J.LEAGUE promotes the construction of "J.LEAGUE FUROSHIKI" (J.LEAGUE FUROSHIKI), Japan's first full-fledged sports digital asset hub, with the aim of providing new sports watching experiences through video and further expanding its video related business.

March 14, 2019

Japan Professional Football League (J.LEAGUE)
J.LEAGUE Media Promotion Inc.
NTT Group

In the 2019 season, the J.LEAGUE will begin constructing a digital asset hub, commonly known as the "J.LEAGUE FUROSHIKI" (J.LEAGUE FUROSHIKI). With this hub, all digital assets such as video content, still images, and stutz data, including J.LEAGUE copyrighted game images, can be aggregated and centrally managed for production, editing, supply, and distribution. Based on the existing J.LEAGUE Archive Center, we will build a state-of-the-art environment that combines various types of clouds, such as public clouds, combined with on-premises software. We will also optimize the network, including aggregation and distribution, to ensure scalability for use in domestic sports other than J.LEAGUE.

The J.LEAGUE uses the "J.LEAGUE FUROSHIKI" to create content that contributes to improving fan and supporter satisfaction and attracting new fans both in Japan and abroad, to take on the challenge of expanding content sales revenues overseas with the increase in the number of foreign players, and to use the centralized digital assets to improve football tactics and competitiveness in the J.LEAGUE. At the same time, we will provide our functions and business know-how to sports leagues and organizations in Japan. We also aim to contribute to the development of Japan’s sports industry by making the "J.LEAGUE FUROSHIKI" a venue for concrete collaboration with businesses that possess cutting-edge technologies related to imaging and ICT. We are also considering to establish a system for "J.LEAGUE FUROSHIKI" aiming that J.LEAGUE’s digital assets will be used not only in each club’s activities in their hometown as part of the platform for social cooperation activities that J.LEAGUE promotes, but also in various activities of local communities.
As an official technology partner of the J.LEAGUE, the NTT Group will continue to support the development of the environment and operation and to improve the efficiency of video production by introducing the Group’s cutting-edge ICT technologies, such as 5G and AI, video and audio technologies, as well as its expertise in video services, into the J.LEAGUE’s video shooting, production and editing processes in order to realize “J.LEAGUE FUROSHIKI”. In addition, we will provide network services and video and audio services in order to realize video related services utilizing the “J.LEAGUE FUROSHIKI”. We will also provide the videos to an even greater variety of viewers and spectators by automatically adding multilingual subtitles and analysis data on it.

In the ‘Sports Future Development Council Interim Report’ (June 2016) announced by the Japan Sports Agency and the Ministry of Economy, Trade and Industry, policies are being implemented to expand Japan’s sports industry to a market size of ¥10.9 trillion (About twice the amount in 2012) in 2020 and ¥15.2 trillion (About 3 times the amount in 2012) in 2025. In the professional sports field particular, it is expected to expand by several 100 billion yen. The provision of new sports watching styles using video and the further growth of video related businesses will stimulate demand in the sports field widely, and may lead to the development of overseas markets and an increase in the number of inbound tourists from overseas.

The J.LEAGUE aims to increase revenues from broadcasting rights under overseas broadcasting rights contracts from 2020 and increase the number of viewers worldwide. One of the pillars of J.LEAGUE’s overseas and Asian strategies is to provide footage
that shows the performance of foreign players with their home countries. By using this video to increase opportunities for J.LEAGUE partner companies and club home towns to be recognized overseas through video, we will support their overseas expansion. In addition, the use of centralized video assets enables the J.LEAGUE and its clubs to hold new spectating and cheering events that are not limited to home stadiums or official games, and thus can be expected to secure revenues from admission fees that exceed the existing frame and to expand the fan base. As international sports events will be held in Japan in 2019 and 2020, there is a concern that there could be a shortage of stadium capacity and therefore a decline in entrance fee revenues. However, there is a possibility that a new form of entertainment that makes full use of digital technology will make up for this. It may also be one of the concrete measures to achieve the goal of 24,000 visitors (19,064 in the 2018 season) per 1 game of J1 LEAGUE in 2030 seasons.

1. New Initiatives with the NTT Group Utilizing J.LEAGUE FUROSHIKI

I Audience and fan services

- High presence, high value added watching experience space “Digital Stadium (Preliminary)”

The J.LEAGUE will use digital technology to challenge “New way of watching games “Digital Stadium (Preliminary)”” and expand opportunities to watch games. When we do this, we will take into account the issue of stadium accessibility and the shortage of stadium capacity due to the influence of international sports events in 2019 and 2020. “Digital Stadium (Preliminary)” is a space in which actual games played in a stadium are reproduced in real time in a comfortable indoor facility away from the stadium using various digital technologies, and spectators and supporters can watch and cheer as if they were in the stadium. Because the stadium can be staged differently from conventional stadiums, it is a new type of viewing experience space with a high-presence and high-value-added style that provides various services to meet the diversifying needs of spectators, such as various hospitality services and luxurious viewing experiences utilizing images and data. The “Digital Stadium (Preliminary)” will also provide new opportunities for people with disabilities or family members who have difficulty attending existing stadiums due to travel restrictions and time and travel costs.

J.LEAGUE plans to hold an event as a prototype of the “Digital Stadium (Preliminary)” focusing on high-definition and high-presence live viewing of the
following official game footage at an indoor facility in Tokyo.

5/12 (Sun) 14:00 Kickoff: MEIJI YASUDA J1 LEAGUE 11th Section
Vissel Kobe vs Kashima Antlers @ NOEVIR Stadium Kobe

II  Tactical analysis service for clubs
- Live service of game video and performance data for clubs “LIVE SCOUTER” -

The tactical analysis tool “LIVE SCOUTER” in the technical area during the game will be provided to the J1 Club from the 5th Section of MEIJI YASUDA J1 LEAGUE on Friday, March 29, 2019.

So far, the J.LEAGUE’s official game scouting footage (overhead view of the game) has been provided to club reinforcements after the game. From now on, the video will be uploaded to the cloud during the game, and will be provided as a video service that allows the director and staff to look back at the game using applications on the tablet during halftime or during the game. When club reinforcement staff directly access the cloud, it is possible to attach necessary tag information to the scouting video, so you can check the performance data of the game along with the video.

Until now, coaches have used whiteboards and words to look back on tactics and
give instructions, but with this service, they can give more specific instructions to players while referring to actual players’ movements and the flow of the game. For 2019 season, the service is used only in J1.

<potential for further development>

- Information services for spectators and viewers
  Assuming that there will be no impact on the tactics and strengthening of each club, we will consider using it together with rights holders as a service for general spectators and viewers.
- Press services
  We will consider providing services to reporters, broadcasters and commentators.
- Training Support Services
  We will consider a scheme that can be used by youth teams of clubs, training academies, and amateur sports organizations.

### III Audience Services

- New viewing experience using xR technology
  We will create and provide new video services using xR technologies such as VR based on digital assets aggregated in "J.LEAGUE FUROSHIKI".

<Service Image (Example)>

Game-watching service in VR space

This service converts images taken from a panoramic view of the field in the stadium where matches are being held or from special viewpoints such as the back of the goal into VR images, providing a new spectator experience as if watching a game on the pitch side of the stadium.

The following 3 games of MEIJI YASUDA J1 LEAGUE will be provided.

3/10 (Sun) 3rd Section  Vegalta Sendai vs Vissel Kobe
3/17 (Sun) 4th Section  Hokkaido Consadole Sapporo vs Kashima Antlers
3/30 (Sat) 5th Section  Oita Trinita vs Sanfrecce Hiroshima
2. Further development in the future

J.LEAGUE plans to develop the initiative utilizing "J.LEAGUE FUROSHIKI" as open innovation with NTT Group and other partners.

I Utilization for improving competitiveness

The "J.LEAGUE FUROSHIKI" environment allows for Central VARs (video assistant referee) *1. The VAR was adopted at 2018 FIFA World Cup Russia™ and has already been adopted in some official games in the J.LEAGUE. Aiming for advanced and efficient competition management with VAR, we will start demonstration of aggregated VAR *2 * 2 in 2019 seasons* 3.

*1 A VAR is an umpire in charge of assisting the referee, and only in “clear and obvious errors” or “serious missed incidents” situations, he umpire contacts the referee based on information from the replay footage.
*2 Central VAR: Instead of sending an AR to each match venue, the game video is collected in one place in this method.
*3 The introduction of VAR for the 2020 season has not been decided.

II Expand the content of overseas and domestic news videos

J.LEAGUE will provide our content to a wide range of overseas markets by providing subtitles in foreign languages and computer graphics on the "J.LEAGUE FUROSHIKI" and producing individual player videos of foreign players. In addition, we will take up the challenge of developing a new means of video distribution in
consideration of an overseas broadcasting rights contract from 2020.

In addition, separate from the edited relay video, the video data recorded by the individual camera is transmitted to the “J.LEAGUE FUROSHIKI” for editing and processing before being distributed as news material for domestic and overseas broadcasting stations. In addition, by combining AI with digital assets on “J.LEAGUE FUROSHIKI”, it becomes possible to automatically produce highlight clip movies or clip movies of individual players.

III Digital transformation of the video production process.
Various images taken in the stadium, including images taken by multiple cameras for the production of J.LEAGUE’s official images (production of relay images), are consolidated into “J.LEAGUE FUROSHIKI”.
At the same time, the following measures will be considered.

Broadcast video production away from the stadium (Remote Production)
Beginning in the 2019 season, source images from cameras taken in games at stadiums will be aggregated into “J.LEAGUE FUROSHIKI”, and live video production will be demonstrated at sites away from stadiums.
*A demonstration experiment was conducted in October 2018, and we have confirmed that we can produce video equivalent to existing broadcast video.

Automatic shooting and editing at stadiums (Smart Production)
J.LEAGUE has begun to demonstrate automatic tracking shooting and automatic editing using an AI-equipped camera. Preparations for the implementation will start in the 2019 season, considering the introduction of the system in official games and the application of the system to games of the J.LEAGUE’s growing age that have not been broadcast in the past.

<Announcement Comments>
The chairman of the Japan Professional Football League (J.LEAGUE), Mitsuru Murai

In recent years, the J.LEAGUE has produced its own videos of the league games
and acquired its own production copyright. We also introduced the “tracking system” which enables us to obtain the running-distance data of athletes. This is creating an environment in which we can provide more attractive images and data to our customers. Remarkable advances in technology have created a strong need for images and data, and there is a need to provide them in a variety of forms, rather than in a uniform manner. Also, the success of Chanatip and Iniesta has increased demand for J.LEAGUE video not only in Japan but also in other Asian countries, Europe and the United States. In this context, I am pleased to announce today the creation of “J.LEAGUE FUROSHIKI”.

We, the J.LEAGUE, together with the NTT Group and various other partners, are promoting the establishment of the “J.LEAGUE FUROSHIKI” and will expand our services so that they can be used not only for football but also for many other sports and cultural activities, thereby contributing to the J.LEAGUE principles of “To raise the level of Japanese football and promote the diffusion of the game through the medium of professional football” “To foster the development of Japan’s sporting culture, to assist in the healthy mental and physical growth of Japanese people” and “To contribute to international friendship and exchange”.

President and CEO of Nippon Telegraph and Telephone Corporation, Jun Sawada

I am pleased to be able to support the new efforts of J.LEAGUE.

I am confident that digital transformation in the field of imaging will lead to the presentation of Japan’s original form of smart sports to the world. This will enable us to rediscover the attractiveness of our players and plays, and lead the development of Japan’s sports industry through domestic and international communication.

It will also enable us to realize a smart stadium that connects with local communities. The NTT Group will support the realization of the J.LEAGUE “FUROSHIKI” with its cutting-edge digital technology, and continue to contribute to the development of the J.LEAGUE and the sports industry through digital marketing and the use of ICT in stadiums.

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