

VIZUA

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*“3Dverse, la Plate-forme innovante de
partage de contenus 3D distribuée”*

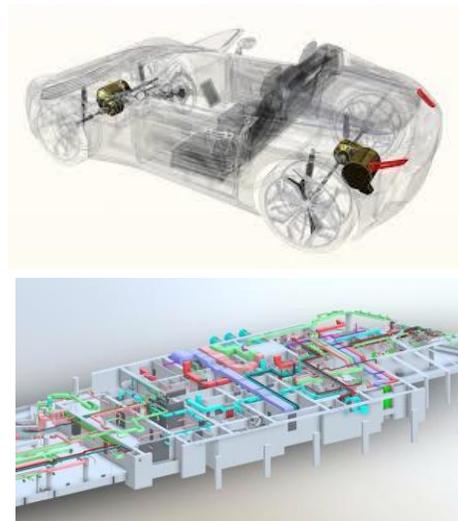
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Tomographie Industrielle

3DVerse Use Cases

Industrie

CAD & BIM



Culture & Science

Musée & Archeologie



Medical

Radiologie & Chirurgie



Partenaires



CAD converter



World Heritage
Photogrammetry



Leader in AI for Health

STRATEGIC PARTNERS



Technical Partner.
Leader WW in GPU, AI, CG, Blockchain etc.
2 first patents were co-signed with Vizua. Nvidia insures to us 2 years ahead of our competitors



A Win-Win partnership.
WW leader in software, Cloud, AR/VR/MR, AI and Blockchain.
We are developing a couple of POC with their big customers in Azure Cloud GPU



Leader in China and WW disruptor in WW OEM of servers.
We co-developed Atlas GPU Servers which are already deployed in Huawei/Orange clouds



WW leader in network infrastructure (5G), they are strategic for streaming solutions. Vizua is providing the platform for Orange to optimize their Cloud GPU named Flexible Engine



Innovative partner.
Pioneer of simple to use, high quality, mobile electroencephalogram technologies. Vizua develops Mind control and Brain Monitoring tools in the Cloud and for AR/VR.



Healthcare partner.
WW leader in neutral medical image viewing solution and AI.
Vizua develops their 3D Printing and Holoportal services. Soon, Blockchain based proof of diagnosis.



WW leader in service and integration on strategic industry (Healthcare, retail, etc...) Healthcare or Industry.
Vizua brings value proposition to their portfolio. POCs are in progress in Europe



Alibaba wants to be the leader in the Cloud GPU to deliver solutions for Retail and Gaming Industry. Vizua is the perfect solution to answer to the mass market of the AR/VR contents in the Cloud

3DVerse

PARTAGE DE CONTENUS 3D DISTRIBUÉE



Upload

Format de fichiers 3D current : CAD, industrie design, stl, obj, fbx...
Espace de travail protégés. Les données sources ne peuvent jamais être atteintes par les appareils client. Seulement la visualisation et les interactions sont diffusées en ligne.

Visualize

Prise en charge de Fichier de grande taille et visualisation 3D calculé dans le Cloud GPU.
Technologie agnostique, Multi-device : AR/Mobile/Web.
Aucune installation requise.

Collaborate

Invitez des collaborateurs et des clients à rejoindre une session 3D de n'importe quel point du Globe.
Visualisez et interagissez avec les objets dans les scènes de vos espaces de travail en ligne

COMPUTING AGE

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Since the Internet appeared, computing is everywhere

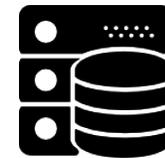
Entertainment, Gaming, Design, Security, Defense, Healthcare, Industry, Retail...

2 ways for computing:

- **Locally**, client devices: Mobile, Tablet, Laptop, Headset...



- **Virtually**, servers: On-Premise, Cloud, VM...



Main digital architecture are based on 3 pillars

- Storage and Synchronization
- Access and Diffusion
- Computing and Manipulation

Circulation of Data are done by Uploading/Downloading

This model doesn't fit with our Needs and Usages today

Slow access: Downloading and Synchronizing each time we want access to the Data

Expensive: using one VM per user means using a lot of licenses

using your own computer means to have an expensive GPU

No Instant sharing: losing 100ms per synchronization represents 4-5 img/s

No Security warranty: transferring Data before manipulation increases risk of hacking

Battery killer: Compute Data in local application consumes a lot of energy

...

Mobility is more and more present in our digital world

We all need instant access and instant sharing whatever the nature, **the size**, the format, **the distance**

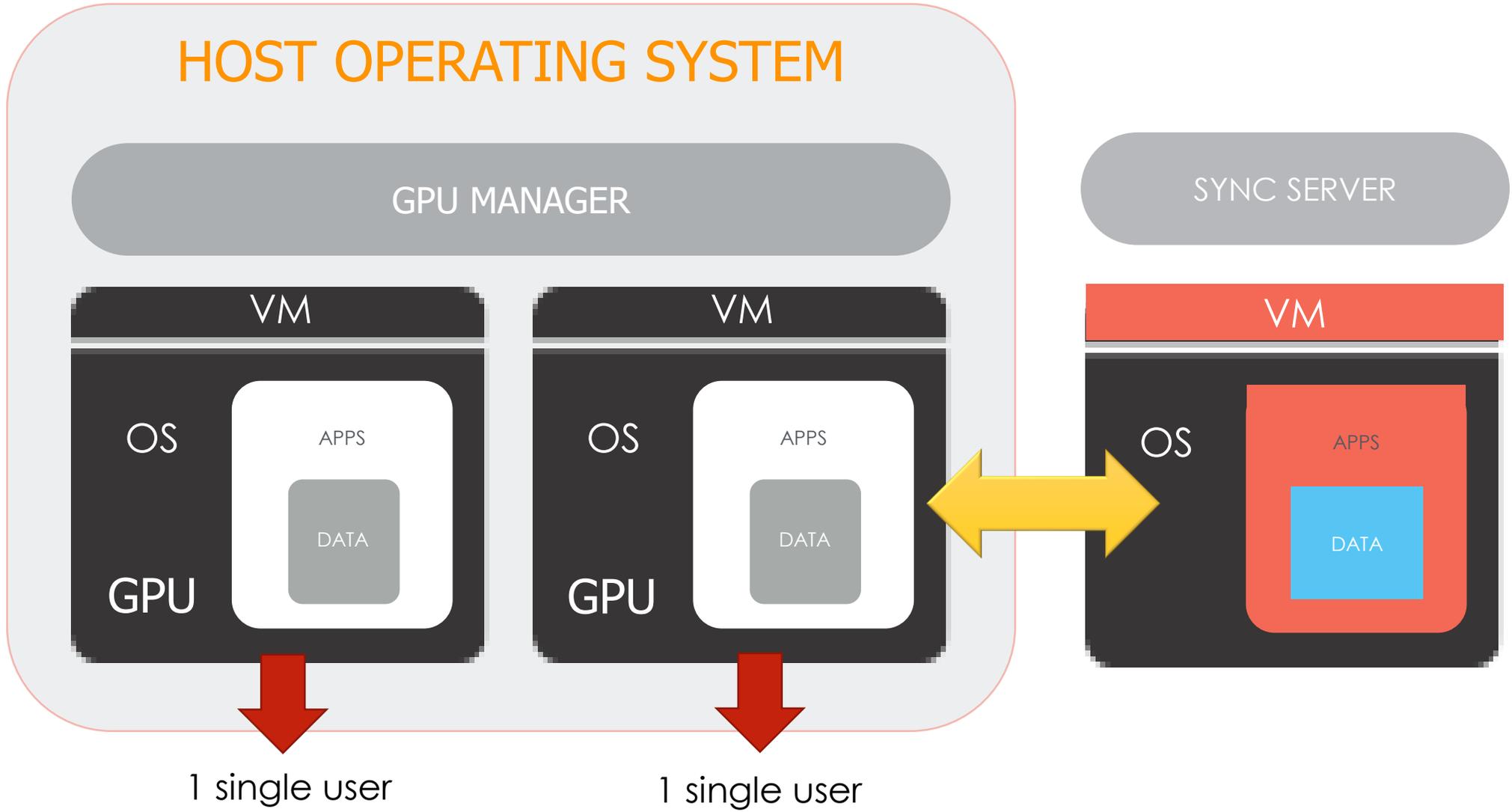
When **we share Data**, we need to be sure that the experience will be the same for even on **thin client**, and **the number of users**

We don't want to deal with **different Data formats**

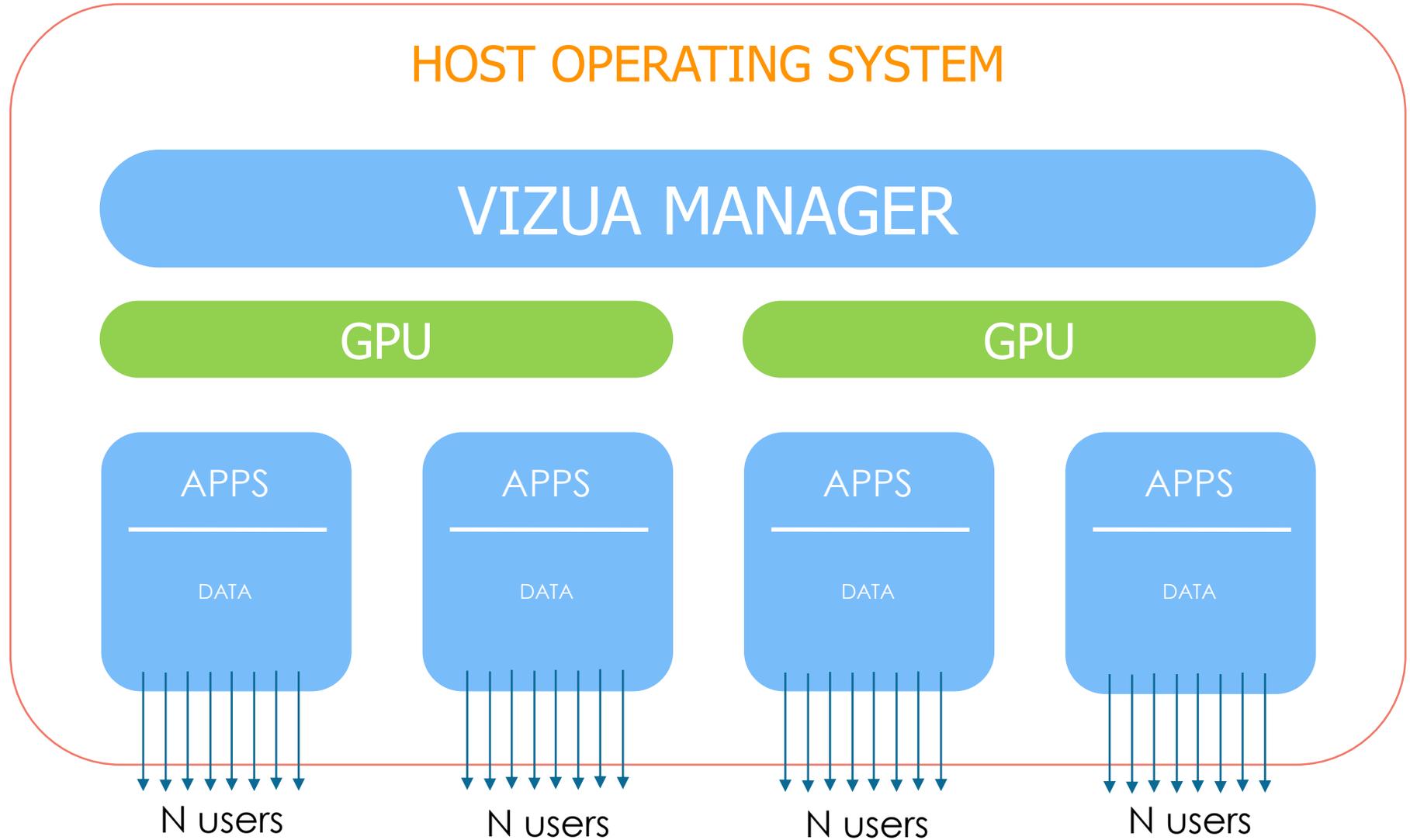
Security and confidentiality in Data manipulation and exchange, are one of the most important key for the trust in the business

And, we don't want applications that kill our **battery** and the service must be **cheap**

TRADITIONAL ARCHITECTURE



VIZUA



Streaming

Application streaming using HTML5 (web browser No installation or plug-in required) or Vizua Framework.

Patented technology lowers the barrier for users to connect to streaming services

Densification

Efficient resource and GPU sharing between multiple processes and users without using Virtual Machines for each session.

This is much more responsive and makes it much cheaper to host applications in the cloud

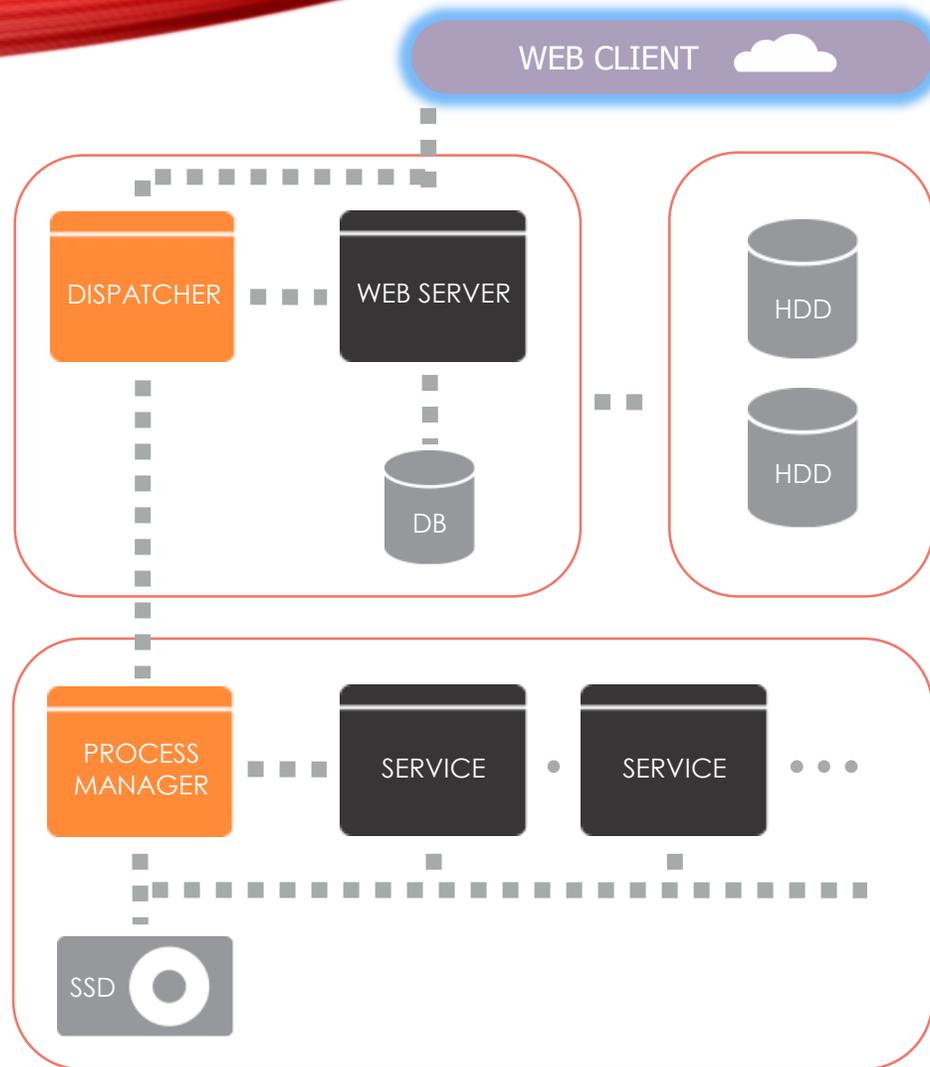
Scalability

Large data file management and 3D visualization for engaging interactive experiences without on-device computing and without downloading data from the cloud.

Vizua increases battery life and security which is perfect for Virtual/Augmented/Mixed reality applications

VIZUA CLOUD ARCHITECTURE

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The **Vizua website** is managed by an Apache server running on Linux. User information and an index to files and bookmarks owned by the user is maintained in a database.

Data files are stored on network hard drives available to Linux.

When a user wishes to open an application, the request is handed to the **Dispatcher** which sends the information and data file to the **Process Manager** which runs on Windows and spawns a matching service.

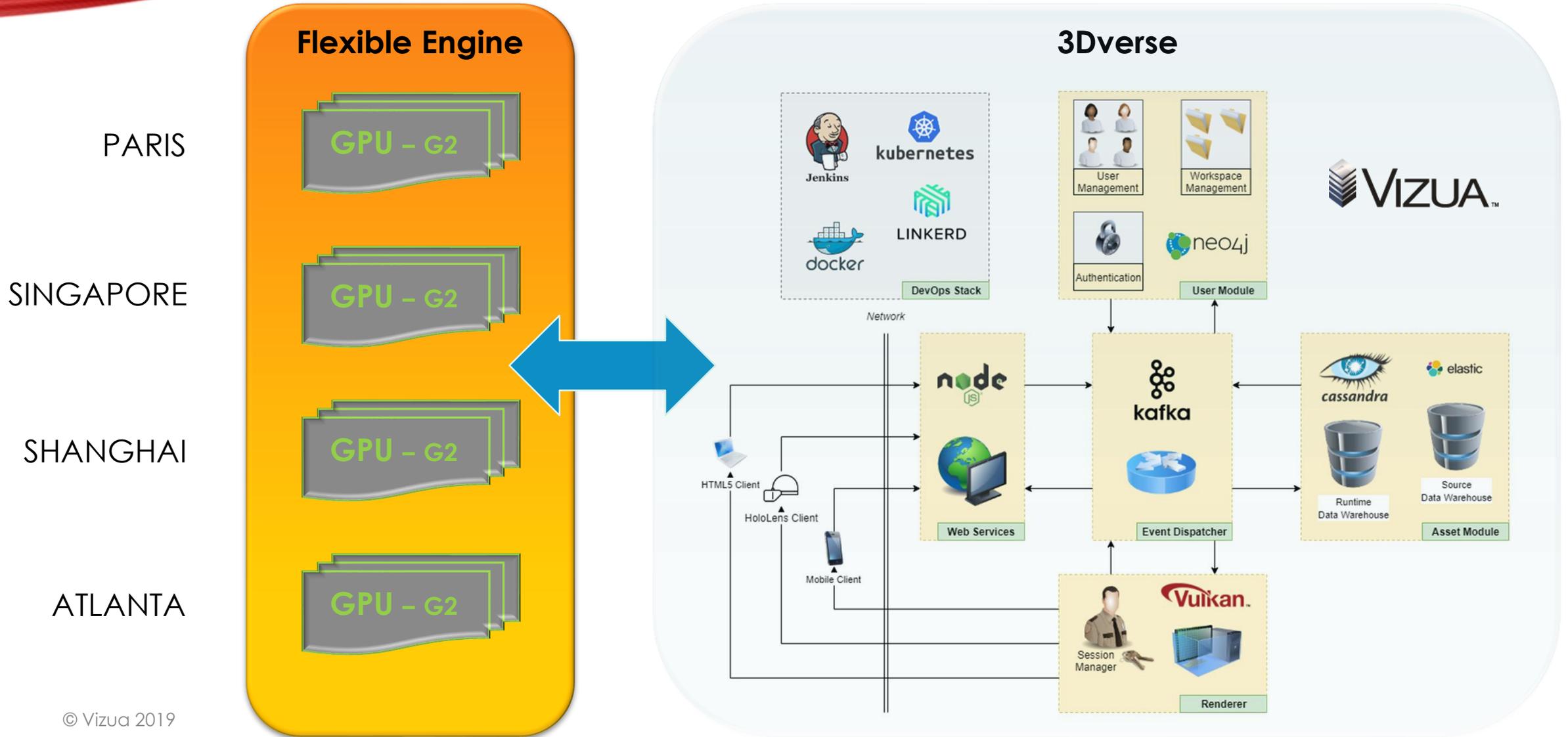
Each instance of a **user and application** is launched as a “service” by the **Process Manager**. A service contains a router that connects to the proper application and bookmark information with startup conditions.

Output from a service and input from a browser is handled by the **Process Manager** through the **Dispatcher** running on Linux.

A high-speed SSD holds **cached information** and data for maximum throughput. When a session is ended, updated data is stored on the network HDD through the **Dispatcher**.

Capacity is scaled by adding or reducing Windows servers or VMs.

CLOUD GPU ARCHITECTURE



3DVerse Added Value

Collaborate and interact

Invite co-workers and clients to join your 3D session from anywhere on the planet
Visualize and interact altogether with the objects in the scene.

Cost efficiency

Multi-users per GPU and no Virtual Machine license.

High resolution 3D Models

Large data file management and 3D visualization computed on Cloud GPU
Most popular 3D file format : Industry CAD design, Medical Dicom format, obj, fbx...

Multi-device support : AR/VR/Mobile/Web

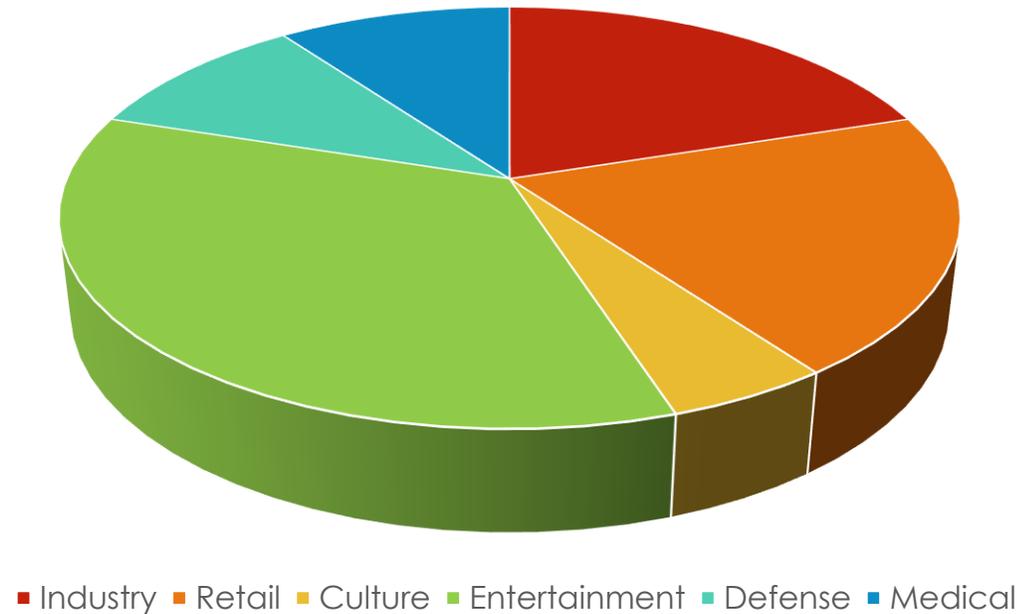
No installation required
Very low device resources required.

Secure your source data

Source data never reaches end devices only views and interactions are streamed
Protected workspace

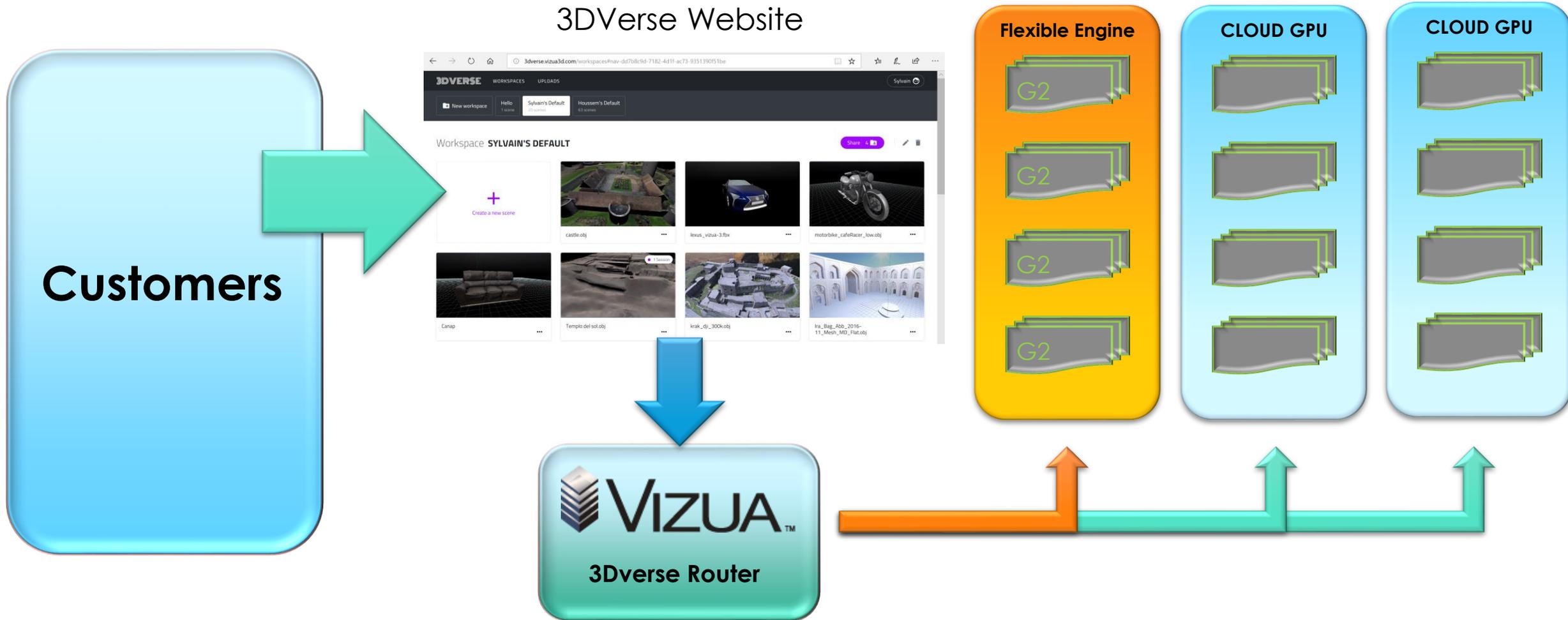
GPU NEEDS FOR NEXT 5 YEARS

Market



1000 GPU

SALES THROUGH ARCHITECTURE



COLLABORATIVE EXPERIENCE



[Demo with our partner Terarecon RSNA 2018, Chicago](#)

USE CASE HOLOGRAPHIQUE DANS FLEXIBLE ENGINE



(2019) [FranceTV](#),
[NAZCAS, LES LIGNES](#)
[QUI PARLAIENT AU](#)
[CIEL](#)



Recalage sur un fardot funéraire



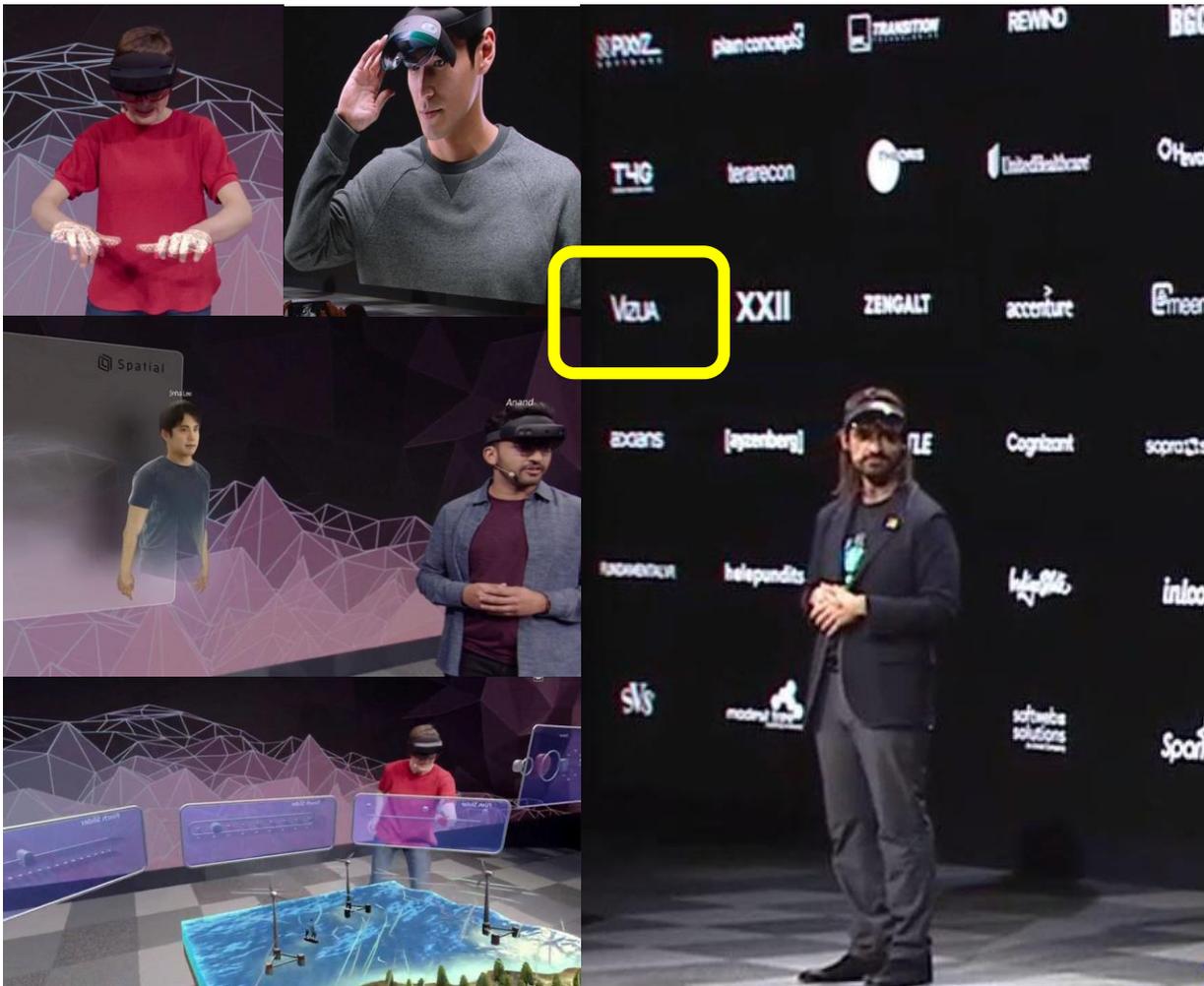
Identification des structures



Diagnostic post-mortem
d'une Momie

Microsoft/Vizua Partnership

<https://news.microsoft.com/microsoft-at-mwc19>



Microsoft at MWC19 Barcelona

Introducing Microsoft HoloLens 2 and Azure Kinect DK

This evening at a press event to kickoff MWC Barcelona, Julia White, corporate vice president of Azure, joined CEO Satya Nadella and Technical Fellow Alex Kipman onstage to talk in depth about Microsoft's worldview for the intelligent cloud and intelligent edge. They also introduced the world to HoloLens 2.

This is a tremendously exciting time for Microsoft, its partners, its customers, the computing industry and indeed the world, White writes on the Official Microsoft Blog. The virtually limitless computing power and capability of the cloud combined with increasingly intelligent and perceptive edge devices embedded throughout the physical world create experiences that could only be imagined a few short years ago.



[Lien Youtube demo Générale 3Dverse](#)

CONFERENCES & TV

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(2019) [Futur & Co, TF1/LCI](#)



(2018) [French TV Show rendered in realtime about Medical applications with HoloLens/CloudGPU/Vizua](#)



(2019) [Le Monde Informatique, OBS](#)



(2017) [S3Odeon Holographic Visualization](#)



(2018) [Microsoft Business Experience, Holographic Visualization in Surgery](#)



(2016) [Jérôme Bonaldi & Sylvain Ordureau CEO of Vizua 3D Printing for Medicine and Archeology](#)

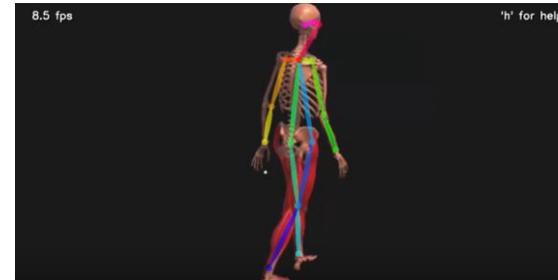
(2015) [Virtual Autopsies of Quai Branly Treasures](#)

(2011) [Sylvain Ordureau - Le Voyage Fantastique TEDxParis \(French\)](#)

VIZUA3D CHANEL



[\(2017\) Microsoft Build 2017 Day 3 Keynote: The Business of Code \(English\)](#)



[\(2018\) Motion Capture without sensors IA/AR mixed](#)



[\(2017\) AR Vizua platform and Microsoft Hololens - Artefact](#)



[\(2018\) Motion Capture without sensors IA/AR mixed](#)



[\(2017\) Future becoming present in medical with Vizua solutions – \(English\)](#)



[\(2017\) Unity Demo on Hololens with Vizua Solutions running on Azure GPU for a virtual visit](#)

