



Extra

AT&T, Verizon's broadband strategies; tech firms' M&A options in video gaming

Mark Anthony Gubagaras

482 words

7 February 2022

SNL Financial Extra

SNLFE

English

Copyright © 2022 by S&P Global Market Intelligence, a division of S&P Global Inc. All rights reserved.

Here are the editors' top picks from S&P Global Market Intelligence's technology, media and telecommunications news and Kagan research during the week ended Feb. 4.

Broadcast

2022 outlook: Challenges, opportunities facing US TV, radio stations

In its annual outlook of the broadcast segment, Kagan research has identified the major factors influencing the U.S. TV and radio sectors, including advertising, retransmission, technology and M&A.

Capital Markets

Investors weigh EA's future amid gaming consolidation, Q4'21 misses

Video game publisher Electronic Arts Inc. saw a bump in share price amid M&A speculation in January, but analysts say there are several reasons why EA is likely to remain independent.

Consumer Insights

Cable news SVOD subscribers may look little like traditional viewers

Survey data of current Fox Nation viewers suggests the audiences for online cable news subscription video-on-demand services, at least initially, bear little resemblance to traditional cable news audiences.

Internet & OTT

SVOD and AVOD service launches in the US slow, still significant

Streaming service launches in the U.S. may have slowed in recent years from the frenzied pace set in 2015-2019, but a variety of new offerings continue to enter a crowded space.

Mobile

Wireless moves from 'hobby' to growth engine for cable operators

With broadband growth slowing, wireless has ascended to become the long-term growth driver for Charter Communications Inc. and Comcast Corp., analysts say.

Multichannel

AT&T's fiber deployment vs. Verizon's fixed wireless bet

AT&T Inc. is investing heavily on deploying fiber to more homes in a bid to win fixed broadband customers. Verizon Communications Inc., meanwhile, is betting on its fixed-wireless home internet service.

Broadcast TV fees show gradual increase in early 2022

The estimated weighted national average monthly broadcast fee taken from the top U.S. video operators increased to \$16.02 as of January 2022.

Regulatory

Gigi Sohn's path to FCC looks even rockier amid new hearing, recusals

The Senate Commerce Committee has decided to hold a second nomination hearing for Federal Communications Commission nominee Gigi Sohn, a move public interest advocates called "highly unusual." Policy experts warn the more time that passes, the less likely confirmation seems.

Technology

Premium valuation a moving target in \$16.5B Citrix acquisition

The \$16.50 billion deal to acquire Citrix Systems Inc. represents the largest acquisition on record for buyers Vista Equity Partners and Evergreen Coast Capital Corp., as well as a liquidity event for Citrix investors after a volatile year on the market.

Top tech firms still have metaverse M&A options in the video game space

In the wake of Microsoft Corp.'s blockbuster deal for Activision Blizzard Inc., our analysis identifies valuations for 357 companies in home entertainment software and details some of the most attractive acquisition targets.

Document SNLFE00020220208ei27000mc



Vuzix, Verizon to develop immersive sports, gaming experiences for smart glasses

109 words

28 December 2021

Telecompaper Americas

TELAM

English

Copyright 2021 Telecompaper. All Rights Reserved.

After working together to deliver [BlueJeans videoconferencing](#) with smart glasses, Vuzix and Verizon will now advance augmented reality experiences for sports and gaming, leveraging Verizon's 5G and edge services and Vuzix Shield smart glasses.

Under the latest agreement, the two companies completed a proof-of-concept, showing the ability of Verizon's 5G Ultra Wideband service and edge computing platform to run applications at the edge of the network using Vuzix smart glasses, delivering improved response time, longer battery life and increased computing capacity.

The partners will now work on developing immersive experiences, provided through smart glasses.

Document TELAM00020211228ehcs00001

THE WALL STREET JOURNAL.

Media & Marketing

Business

Brands No Longer See Metaverse-Like Worlds as Abstract Gimmicks; Chipotle, Vans and Verizon turn to Roblox, Fortnite in an effort to build brand recognition

By Alexandra Bruell

1,089 words

29 November 2021

18:30

The Wall Street Journal Online

WSJO

English

Copyright 2021 Dow Jones & Company, Inc. All Rights Reserved.

Brands had been toying with the metaverse for some time before [Facebook's recent name change](#) turned the term into a household word. Now some of them are getting serious.

Companies including Chipotle Mexican Grill Inc., Verizon Communications Inc. and streetwear brand Vans earlier this year built their own digital worlds on metaverse-like platforms such as Roblox Corp. and Fortnite Creative in an attempt to improve brand recognition and get existing customers more engaged.

Their efforts are a sign that advertisers, which have long been hesitant to spend marketing dollars on experimental efforts, are warming to new digital platforms. Facebook's late October announcement that [it would develop a metaverse environment](#), including investing \$10 billion on the effort this year and changing its name to Meta Platforms Inc., is expected to accelerate that trend.

"Facebook saying, 'We're going to put \$10 billion into this,' I think provides a lot of incremental confidence that this would be a worthwhile experiment," said Brian Wieser, global president of business intelligence at GroupM, a media-buying company inside ad agency behemoth WPP PLC.

The metaverse is a relatively new term [to describe a futuristic internet](#) with virtual experiences where people [can customize avatars](#)—digital images representing themselves—to play games, make virtual purchases and interact and attend events such as concerts and comedy shows. Roblox is currently among the highest-profile metaverse-like platforms.

This futuristic version of the internet is unlikely to become a significant branding platform for companies anytime soon. Meta Chief Executive Mark Zuckerberg said last month that the metaverse was five to 10 years away from being developed and adopted by a large number of users. Marketing executives from companies currently present in the metaverse, including Vans and Chipotle, said they have yet to use the platform to sell physical goods.

Some marketers are also concerned the metaverse may just be a repeat of Linden Lab's virtual world Second Life, said Kieley Taylor, global head of partnerships at GroupM. Second Life, a community [made up of islands and avatars](#) developed by individuals and businesses, launched in the early aughts to much fanfare from advertisers, but never really had a meaningful enough user base to stay relevant or grow large enough for brands to benefit, said Mr. Wieser of GroupM.

Others believe things will be different this time around. Chris Brandt, Chipotle's chief marketing officer, said he expects consumers to welcome a more immersive web experience, especially after pandemic confinements led them to change their habits.

"Being at home, using avatars, having the ability to get everything delivered to your home—that changes the way people think about digital," Mr. Brandt said. "I think the world is more ready for it."

Chipotle has handed out discounted or free burritos to people in costumes around Halloween for the past two decades. This year, it chose to host its long-running "boorito" promotion in the metaverse. The Mexican-food chain turned to Roblox, where it built a virtual store where avatars could dress up in costumes such as a Chip Bag Ghost or Burrito Mummy and travel through a virtual maze to retrieve a code for a free burrito. It was Chipotle's first foray into the metaverse.

"We haven't tried to sell anything yet on Roblox, but certainly we would like to do some experimentation," Mr. Brandt said.

Meta has reached out to some advertisers to discuss ad opportunities in the metaverse. One executive at a digital marketing firm said he is planning to meet with Meta remotely, through the company's virtual-reality headset. Another agency executive said Meta is encouraging brands to use existing augmented reality features, such as Instagram filters that overlay real photos with special effects, to get comfortable with the types of advertising opportunities that will exist in the future.

Vans, a unit of VF Corp. that sells skateboarding apparel and gear, in September launched a virtual skate park in Roblox, where users can try new tricks and earn points by hitting waffle-shaped floating coins while skating. They can use the points to redeem items such as virtual shoes and skateboard customizations. They can also use Robux, Roblox's currency, to buy more specific virtual items, such as customizable shoes.

The company sees virtual universes as [a place to build brand awareness](#) among 13-to-35-year olds, the company's core demographic, said Nick Street, Vans's vice president of global integrated marketing.

"These worlds are where they hang out, where they meet with each other," Mr. Street said.

Vans said the virtual skate park has attracted more than 48 million visitors so far. Mr. Street said the company is generating revenue from the sale of virtual goods, but Vans declined to disclose further details. One of the things Vans isn't yet able to do in Roblox is use the virtual universe to sell physical products. "That's where the opportunity lies" when the metaverse grows to a bigger scale, Mr. Street said.

Nike Inc. also recently launched a community in Roblox called Nikeland. The virtual community, which has buildings and fields inspired by Nike's headquarters, is expected to host games like tag and dodgeball. The company plans to allow creators to design their own games.

Beyond Roblox, gaming companies like "Fortnite" maker Epic Games and Microsoft Corp., which owns Xbox and popular gaming platform Minecraft, all [operate metaverse-like platforms](#).

Ahead of this year's Super Bowl, Verizon helped create a virtual copy of the stadium on Fortnite Creative, a system affiliated with the well-known game where developers can construct their own games and communities. Fans were able to come into the stadium and play games. The company paid some high-profile National Football League players including Tua Tagovailoa and Kyler Murray to join in and play against one another, a competition that Verizon live-streamed on Twitch and Twitter.

Verizon's marketing chief, Diego Scotti, said he sees the virtual experience—which attracted 40 million people over the course of seven days—as a branding opportunity. "We're starting to talk about the ability of these experiences to become worthy rivals to TV spots running on the Super Bowl," he said.

Patience Haggin contributed to this article.

Write to Alexandra Bruell at alexandra.bruell@wsj.com

[Brands No Longer See Metaverse-Like Worlds as Abstract Gimmicks](#)

Document WSJO000020211129ehbt001me

Verizon Patent and Licensing Inc. Patent Issued for Generating content for a virtual reality system (USPTO 11128812)

2,487 words

8 October 2021

Marketing Weekly News

MRKWN

228

English

© Copyright 2021 Marketing Weekly News via VerticalNews.com

2021 OCT 16 (VerticalNews) -- By a News Reporter-Staff News Editor at Marketing Weekly News -- A patent by the inventors Annau, Thomas M. (San Mateo, CA, US), Christensen, Jens (San Mateo, CA, US), Van Hoff, Arthur (San Mateo, CA, US), filed on May 2, 2017, was published online on September 21, 2021, according to news reporting originating from Alexandria, Virginia, by VerticalNews correspondents.

Patent number 11128812 is assigned to Verizon Patent and Licensing Inc. (Basking Ridge, New Jersey, United States).

The following quote was obtained by the news editors from the background information supplied by the inventors: "As technology improves, people become more isolated from human-to-human interaction. Instead of interacting with people in the physical world, people become more interested in the changes occurring on their phones and other mobile devices. This can result in loneliness and a sense of being disconnected.

"One way to reduce the feelings of isolation comes from using virtual reality systems. In a virtual reality system, users interact with visual displays generated by software to experience a new location, activity, etc. For example, the user may play a game and interact with other characters in the game. In another example, the government is currently using virtual reality systems to train pilots. Current systems, however, fail to completely remedy feelings of isolation because the VR systems are insufficiently realistic.

"The subject matter claimed herein is not limited to embodiments that solve any disadvantages or that operate only in environments such as those described above. Rather, this background is only provided to illustrate one example technology area where some embodiments described herein may be practiced."

In addition to the background information obtained for this patent, VerticalNews journalists also obtained the inventors' summary information for this patent: "According to one innovative aspect of the subject matter described in this disclosure, a system includes one or more processors and one or more non-transitory tangible computer-readable mediums communicatively coupled to the one or more processors and storing executable instructions executable by the one or more processors to perform operations including: generating virtual reality content that includes a compressed stream of three-dimensional video data and a stream of three-dimensional audio data with a processor-based computing device programmed to perform the generating, providing the virtual reality content to a user, detecting a location of the user's gaze at the virtual reality content, and suggesting a first advertisement based on the location of the user's gaze.

"Other aspects include corresponding methods, systems, apparatus, and computer program products for these and other innovative aspects.

"These and other embodiments may each optionally include one or more of the following operations and features. For instance, the operations include: determining a cost for displaying advertisements based on the location of the user's gaze, the cost being based on a length of time that the user gazes at the location; providing a graphical object as part of the virtual reality content that is linked to a second advertisement; generating graphics for displaying a bottom portion and a top portion that include at least some of the virtual reality content and providing an advertisement that is part of at least the bottom portion or the top portion.

"According to another innovative aspect of the subject matter described in this disclosure, a system includes one or more processors and one or more non-transitory tangible computer-readable mediums communicatively coupled to the one or more processors and storing executable instructions executable by the one or more processors to perform operations including: receiving virtual reality content that includes a stream of three-dimensional video data and a stream of three-dimensional audio data to a first user with a processor-based computing device programmed to perform the receiving, generating a social network for the first user, and generating a social graph that includes user interactions with the virtual reality content.

"These and other embodiments may each optionally include one or more of the following operations and features. For instance, the operations include: suggesting a connection between the first user and a second user based on the virtual reality content; suggesting a group associated with the social network based on the virtual reality content; comprising automatically generating social network updates based on the first user interacting with the virtual reality content; determining subject matter associated with the virtual reality content, determining other users that are interested in the subject matter, and wherein the other users receive the social network updates based on the first user interacting with the virtual reality content; generating privacy settings for the first user for determining whether to publish social network updates based on a type of activity; and storing information in a social graph about the first user's gaze at advertisements displayed as part of the virtual reality content."

The claims supplied by the inventors are:

"1. A method comprising: receiving raw video data describing image frames from a set of camera modules; constructing, from the raw video data, a left camera map by identifying matching camera modules for pixels in a left panoramic image and for each of the pixels, identifying a corresponding camera module from the matching camera modules based on a determination that the corresponding camera module has a most parallel viewing direction to a left viewing direction as compared to other viewing directions of other camera modules; generating a stream of left panoramic images based on the left camera map; constructing a right camera map that identifies matching camera modules for pixels in a right panoramic image; generating a stream of right panoramic images based on the right camera map; generating a compressed stream of three-dimensional video data from the stream of left panoramic images and the stream of right panoramic images, wherein the compressed stream of three-dimensional video data describes a 360-degree view of a scene; providing virtual reality content that includes the compressed stream of three-dimensional video data and a stream of three-dimensional audio data to users; receiving user gaze information that describes locations within the virtual reality content where each of the users is looking while viewing the virtual reality content; determining locations of user gaze within the virtual reality content based on the user gaze information; generating a heat map based on the locations of the user gaze; using the heat map to determine that an advertisement should be placed in a location in the virtual reality content where, according to the heat map, users look less frequently compared to one or more other locations in the virtual reality content where users look more frequently; displaying the advertisement at the location in the virtual reality content; storing information about a user's gaze at the advertisement displayed at the location in the virtual reality content; determining a subject of the advertisement displayed at the location in the virtual reality content; and using the subject of the advertisement and the information about the user's gaze at the advertisement to provide one or more advertisements in a social network.

"2. The method of claim 1, further comprising: generating a set of virtual reality content, wherein the set of virtual reality content includes the virtual reality content; and generating a playlist of virtual reality experiences from the set of virtual reality content.

"3. The method of claim 2, wherein the virtual reality experiences in the playlist are ordered based on a most number of user views of the virtual reality experiences from the set of virtual reality content.

"4. The method of claim 2, wherein the playlist includes the virtual reality experiences from the set of virtual reality content corresponding to a geographical location.

"5. The method of claim 1, further comprising: generating a set of virtual reality content, wherein the set of virtual reality content includes the virtual reality content; and generating a social graph that includes an identification of the users, relationships between the users, and information about virtual content in the set of virtual reality content viewed by each of the users.

"6. The method of claim 5, further comprising: suggesting that a first user connect with a second user based on identifying from the social graph that the first user and the second user viewed same or similar virtual content from the set of virtual reality content.

"7. The method of claim 5, further comprising: providing the virtual reality content to a first user and a second user that are connected in the social graph, wherein the first user and the second user contemporaneously view the virtual reality content.

"8. The method of claim 1, wherein the left viewing direction is represented by a vector that includes, for each pixel, a yaw, a pitch, and an interocular distance.

"9. A non-transitory computer storage medium encoded with a computer program, the computer program comprising instructions that, when executed by one or more processors, cause the one or more processors to perform operations comprising: receiving raw video data describing image frames from a set of camera modules; constructing, from the raw video data, a left camera map by identifying matching camera modules for pixels in a left panoramic image and for each of the pixels, identifying a corresponding camera module

from the matching camera modules based on a determination that the corresponding camera module has a most parallel viewing direction to a left viewing direction as compared to other viewing directions of other camera modules; generating a stream of left panoramic images based on the left camera map; constructing a right camera map that identifies matching camera modules for pixels in a right panoramic image; generating a stream of right panoramic images based on the right camera map; generating a compressed stream of three-dimensional video data from the stream of left panoramic images and the stream of right panoramic images, wherein the compressed stream of three-dimensional video data describes a 360-degree view of a scene; providing virtual reality content that includes the compressed stream of three-dimensional video data and a stream of three-dimensional audio data to users; receiving user gaze information that describes locations within the virtual reality content where each of the users is looking while viewing the virtual reality content; determining locations of user gaze within the virtual reality content based on the user gaze information; generating a heat map based on the locations of the user gaze; using the heat map to determine that an advertisement should be placed in a location in the virtual reality content where, according to the heat map, users look less frequently compared to one or more other locations in the virtual reality content where users look more frequently; displaying the advertisement at the location in the virtual reality content; storing information about a user's gaze at the advertisement displayed at the location in the virtual reality content; determining a subject of the advertisement displayed at the location in the virtual reality content; and using the subject of the advertisement and the information about the user's gaze at the advertisement to provide one or more advertisements in a social network.

"10. The computer storage medium of claim 9, wherein the operations further comprise: generating a set of virtual reality content, wherein the set of virtual reality content includes the virtual reality content; and generating a playlist of virtual reality experiences from the set of virtual reality content.

"11. The computer storage medium of claim 10, wherein the virtual reality experiences in the playlist are ordered based on a number of user views of the virtual reality experiences from the set of virtual reality content.

"12. The computer storage medium of claim 10, wherein the playlist includes the virtual reality experiences from the set of virtual reality content corresponding to a geographical location.

"13. A system comprising: one or more processors; and a memory that stores instructions executed by the one or more processors, the instructions operable to cause the one or more processors to: receive raw video data describing image frames from a set of camera modules; construct, from the raw video data, a left camera map by identifying matching camera modules for pixels in a left panoramic image and for each of the pixels, identifying a corresponding camera module from the matching camera modules based on a determination that the corresponding camera module has a most parallel viewing direction to a left viewing direction as compared to other viewing directions of other camera modules; generate a stream of left panoramic images based on the left camera map; construct a right camera map that identifies matching camera modules for pixels in a right panoramic image; generate a stream of right panoramic images based on the right camera map; generate a compressed stream of three-dimensional video data from the stream of left panoramic images and the stream of right panoramic images, wherein the compressed stream of three-dimensional video data describes a 360-degree view of a scene; provide virtual reality content that includes the compressed stream of three-dimensional video data and a stream of three-dimensional audio data to users; receive user gaze information that describes locations within the virtual reality content where each of the users is looking while viewing the virtual reality content; determine locations of user gaze within the virtual reality content based on the user gaze information; generate a heat map based on the locations of the user gaze; use the heat map to determine that an advertisement should be placed in a location in the virtual reality content where, according to the heat map, users look less frequently compared to one or more other locations in the virtual reality content where users look more frequently; display the advertisement at the location in the virtual reality content; store information about a user's gaze at the advertisement displayed at the location in the virtual reality content; determine a subject of the advertisement displayed at the location in the virtual reality content; and use the subject of the advertisement and the information about the user's gaze at the advertisement to provide one or more advertisements in a social network."

There are additional claims. Please visit full patent to read further.

URL and more information on this patent, see: Annau, Thomas M. Generating content for a virtual reality system. U.S. Patent Number 11128812, filed May 2, 2017, and published online on September 21, 2021.

Patent URL:

<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetacgi%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=11128812.PN.&OS=PN/11128812RS=PN/11128812>

Keywords for this news article include: Business, Computers, Advertising, Verizon Patent and Licensing Inc.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document MRKWN00020211008eha80002o



BlueJeans by Verizon adds features, integrations to virtual event platform

233 words

28 July 2021

Theflyonthewall.com

FLYWAL

English

(c) 2021. Theflyonthewall.com. All Rights Reserved.

Verizon Business announced new BlueJeans Events features and partner integrations designed to help bolster the virtual event experience. "As virtual and hybrid event volumes are expected to increase by 36% after the pandemic, organizations will require the right tools to help them meet their marketing and growth goals. BlueJeans Events addresses key marketing and communication requirements to increase audience engagement for use cases such as webinars/webcasts, brand activations, tradeshow/conferences and other live events," the company said. The latest enhancements to the BlueJeans Events platform include: HTML Embed Enhancements: Event hosts now have the ability to deploy individual BlueJeans Events widgets for chat, Q&A, and polling on any HTML webpage to complement an embedded livestream player. Additionally, closed captioning is now fully supported. Event Customizations: Event hosts now have the ability to upload any mp3 file up to 10MB.

Presenter Support: While Restricted Events allow admins to keep unwanted participants from joining via domain-specific invitations, admins now have the ability to allow exceptions and invite specified external presenters to join. MootUp Integration: MootUp can pull BlueJeans Events into MootUp immersive 3D spaces. Organizers can create, customize and brand their own 3D virtual world. Zapier Integration: Zapier allows admins to connect a variety of applications to BlueJeans Events to streamline event logistics and ensure interconnectivity with a host of marketing automation platforms.

Document FLYWAL0020210728eh7s00kra

Verizon Patent and Licensing Inc. Patent Issued for Virtual reality resource scheduling of processes in a cloud-based virtual reality processing system (USPTO 11051081)

2,099 words

21 July 2021

Telecommunications Weekly

TELWK

5858

English

© Copyright 2021 Telecommunications Weekly via VerticalNews.com

2021 JUL 21 (VerticalNews) -- By a News Reporter-Staff News Editor at Telecommunications Weekly -- According to news reporting originating from Alexandria, Virginia, by VerticalNews journalists, a patent by the inventors Adamov, Anatoly D. (Palo Alto, CA, US), Redmann, Christopher P. (San Mateo, CA, US), Ryzhov, Aleksandr O. (Los Gatos, CA, US), Van Hoff, Arthur (Menlo Park, CA, US), filed on September 16, 2019, was published online on June 29, 2021.

The assignee for this patent, patent number 11051081, is Verizon Patent and Licensing Inc. (Basking Ridge, New Jersey, United States).

Reporters obtained the following quote from the background information supplied by the inventors: "Some virtual reality display devices are released to the market. These display devices may combine a screen, gyroscopic sensors, and accelerometers to create a virtual reality viewing system with a wide field of view and responsive head-tracking.

"In a virtual reality system, two or more cameras positioned in different locations may capture images of a common scene. The images may be stitched together to form an aggregate image for the common scene.

"The subject matter claimed herein is not limited to embodiments that solve any disadvantages or that operate only in environments such as those described above. Rather, this background is only provided to illustrate one example technology area where some embodiments described herein may be practiced."

In addition to obtaining background information on this patent, VerticalNews editors also obtained the inventors' summary information for this patent: "Systems and methods are disclosed to receive a request for a virtual reality render project that includes information specifying virtual reality video data to be used to create a virtual reality render; determine a plurality of virtual reality jobs required to create the virtual reality render from the virtual reality video data; determine the availability of a plurality of virtual reality nodes across the network; create a virtual reality render map that specifies a processing sequence of the plurality of virtual reality jobs across the one or more virtual reality nodes to create the virtual reality render, the virtual reality render map being created based on at least the availability of the plurality of virtual reality nodes; and process the plurality of virtual reality jobs at the plurality of virtual reality nodes to create the virtual reality.

"In some embodiments, systems and methods are disclosed where at least some of the plurality of the virtual reality jobs are processed in parallel at the same time. In some embodiments, the plurality of virtual reality nodes are distributed across the Internet. In some embodiments, the plurality of virtual reality nodes include a plurality of cloud-based storage locations where portions of the virtual reality video data are stored and/or a plurality of graphics processing units.

"In some embodiments, the request includes information specifying a virtual reality segment, a storage location of a virtual reality segment, a storage location of raw virtual reality video data, a virtual reality camera used to record raw virtual reality video data, the geometry of the virtual reality camera used to record the raw virtual reality video data, the format of the virtual reality render; the geometry of the virtual reality render, a time frame of the raw virtual reality video data, a project identifier, and a priority of the virtual reality render.

"In some embodiments, systems and methods are disclosed where the request includes metadata that includes the information specifying one or more characteristics of the virtual reality render.

"In some embodiments, the method may include further comprising determining a priority of the virtual reality render project in relationship to one or more other virtual reality render projects, and wherein the creating the virtual reality render map is based on the priority of the virtual reality render project."

The claims supplied by the inventors are:

"1. A method comprising: receiving a request for a virtual reality render project that includes information specifying virtual reality video data to be used to create a virtual reality render, the request including information specifying a time frame of the virtual reality video data and a priority of the virtual reality render;

determining a plurality of virtual reality jobs to be performed to create the virtual reality render from the virtual reality video data; determining an availability of a plurality of virtual reality nodes that are distributed across a network and that are capable of executing the plurality of virtual reality jobs; creating a virtual reality render map that specifies a processing sequence of the plurality of virtual reality jobs across one or more virtual reality nodes of the plurality of virtual reality nodes to create the virtual reality render, the virtual reality render map being created based on at least the availability of the plurality of virtual reality nodes, the virtual reality render map further specifying at least one location where the virtual reality video data to be used by the one or more virtual reality nodes to create the virtual reality render is stored, and at least one location where virtual reality data processed by the one or more virtual reality nodes will be stored; and processing, based on the virtual reality render map, the plurality of virtual reality jobs at the one or more virtual reality nodes of the plurality of virtual reality nodes to create the virtual reality render.

"2. The method according to claim 1, wherein at least some of the plurality of the virtual reality jobs are processed in parallel at a substantially same time.

"3. The method according to claim 1, wherein the plurality of virtual reality nodes are distributed across the Internet.

"4. The method according to claim 1, wherein the request includes information specifying a virtual reality segment, a storage location of a virtual reality segment, a storage location of raw virtual reality video data, a virtual reality camera used to record raw virtual reality video data, a geometry of the virtual reality camera used to record the raw virtual reality video data, a format of the virtual reality render; a geometry of the virtual reality render, and a project identifier.

"5. The method according to claim 4, wherein the request includes metadata that includes the information specifying one or more characteristics of the virtual reality render.

"6. The method according to claim 1, wherein the creating the virtual reality render map is based on the priority of the virtual reality render.

"7. The method according to claim 1, further comprising determining a cost associated with one or more of the plurality of virtual reality nodes, and wherein the creating the virtual reality render map is based on the cost.

"8. The method according to claim 1, wherein the virtual reality map specifies which of the plurality of virtual reality nodes that will execute each of the plurality of virtual reality jobs.

"9. A cloud-based virtual reality content processing system comprising: a plurality of distributed virtual reality processing servers communicatively coupled to a network; and a virtual reality processing schedule server communicatively coupled to the network, wherein the virtual reality processing schedule server is configured to: receive a request for a virtual reality render to be created from a virtual reality video data, the request including information specifying a time frame of the virtual reality video data and a priority of the virtual reality render; determine a plurality of virtual reality processing jobs to be performed to create the virtual reality render from the virtual reality video data; determine an availability of the plurality of the distributed virtual reality processing servers that are capable of executing the plurality of virtual reality processing jobs; create a virtual reality render map that specifies a processing sequence of the plurality of virtual reality processing jobs across the plurality of the virtual reality processing servers to create the virtual reality render, the virtual reality render map being created based on at least the availability of the plurality of virtual reality processing servers, the virtual reality render map further specifying at least one location where the virtual reality video data to be used by the plurality of virtual reality nodes to create the virtual reality render is stored, and at least one location where virtual reality data processed by the plurality of virtual reality nodes will be stored; and instruct the plurality of the distributed virtual reality processing servers to execute the virtual reality render map at the plurality of the distributed virtual reality processing servers.

"10. The cloud-based virtual reality content processing system according to claim 9, wherein the virtual reality processing schedule server is further configured to store the virtual reality render after it is created by the plurality of the distributed virtual reality processing servers.

"11. The cloud-based virtual reality content processing system according to claim 9, wherein the plurality of the distributed virtual reality processing servers are distributed across the Internet.

"12. The cloud-based virtual reality content processing system according to claim 9, wherein the creating the virtual reality render map is based on the priority of the virtual reality render.

"13. The cloud-based virtual reality content processing system according to claim 9, wherein the virtual reality processing schedule server is further configured to determine a cost associated with one or more of the plurality of the distributed virtual reality processing servers, and wherein the creating the virtual reality render map is based on the cost.

"14. The cloud-based virtual reality content processing system according to claim 9, wherein the request includes information specifying a virtual reality segment, a storage location of a virtual reality segment, a storage location of raw virtual reality video data, a virtual reality camera used to record raw virtual reality video data, a geometry of the virtual reality camera used to record the raw virtual reality video data, a format of the virtual reality render; a geometry of the virtual reality render, and a project identifier.

"15. The cloud-based virtual reality content processing system according to claim 14, wherein the request includes metadata that includes the information specifying one or more characteristics of the virtual reality render.

"16. A method comprising: receiving, by a server, a request for a render project that includes information specifying three-dimensional (3D) video data to be used to create a render, the request including information specifying a time frame of the 3D video data and a priority of the render; determining, by the server, a plurality of jobs to be performed to create the render from the 3D video data; determining, by the server, an availability of a plurality of resource nodes that are distributed across a network and that are capable of executing the plurality of jobs; creating, by the server, a render map that specifies a processing sequence of the plurality of jobs across the plurality of resource nodes to create the render, the render map being created based on at least the plurality of jobs and the availability of the plurality of resource nodes, the render map further specifying at least one location where the 3D video data to be used by the plurality of resource nodes to create the render is stored, and at least one location where 3D data processed by the plurality of resource nodes will be stored; and instructing, by the server, the plurality of resource nodes to execute the render map to create the render from the 3D video data.

"17. The method of claim 16, wherein the request includes information specifying a camera used to record the 3D video data.

"18. The method according to claim 1, wherein the request includes information specifying a geometry of a virtual reality camera used to record the virtual reality video data.

"19. The method according to claim 1, wherein the request includes information specifying a format and a geometry of the virtual reality render."

For more information, see this patent: Adamov, Anatoly D. Virtual reality resource scheduling of processes in a cloud-based virtual reality processing system. U.S. Patent Number 11051081, filed September 16, 2019, and published online on June 29, 2021. Patent URL:

<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetacgi%2FPTO%2Fsrchnum.htm&r=1&f=G&f=50&s1=11051081.PN.&OS=PN/11051081RS=PN/11051081>

Keywords for this news article include: Business, Cloud Computing, Information Technology, Verizon Patent and Licensing Inc.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document TELWK00020210721eh7I00080



Extra

5G Focus: Verizon's gaming tie-ups; Romania's Huawei ban; Vodafone's suppliers

Mark Anthony Gubagaras

716 words

15 June 2021

SNL Financial Extra

SNLFE

English

Copyright © 2021 by S&P Global Market Intelligence, a division of S&P Global Inc. All rights reserved.

5G Focus is a weekly global feature including notable 5G trials, launches, use cases and major equipment supply contracts. It also features in-depth analysis of strategies, expansion plans, business models and other related initiatives.

Verizon Communications Inc. is teaming up with Electronic Arts Inc. and others to bring 5G networks to mobile gaming; Romania banned Chinese and Huawei Technologies Co. Ltd.-made equipment from its 5G networks; and Vodafone Group PLC named suppliers to assist in expanding its 5G coverage in the U.K. and Europe.

Chart watch

BT Group is considering forming a joint venture to help fund its accelerated fiber rollout, with the company saying it can fund the project using existing resources. Analysts, however, suggested that the European telco may need to be wary of sacrificing any market share amid increasing competition. A joint venture between Liberty Global PLC-owned Virgin Media and Telefónica SA's O2 has publicly stated its intention to take on BT on fiber and 5G, areas where the incumbent has been continuing investment.

U.S. AND CANADA

* Verizon is teaming up with EA on using the former's 5G technology to boost gameplay and develop new standards in gaming. The U.S. carrier also struck several other 5G gaming partnerships.

* Verizon unit Verizon Business launched On Site 5G, the company's first commercially available, private 5G network in the U.S.

ASIA-PACIFIC

* JieSai, a Chinese design institute serving local mobile operators, tapped TEOCO Corp. to deploy 5G network planning and design tools for its customers including China Mobile Ltd., China Unicom and China Tower. TEOCO offers analytics, assurance and optimization services to communication service providers.

* Hong Kong-based telco HKT Ltd. agreed to provide full 5G coverage to support the use of 5G smart hospital services at CUHK Medical Centre, Telecompaper reported.

* Taiwanese operator Far EasTone Telecommunications Co. Ltd. expanded its existing 5G tie-up with Ericsson. The extended partnership, among others, will cover the construction of a new joint artificial intelligence lab for improving network automation and the expansion of Far EasTone's existing 5G Lab.

EUROPE, MIDDLE EAST AND AFRICA

* Vodafone tapped Dell Technologies Inc., NEC Corp., Samsung Electronics Co. Ltd., Wind River Systems Inc., Capgemini SE and Keysight Technologies Inc. as suppliers for its planned commercial network deployment in Europe. The suppliers will start working this year with Vodafone to provide 4G and 5G connectivity to more rural places in the South West of England and most of Wales.

* Romanian President Klaus Iohannis signed a bill into law that bans China and Huawei's involvement in the country's 5G telecommunication networks due to security concerns, Reuters reported.

* Telefónica Deutschland Holding AG's 1,500 5G antennas are now in operation across the O2 network.

* The 5G network of Greek operator Cosmote SA has reached more than 50% of the country's territory, Telecompaper reported.

* Telia Co. AB unit Telia Norway installed its first 5G base stations in Stavanger, Sola and Sandnes in Norway's Rogaland region. By the end of summer, 50 base stations in the three municipalities will be upgraded to 5G, and more will be upgraded in the fall.

* 5G services are now available in 53 governorates across Saudi Arabia, according to the latest Meqyas report of the country's Communications & Information Technology Commission. The average mobile 5G download speed in the country is 322.42 Mbps.

* Poland's Office of Competition and Consumer Protection, or UOKiK, cleared Cellnex Telecom SA's planned acquisition of 99.9% of Cyfrowy Polsat SA's telecom infrastructure unit Polkomtel Infrastruktura Sp. z o.o. The deal includes an additional €600 million program to launch up to 1,500 sites and investments in active equipment, mostly for 5G, in the next 10 years.

* Zain Bahrain BSC expanded its 5G coverage to the Al Ramli housing area in Bahrain.

* Telecom Italia SpA unveiled an open test and integration center in Turin, Italy, which will focus on testing new solutions for the pan-European mobile network architecture based on 5G, cloud and edge computing.

Some external links may require a subscription. Links are current as of publication time, and we are not responsible if those links are unavailable later.

Document SNLFE00020210616eh6f000rv



Verizon powers a 5G future for gaming

1,193 words

15 June 2021

Kuwait News Agency (Kuna)

KUWNA

English

© 2021 All Kuna Rights are Reserved. Provided by Syndigate.info, an Albawaba.com company

(GlobeNewswire) - The power of 5G is transforming gaming. The speeds, low latency and capacity of Verizon's superior 5G network have huge implications for developers, esports teams and fans. Verizon demonstrated its leadership throughout the ecosystem today at the company's first-ever keynote presentation at E3. The presentation showcased how Verizon 5G and Mobile Edge Compute (MEC) technology are fueling innovations for developers, esports teams and fans with partners Electronic Arts (EA), Dignitas, Riot Games and Team Liquid. Also addressing the growth of the gaming community and the need for an emphasis on more diverse representation, the company announced the Verizon Game Forward Scholarship, a \$1 million commitment with the mission to increase female representation in the gaming industry and bolster opportunity and presence in STEM careers.

A powerful network is the foundation of the future of the gaming industry, and that network is Verizon 5G Ultra Wideband, said Diego Scotti, Chief Marketing Officer at Verizon. As we continue to work with our partners to build the future of the industry, we're literally changing the game. 5G has massive implications for developers, esports teams and fans. As that ecosystem grows, a commitment to diversity, specifically around female representation, is crucial to continued innovation. The Verizon Game Forward Scholarship is an important action towards achieving the equity the industry needs.

Verizon 5G is powering a gaming revolution enabling fans to download games in seconds, play data-intensive, multiplayer games typically reserved for consoles on mobile and engage in totally new, immersive ways. From battle-royale to major sports titles, Verizon 5G is opening the door for innovations craved by the 190 million gaming fans in the US.

Verizon and EA are joining forces to launch a partnership that will combine the power of Verizon 5G and the creativity of EA developers to explore solutions that will create the most dynamic player experiences in EA SPORTS Madden NFL Mobile leveraging 5G labs to test and optimize gameplay and establish new standards in the future of gaming.

Verizon 5G will be crucial in creating fan-facing experiences that will take fan engagement to new heights as we return to live events. Verizon and Team Liquid are forming an innovation partnership that will reimagine fan engagement around the gaming industry's biggest moments. In-person experiences will be more immersive, giving fans new ways to experience their favorite events, and enabling streamers to engage fans live from those events for the first time. Virtual reality innovations will allow fans to experience live events together, remotely, giving them the best seats in the house with 360-degree views that put them in the middle of the action.

Verizon is also activating with Dignitas to beta launch a Dignitas NFT experience, taking fan and player engagement to the next level. Starting today, 100 fans who engage with Dignitas on their social channels will be selected to receive unique, high fidelity NFT holograms of Digs Women's FPS team. The NFTs can be viewed in augmented reality, allowing Dig fans to walk around the NFT and even snap photos of them with their favorite player's hologram to share with friends and family in real life and on social media. Following the upcoming Game Changers tournament June 24-27, these NFTs will be digitally signed by the players, adding a new and personal layer to the fans experience. The Dignitas Collectibles are available exclusively on Verizon's beta NFT platform, which allows fans to connect directly with celebrities to request NFT autographs. These collectibles are currently experience-based and cannot be traded or sold.

Building on Verizon's long-standing commitment to DEI and the need to address diversity as the gaming community grows, the Verizon Game Forward Scholarship aims to increase female representation in gaming and STEM. Support for the program is being provided by Cxmmunity, a non-profit dedicated to increasing the participation of minorities within the esports and video game industry.

This fall, the scholarship will be awarded to a team of five female students pursuing degrees in technology at five HBCUs: Delaware State University, Dillard University, Howard University, Morgan State University and Texas Southern University. The 25 scholarship recipients will also be guaranteed internships at top tech and

gaming companies, including Verizon and its partners, ensuring an increase in the pipeline of female talent into STEM careers.

The program will also fund the creation of tech centers on the campuses of the partnering HBCUs, which will be accessible to the entire school. The scholarship recipients will also receive access to the Verizon 5G Gaming Center at the 5G Lab in Los Angeles, where the frontiers of network-driven innovation in areas like esports are being pushed and innovative, forward-thinking companies can access the resources to build and scale the future of gaming. Cxmmunity will help to develop scholarship criteria, select qualified student recipients, and procure and manage all logistics to install the tech centers at the five HBCUs. Verizon Game Forward Scholarship is an expansion of the Future Fund, a \$5 million fund launched in 2020 to champion new and emerging female talent across entertainment and technology.

Taking further action to support female representation in the gaming industry, Verizon expanded its commitment to the Verizon VCT Game Changers initiative, which elevates women and marginalized groups within the esports community, inspiring the next generation of players. In partnership with Riot Games, a new expansion to the program, launching this fall, will provide training and mentoring to the next generation of female esports casters, providing them with the tools and insight to grow in their careers. Verizon VCT Game Changers will also continue to provide competitive opportunities for women through top tier tournaments, which will offer prizes to top performing teams and be supported by the professionally produced broadcasts of Riot Games.

Verizon has added exclusive mobile gaming offers to its extensive entertainment plan inclusions for new and existing customers with six months of Apple Arcade or Google Play Pass, (\$4.99/mo. value) on us with any unlimited plan, or 12 months on us with Play More or Get More plans^{1,2}. For more information about Apple Arcade and Google Play Pass on Verizon visit verizon.com/applearcade and verizon.com/googleplaypass.

1 12 months or 6 months Apple Arcade on us requires active line on select Unlimited plans (must enroll w/Verizon by 8.19.21). Must be 18 yrs or older. After respective 12 month or 6 month promo period ends, subscription will auto-renew at \$4.99+tax/mo unless you cancel. Cancel anytime. One offer per eligible Verizon account. Addl terms apply.

2 12 months or 6 months Google Play Pass on us requires active line on select Unlimited plans (must enroll w/Verizon by 8.19.21). Must be 18 yrs or older. After respective 12 month or 6 month promo period ends, subscription will auto-renew at \$4.99+tax/mo unless you cancel (For NM residents, Google Play Pass promo ends automatically after 12 mos or 6 mos). Cancel anytime. One offer per eligible Verizon account. Addl terms apply.

Media contact:

Emily Vicker

Emily.Vicker@verizon.com

Document KUWNA00020210615eh6f000rt

From NFTs And **Virtual Reality** To HBCU Partnerships, Inside **Verizon**'s Bid To Win Over Gamers

Marty Swant, Forbes Staff

693 words

14 June 2021

Forbes.com

FBCOM

English

© 2021 Forbes LLC

As Verizon looks to promote its 5G capabilities and expand its presence in esports, it's investing in diverse gamers and experimenting with new technology like virtual reality and NFTs.

While announcing a series of new partnerships today at the video gaming trade event E3, Verizon said it is committing \$1 million to five historically Black colleges and universities and also creating tech centers on campuses. Each school will receive \$100,000 in scholarship funds to female students pursuing tech degrees at Delaware State University, Dillard University, Howard University, Morgan State University and Texas Southern University. (The scholarship program is an expansion of Verizon's \$5 million Future Fund, which launched in 2020 to support "new and emerging female talent across entertainment and technology.") Meanwhile, another \$100,000 for each school will help create tech centers accessible to all students.

The investment is part of Verizon's strategy focused on developers, gamers and fans. With the professional esports organization Team Liquid, Verizon is creating ways to experience live events remotely through virtual reality. With Electronic Arts, Verizon will be creating ways to use 5G technology to optimize gameplay. With Riot Games, it's launching a new program to provide training and mentoring for female esports casters and also creating new ways for women to compete in top-tier tournaments.

"I'm fascinated by the whole esports dynamic and community for a few reasons," Verizon Chief Marketing Officer Diego Scotti tells Forbes. "One, the level of engagement for the games and the competition are through the roof. Second, the engagement and the reach that the players have with their fans is incredible."

Verizon is also getting into world of non-fungible tokens (NFTs) through a new partnership with Dignitas. Starting today, 100 fans who engage with the organization's social media channels will be chosen to receive an NFT hologram of the Dignitas's Women's FPS team that can be viewed in augmented reality. The AR NFTs—which will be digitally signed by the players later this month—will let fans pose for photos next to players' holograms. However, unlike other NFTs that sometimes sell for hundreds of thousands or millions of dollars, Verizon's NFTs on its beta NFT platform can't be traded or sold.

This isn't the first big partnership Verizon has done in the gaming space. As part of its [Super Bowl](#) strategy earlier this year, the wireless company partnered with the NFL and Fortnite creator Epic Games to build a virtual football stadium within the hit battle royale game where fans could see NFL players and professional gamers compete in the [metaverse](#). (Verizon also recently announced a promotion whereby new and existing customers can play six months' worth of games for free through Apple Arcade or Google Play Pass.)

"We had millions of people that came to play there," Scotti says of the Fortnite partnership. "So when I compare it to for example with the commercial, you have 30 seconds...It's not just the cost, but the effectiveness of the engagement. I don't talk about return on investment, I talk about return on engagement, and the return on engagement was through the roof—significantly higher than what we did running the TV spot because people were engaged with the experience and the technology."

Individual initiatives don't have the same return on investment as taking a more integrated and long-term approach, according to Scotti. He says it "took some conviction to do this because sometimes the marketing industry, we're used to doing the next big thing and you do one and then it kind of fizzles."

"Doing marketing right means being able to have an approach that's not about a one-off but is a holistic persistent and longer investment in the category," he says. "And the point about the partnership is important because nobody controls everything. Nobody does this alone. There is a lot of synergies across the different companies and when you talk about Verizon, we want to be that convener."

Document FBCOM00020210615eh6e0002u

Verizon powers a 5G future for gaming

1,365 words

14 June 2021

22:00

GlobeNewswire

PZON

English

© Copyright 2021 GlobeNewswire, Inc. All Rights Reserved.

Verizon powers a 5G future for gaming

Unveils 5G and real-time mobile edge compute advancements and partnerships to accelerate possibilities for developers, players and fans at E3; announces \$1M scholarship for female students at HBCUs

What you need to know:

-- During the company's first E3 keynote, Verizon showed how 5G technology will impact the entire gaming ecosystem including developers, esports teams and fans, and showcased how a commitment to diversity is moving the gaming industry forward

-- Verizon 5G and real-time Mobile Edge Compute (MEC) technology are fueling innovations with partners Electronic Arts (EA), Dignitas, Riot Games and Team Liquid.

-- Commits \$1 million to increase female representation in gaming and STEM through the creation of the Verizon Game Forward Scholarship for female students at Historically Black Colleges and Universities (HBCUs) and the creation of tech centers on the campuses to benefit the students, facilitated through non profit organization, Cxmmunity

BASKING RIDGE, N.J., June 14, 2021 (GLOBE NEWSWIRE) -- The power of 5G is transforming gaming. The speeds, low latency and capacity of Verizon's superior 5G network have huge implications for developers, esports teams and fans. Verizon demonstrated its leadership throughout the ecosystem today at the company's first-ever keynote presentation at E3. The presentation showcased how Verizon 5G and Mobile Edge Compute (MEC) technology are fueling innovations for developers, esports teams and fans with partners Electronic Arts (EA), Dignitas, Riot Games and Team Liquid. Also addressing the growth of the gaming community and the need for an emphasis on more diverse representation, the company announced the Verizon Game Forward Scholarship, a \$1 million commitment with the mission to increase female representation in the gaming industry and bolster opportunity and presence in STEM careers.

"A powerful network is the foundation of the future of the gaming industry, and that network is Verizon 5G Ultra Wideband," said Diego Scotti, Chief Marketing Officer at Verizon. "As we continue to work with our partners to build the future of the industry, we're literally changing the game. 5G has massive implications for developers, esports teams and fans. As that ecosystem grows, a commitment to diversity, specifically around female representation, is crucial to continued innovation. The Verizon Game Forward Scholarship is an important action towards achieving the equity the industry needs."

Verizon 5G is powering a gaming revolution enabling fans to download games in seconds, play data-intensive, multiplayer games typically reserved for consoles on mobile and engage in totally new, immersive ways. From battle-royale to major sports titles, Verizon 5G is opening the door for innovations craved by the 190 million gaming fans in the US.

Verizon and EA are joining forces to launch a partnership that will combine the power of Verizon 5G and the creativity of EA developers to explore solutions that will create the most dynamic player experiences in EA SPORTS Madden NFL Mobile -- leveraging 5G labs to test and optimize gameplay and establish new standards in the future of gaming.

Verizon 5G will be crucial in creating fan-facing experiences that will take fan engagement to new heights as we return to live events. Verizon and Team Liquid are forming an innovation partnership that will reimagine fan engagement around the gaming industry's biggest moments. In-person experiences will be more immersive, giving fans new ways to experience their favorite events, and enabling streamers to engage fans

live from those events for the first time. Virtual reality innovations will allow fans to experience live events together, remotely, giving them the best seats in the house with 360-degree views that put them in the middle of the action.

Verizon is also activating with Dignitas to beta launch a Dignitas NFT experience, taking fan and player engagement to the next level. Starting today, 100 fans who engage with Dignitas on their social channels will be selected to receive unique, high fidelity NFT holograms of Dig's Womens' FPS team. The NFTs can be viewed in augmented reality, allowing Dig fans to walk around the NFT and even snap photos of them with their favorite player's hologram to share with friends and family in real life and on social media. Following the upcoming Game Changers tournament June 24-27, these NFTs will be digitally signed by the players, adding a new and personal layer to the fans' experience. The "Dignitas Collectibles" are available exclusively on Verizon's beta NFT platform, which allows fans to connect directly with celebrities to request NFT autographs. These collectibles are currently experience-based and cannot be traded or sold.

Building on Verizon's long-standing commitment to DEI and the need to address diversity as the gaming community grows, the Verizon Game Forward Scholarship aims to increase female representation in gaming and STEM. Support for the program is being provided by Cxmmunity, a non-profit dedicated to increasing the participation of minorities within the esports and video game industry.

This fall, the scholarship will be awarded to a team of five female students pursuing degrees in technology at five HBCUs: Delaware State University, Dillard University, Howard University, Morgan State University and Texas Southern University. The 25 scholarship recipients will also be guaranteed internships at top tech and gaming companies, including Verizon and its partners, ensuring an increase in the pipeline of female talent into STEM careers.

The program will also fund the creation of tech centers on the campuses of the partnering HBCUs, which will be accessible to the entire school. The scholarship recipients will also receive access to the Verizon 5G Gaming Center at the 5G Lab in Los Angeles, where the frontiers of network-driven innovation in areas like esports are being pushed and innovative, forward-thinking companies can access the resources to build and scale the future of gaming. Cxmmunity will help to develop scholarship criteria, select qualified student recipients, and procure and manage all logistics to install the tech centers at the five HBCUs. Verizon Game Forward Scholarship is an expansion of the Future Fund, a \$5 million fund launched in 2020 to champion new and emerging female talent across entertainment and technology.

Taking further action to support female representation in the gaming industry, Verizon expanded its commitment to the Verizon VCT Game Changers initiative, which elevates women and marginalized groups within the esports community, inspiring the next generation of players. In partnership with Riot Games, a new expansion to the program, launching this fall, will provide training and mentoring to the next generation of female esports casters, providing them with the tools and insight to grow in their careers. Verizon VCT Game Changers will also continue to provide competitive opportunities for women through top tier tournaments, which will offer prizes to top performing teams and be supported by the professionally produced broadcasts of Riot Games.

Verizon has added exclusive mobile gaming offers to its extensive entertainment plan inclusions for new and existing customers with six months of Apple Arcade or Google Play Pass, (\$4.99/mo. value) on us with any unlimited plan, or 12 months on us with "Play More" or "Get More" plans^(1,2). For more information about Apple Arcade and Google Play Pass on Verizon visit verizon.com/applearcade and verizon.com/googleplaypass.

(1) 12 months or 6 months Apple Arcade on us requires active line on select Unlimited plans (must enroll w/Verizon by 8.19.21). Must be 18 yrs or older. After respective 12 month or 6 month promo period ends, subscription will auto-renew at \$4.99+tax/mo unless you cancel. Cancel anytime. One offer per eligible Verizon account. Add'l terms apply.

(2) 12 months or 6 months Google Play Pass on us requires active line on select Unlimited plans (must enroll w/Verizon by 8.19.21). Must be 18 yrs or older. After respective 12 month or 6 month promo period ends, subscription will auto-renew at \$4.99+tax/mo unless you cancel (For NM residents, Google Play Pass promo ends automatically after 12 mos or 6 mos). Cancel anytime. One offer per eligible Verizon account. Add'l terms apply.

Media contact:

Emily Vicker

Emily.Vicker@verizon.com

(END)

Laliga North America And Verizon Create First-Of-Its-Kind Gaming Platform

398 words

6 May 2021

The Zimbabwean

ZIMBAN

English

© 2021, The Zimbabwean, All rights Reserved - Provided by SyndiGate Media Inc.

LaLiga North America and Verizon announced today that it will launch an always-on gaming platform for amateur gamers, featuring the EA Sports FIFA video game. The free online program called, LaLiga All-Star Gaming Challenge presented by Verizon, will be operated by Boom.TV and runs from May 1 through November 30. Verizon customers will receive exclusive plus-up experiences by joining the program.

LALIGA AND VERIZON CREATE FIRST-OF-ITS-KIND GAMING PLATFORM; Amateur FIFA Gaming Program Aims to Build Community of LaLiga Fans Across the US

The gaming program is a first-of-its-kind for amateur gamers of all levels to gain experience, meet their idols, and improve their FIFA skills. It will be hosted by Olympian and former Colombia Women's National Team Player Melissa Ortiz, media personality Mando Fresko, and FIFA streamer RatedHugo.

The program will be available for participants across the country with showcases in Chicago, Dallas, Houston, Los Angeles, Miami, New York, San Antonio, and San Diego. Each region will feature a team captain either a LaLiga player, LaLiga Ambassador or gaming influencer who will engage with participants through meet-and-greet and masterclass gaming tutorials. Participants will be assigned to compete in the nearest regions.

Former FC Barcelona and Atletico Madrid player and LaLiga Ambassador Luis Garcia is the captain of the San Diego region, which begins its programming today. Other captains include FC Barcelona and U.S. Men's National Team player Sergio Dest, and Mexico National Team players Diego Lainez (Real Betis) and Hector Herrera (Atletico Madrid). More captains will be announced in the coming weeks.

Winners will be selected through participation and engagement meaning players don't necessarily have to be the best to win. Eight participants will have the opportunity to win an all-expenses paid trip to Spain for an immersive gaming and LaLiga experience for them and a guest.

"LaLiga North America and Verizon are harnessing the power of gaming to build a community of fans from all over the country who share a common love of FIFA," said Patrick Lowe, Head of Partnerships for LaLiga North America. "From California to Texas, Florida and New York, LaLiga fans will be connected in new ways, all with the chance for the ultimate prize: a free trip to experience LaLiga with a friend in Spain."

Document ZIMBAN0020210506eh560005m



07:14 EDT **Verizon** partners with LaLiga North America for **gaming** platformVerizon...

130 words

5 May 2021

Theflyonthewall.com

FLYWAL

English

(c) 2021. Theflyonthewall.com. All Rights Reserved.

07:14 EDT Verizon partners with LaLiga North America for gaming platformVerizon and LaLiga North America will launch an always-on gaming platform for amateur gamers, featuring the EA Sports FIFA video game. The free online program called LaLiga All-Star Gaming Challenge presented by Verizon runs from May 1 through November 30. Verizon customers will receive exclusive plus-up experiences by joining the program. The program will be available for participants across the country with showcases in Chicago, Dallas, Houston, Los Angeles, Miami, New York, San Antonio, and San Diego. Eight participants will have the opportunity to win an all-expenses paid trip to Spain for an immersive gaming and LaLiga experience for them and a guest.

Document FLYWAL0020210505eh5500gfp



Doug Liman Directs **Verizon Gaming** Spot Highlighting Common Glitches (Exclusive)

Trilby Beresford

688 words

3 May 2021

Hollywood Reporter

HLYW

English

Copyright 2021, Prometheus Global Media. All rights reserved.

Doug Liman is spotlighting common tech issues in a spot for Verizon's 5G network that claims to leave these problems behind and be "built" for gamers.

Dubbed The Reset, the spot emphasizes what happens when lagging, ghosting, glitches and texture stretching — issues that most video game players are well acquainted with — are transposed into the real world. Things don't look quite right.

The spot visualizes a child floating in the air next to her bicycle, a cat appearing stuck in a telegraph pole, a bus driver's facial features displaying incorrectly, a car flying through the air instead of driving on the road, a person riding an invisible elevator.

For Liman, making this commercial was a chance to dive into something fresh. "I like learning about worlds, the way an expert knows the world," he tells The Hollywood Reporter. "That's one of my favorite things about the movie business," adds the Edge of Tomorrow and The Bourne Identity director. "I get to parachute in, and for the time I'm doing that project, I get to become an expert in that field."

In the case of his collaboration with Verizon and Independent Media, it was an opportunity to be in the world of "really expert gamers and the problems they face." The director, who is currently [preparing](#) to shoot a Tom Cruise movie that will be partly shot in space, explains that he has "always been interested in tech" and is "acutely aware of lag and bandwidth limitations" due to his prior familiarity with the gaming space ("I game" he tells THR, though mostly for work), and the work he does with his production company, 30 Ninjas, which makes technology-driven storytelling. Among the projects from 30 Ninjas is Invisible, which holds a Guinness World Record for the first scripted dramatic series in virtual reality.

Through making the Verizon spot, Liman says he "learned a lot more about glitching and lag and the various artifacts that can interfere [with] gameplay." He goes on to say that everything in the commercial comes from a real glitch he has seen or found through research. "We didn't just start making things up out of thin air," says the director. "There was no shortage of outrageous glitches that happened and have happened in computer games."

He points out that everything on this commercial was computer driven — from the camera to the lights. The spot was photographed by Hoyte Van Hoytema, the Academy Award-nominated cinematographer of Dunkirk, as well as the DP behind Tenet, Interstellar and Ad Astra. "He is a cinematographer who embraces technology like none other," says Liman. "His whole apparatus is so computerized, it's almost like you're in a computer game when he's just lighting your set."

Liman says that they used a Spidercam — a cable-suspended camera system commonly utilized for sporting events — which he had always wanted to try. "When you watch a football game today, it's almost hard to differentiate between an NFL football game and playing football on a PlayStation," he says. "Some of it is using the tricks of computer games, and some of it is using the technology from sporting events, so the chance to use the Spidercam was really exciting, super challenging."

Of the visual effects in the spot, Liman says they were "something I'd never done in a movie before." He adds, "That's why I love commercials, because in some ways they're as intense as making a movie; shorter, but you really get inside another world."

Editor Saar Klein, who cut Liman's The Bourne Identity and Jumper, edited the Verizon spot. "Editing visual effects is challenging because you're editing before something exists — most of the time you are," says Liman, calling Klein a "maestro."

Of the cutting room process, Liman says, "You're sort of shooting the spot all over again in post. But I love it. It just means that it's creative all the way through."

View The Reset below.

[Click to view video.](#)

Document HLYW000020210503eh530000u



Verizon invests in Dreamscape to develop 5G VR training applications

240 words

2 April 2021

Telecompaper Americas

TELAM

English

Copyright 2021 Telecompaper. All Rights Reserved.

Verizon and Dreamscape Immersive announced a partnership to develop virtual reality (VR) applications using 5G and mobile edge computing (MEC). They will focus initially on 5G immersive-learning and training innovations for use in enterprise, public sector, and education environments. As part of the deal, Verizon has taken an equity stake in Dreamscape through Verizon Ventures.

Verizon will start working with Dreamscape Learn, a partnership between Dreamscape and Arizona State University, on immersive VR learning experiences for various education levels and environments. Dreamscape and Verizon will also form a dedicated innovation lab to incubate 5G- and MEC-enabled VR-learning applications.

Outside of the classroom, Verizon and Dreamscape will collaborate to develop and market avatar-driven synthetic training and simulation experiences for government and specialized professional learning uses. The experiences will combine Verizon's 5G capabilities and Dreamscape's ADEPT (Avatar Driven Educational and Practical Training) Platform, which leverages proprietary tracking and rendering technologies, to deliver vivid and life-like VR scenarios.

Dreamscape's platform combines "Hollywood storytelling" with its proprietary full-body tracking technology to achieve a high level of immersion, precision and interaction. By merging motion capture with body mapping and advanced kinematics, Dreamscape experiences allow large groups to interact with each other with ultra-low latency. This is supported by the fast speeds, ultra-low latency, and high bandwidth of Verizon's 5G network and 5G Edge platform.

Document TELAM00020210402eh4200003

Verizon Patent and Licensing Inc. Patent Issued for Using Sharding To Generate Virtual Reality Content (USPTO 10,937,462)

2,437 words

15 March 2021

Journal of Engineering

JOENG

2287

English

© Copyright 2021 Journal of Engineering via VerticalNews.com

2021 MAR 15 (VerticalNews) -- By a News Reporter-Staff News Editor at Journal of Engineering -- According to news reporting originating from Alexandria, Virginia, by VerticalNews journalists, a patent by the inventors Brandt, Olaf (Palo Alto, CA); Adamov, Anatoli (Palo Alto, CA), filed on February 10, 2020, was published online on March 15, 2021.

The assignee for this patent, patent number 10,937,462, is Verizon Patent and Licensing Inc. (Arlington, Virginia, United States).

Reporters obtained the following quote from the background information supplied by the inventors: "Virtual reality content is becoming increasingly popular for both personal and business use. Virtual reality content includes 360-degree images of an environment that are stitched together from images received from discrete cameras. A virtual reality system that generates the virtual reality content may have difficulty in processing the images because of an abundance of virtual reality data. Previous attempts to solve this problem have included using a smaller number of cameras so that there is less virtual reality data to process. However, this results in virtual reality content with insufficient overall detail and/or virtual reality content that provides less than a 360-degree environment.

"The subject matter claimed herein is not limited to embodiments that solve any disadvantages or that operate only in environments such as those described above. Rather, this background is only provided to illustrate one example technology area where some embodiments described herein may be practiced."

In addition to obtaining background information on this patent, VerticalNews editors also obtained the inventors' summary information for this patent: "According to one innovative aspect of the subject matter described in this disclosure, a method includes receiving raw virtual reality video data recorded by a camera array, wherein the camera array includes three or more camera modules. The method further includes defining shards of the raw virtual reality video data in a state file, wherein each shard includes three or more raw video feeds from the three or more camera modules. For example, the shards may include a first shard, a second shard, and a third share. The method further includes assigning each of the shards to a corresponding worker node in a set of worker nodes. For example, the first shard is assigned to a first worker node, the second shard is assigned to a second worker node, and the third shard is assigned to a third worker node. Each of the shards may comprise a set of corresponding segments of less than ninety seconds of each of the at least three raw video feeds of the raw virtual reality video data, each corresponding segment having a start time and an end time

"The method further includes updating the state file to include metadata that describes a location of each of the shards at the corresponding worker node in the set of worker nodes. For example, the state file includes metadata that describes that the first shard is assigned to a first worker node, the second shard is assigned to a second worker node, and the third shard is assigned to a third worker node. The method further includes providing the metadata to the set of worker nodes. The method further includes processing the shards to generate one or more virtual reality video renders for each shard, where each virtual reality video render combines the raw video feeds into a single video file.

"The method may further include determining, from the state file, that processing of the first shard is complete, processing of the second shard is complete, and processing of the third shard is unsuccessful. Processing of the third shard may be unsuccessful because the third shard is still being processed by the worker node or the worker node failed to process the third share. The method may further include reassigning the third shard to one or more different worker nodes, updating the state file to indicate the location of the one or more different worker nodes that process the third shard, providing the metadata for the third shard to the one or more different worker nodes, and processing at the one or more different worker nodes the third shard to generate the one or more virtual reality video renders.

"The method may include receiving a first virtual reality video render associated with the first shard and a second virtual video reality render associated with the second shard and generating virtual reality content by concatenating the first virtual reality video render, a first audio render associated with the first shard, the second virtual reality video render, and a second audio render associated with the second shard. In some embodiments, the concatenation may further include concatenating a filler video and a third audio render that corresponds to the third shard. In some embodiments, the concatenation may further include concatenating a fourth virtual reality video render associated with a fourth shard from a different set of raw video feeds and a fourth audio render that corresponds to the fourth shard. In some embodiments, the method may further include generating a header from the first virtual reality video render, the first audio render, the second virtual reality video render, the second audio render, the filler video, and the third audio render and the concatenation may further include concatenating the header.

"Other aspects include corresponding methods, systems, apparatuses, and computer program products for these and other innovative aspects.

"The object and advantages of the embodiments will be realized and achieved at least by the elements, features, and combinations particularly pointed out in the claims.

"It is to be understood that both the foregoing general description and the following detailed description are exemplary and explanatory and are not restrictive of the disclosure, as claimed."

The claims supplied by the inventors are:

"What is claimed is:

"1. A three-dimensional processing method comprising: defining a first shard, a second shard, and a third shard of raw three-dimensional video data in a state file, wherein each shard includes raw video feeds; assigning each shard to a corresponding worker node in a set of worker nodes; processing the first shard, the second shard, and the third shard at the set of worker nodes to generate one or more three-dimensional video renders for each shard; determining, from the state file, that processing of the first shard is complete, processing of the second shard is complete, and processing of the third shard is incomplete; and generating three-dimensional content by concatenating a first three-dimensional video render, a first audio render associated with the first shard, a second three-dimensional video render, and a second audio render associated with the second shard, and a filler video that is a placeholder for a third three-dimensional video render until the third shard is processed.

"2. The method of claim 1, wherein processing of the third shard is incomplete because processing of the third shard is in process or unsuccessful.

"3. The method of claim 1, wherein generating the three-dimensional content by concatenating further includes concatenating a third audio render that corresponds to the third shard.

"4. The method of claim 3, further comprising generating a header from at least one of the first three-dimensional video render, the first audio render, the second three-dimensional video render, the second audio render, the filler video, and the third audio render; wherein the generating the three-dimensional content further includes concatenating the header.

"5. The method of claim 1, wherein generating the three-dimensional content by concatenating further includes concatenating a fourth three-dimensional video render associated with a fourth shard from a different set of raw video feeds and a fourth audio render that corresponds to the fourth shard.

"6. The method of claim 1, further comprising: reassigning the third shard to one or more different worker nodes; and processing at the one or more different worker nodes the third shard to generate the one or more three-dimensional video renders.

"7. The method of claim 1, wherein the first shard comprises a set of corresponding segments of less than about ninety seconds of each of at least three raw video feeds of the raw three-dimensional video data, each corresponding segment having a start time and an end time.

"8. A system for processing cloud-based three-dimensional content, comprising: one or more processors; and a non-transitory memory storing computer code which, when executed by the one or more processors causes the one or more processors to: define a first shard, a second shard, and a third shard of raw three-dimensional video data in a state file, wherein each shard includes raw video feeds; assign each shard to a corresponding worker node in a set of worker nodes; process the first shard, the second shard, and the third shard at the set of worker nodes to generate one or more three-dimensional video renders for each shard, where each three-dimensional video render combines the raw video feeds into a single video file; determine, from the state file, that processing of the first shard is complete, processing of the second shard is complete, and processing of the third shard is incomplete; and generate three-dimensional content by

concatenating a first three-dimensional video render, a first audio render associated with the first shard, a second three-dimensional video render, and a second audio render associated with the second shard, and a filler video that is a placeholder for a third three-dimensional video render until the third shard is processed.

"9. The system of claim 8, wherein generating the three-dimensional content by concatenating further includes concatenating a third audio render that corresponds to the third shard.

"10. The system of claim 9, wherein: the computer code is further operable to cause the one or more processors to generate a header from at least one of the first three-dimensional video render, the first audio render, the second three-dimensional video render, the second audio render, the filler video, and the third audio render; and the generating the three-dimensional content further includes concatenating the header.

"11. The system of claim 8, wherein generating the three-dimensional content by concatenating further includes concatenating a fourth three-dimensional video render associated with a fourth shard from a different set of raw video feeds and a fourth audio render that corresponds to the fourth shard.

"12. The system of claim 8, wherein the computer code is further operable to cause the one or more processors to: reassign the third shard to one or more different worker nodes; and process at the one or more different worker nodes the third shard to generate the one or more three-dimensional video renders.

"13. The system of claim 8, wherein the first shard comprises a set of corresponding segments of less than about ninety seconds of each of at least three raw video feeds of the raw three-dimensional video data, each corresponding segment having a start time and an end time.

"14. A non-transitory memory encoded with a computer program, the computer program comprising instructions that, when executed by one or more processors, cause the one or more processors to perform operations comprising: defining a first shard, a second shard, and a third shard of raw three-dimensional video data in a state file, wherein each shard includes raw video feeds; assigning each shard to a corresponding worker node in a set of worker nodes; processing the first shard, the second shard, and the third shard at the set of worker nodes to generate one or more three-dimensional video renders for each shard, where each three-dimensional video render combines the raw video feeds into a single video file; determining, from the state file, that processing of the first shard is complete, processing of the second shard is complete, and processing of the third shard is incomplete; and generating three-dimensional content by concatenating a first three-dimensional video render, a first audio render associated with the first shard, a second three-dimensional video render, and a second audio render associated with the second shard, and a filler video that is a placeholder for a third three-dimensional video render until the third shard is processed.

"15. The non-transitory memory of claim 14, wherein processing of the third shard is incomplete because processing of the third shard is in progress or unsuccessful.

"16. The non-transitory memory of claim 14, wherein generating the three-dimensional content by concatenating further includes concatenating a third audio render that corresponds to the third shard.

"17. The non-transitory memory of claim 14, wherein generating the three-dimensional content by concatenating further includes concatenating a fourth three-dimensional video render associated with a fourth shard from a different set of raw video feeds and a fourth audio render that corresponds to the fourth shard.

"18. The non-transitory memory of claim 14, wherein: the instructions are further operable to perform operations comprising generating a header from at least one of the first three-dimensional video render, the first audio render, the second three-dimensional video render, the second audio render, the filler video, and a third audio render; and the generating the three-dimensional content further includes concatenating the header.

"19. The non-transitory memory of claim 14, wherein the instructions are further operable to perform operations comprising: reassigning the third shard to one or more different worker nodes; and processing at the one or more different worker nodes the third shard to generate the one or more three-dimensional video renders.

"20. The non-transitory memory of claim 14, wherein the first shard comprises a set of corresponding segments of less than about ninety seconds of each of at least three raw video feeds of the raw three-dimensional video data, each corresponding segment having a start time and an end time."

For more information, see this patent: Brandt, Olaf; Adamov, Anatoli. Using Sharding To Generate Virtual Reality Content. U.S. Patent Number 10,937,462, filed February 10, 2020, and published online on March 15, 2021. Patent URL:

<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetacgi%2FPTO%2Fsrchnum.htm&r=1&f=G&=50&s1=10,937,462.PN.&OS=PN/10,937,462RS=PN/10,937,462>

Keywords for this news article include: Business, Verizon Patent and Licensing Inc.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document JOENG00020210315eh3f0025x

Verizon Patent and Licensing Inc. Researchers Submit Patent Application, "Generating Virtual Reality Content Based On Corrections To Stitching Errors", for Approval (USPTO 20210049737)

1,607 words

9 March 2021

Information Technology Newsweekly

INTEWK

6377

English

© Copyright 2021 Information Technology Newsweekly via VerticalNews.com

2021 MAR 9 (VerticalNews) -- By a News Reporter-Staff News Editor at Information Technology Newsweekly -- From Washington, D.C., VerticalNews journalists report that a patent application by the inventors Brandt, Olaf (Palo Alto, CA); Adamov, Anatoli (Palo Alto, CA); van Hoff, Arthur (Palo Alto, CA), filed on October 29, 2020, was made available online on February 18, 2021.

The patent's assignee is Verizon Patent and Licensing Inc. (Basking Ridge, New Jersey, United States).

News editors obtained the following quote from the background information supplied by the inventors: "Virtual reality content is becoming increasingly popular for both personal and business use. Virtual reality content includes 360-degree images of an environment that are stitched together from images received from discrete cameras. A virtual reality system that generates the virtual reality content may have stitching errors that result from trying to combine virtual reality feeds from multiple cameras. Previous attempts to solve this problem have included using a larger number of cameras so that there is more image overlap. However, this results in an overabundance of virtual reality content that may be too much data to process.

"The subject matter claimed herein is not limited to embodiments that solve any disadvantages or that operate only in environments such as those described above. Rather, this background is only provided to illustrate one example technology area where some embodiments described herein may be practiced."

As a supplement to the background information on this patent application, VerticalNews correspondents also obtained the inventors' summary information for this patent application: "Embodiments of the invention include a method for correcting initial virtual reality video renders. The method may include receiving at a cloud-based server through a network interface, raw virtual reality video data recorded by camera modules of a camera array. The method further includes stitching the raw virtual reality video data, at the cloud-based server, to generate an initial virtual reality render. The method further includes determining that the initial virtual reality render has stitching errors.

"The method further includes transmitting the initial virtual reality render from the cloud-based server to a user device. For example, the user device may provide a user with editing tools for identifying stitching errors. The method further includes receiving a correction to the initial virtual reality render from the user device. For example, the user may identify a location and/or a time when stitching errors occur. In some embodiments, the user device may transmit a corrected virtual reality render.

"The method further includes generating virtual reality content based on the correction. The method further includes providing the virtual reality content to a viewing device. The viewing device may include the user device along with other hardware for viewing virtual reality content.

"These illustrative embodiments are mentioned not to limit or define the disclosure, but to provide examples to aid understanding thereof. Additional embodiments are discussed in the Detailed Description, and further description is provided there. Advantages offered by one or more of the various embodiments may be further understood by examining this specification or by practicing one or more embodiments presented."

The claims supplied by the inventors are:

"1. A system comprising: a non-transitory memory storing instructions; and at least one processor communicatively coupled to the memory and configured to execute the instructions to: receive raw virtual reality video data representing images recorded by camera modules of a camera array; use a stitching algorithm to stitch the images together to generate an initial virtual reality render; determine that the initial virtual reality render has a stitching error; determine a correction for the stitching error; and modify the stitching algorithm based on the correction for the stitching error.

"2. The system of claim 1, wherein the at least one processor is further configured to execute the instructions to: use the modified stitching algorithm to stitch the images together to generate a corrected virtual reality render that corrects the stitching error.

"3. The system of claim 1, wherein the at least one processor is further configured to execute the instructions to: receive additional raw virtual reality video data representing additional images recorded by the camera modules of the camera array; and use the modified stitching algorithm to stitch the additional images together to generate an additional initial virtual reality render.

"4. The system of claim 1, wherein determining the correction for the stitching error comprises: transmitting the initial virtual reality render to a user device; and receiving, from the user device, information about at least one of the stitching error or the correction for the stitching error.

"5. The system of claim 4, wherein the information about the stitching error indicates a location of the stitching error within the initial virtual reality render.

"6. The system of claim 4, wherein: determining that the initial virtual reality render has the stitching error comprises identifying the stitching error; and determining the correction for the stitching error comprises determining whether the identified stitching error matches the information received from the user device.

"7. The system of claim 1, wherein machine learning is implemented to modify the stitching algorithm based on the correction for the stitching error.

"8. The system of claim 1, wherein the stitching error comprises a visual discontinuity caused by an object that is close to one or more of the camera modules of the camera array when the raw virtual reality video data is recorded and that crosses a stitching boundary in the initial virtual reality render.

"9. The system of claim 1, wherein the stitching error comprises one of: a stitching artifact at a stitching boundary between the images; a parallax error; a color error; a horizon line error; or a synchronization error.

"10. The system of claim 1, wherein the non-transitory memory storing instructions and the at least one processor are implemented by a cloud-based virtual reality processing server.

"11. A method comprising: receiving raw virtual reality video data representing images recorded by camera modules of a camera array; using a stitching algorithm to stitch the images together to generate an initial virtual reality render; determining that the initial virtual reality render has a stitching error; determining a correction for the stitching error; and modifying the stitching algorithm based on the correction for the stitching error.

"12. The method of claim 11, further comprising: using the modified stitching algorithm to generate a corrected virtual reality render that corrects the stitching error.

"13. The method of claim 11, further comprising: receiving additional raw virtual reality video data representing additional images recorded by the camera modules of the camera array; and using the modified stitching algorithm to stitch the additional images together to generate an additional initial virtual reality render.

"14. The method of claim 11, wherein determining the correction for the stitching error comprises: transmitting the initial virtual reality render to a user device; and receiving, from the user device, information about at least one of the stitching error or the correction for the stitching error.

"15. The method of claim 14, wherein the information about the stitching error indicates a location of the stitching error within the initial virtual reality render.

"16. The method of claim 11, further comprising: using the modified stitching algorithm to generate a corrected virtual reality render that corrects the stitching error; generating virtual reality content based on the corrected virtual reality render; and providing, by way of a network, the virtual reality content from a cloud-based server to a viewing device.

"17. A non-transitory memory storing instructions executable by one or more processors to perform operations comprising: receiving raw virtual reality video data representing images recorded by camera modules of a camera array; using a stitching algorithm to stitch the images together to generate an initial virtual reality render; determining that the initial virtual reality render has a stitching error; determining a correction for the stitching error; and modifying the stitching algorithm based on the correction for the stitching error.

"18. The non-transitory memory of claim 17, wherein the instructions are further executable by the one or more processors to perform operations comprising: using the modified stitching algorithm to generate a corrected virtual reality render that corrects the stitching error.

"19. The non-transitory memory of claim 17, wherein the instructions are further executable by the one or more processors to perform operations comprising: receiving additional raw virtual reality video data representing additional images recorded by the camera modules of the camera array; and using the modified stitching algorithm to stitch the additional images together to generate an additional initial virtual reality render.

"20. The non-transitory memory of claim 17, wherein determining the correction for the stitching error comprises: transmitting the initial virtual reality render to a user device; and receiving, from the user device, information about at least one of the stitching error or the correction for the stitching error."

For additional information on this patent application, see: Brandt, Olaf; Adamov, Anatoli; van Hoff, Arthur. Generating Virtual Reality Content Based On Corrections To Stitching Errors. Filed October 29, 2020 and posted February 18, 2021. Patent URL:
<http://appft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PG01&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.html&r=1&f=G&l=50&s1=%2220210049737%22.PG NR.&OS=DN/20210049737&RS=DN/20210049737>

Keywords for this news article include: Business, Algorithms, Cloud Computing, Information Technology, Verizon Patent and Licensing Inc.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document INTEWK0020210309eh39000qz

Verizon, the NFL and AWS Leverage 5G and MEC to bring enhanced mobile gaming to Super Bowl LV

534 words

2 March 2021

Kuwait Times

MEWKUT

English

The Financial Times Limited. Asia Africa Intelligence Wire. All material subject to copyright. Kuwait Times © 2021 All rights reserved.

(GlobeNewswire) - Verizon, the NFL and AWS debuted the first 5G and mobile edge compute (MEC)-enabled mobile game for fans in-stadium at Super Bowl LV, called NFL Ultra Toss. Fans with the NFL Ticketholder app received a push notification during the second quarter and were able to compete by using their smartphone to virtually toss a football into the back of a virtual pickup truck positioned in the middle of the field. Fans connected to 5G Ultra Wideband in the stands could point their phones camera to the middle of the field to see the virtual pickup truck materialize on the field using augmented reality (AR). The interactive AR experience also allowed fans to simultaneously see the live virtual football tosses happening in real-time from other fans, amping up the head-to-head competition.

Verizon customers playing the game in-stadium had an enhanced gaming experience thanks to the super low latency and massive bandwidth provided by 5G Ultra Wideband and MEC. By using Verizon 5G Edge and AWS Wavelength, the gameplay was offloaded to the edge of Verizons network reducing latency (or lag) for those enjoying the multi-player experience in the stadium. 5G Edge moves the data and processing done by applications and services closer to the end user at the edge of the network. This shortens the roundtrip that data needs to travel, reducing lag time, or latency, and helps applications respond more quickly and efficiently. AWS Wavelength brings AWS compute and storage services to the edge of Verizons network, allowing innovators to develop applications with increased speeds, massive bandwidth and ultra-low latency.

Gaming is all about community and so is the Super Bowl and together with AWS we were able to bring these two communities together to offer a first of its kind 5G and MEC-enabled gaming experience to fans at scale, said Nicki Palmer, Chief Product Officer at Verizon. The super-fast speeds, massive bandwidth and low latency provided by 5G and MEC lets players have a console-quality multi-player gaming experience on the go and allows developers to rewrite the rules for creating eye-popping, graphics-rich multiplayer action. The future of gaming is happening right now.

Learn more information about Verizon 5G Edge, Verizons 5G technology and AWS Wavelength.

About Verizon

Verizon Communications Inc. (NYSE, Nasdaq: VZ) was formed on June 30, 2000 and is one of the worlds leading providers of technology, communications, information and entertainment products and services. Headquartered in New York City and with a presence around the world, Verizon generated revenues of \$128.3 billion in 2020. The company offers data, video and voice services and solutions on its award-winning networks and platforms, delivering on customers demand for mobility, reliable network connectivity, security and control.

VERIZONS ONLINE MEDIA CENTER: News releases, stories, media contacts and other resources are available at www.verizon.com/about/news/. News releases are also available through an RSS feed. To subscribe, visit www.verizon.com/about/rss-feeds/.

Media contact:

Chris Ashraf

christina.moon.ashraf@verizon.com

201.320.4259

Twitter: @ChrisMoonPR

Document MEWKUT0020210302eh3200002



09:07 EST Verizon, NFL, AWS leverage 5G, MEC for mobile gaming at Super Bowl...

163 words

1 March 2021

Theflyonthewall.com

FLYWAL

English

(c) 2021. Theflyonthewall.com. All Rights Reserved.

09:07 EST Verizon, NFL, AWS leverage 5G, MEC for mobile gaming at Super Bowl LV Verizon, the NFL and AWS debuted the first 5G and mobile edge compute-enabled mobile game for fans in-stadium at Super Bowl LV, called NFL Ultra Toss. Fans with the NFL Ticketholder app received a push notification during the second quarter and were able to compete by using their smartphone to virtually toss a football into the back of a virtual pickup truck positioned in the middle of the field. Fans connected to 5G Ultra Wideband in the stands could point their phone's camera to the middle of the field to see the virtual pickup truck materialize on the field using augmented reality. The interactive AR experience also allowed fans to simultaneously see the live virtual football tosses happening in real-time from other fans, amping up the head-to-head competition.

Document FLYWAL0020210301eh3100vhe

Search Summary

Text	(hd=verizon) and wc>100 and hd=(virtual real estate or virtual properties or digital real estate or digital real assets or digital properties or metaverse properties or digital plots or virtual plots or virtual land or virtual reality platform or manufacturing simulation or virtual simulation or digital twins or virtual manufacturing or immersive learning or mixed-reality learning or metaverse learning or VR learning or AR learning or VR training or virtual recruitment or 3d training or training metaverse or virtual retail or virtual shopping or virtual clienteling or omnichannel shopping or humanising digital retail or immersive virtual stores or 3d virtual store or metaverse shopping or virtual clothing or virtual goods or gaming or digital avatar or digital character or virtual game or 3D avatars or virtual reality or interoperable VR space or digital financial ecosystems or metaverse wallets or robo advisory or virtual financial data or digital bank branches or digital touchpoint or blockchain wallets or digital wallets or digital wedding or virtual wedding or virtual event or virtual concert or virtual theme park or virtual classroom or virtual learning or virtual school or immersive learning or metaverse)
Date	In the last year
Source	All Sources
Author	All Authors
Company	All Companies
Subject	All Subjects
Industry	All Industries
Region	All Regions
Language	English
Results Found	27
Timestamp	21 February 2022 18:38