

## Special Interest Group on Networked (NetGames SIG)

*Internet Technical Committee (ITC)*

Webpage : [http://www-poleia.lip6.fr/~abdallah/IEEE\\_SIG\\_NetGames.html](http://www-poleia.lip6.fr/~abdallah/IEEE_SIG_NetGames.html)

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2017 activity report (draft)

According to a recent report from market intelligence firm Newzoo, the global gaming revenue is estimated at \$149 billion for 2017, where software revenue alone for 2017 is estimated to generate \$116 billion and expected to reach \$143.5 billion by 2020<sup>1,2</sup>. This tremendous growth is driven by several factors including advances in graphics hardware and proliferation of mobile devices. The ubiquity of network connections has also driven up the demand for online gaming. Cloud gaming, the newest entry in the online gaming world, has recently emerged as a new service that offers the possibility to play online games using any terminal, such as a tablet, a smartphone, or a TV screen, without the need for expensive high-end 3D graphics rendering and powerful computing hardware and software. With these technological advancements, online gaming hits a huge market of mass consumers desiring better playing experiences. More recently, we have been witnessing an explosion of new game-based online services, such as e-sports and gamecasting, which are attracting a massive number of players and viewers. This ever-increasing number of users is straining the underlying network and introducing new technical challenges that require synthesis of a variety of research areas.

The Special Interest Group on Networked Games (NetGames SIG) was created to gather and disseminate activities conducted in academia and industry across the globe in the area of networked games. The aim is to further understand the challenges and requirements of today's networked games, and to follow the new trends in this ever-evolving industry to explore the possibilities of future-generation online games and game-based services.

Below is a list of recent major conferences and journals (special issues) focusing on networked games, and in which many NetGames SIG members are involved:

### *1- NetGames: International Workshop on Network and Systems Support for Games*

NetGames became the flagship yearly forum for researchers and practitioners for presenting and discussing current findings and challenges related to the systems and networking aspects of online games. NetGames has played a major role in forming a solid core networked games community that has been extremely active since 2002. NetGames has been technically supported by IEEE ComSoc, ACM SIGCOMM and ACM SIGMM.

– **NetGames 2018:** <http://conferences.telecom-bretagne.eu/netgames18/>

The 2018 edition of NetGames will be co-located with ACM Multimedia Systems conference (ACM MMSys 2018), to be held in Amsterdam, The Netherlands.

– NetGames 2017: <http://netgames2017.web.nitech.ac.jp/>

– NetGames workshop portal: <http://www.netgames-conf.org/>

### *2- ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM) Special Issue on “Delay-Sensitive Video Computing in the Cloud” (Upcoming)*

This special issue focuses on conversational video services in the cloud, including multiplayer video gaming, video conferencing, telepresence and tele-learning.

<sup>1</sup> <http://www.gamesindustry.biz/articles/2017-11-28-global-gaming-revenue-on-par-with-sports-following-2017-estimates>

<sup>2</sup> <https://newzoo.com/solutions/standard/market-forecasts/global-games-market-report/>

### 3- *MMVE: International Workshop on Massively Multiuser Virtual Environments*

MMVE is another major closely related forum that covers the various facets of massively multiuser virtual environments, and provides a forum for active discussions and interactions on the emerging topics of MMVE. Since 2014, MMVE has been co-located with ACM MMSys.

- **MMVE 2018:** <http://www.mmve-workshop.org/>
- MMVE 2017: <http://mmsys17.iis.sinica.edu.tw/mmve/>

Networked games have also been among the main topics of interest of a number of forums and events with a broader scope, where papers on networked games regularly appear:

#### 1- *ACM MMSys: ACM Multimedia Systems conference*

ACM MMSys is a major forum that focuses on the systems aspects of multimedia systems and applications, and regularly attracts and publishes papers on topics related to networked games.

- **ACM MMSys 2018:** <http://www.mmsys2018.org/>
- ACM MMSys 2017: <http://mmsys17.iis.sinica.edu.tw/>
- ACM MMSys main portal: <http://www.mmsys.org/>

#### 2- *ACM NOSSDAV: Network and Operating Systems Support for Digital Audio and Video*

ACM NOSSDAV is a major forum where research papers on networked games get regularly published. Since 2013, NOSSDAV has been co-located with ACM MMSys.

- **ACM NOSSDAV 2018:** <http://www.nossdav.org/2018/>
- ACM NOSSDAV 2017: <http://nossdav17.cs.nctu.edu.tw/>
- ACM NOSSDAV main portal: <http://www.nossdav.org/>

#### 3- *ACM MM: ACM Multimedia conference*

ACM MM is a flagship multimedia conference that covers all aspects of multimedia research and technologies, including multimedia systems and networks, and in which papers on networked games are regularly published.

- **ACM MM 2018:** <http://52.79.208.239/>
- ACM MM 2017: <http://www.acmmm.org/2017/>

#### 4- *IEEE CCNC: IEEE Consumer Communications and Networking Conference*

IEEE CCNC regularly organizes technical sessions and tracks that focus on networked games and entertainment applications as part of the main conference.

- **IEEE CCNC 2018:** <http://ccnc2018.ieee-ccnc.org/>
- IEEE CCNC 2017: <http://ccnc2017.ieee-ccnc.org/>

#### 5- *IEEE ICME: IEEE International Conference on Multimedia and Expo*

IEEE ICME is another major multimedia forum for the exchange of the latest advances in multimedia technologies, systems, and applications

- **IEEE ICME 2018:** <http://www.icme2018.org/>
- IEEE ICME 2017: <http://www.icme2017.org/>

## PAST EVENTS

- 1- *IEEE Transactions On Circuits and Systems for Video Technology*  
Special Section on "Visual Computing in the Cloud – Cloud Gaming and Virtualization", Vol. 25, No. 12, December 2015.
- 2- *DSVCC: International Workshop on Delay-Sensitive Video Computing in the Cloud*  
DSVCC 2015 focused on conversational video services on the cloud, including namely video gaming, and was part of the IEEE International Conference on Cloud Computing Technology and Science (IEEE CloudCom 2015).  
<https://sites.google.com/site/dsvcc15/>
- 3- *Springer's Multimedia Systems Journal*  
Special Issue on "Network and Systems Support for Games", Vol. 20, N° 5, October 2014.
- 4- *C-Game: International Workshop on Cloud Gaming Systems and Networks*  
C-Game 2014 was part of the IEEE International Conference on Multimedia and Expo.  
<https://sites.google.com/site/icmecgames2014/welcome>
- 5- *Springer's Multimedia Systems Journal*  
Special Issue on "Network and Systems Support for Games", Volume 19, Issue 3, June 2013.
- 6- *IEEE Software Journal*  
Special Issue on "Engineering Fun", Vol. 28, N°5, 2011.
- 7- *International Journal of Advanced Media and Communication*  
Special Issue on "Network and Systems Support for Games", Inderscience, Vol. 4, N° 4, 2010.