HYPERSPACE GAMING CAFÉ

Business Case and Activity Plan

Richard Rennehan, Hsiang-Wei Chen, Rida Rashid, Rachelle Lebantino

Hyperspace industries

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# Introduction

It’s time to bring some excitement to Halifax! Hyperspace Gaming Café is a place where gamers can play games to their hearts’ content. Hyperspace will be a high-energy environment for gamers who can't get enough adrenaline in their lives.

From our survey, we have discovered there are no gaming hangout spaces around Halifax. As a result, the desire for a gaming café is strong among gamers. Gamers around Halifax dream of an open space where they can hang out with their friends, play their favorite video games, and enjoy a few snacks or drinks on top.

Hyperspace Gaming Café plans to open in June of 2018. We are thrilled to bring the dreams of gamers around Halifax to life.

# Our Strategy

## Drawing Players In

We understand that many gamers may have a machine at home and may prefer to game at home. To counteract this, we will host events and tournaments to draw players in. These events and tournaments will offer prizes such as t-shirts or even cash.

We will also offer courses helping gamers hone their skills in popular games. This service will encourage gamers to come in, learn about their favorite games, and show off their new skills to all their friends.

Another advantage will be our top-of-the-line machinery and network. This caters to people who cannot afford their own equipment to play games. Hyperspace will provide them with high speed Internet and high-end computers so they can experience games the way they are meant to be played.

## Pricing

There will be multiple pricing packages available for games. Customers have the option to use our machines at an hourly rate or buy a whole-day package. Packages include free Wi-Fi, unlimited access to computers and games, select free drinks, and select free snacks.

We will also offer premium memberships. Customers can purchase a month of membership up front. Membership includes unlimited access to computers and games, free Wi-Fi, and benefits such as discounts, free drinks, t-shirts, and free snacks

Gaming courses will be priced at a one-time fee. Snacks and drinks can be purchased on their own to help gamers recharge. Gamers will also have access to a printer. Each colorless sheet will cost 25 cents while each colored sheet will cost $1.

# Implementation and Set Up

## Location

Hyperspace Gaming Café will open on Barrington Street in the heart of downtown Halifax. This location will attract the highest number of tourists, students, and gamers of all ages.

## Setup

The following activity plan describes our specifications and setup processes to best meet the needs of gamers:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Activity Name** | **Description of Work** | **Component Name** | **Description** | **Responsibility** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| **A001** | Hardware Configurations | **Computer Stations** |  |  | Hsiang-Wei |
| Graphics Card | MSI Gaming GTX 1070 |  |
| CPU | AMD RYZEN 5 1600X  6-core @ 3.6GHz |  |
| RAM | Corsair Vengeance LPX 16GB |  |
| Motherboard | ASUS Prime B350-Plus |  |
| CPU Cooler | Cooler Master MasterAir Pro 4 |  |
| SSD | SanDisk SSD PLUS 240GB |  |
| HDD | WD Blue 1TB |  |
| Power Supply | EVGA SuperNOVA 650 G1 |  |
| Case | NZXT S340 |  |
| Monitor | Dell Gaming S2417DG |  |
| Keyboard | Redragon K552 |  |
| Mouse | Redragon M901 |  |
| Mouse Pad | Redragon P001 |  |
| Headset | SteelSeries Arctis 5 |  |
| Webcam | Logitech C615 |  |
| **Network** | Internet Service Provider | Bell | Rida |
| Connection | Wired/300Mbps  Free Wi-Fi |  |
| Devices Included | Wireless Router with built-in firewall |  |
| Devices Needed | 24 port switch |  |
| **Database and Platform** | Database | MySQL Server | Richard |
| Platform | Smartlaunch |  |
| **Server** | OS | Ubuntu Advantage for server | Rachelle |
| Motherboard | LGA2011v4 Socket Support |  |
| RAM | 32GB (1x8GB DDR4 Registered DIMMs, 2133 MHz) |  |
| Processor | Gen9 Intel® Xeon® E5-2609v4 8-Core & 8 Threads  1.70GHz  Clock Speed and 20MB Smart Cache |  |
| Storage | 2 TB Hardisk |  |
|  | HP Dynamic Smart Array B140i Controller (RAID 0, 1, 10, 5 SATA) |  |
| NIC | Broadcom 5717 Dual-port 1GbE |  |
| **Security** | Antivirus | Avast Business Managed Antivirus | Rida |
| Firewall | Provided by (ISP) |  |
|  |  |  | Security Package | Includes sensors, alarms, and a camera |  |
|  |  |  |  |  |  |
| **A002** | Installation Process | **1. Server Installation** | Install Operating System |  | Rachelle |
| Database Software Installation |  |  |
| Install Other software |  |  |
| **2. Workstation Installation** | Install OS |  | Hsiang-Wei |
| Install Games and Software |  |  |
| 3. Network Setup | Connect devices via Ethernet |  | Rida |
| Connect Router to internet services |  |  |
| Turn on Wi-Fi services |  |  |
| Use DHCP to automatically assign network addresses |  |  |
| **4. Network Security Features** | Install anti-virus software on each device |  | Rida |
| Set up firewall protection |  |  |
| Install security camera, sensors, and alarm |  |  |
| **5. Database and Platform** | Install appropriate database software on each machine |  | Richard |
| Purchase Smartlaunch license |  |  |
|  |  |  |  |  |  |
| **A003** | Test system functionality | 1.Server | Ensure all programs on the server work as expected |  | Rachelle |
| Stress test the server to ensure it can handle as many requests as needed |  |  |
| **2. Computer stations** | Check if there is any beep or blink while booting |  | Hsiang-Wei |
| Validate BIOS is up to date |  |  |
| Ensure all programs work as expected |  |  |
| Ensure all games can be run at 60fps at least |  |  |
| Get feedback from gamers |  |  |
|  |  |  |
|  |  |  |
| 3. Network | Ensure all devices can connect to each other |  | Rida |
| Perform speed tests from each computer station. Ensure no stations have an advantage |  |  |
| Test games to see if LAN multiplayer runs as expected |  |  |
| **4. Security** | Do a quick virus scan on each computer |  | Rida |
| Ensure security camera works and can be monitored |  |  |
|  | Test motion sensors and alarm |  |  |
| **5. Database and Platform** | Get familiar with database to ensure it can do what is needed |  | Richard |
| Get familiar with Smartlaunch features |  |  |
|  |  |  |  |  |  |
| **A004** | Software Required | Workstations | League of Legends |  | Hsiang-Wei |
| World of Warcraft |  |  |
| Avast Antivirus |  |  |
| Smartlaunch |  |  |
| Open Broadcaster |  |  |
| Chrome |  |  |
| Firefox |  |  |
| LibreOffice |  |  |
| Skype |  |  |
| AdobeAir |  |  |
| Toolwiz Time Freeze |  |  |
| Server | MySQL Server |  | Rachelle |
| Avast Antivirus |  |  |
| LibreOffice Suite |  |  |
| Smartlaunch |  |  |

For each computer station, the internal components listed will ensure a fast and responsive experience with our computers. Each comes packed with a 6-core processor, 16GB of RAM and a powerful graphics card with 8GB of dedicated memory. The processor, graphics card, and RAM inside each machine will ensure any process or game can be handled. The cooling system will prevent the computers from overheating and help the computers stay cool during the most intensive of tasks. The Windows Operating system will be installed on a solid-state drive to increase system performance.

Each computer station is paired with accessories. The wired keyboard and mouse will ensure games control with the precision and responsiveness that gamers require. Each station also comes with a headset to help isolate players into the world of the game. Each headset also contains a mic to allow for chat between teams or friends. People from home who may not have the money to purchase such a setup can come in and experience our games on a whole new level. Upon opening, we will have 8 stations available for customers.

The specifications of the server will ensure all data processes can be quickly processed. It's 8-core processor and 32GB of RAM can handle a constant supply of data without slowing down. This is crucial to ensure local play among every computer is fast and responsive. The server is also where the main database will be hosted. As the data stored is crucial to the business, the server will include an uninterruptable power supply to prevent data corruption or loss in the event of an outage.

For our network, every computer station is connected to a single network. No computer is given an advantage. This allows for local, competitive play between teams for tournaments and events. The wireless router also provides wireless services so customers can use internet services with their mobile devices. A top connection speed of 300Mbps will ensure that all network operations can be handled at once.

MySQL will enable us to store statistical and financial data. MySQL can be hooked up to the Smartlaunch platform. The Smartlaunch platform allows us to manage tournaments, players and teams, and much more. Combined, MySQL and Smartlaunch will many of the operations our gaming café will need to succeed.

## Security

Because the building contains thousands of dollars in equipment, security is of top concern. Hyperspace will come equipped with door and window sensors, an indoor security camera, a motion detector, and an alarm siren to keep thieves out.

On the technical side, gamers will not be compromised of their personal information while using our computers. Our computers come loaded with antivirus programs and firewall protection to block external threats. Computers are refreshed every night to not only maintain speeds, but also to ensure no harmful files will stay put. USB ports will be disabled on each machine to prevent customers from bringing in malicious software or code. At any time, every computer can be restored back to its original, clean state.

The shared folder for uploading the OS image to the server will be password-protected so the gamers cannot tamper with our systems.

## Management

A ninth computer station will be used exclusively for management and administration purposes. It will connect directly to the server. Customers will not be allowed to use this machine.

This computer will also connect to the indoor security cam, allowing the building to be monitored.

## Disaster Recovery Plan

If a power outage occurs, the UPS can hold power for the server for 20 minutes. This allows time to properly and safely shut down the server to avoid data corruption or loss.

In the event that the computer stations experience a critical error, they can be restored back to working order. Each workstation has an image that is stored in the server, allowing for a smooth rollback process.

## Budget and Costs

Set up Cost:

|  |  |  |
| --- | --- | --- |
| Computer Station Costs (x9) | Computer ($2196) |  |
| Accessories ($1000) |  |
| x9 (9 computer stations) | $28764 |
| Server | Server Cost | $5000 |
| UPS | $900 |
| Networking | 24Port Switch | $200 |
| 12 Cat5e Cables | $600 |
| Security | Security Package | $400 |
| Additional Software | Windows 10 Pro x64  ($160 each. 9 needed) | $1440 |
|  |  |  |
| Total | Subtotal | $37304.00 |
|  | Taxes | $5595.60 |
|  | Total | $42899.60 |

Recurring Fees:

|  |  |
| --- | --- |
| Bell Business Internet and Phone | $110/month |
| Avast Business Anti-Virus | $18.58/month |
| Smartlaunch | $80/month |
|  |  |
| Subtotal | $208.58/month |
| Taxes | $31.29/month |
| Total | $239.87/month |

Our total setup cost will amount to around 43,000 dollars. From there, additional fees of around $240 will apply each month from licensing fees and contracts.

Additional fees not yet considered include rental fees for the building, utility bills, etc.

# Expansion Plans

Hyperspace will expand in the future if necessary. Our expansion will include additional equipment, such as more games, computers, and networking devices to support the computers. If necessary, Hyperspace will also move to a larger location.

# Conclusion

Halifax needs some more excitement, and Hyperspace Gaming Café will deliver. Through careful selection of equipment and specifications, we are sure to provide the quality experience gamers desire.

We believe in a future where gamers across Halifax finally have a place to meet up and play. At Hyperspace, gamers will experience an atmosphere like no other. Through special events and tournaments, gamers will meet other gamers just like them and share new memories that will last a lifetime.

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PowerPoint References

Please refer to the slides for reference identifiers

Image 1 and OS specs:

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Image 2:

<http://ashutoshlinuxnotes.blogspot.nl/p/28_7.html>

Image 3 and Graphics card specs:

<https://www.amazon.ca/MSI-GeForce-GTX-1070-GAMING/dp/B01HHED116/ref=sr_1_3?s=electronics&ie=UTF8&qid=1513213714&sr=1-3&keywords=MSI+Gaming+GeForce+GTX+1070>

Image 4 and CPU specs:

<https://www.bit-tech.net/reviews/tech/amd-ryzen-5-1600x-review/1/>

<https://www.amazon.ca/AMD-Ryzen-1600X-Processor-YD160XBCAEWOF/dp/B06XKWT7GD/ref=sr_1_1?s=electronics&ie=UTF8&qid=1513218052&sr=1-1&keywords=AMD+RYZEN+5+1600X>

Image 5 and RAM specs:

<https://www.amazon.ca/Corsair-Vengeance-3000MHz-Desktop-Memory/dp/B0134EW7G8/ref=sr_1_1?s=electronics&ie=UTF8&qid=1513213611&sr=1-1&keywords=Corsair+Vengeance+LPX+16GB>

Image 6 and Motherboard specs:

<https://www.amazon.ca/ASUS-Prime-B350-Plus-Ryzen-Motherboard/dp/B06X416NJ1/ref=sr_1_1?s=electronics&rps=1&ie=UTF8&qid=1513213549&sr=1-1&keywords=ASUS+Prime+B350-Plus>

Image 7 and CPU cooler specs:

<https://www.amazon.ca/MAY-T4PN-220PK-R1-MasterAir-Continuous-Contact-Technology/dp/B01M5K6DKW/ref=sr_1_1?s=electronics&ie=UTF8&qid=1513213498&sr=1-1&keywords=Cooler+Master+MasterAir+Pro+4>

Image 8 and SSD specs:

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Image 9 and HHD specs:

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Image 10 and Power supply specs:

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Image 11:

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Image 12 and Case specs:

<https://www.amazon.ca/NZXT-Tower-CA-S340MB-GR-Matte-Black/dp/B00T4BWUUY/ref=sr_1_1?ie=UTF8&qid=1513213195&sr=8-1&keywords=NZXT+S340>

Image 13 and Monitor specs:

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<http://www.dell.com/en-ca/shop/accessories/apd/210-aizs>

Image 14 and Keyboard spec:

<https://www.amazon.ca/Redragon-KUMARA-Backlit-Mechanical-Keyboard/dp/B016MAK38U/ref=sr_1_1?s=electronics&ie=UTF8&qid=1513216272&sr=1-1&keywords=Redragon+K552+KUMARA>

Image 15 and Mouse specs:

<https://www.amazon.ca/Redragon-Perdition-16400-Programmable-Gaming/dp/B00GU8W5AE/ref=sr_1_1?s=electronics&ie=UTF8&qid=1513216333&sr=1-1&keywords=Redragon+M901>

Image 16 and Mouse pad specs:

<https://www.amazon.ca/Redragon-ARCHELON-Stitched-Waterproof-Large-Size/dp/B00NV4XL62/ref=sr_1_1?s=electronics&ie=UTF8&qid=1513216389&sr=1-1&keywords=Redragon+P001>

Image 17 and Headset specs:

<https://www.amazon.ca/SteelSeries-Arctis-Headset-Illumination-Headphone/dp/B01M16Y46E/ref=sr_1_1?s=electronics&ie=UTF8&qid=1513216457&sr=1-1&keywords=SteelSeries+Arctis+5>

Image 18 and Webcam specs:

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Firewall:

<https://www.google.ca/search?rlz=1C1OCLT_enCA762CA762&biw=1920&bih=949&tbm=isch&sa=1&ei=AYEyWr3vHMekjwSl-qagDQ&q=Avast+Business+Managed+Antivirus+features&oq=Avast+Business+Managed+Antivirus+features&gs_l=psy-ab.3...153280.155922.0.156286.9.9.0.0.0.0.163.1028.0j9.9.0....0...1c.1.64.psy-ab..0.0.0....0.w1GCyBKkWqI#imgrc=GJYyEhv-7nPeCM>: