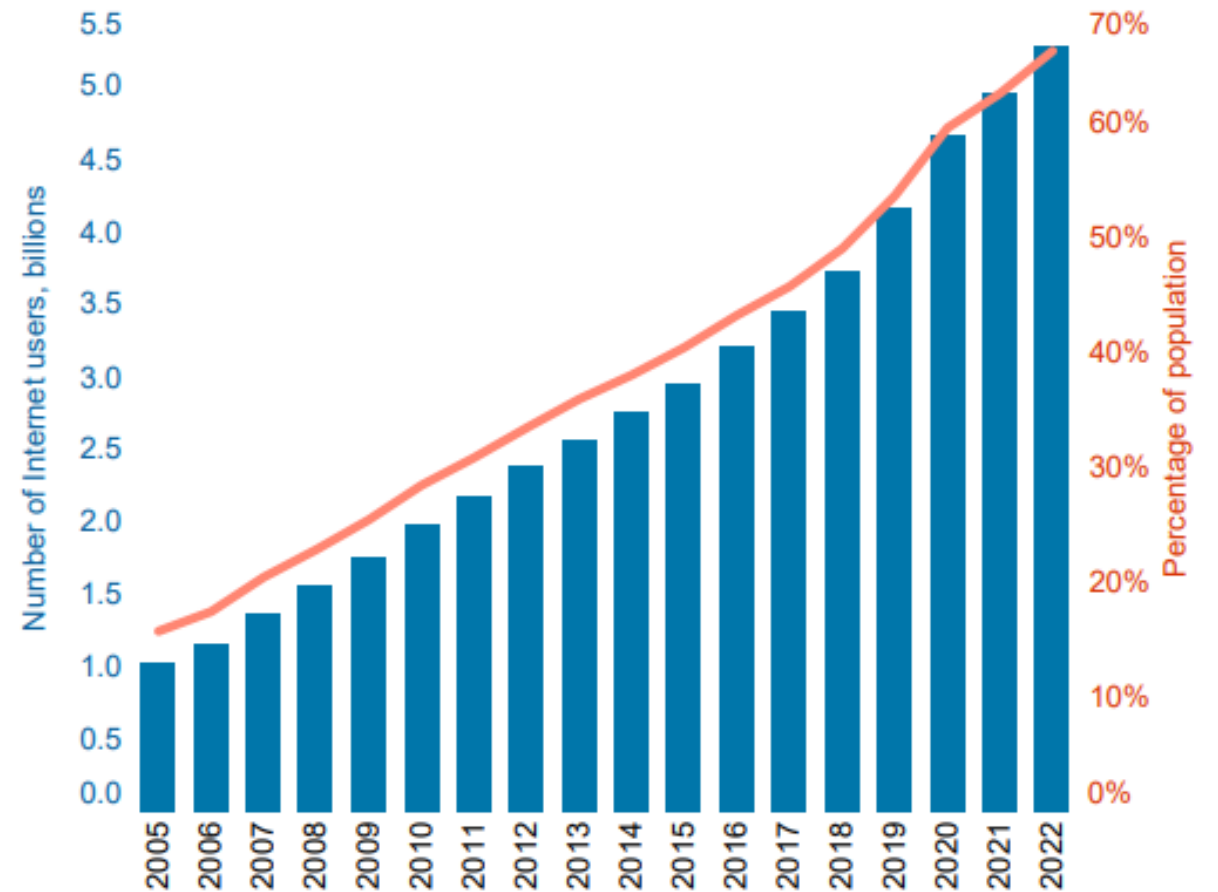
**10<sup>th</sup>** Summit  
December 7-8, 2022



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# Digital Infrastructure and Connectivity – Global Statistics

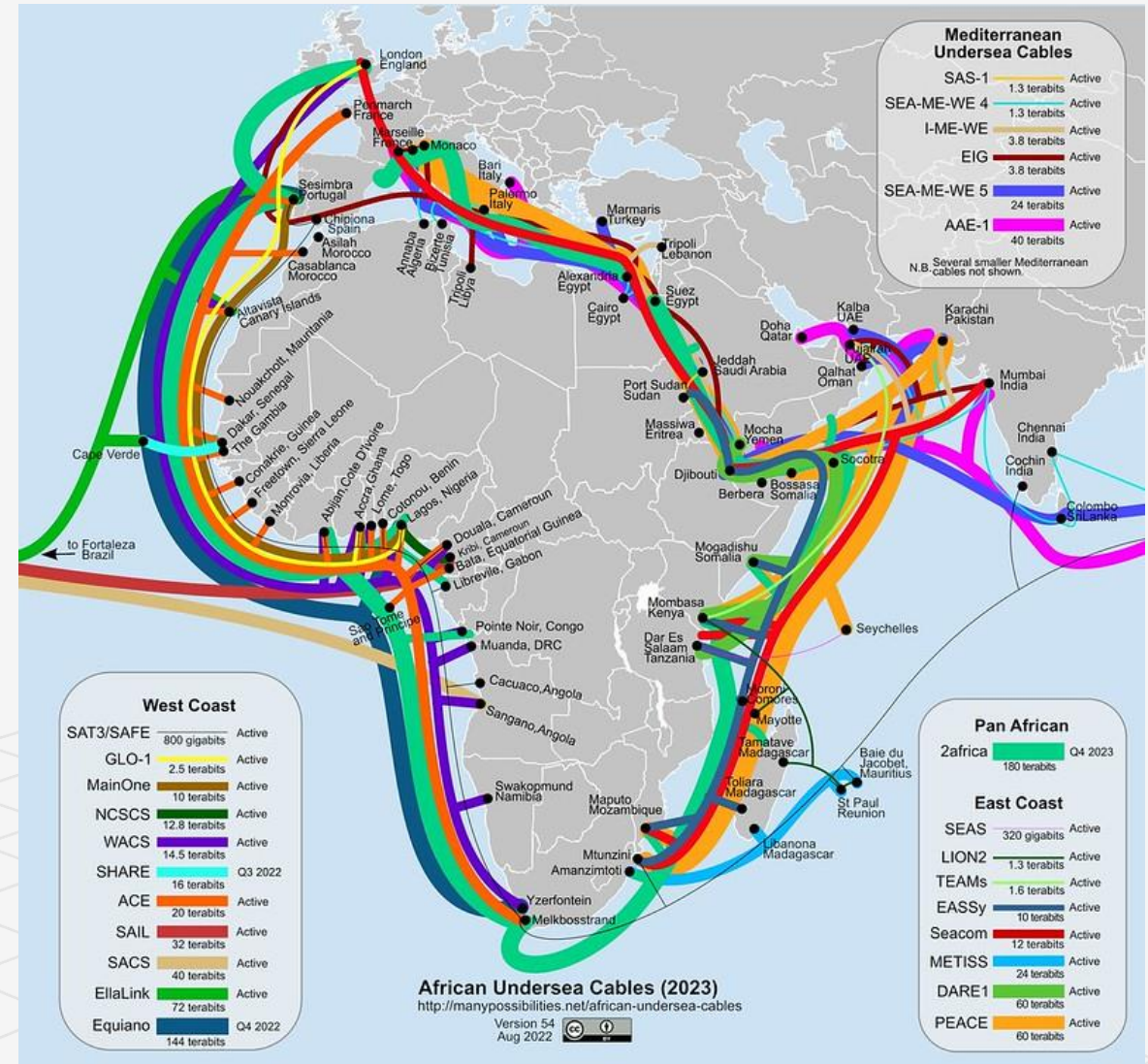
- Globally, about 5.3 billion people uses Internet (ITU, 2022).
- About 29.3 billion devices will be connected to IP networks by 2023 (CISCO, 2020)



Source: ITU

# Digital Infrastructure and Connectivity – African Region

- Africa Region has the lowest Internet usage statistics, only 40% of the population.
- Does the African Region work towards, Meaningful Universal Connectivity (affordable, reliable and safe internet)?

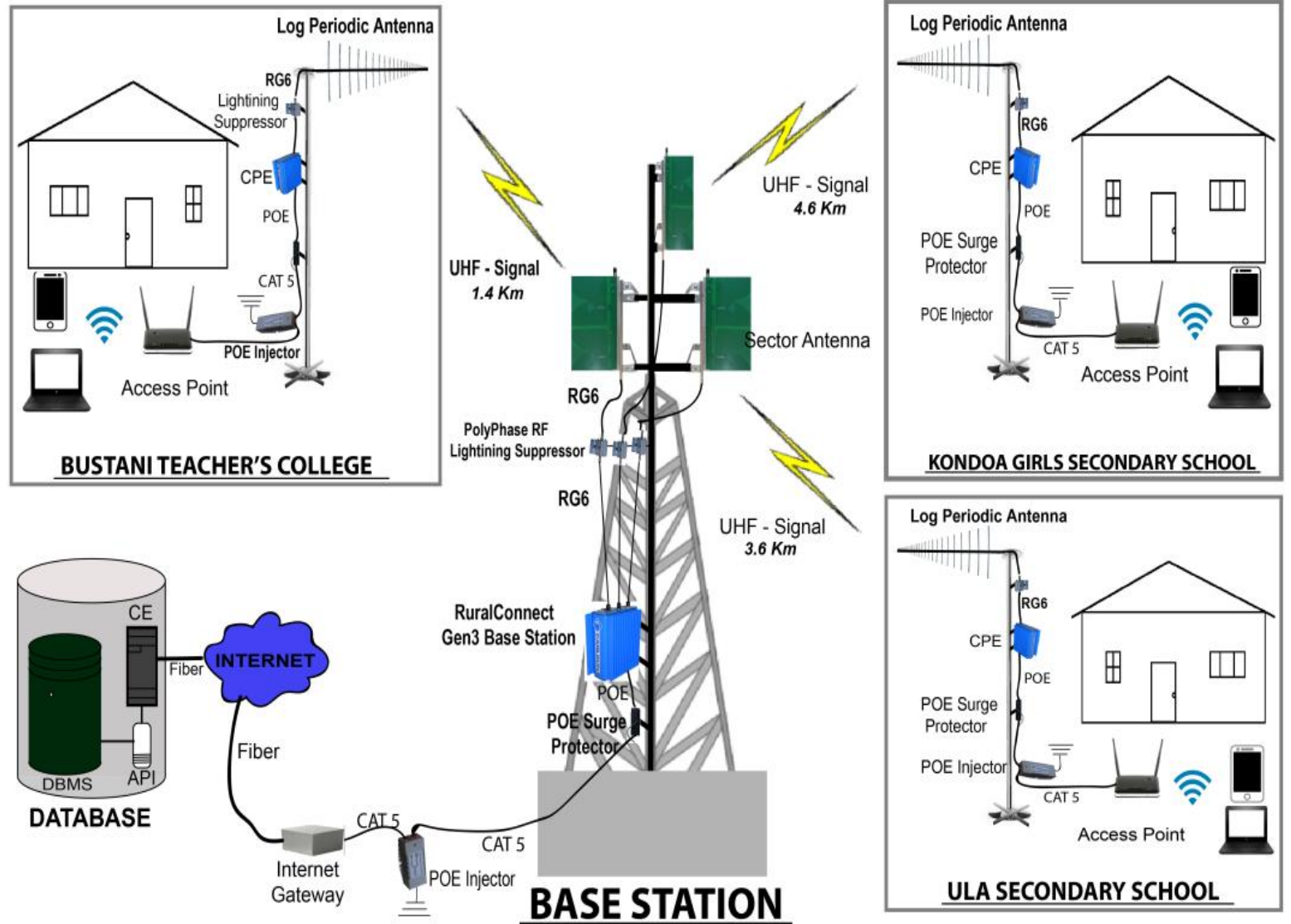




# Network Architecture for TV White Space

## Key Components:

1. Base Station
2. Sector Antenna
3. Geolocation Database
4. Log Periodic Antenna
5. CPE
6. Access Point

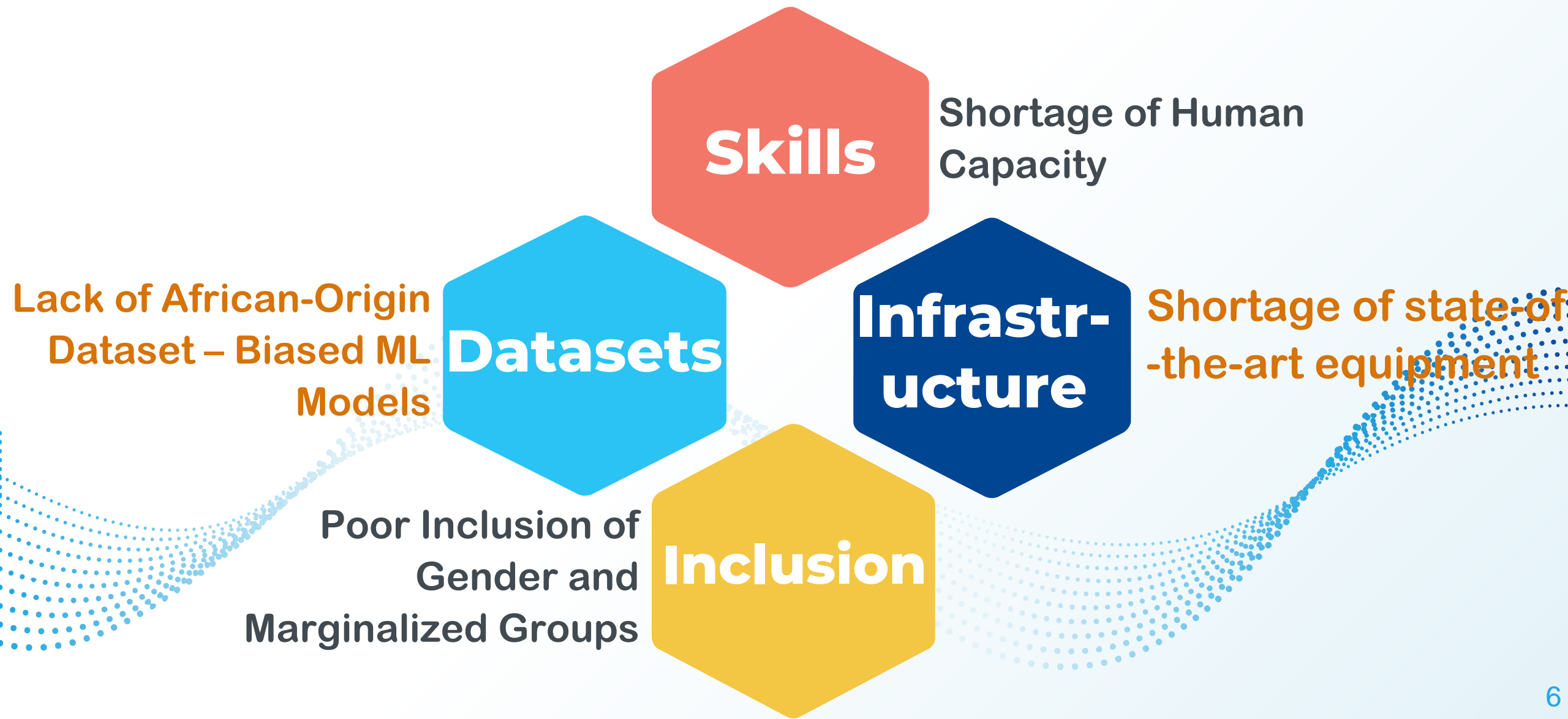


## Broadband Toolbox – African Region

- What if African Countries could put in place an enabling environment that support different broadband connectivity approaches?
- Satellite, TV White Space, MNO, Free Space Optics, etc.



# Why low uptake of AI in African Region?



# AI Hardware Infrastructure

- Data server (on-site and cloud)
- High Performance Computing (HPC)
- Computing resources on-site (GPUs) and cloud
- Internet connectivity i.e., network devices, bandwidth, etc.





# AI Software Infrastructure

- AI/ML software and frameworks
- Data labelling and versioning
- Software engineering tools
- AI Experiment tracking and management
- Optimisation, hyper-parameter tuning softwares and resource management software





# Africa's Digital Agenda: The Role of Digital Infrastructure, Connectivity and Artificial Intelligence

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- Role of digital infrastructure, connectivity and artificial intelligence:
  - Realization of ICT-based economic development.
  - Address the current digital divide, rural and urban areas.
  - Access to modern services including education, health, jobs, agriculture, etc
  - Work from anywhere
  - Home entertainment and connectivity
  - Increase country's GDP growth.

*Thank you  
for Listening!*

Website: [www.ai4dlab.or.tz](http://www.ai4dlab.or.tz)



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