



Company Overview

IGT is the world's leading end-to-end gaming company. It is listed on the New York Stock Exchange under the trading symbol "IGT." Its holding company headquarters are in the United Kingdom, with operating headquarters in Rome, Italy; Las Vegas, Nevada; and Providence, Rhode Island. IGT attracts the industry's top talent, with more than 12,000 employees across the globe.

IGT's integrated portfolio of technology, products, and services, including its best-in-class content, is shaping the future of the gaming industry by delivering the innovation that players want.

IGT is uniquely positioned to provide the government-sponsored and commercial gaming industry with proven solutions for gaming, lottery, interactive, and social, through every channel across the spectrum, including retail, web, and mobile. It is IGT's mission is to be the global innovation leader in the gaming industry.

Our vision to combine the best of our legacy companies to enhance and build our capabilities; deliver content, technology, and expertise that drive customer and player demand; continue to grow leadership in the lottery and gaming space, and become a leader in the interactive space; and use the power of our understanding of central systems and connectivity to define the future of gaming.

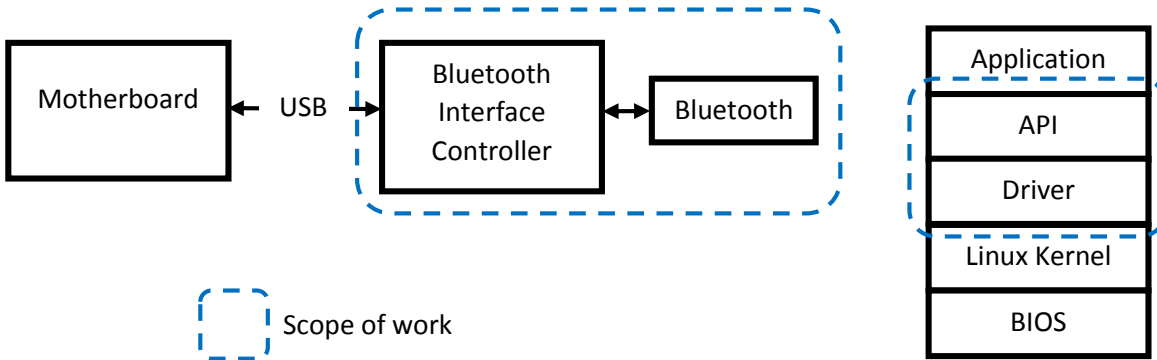
Project Overview

IGT is in the process of developing technology solutions to bridge mobile players to traditional brick and mortar lottery retailers (in the retail establishment). A standard mechanism to accomplish this is via Bluetooth communication between the player's mobile device and the Lottery POS terminal. Bluetooth technology is easily added to IGT's latest generation POS terminals as they are running newer generation hardware with operating systems that include an integrated Bluetooth stack.

IGT has over 700,000 Lottery POS terminals globally with a typical in-service lifecycle between 5-7 years (with some customers extending the lifecycle to 10 or more years). A large percentage of IGT's hardware currently deployed are older generation hardware with OS versions that do not include an integrated Bluetooth stack.

IGT would like to work with a team of URI engineering students to design and develop a Bluetooth controller board that completely encapsulates the Bluetooth stack and connects to the POS terminal via a standard USB interface. This will allow IGT to adapt Bluetooth technology to legacy terminals that are not capable of running Bluetooth natively.

IGT's Gaming (casino) branch, currently has a similar integrated device used in various venue based slot machines. This project is to evaluate the existing design, make necessary hardware enhancements (including potential board re-design) to conform to IGT's Lottery requirements, and develop the device drivers, software API targeted to the Linux Operating System, and diagnostics test software.



Team Description

- Student engineers: 2 x EE, 1 x CE
- Ability to work with limited supervision a must
- Willingness to learn from mistakes
- Bluetooth knowledge preferred
- USB interface knowledge preferred
- PCB design and layout experience beneficial
- Linux OS experience
- Programming experience with C

Deliverables

In essence the deliverable of this project is a manufacturing package that allows mass production of the design and widespread deployment in a lottery wide area network. The following items help define the details of that package.

- Hardware
 - Board Specification – written design specification detailing theory of operation, mechanical outline, connector locations, electrical interfaces, performance characteristics, environmental constraints, and regulatory compliance requirements
 - Schematic – electronic schematic capture with netlist and costed bill of materials
 - PCB – electronic PCB fabrication files
 - Test Specifications – detailed test cases to exercise the product to the envelope of functionality and performance
- Software



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- Firmware Specification – written firmware interface specification detailing command and control interface
- Source code, object code and functioning diagnostic test firmware

Division of Labor

Electrical Engineer 1 (Processor Board with Bluetooth controller)

Electrical Engineer 2 (USB Interface)

Computer Engineer 1 (Driver, API and Diagnostic Application)

IGT Point of Contact

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