

# ProCloud3D: Secure Slicing for Industrial 3D Printing in the Cloud

## Advanced Data Exchange Solutions for Additive Production



### Motivation and Relevance

- IP protection plays a crucial role for distributed manufacturing with AM as sensitive data such as 3D models have to be shared
- For AM users and service providers a solution to securely share data between companies is missing

### Approach

- Development of a cyber-secure streaming protocol that streams manufacturing information layer-wise directly from the cloud to an AM machine.
- 3D models no longer need to be shared in distributed manufacturing and thus the related IP is protected

### Results

- Streaming Protocol build on the Open Vector Format to securely transfer data from the cloud to an LPBF machine
- Architecture for a cloud manufacturing platform to securely share data between AM users and service providers to allow for flexible, on-demand distributed manufacturing

### Research Area

- Distributed Manufacturing
- Cyber-Security

### Partners



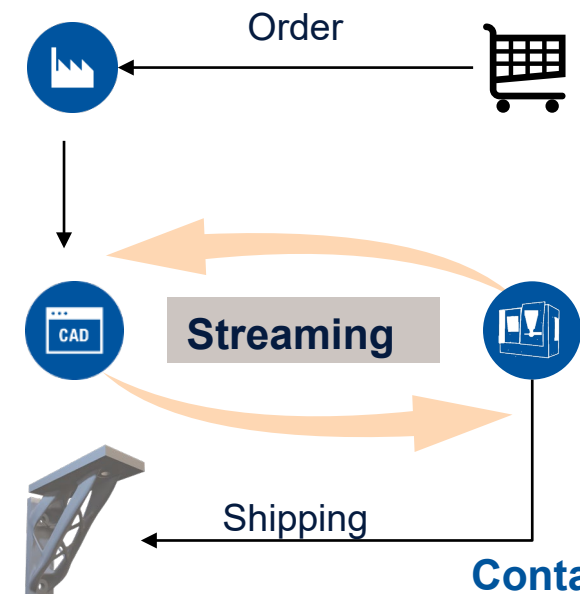
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