

ouees-202006 topic 08:

# Cloud computing basics

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On the internet

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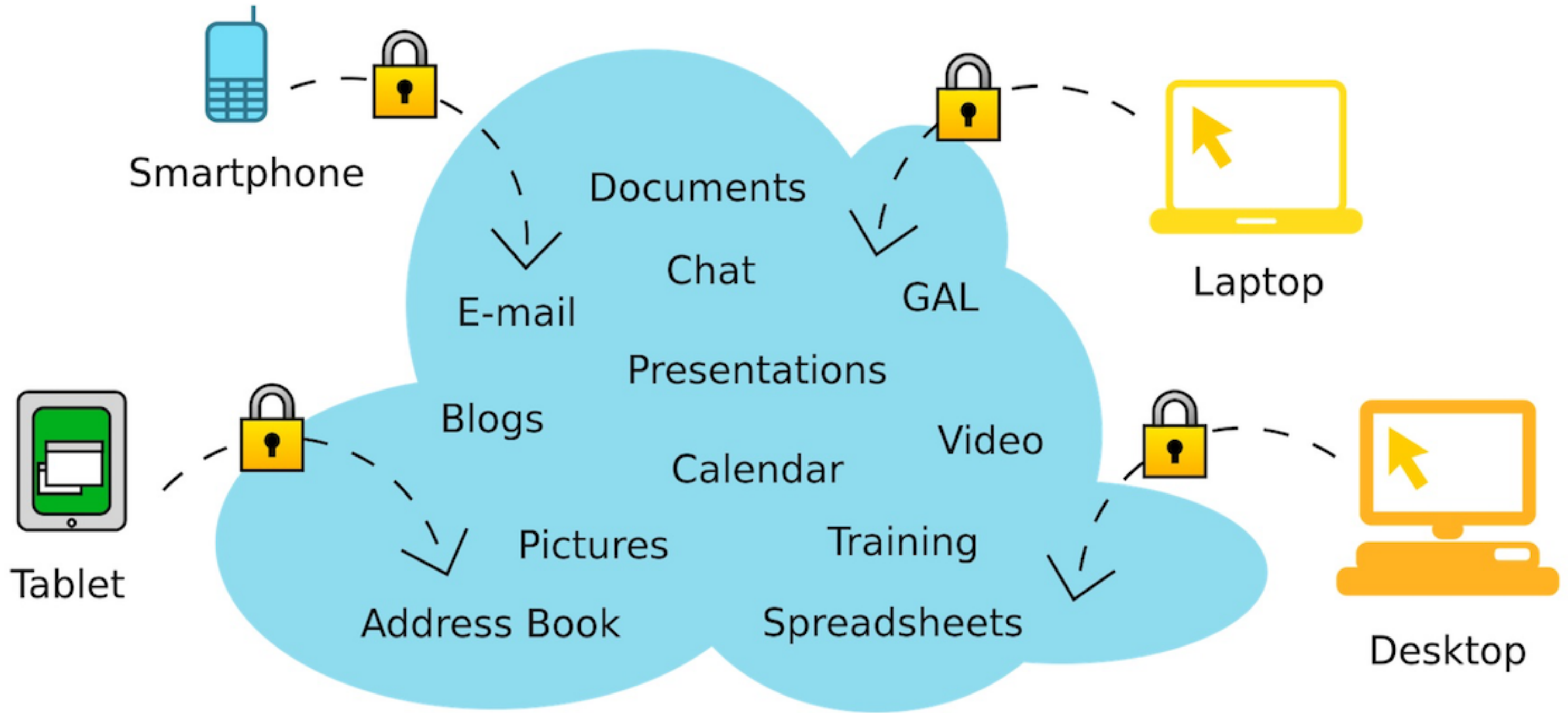
- <https://github.com/jj1bdx/oueees-202006-public/>
- Check out the README.md file and the issues!
- Keyword at the end of the talk
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Topic of this video:

# Cloud computing basics



Modern computing *is cloud*  
*computing*



# Cloud Computing

*Having secure access to all your applications and data from any network device*



The diagram illustrates a cloud computing environment. A central blue cloud contains various data types: Documents, Chat, GAL, E-mail, Presentations, Blogs, Video, Calendar, Pictures, Training, Address Book, and Spreadsheets. Surrounding the cloud are four devices: a Smartphone (top left), a Laptop (top right), a Tablet (bottom left), and a Desktop (bottom right). Each device is connected to the cloud by a dashed line that passes through a yellow padlock icon, symbolizing secure access.

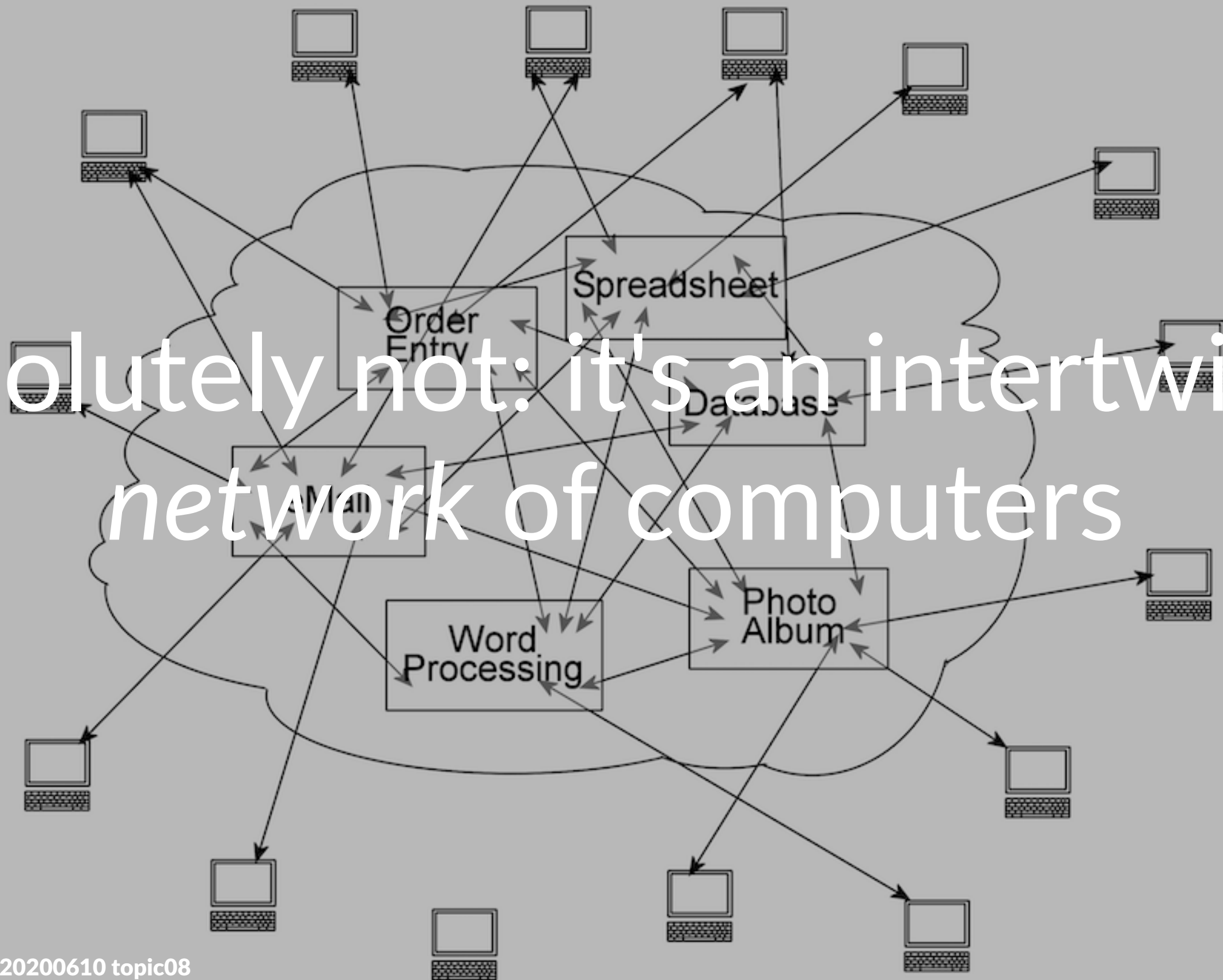
# Is cloud really a uniform and single entity?

## Cloud Computing

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*Having secure access to all your applications and data from any network device*



Absolutely not: it's an intertwined  
*network* of computers



# Web services are clusters of computers and networks

Thousands or millions of servers  
connected together

A physical server is separated into multiple  
virtual machines



# Cloud computing *is* centralization

# An example of cloud computing: Internet of Things (IoT) and telemetry

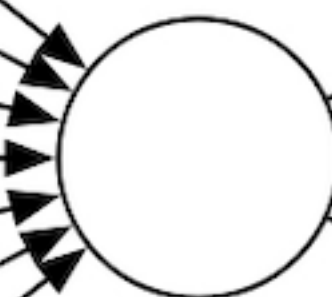


“Things” or devices



Collecting data

internet



Transport

Servers in the cloud



Data analytics,  
visualization,  
and storage

# Telemetry

- Mostly unidirectional (not really *the true and genuine internet*)
- Sensors/devices gathering data through internet and feed them to the servers in the cloud computing platforms
- *The servers compute*
- *Extremely centralized*

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- Web services are clusters of computers: Kenji Rikitake, at Kyoto University ACCMS, April 2017