



# Cloud-Based Multimedia Delivery Solutions

What opportunities does multimedia delivery offer to telecommunications service providers? InterComms meets Mr. Yu Okazaki, Head of Multimedia Solutions, Nextscape



Mr. Yu Okazaki,  
Head of Multimedia Solutions, Nextscape Inc.

**Mr. Okazaki joined the Nextscape team originally as a programmer (C++ for firmware and Java for intranet and e-commerce websites) and solutions architect. He had his first experiences with multimedia delivery at Nextscape, working with Windows Media DRM for a music distribution system. He was responsible for planning the design and building the final, Azure-based multimedia delivery solution for the NTT DoCoMo project.**

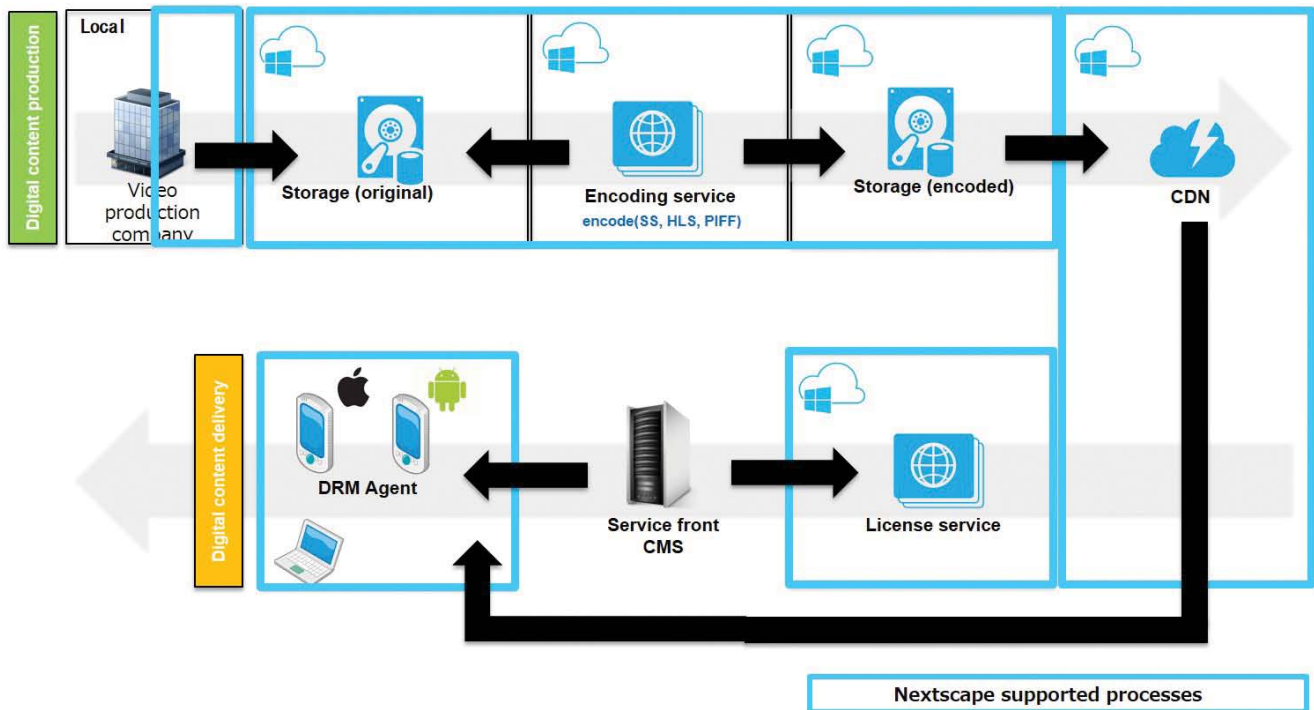
**Mr. Okazaki also worked on the project in which Nextscape implemented a PlayReady license server on the Azure cloud for the first time in the world and continues to work on cloud-based DRM solutions' projects and also provides consulting services for existing PlayReady customers. His team also handles the development of PlayReady ASP services and smartphone (Android, iOS) applications which are able to replay encrypted contents.**

**Q: Could you talk about Digital Rights Management and Content Delivery Solutions and their capabilities and the benefits that you have found for Telcos from your work?**

**A:** Digital Rights Management enables the proper protection of digital media. This can be videos, music or even e-books. Any copyrighted digital material. A DRM enables a content owner for example, to protect their digital media even when it's handed over to their clients/customers. For example, when a content provider makes movies available for download or provides a video rental service. The DRM will help the content owners to protect their intellectual property and prevent copyright infringement. Content Delivery Solutions, especially when combined with a cloud platform, enable Telcos to provide a colourful content line-up without having to maintain the corresponding server storage at their own, or rented data centres. It all can be stored in the cloud, without any hardware maintenance or other resources required.

**Q: Could you talk about the project with NTT Docomo and the solution they wanted to provide to their customers and the technical situation that had to be developed to complete the service?**

**A:** NTT DoCoMo planned a service that provides over 57,000 contents to users, including foreign and domestic movies, TV series, anime, music and original contents. The reason was, that at that time, smartphones started to spread rapidly among their clients and this enabled to view even movies with a higher resolution on the end devices of their customers. Thus not only original contents, but as mentioned above, movies and television shows could be offered too, enabling the creation of the VIDEO store. The obstacles on the way to realize this service were: storage costs, network traffic costs and the time required for the content aggregation. The larger the line-up, the



▶ more storage is required and the more members use the service, the more bandwidth is required to deliver the high resolution contents. Furthermore, content owners demand a proper DRM solution to protect the contents used in the service. The storage problem was solved with Microsoft's cloud platform, Azure, where flexible scaling of the required resources is possible. Microsoft PlayReady was the DRM used to protect the digital contents used in the service. Nextscape made sure that the implementation of the DRM solution, its use and the protection provided by it, would satisfy not only the content providers, but the service provider as well.

**Q: How have NTT Docomo benefited from the deployment in terms of customer satisfaction, increase in revenue?**

DoCoMo's new video service has resulted in over 3 million members within one year of launching. It also enabled DoCoMo to reach out to people who are not yet DoCoMo clients, as the video service is mobile network provider independent, one only has to download the replay software and access DoCoMo's service. The monthly cost of the service was 525 JPY at that time.

**Q: Nextscape is known as an innovative company, could we look at your work with Sitecore and how you came to be involved with them?**

**A:** Sitecore are the global leaders in customer experience management software. Nextscape became a Sitecore partner as soon as Sitecore Japan was founded in 2010.

Since then, Nextscape's three Sitecore MVP's have developed two products based on Sitecore: StarterPack and ConnectPack. While one is a package that helps the smooth and quick start of a new website, with ready-made templates, responsive layout and an improved interface for the page editor of Sitecore.

Sitecore can be used by basically anyone, from businesses through non-profit organizations to educational institutions. The content management system of Sitecore can be utilized for corporate intranet solutions or to manage huge amounts of contents for e-commerce websites, the automatized email solution can empower online marketing or help in the organization of events, while the high level of personalization available in Sitecore enables companies to interact with their visitors more deeply, driving sales to a higher level.

Sitecore's page editor and its ease of use enables content owners to maintain their own pages, without any HTML skills required. This saves both time and costs for the clients, not to mention the power of targeted marketing, which enables companies to overcome the challenges of the age of information.

**Q: Lets talk about your Media Delivery Suite and its key benefits in being deployed?**

**A:** MDS, or Media Delivery Suite, is an end-to-end multi-screen OTT solution for HD and 4K video streaming services.

1. MDS is a light weight and easy to customize/integrate platform. Providing a rich API set and an open architecture, it is very easy to integrate thus it enables customers to develop their own applications (for replay

- ▶ for example). It includes a wide array of modules, such as; the media ingestion module, transcoding, encryption, HLS, Smooth streaming, MPEG-DASH packaging and CDN.
- 2. Easy to deploy: Being cloud-based, MDS requires no hardware and/or data-centre investment and has a flexible scalability. No need to make a large investment from the very beginning, start small and scale up as the traffic grows.
- 3. Modularized architecture: MDS can be integrated with other third party platforms like ad-insertion, recommendation engine, log analysis and the existing content management system or billing system.
- 4. One stop shop solution: As an all in one OTT platform, including everything from content ingestion to delivery, our clients can get everything they need within one solution. Furthermore, MDS also includes Azure CDN, which was specifically designed for the dynamic, media-centric web of today.
- 5. Ultra HD/4K support: MDS can convert HEVC to deliver 4K videos through the Internet or IPTV networks.

**Q: What key problems does this help to address?**

**A:** An online video platform can be complicated and quite costly. MDS is designed to be an affordable and scalable OTT video distribution platform, providing the very essential components which support the main functions of content delivery and protection. Combined with 3rd party service components and platforms, MDS can be deployed as a small enterprise video platform or as a very large Video on Demand service on a mobile network or for IPTV.

Possible business models include SaaS (software as a service) and PaaS (platform as a service). If needed, Nextscape can also provide on-premises implementations, but these come without the merits of a cloud-based solution.

**Q: A lot of our industry have heard of PlayReady, could you expand on PlayReady and your work with Microsoft and Microsoft Azure including your innovation awards?**

**A:** PlayReady is Microsoft's DRM (digital rights management) solution and it is the widest deployed content protection technology in the world. PlayReady is the result of over 14 years of research and development. Nextscape was the first

PlayReady partner in the Asia-Pacific region and has had several successful projects, including not only commercial media, but also educational video content providers. PlayReady supports a wide array of operating systems and devices, including Windows, iOS, Android, Linux, smartphones, game consoles, Blu-ray and DVD players, etc.

PlayReady can be utilized to protect digital media, such as video and audio contents. It supports download, subscription and rental payment models, enabling it to be used for online video services, video streaming, media rental, etc.

PlayReady is in many cases the only accepted DRM by content owners, such as the major Hollywood film studios.

PlayReady solves the copyright protection issues of digital media and thanks to it being available on the Azure cloud as well, it can further solve hardware and human resource related issues, having no more need for on premises servers and the maintenance of the hardware. This simplification of the infrastructure also enables Nextscape to focus more on the service requirements and refine the solution for an even better performance.

When PlayReady is used in combination with Microsoft Azure PaaS, the functionality of Microsoft's cloud service enables the drastic reduction of the maintenance costs for the hardware and other infrastructure elements. It furthermore provides the flexibility to increase/decrease the capacity of the whole solution based on the workload, making sure that no business opportunities are lost.

Nextscape is using the different services of the Azure cloud in several of its solutions. With Sitecore, the Azure cloud is used for website hosting and with MDS, to enable a quick and flexible media delivery directly from the cloud. Additionally, media encoding and CDN services are also utilized for the MDS solution.

Nextscape has won the Microsoft Partner Award Azure Partner of the Year, Japan, in 2012, 2013 and 2014. We intend to work on new, innovative solutions that help our customers overcome the challenges they face on the market and we also work on shortening the time to market and to reduce the costs of our customers.

**For more information visit:**

[www.nextscape.net](http://www.nextscape.net)

