



BELIVVR

Introducing BELIVVR's XRCloud ver 1.1

- Platform service for companies and developers who want to create a metaverse –



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BELIVVR who believe in VR Beliver



What is XR Cloud?

The cloud service you look for when you want to
create the next-generation metaverse internet service

"Web developers, creators, companies, and institutions can all make it with XRCloud!"

- Three major features of BELIVVR's XR Cloud -

1. Global standard technology: WebXR

Global standard, stable development environment,
and metaverse without app installation in VR/mobile

2. Openness: open source and web editor

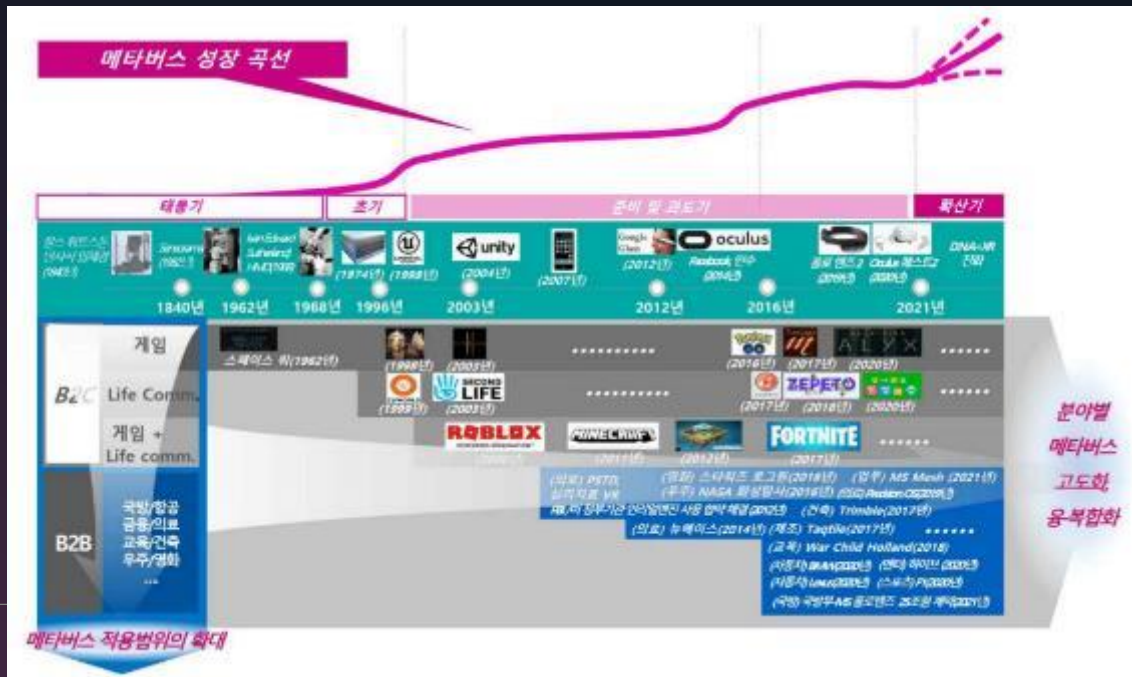
Stay updated with developers around the world and create your own metaverse

3. Security and Scalability: Cloud and On-Premise

Easy interworking development with web API, billing only for usage Security, scalability at once
It is possible to build up to a physical host

Metaverse in Organizational Digital Transformation Technology (DT)

Digital Transformation Metaverse spreads to all industries
One of the IT technologies that lead the digital transformation of society and companies



1. Global standard technology: WebXR

- Information service development is web-based
- Metaverse is the global standard WebXR
- WebXR, a global standard technology, can be made small and continuously expanded under a systematic development process

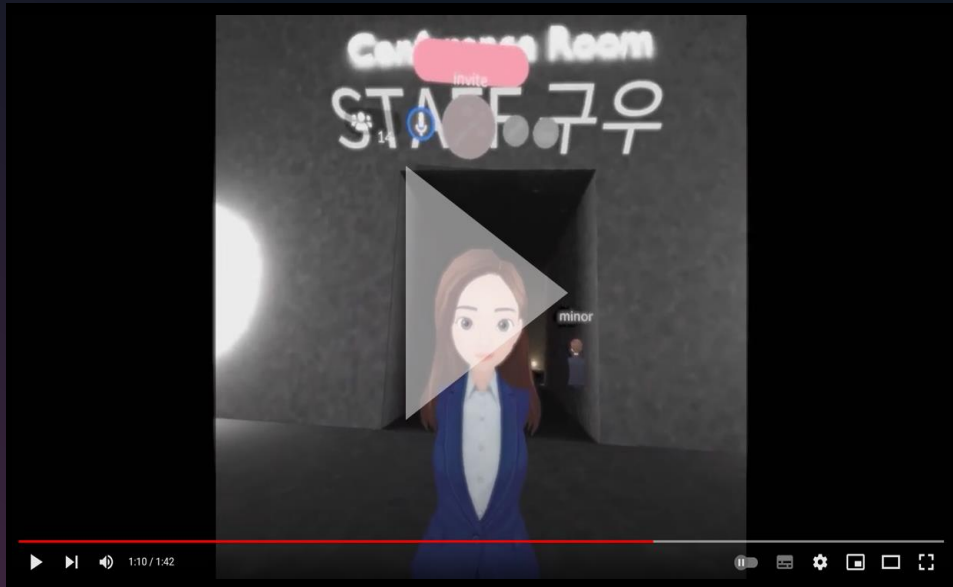
Details	Game engine technology	WebXR technology
Standardization	Non-standard or OpenXR	W3C's Global Standards
Development method	Difficulty in applying standard processes developed and streamed by studio unit. specialize in component production and content production	Separation of models and views makes it easy to separate the organization and apply standard processes for planning, development, distribution, and QA SW development, specializing in service development.
Update	Store-dependent and difficult to distribute.	Real-time partial distribution is possible
Search	impossibility	SEO provision
development language	C#(Unity), C+(Unreal), Java(android native)	Javascript, HTML/CSS
license fee	Different according to development tools and corporate sales range	For free
legacy system interworking	Development of additional functions and Rpc corresponding to legacy APIs is required.	RestAPI, XML Easy to Apply as Existing Legacy API
Performance	High HW specification requirements	regardless of low specification Ex. Chromebook of Celeron level, Whalebook works well.
Developer Supply Difficulty	SDK acquisition and XR development of simultaneous processing High hurdles and for existing businesses Difficulty adapting to SW developers	the level at which new web developers are available Low hurdles, easy to develop and supply Easy adaptation to existing enterprise software developers
Multi-platform (XR)	need to develop functions for individual controls	support for basic multi-platform control functions
Backward compatibility	Frequent version conflicts in SDK and low backward compatibility	Fully guaranteed backward compatibility with web standards
graphic quality	relatively high	relatively low (Avoid effects such as ray tracing and particles)
XR new technology applied	Fast / Oculus Fastest Support for Unity	Slow / Reflecting the latest technology based on standards with the goal of scalability is a bit late
Global competitiveness	The Unity engine is developed overseas and is inevitably dependent on the Unity engine.	With open source and global web standard activities, global competitiveness and influence can be secured depending on contributions and activities
General review	Suitable for metaverse of experiential content such as games	Ideal for general service purposes such as enterprise environments, training, and webinars



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1. Global standard technology: WebXR

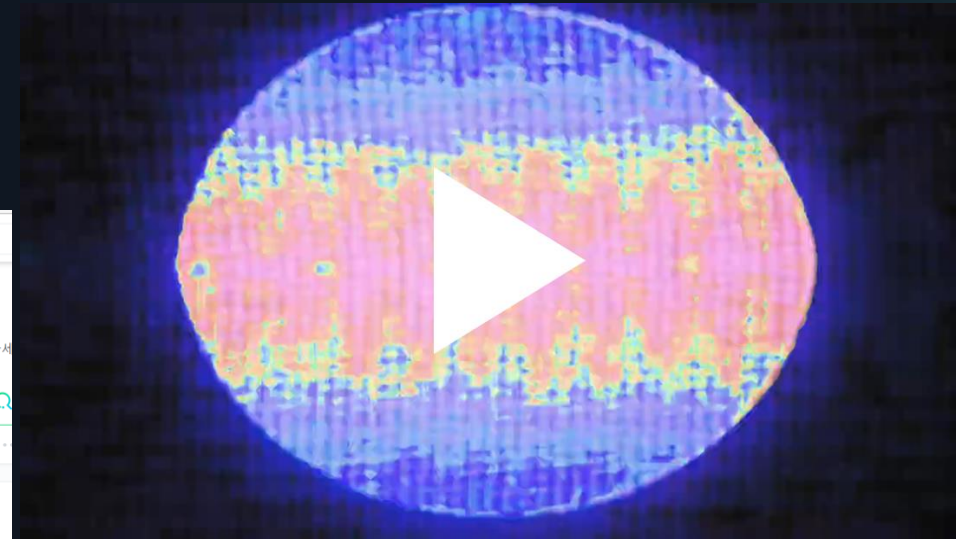
Not only mobile, PC, but also **VR HMD (Metaquest)** can be accessed easily with a web browser
without installing a separate app, and search exposure is possible



Hyundai Futurenet's ComingM metaverse
that can provide a fully immersive environment (BELIVVR implementation example)
<https://www.youtube.com/watch?v=l04TUPt2wY0>



Chonnam National University Metaverse CNU Metaverse
becoming a web search
(BELIVVR construction example)



<https://www.youtube.com/watch?v=1AVeAjUG3vg>
Chonnam National University Metaverse
City Graduation Ceremony Sketch Video

2. Openness: open source and web editor

빌리버의 XR클라우드, 글로벌 오픈소스 프로젝트, 모질라 허브 기반

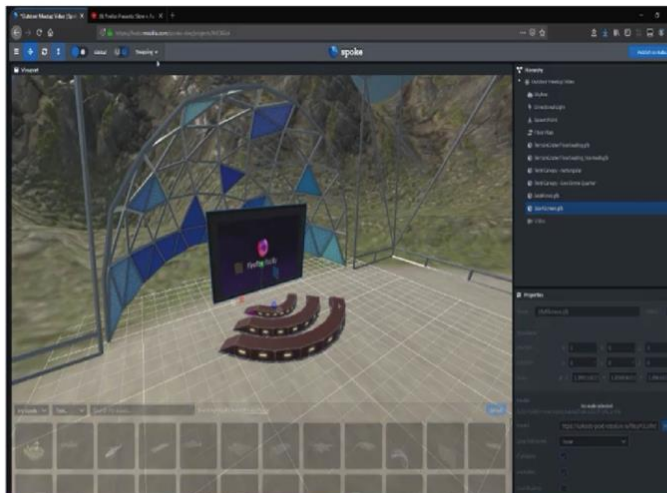
웹 에디터 제공, 화면/문서공유, 셀카, 3D이모지, 채팅 등 강력한 기능을 제공하고 지속적 업데이트

BELIVVR's project fork by extending the Mozilla Foundation's metaverse open-source project Hubs

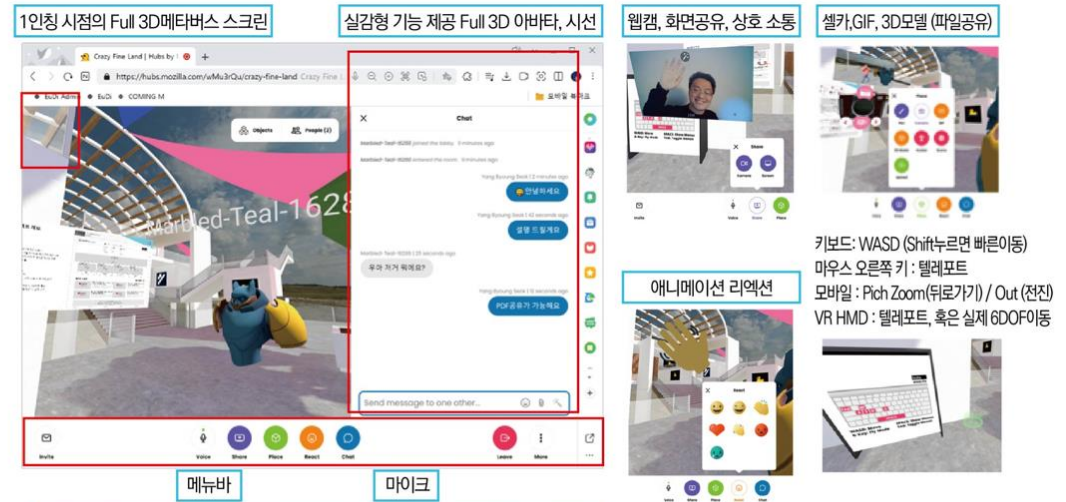
BELIVVR developer is registered as a main contributor and uses open source-oriented corporate strategy

Metaverse service that supports Oculus (Meta) VR HMD and full immersive by supporting W3C standard WebXR

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Metaverse Editor Spoke



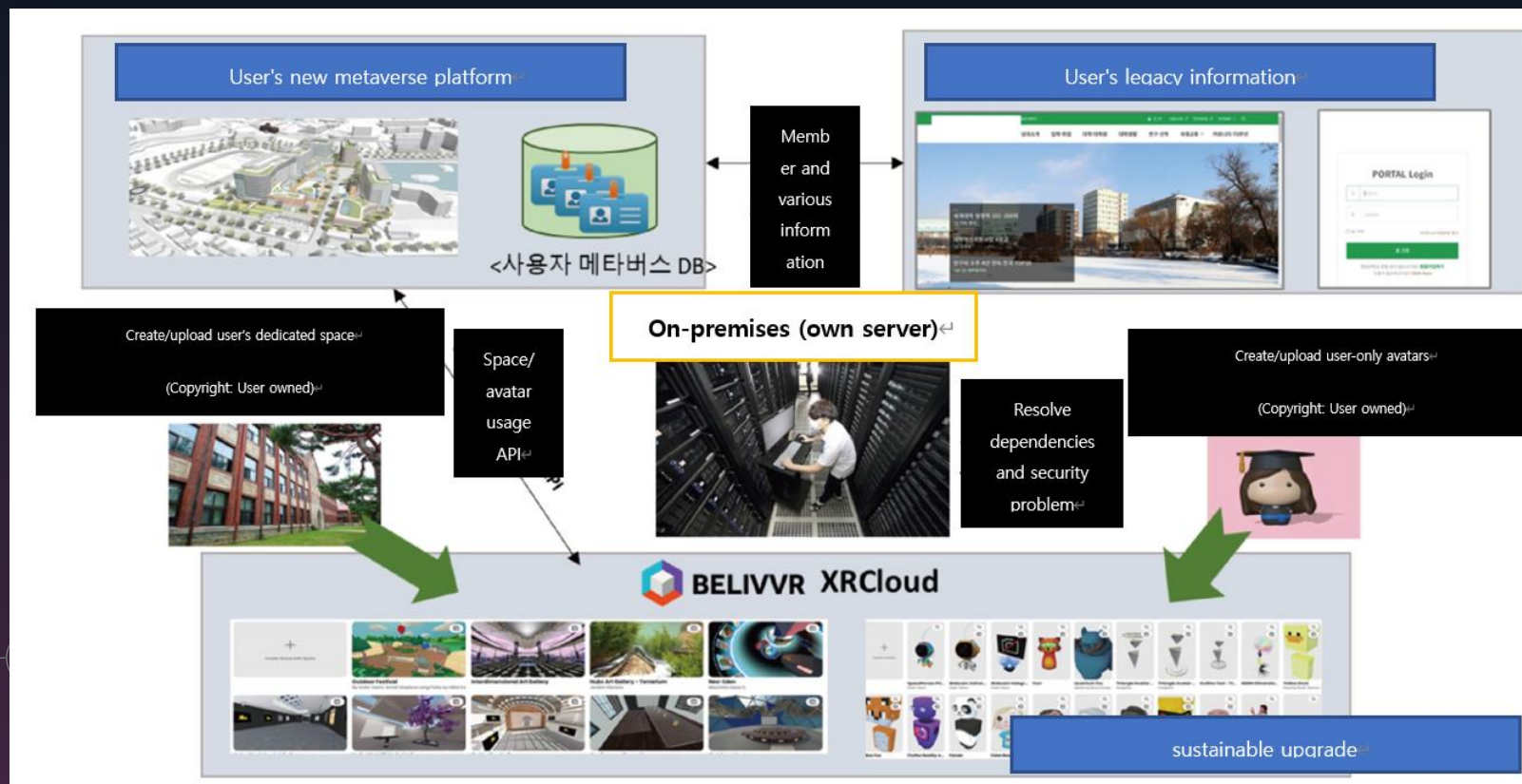
Powerful metaverse function used without mobile/PC/VR limitations



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3. Security and Scalability: Cloud and On-Premise

Excellent security secured by user's own platform construction and API linkage
Easy scalability secured by API linkage with existing information systems



* On-premise solution scheduled to be provided in 22` 3Q

The service needed for both individual developers, institutions and developers who want a metaverse

* Rates are exclusive of VAT.

(for Personal) Development of a small metaverse that can be enjoyed with friends

Lite Plan: 10\$ per year (Free During Beta Period)

- Application registration: 1, Space: 2, Avatar: 3
- Limit on the number of simultaneous users: 8
- Space editor capacity limit: 60MB (22` 2Q service planned)

(for Business) Metaverse platform development for events and institutions

Pro Plan: 100\$ per year

- Application registration, space/avatar selection: unlimited
- Space editor capacity limit: 1G
- + Added increase in the number of concurrent users
First 50 people: 1 million won (1,000\$)/month,
After 100 people: 500,000 won (500\$)/month
- + Added space editor capacity limit
Add 1G: 100,000 won (100\$)/month
- + On-premises deployment solution
Additional inquiry (22' 3Q service)

* * Rate simulation when running an event once per year: \$15126 per year

- Pro registration fee: \$82 once a year
- Space editor capacity added: $\$82 \times 12 \text{ months} = \992
- Regular period: 50 people ($\$82$) $\times 11 \text{ months} = \9092
- Event period: 1,050 people ($\$4959$) $\times 1 \text{ month} = \4959



XR Cloud improvement plan and schedule

XR Cloud based on open source continues to improve.

We hope that many developers/developers will participate.

- XR Cloud improvement schedule

3/31 : BELIVVR Developer Center, XR Cloud Introduction

4/15 : Beta service Lite rate plan open

May: Pro plan open

June: Space editor open

September: Release of on-premises services in the form of reference and offer products

End of 22nd or 1st half of 23rd: Open Avatar Editor

BELIVVR Hub Improvement Issue

[Project] Hub-Education/Performance Components and Functions

(XR Cloud/Hub) 1. Shared screen/shared camera component

(XR Cloud/Hub) 2. Moderator Permissions and Functions

[Project] Hub - Other Improvements

(6/30) Object/item/business card delivery function added

React object management tool

(Education) An animation component that operates when the user approaches a short distance

(All) Guestbook

Avoid avatar collision check and duplicate spawning

Link and create dynamic avatars based on distance

Avatar arm improvements

* Issue scheduled to be published on github in April

BELIVVR's Metaverse Technology Development Plan

7 Points of Matthew Ball's Metaverse



1 Persistence

2 Concurrency

3 Unlimited

4 Growth of economy

5 Transcendence

6 Interoperability

7 Content

BELIVVR's Metaverse Technology Advancement Direction

* As it is a SaaS cloud service, continuous function upgrades can be provided.

RTC technology WebSocket, WebRTC, Dynamic User Connection Control Technology

Cross platform technology secure XR mobile/VR usability

Open Platform/Protocol Technology

Server packaging in on-premises environment, OpenAPI, Web3 technology linkage

Advancement of Full Immersive Technology

Various sensors such as face tracking, interlocking, authoring/development tools



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Thank you!

BELIVVR creates an open source metadata.
WebXR Metabus is now available with BELIVVR.

Contact : connect@belivvr.com