CUSTOMER PROFILE

NAME: PGL ESPORTS
INDUSTRY: e-sports
CAPACITY: 90,000 PGL Major Kraków visitors
LOCATION: Bukareszt, Rumunia

Founded in 2002, PGL handles event organization, studio and video production, as well as TV and online streaming for international e-sports tournaments. The Majors are the most prestigious tournaments for Counter-Strike: Global Offensive, representing the equivalent of the World Championships. One of them was The PGL Major Krakow 2017 held in Tauron Arena, Kraków, Poland from July 16 to 23, 2017. The top 16 teams from around the world were in attendance, fighting for the lion’s share of the 1 million dollar prize pool, with tens of thousands of fans in the arena and millions around the world watching and cheering for their favorite squad to take the trophy. The PGL Major Krakow had a live audience of over 15,000 people each day with millions of people from all around the Globe watching online.

CHALLENGE

For any e-sports event, the rapid deployment of a wired and Wi-Fi network that can sustain the production, tournament, and partner needs is extremely important to its success. The bigger the event, the more complex and larger the network and the connection capacity that it has to account for need to be. Alongside the large number of players, support staff and production crew there are also members of the press who need quality access to upload their content as soon as they create it, as well as key partners that can have booths for directly engaging and entertaining their fans on site.

If the network infrastructure is inadequate, the results can range from minor outages of Wi-Fi coverage to catastrophic failures that can bring the main event to a standstill. The presence of a modern copper and fiber infrastructure in newer arenas helps to speed up deployment but, in order to reap the full benefits, the core and edge switches need to be able to accommodate both types of connections to allow for maximum flexibility.

SOLUTION

Thanks to the friendly UI and console syntax for configuration, mixed copper and fiber uplink ports, as well as proven performance and reliability, the new line of TP-Link managed switches was chosen to create the infrastructure of the PGL CSGO Major in Krakow, which was hosted in the Tauron Arena on July 21 – 23. The group stage was held in the Small Hall of the Arena on July 16-19.

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The T2700G-28TQ acted as core switches, with the two 10G uplink ports per switch being used for connecting the main areas of production (Control Room, Editing Room, and EVS), as well as the backbone for the rest of the network traffic (Press, Partners, Practice, Tournament, and Stage). Dedicated VLANs were set up for strict delimitation and monitoring of the network traffic, with the switch security features activated to prevent broadcast storms, unwanted traffic, connection loops or illegal access attempts. The English production itself was serviced by a mix of TL-SG5428E, T2500G-10TS (TL-SG3210), and T3700-28TQ switches, depending on the expected load from each production core.

T2600G-52TS switches, with their 48 gigabit copper ports, serviced the press area in Tauron Arena while the smaller T2500G-10TS model (8 copper ports, 2 fiber uplink ports) was deployed in the practice, tournament, green room, stage and commentary desk areas. Over 30 such units ended up being used during the tournament. 200+ PCs and laptops were connected at any given point during the tournament.

For Wi-Fi coverage, ten EAP330 Wireless Access Points were installed, centrally managed through the Controller Software that allowed easy configuration, monitoring and troubleshooting. The slick design and PoE support meant that they could be easily installed even in areas where aesthetics mattered, while the beamforming and airtime fairness features ensured proper connectivity and performance.

**RESULTS**

Despite the large distances that needed to be covered, large numbers of connected devices, and the short build time, the network in the Tauron Arena was deployed on schedule and the switches proved their reliability even under strenuous situations caused by outside factors.

"The TP-Link hardware performed as expected and allowed us to deploy a complex network in a short amount of time, with a minimal amount of troubleshooting required"

Vlad Rosca, PGL Technical Director