# Implementing G2S live on the casino floor: A case study for Class II operations

Much has been said about the Gaming Standards Association's award-winning Game-to-System (G2S) protocol. Whether in GSA's own communications or in chatter on the trade show floor, G2S has been described as everything from an imagination gateway to the miracle cure-all just this side of snake oil. The truth, of course, stands somewhere in the middle.

Let's not undersell the accomplishment that is G2S – operators, manufacturers and regulators from around the world coming together to address the future of gaming and develop a real, working solution is an incredible feat. And the potential that G2S unlocks truly is as unlimited as our imaginations and allows manufacturers to build the games of the future to attract the players of the future.

However, for all its machinations, G2S will mean nothing at all unless operators begin to act, and act now, to implement it. G2E 2006 showed a wide range of G2S-enabled products, and that was a mere drop in the ocean compared to what G2E 2007 will reveal in booth after booth across the entire trade show floor. But unless and until operators prepare their gaming floors for G2S, all the development will mean nothing to operators' bottom lines.

The Seminole Hard Rock Hotel and Casino in Florida already has begun the process of implementing G2S. The process started, however, in preparation for migrating from a Class II gaming floor to Class III games in the event the Seminole tribe can legally operate Class III games.

Prior to G2S, the Seminoles turned to GSA to develop the S2S standard which allowed games with integrated player tracking (no extra PT board) and disparate floor communication protocols to work with Class II games that were equipped with traditional player tracking hardware. In the process of planning for a possible migration to Class III games, we decided to select a floor and player tracking system that could offer the same features, look and player experience for a mix of Class II and Class III games. The first major challenge was to convince OEMs to retrofit their Class II games with the SAS protocol. Once that was done, our options were open.

Another key requirement for the Seminoles is to operate a mix of Class II and Class III games over an indefinite time period. Even if we wished to swap out the entire floor, months would be required to complete the changeover. And of course the games and systems have to continue operating smoothly for any duration of a migration.

The Seminole tribe's challenge to ultimately reach a G2S floor is identical to that of all Class III operators. We're starting from SAS, and it's a major leap to a high-speed network using G2S. The Seminoles are fortunate, though, to have a high-speed network already in place for running Class II games, which are totally server-based with extremely high transaction volumes.

Because the high-speed network was already in place, we did not want to implement player tracking hardware that would require installation of the typical proprietary network with RS485 wiring. Our system vendor agreed to provide player tracking hardware that uses SAS for game communications, but translates from SAS to G2S and uses an Ethernet connection to new G2S-based servers. The G2S servers process some of the transactions directly, but the majority of the traffic is routed to "legacy" applications with use of the S2S protocol.

Which leads us to a more interesting question and relevant to all operators, Class II and Class III: how do you migrate from a SAS to a G2S floor?

To do this, casinos must first realize that the goal is to have floor system and applications such as accounting and player tracking ready to allow the casino to plug in the first G2S game when it arrives.

The way all new games are designed, every game has at least one Ethernet connection for G2S communications as well as a SAS port to continue supporting current systems. The Seminoles are communicating to the new PT hardware with G2S, then to the game with SAS. When the first G2S game is delivered, the G2S servers will be reconfigured to communicate directly to the game instead of through the PT hardware. This is as simple as changing an IP address. Direct game communications will remove the burden from the PT hardware so we can use that horsepower to enhance use of the display, keypad and function keys for marketing and customer service functions, communicating directly with the player in creative, heretofore unseen ways.

There are thousands and thousands of games today that use SAS and cannot be retrofitted for G2S. Each system vendor will need to provide a solution for continuing to support them concurrently with a G2S floor. The Seminoles approach was to make the conversion at the game. An equally viable approach would be to leave the legacy network in place and use S2S as the bridge between the two floor networks and applications such as slot accounting and player tracking. G2S, though, will be required to take full advantage of the new features you will see at G2E this year.

To get on the path to converting from SAS to G2S, casinos need a comprehensive plan to retrofit the existing floor. First, the casino must start with the basics, such as having an Ethernet network. Until the casino has a switched network, employing G2S games that need a high-speed connection cannot happen.

Part of this plan must include hiring at least one ***certified*** network administrator. The brave new world of gaming that is about to be unleashed via G2S requires that lot of infrastructure has to be built, and casinos cannot underestimate the importance of qualified network administration.

Casinos should not feel alone in this endeavor. There are many consultants available (not through GSA) to help them plan this process and to help them get on the path to the future. To further assist, the UNLV G2S Protocol Certification Training program (for which GSA is donating $1 million in seed funds) offers courses that can bring your current staff up to speed quickly. **SlotManager**

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