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# Prevention Plan to Help Mitigate Downtime Card Only Customers

To address our card-only customers' concerns, we recommend the following steps to mitigate potential downtime and prevent network errors during intermittent connectivity with the SpyderWash system. Our main goal is to minimize connection issues, ensure your entire store is never completely down, and prepare your staff on how to handle connection issues based on the steps below.

- Limit to 20 machines per hub (for card-only stores):
  - o If you have more than 20 combined washers and dryers, we suggest getting another hub.
- Evenly distribute washers and dryers across each hub:
  - Do **not** put all your washers on one hub and all your dryers on another. It's essential to divide them
    evenly per hub. This way, if one hub goes out, the other hub is still operational, allowing customers
    to use both washers and dryers and keeping your store running.
  - Ensure your staff knows which washers and dryers are connected to each hub. This helps them guide customers on which machines to use if a hub is down and aids in diagnosing faulty hubs or internet ports, as you can track if one hub or port goes down more frequently. This makes troubleshooting much easier.

#### Two Separate Internet Connections for Your Hub(s) (for card-only stores):

- One hub connected to a modem/router from an ISP LAN connection (e.g., Comcast, Spectrum).
- The other hub is connected to a cell modem via OptConnect.
- If you have more than two hubs, split them equally between the two internet connections.

We highly recommend each hub have its own internet connection. This ensures that if one connection fails, half your store will still be operational on the other connection.

**Redundancies:** Having redundant internet connections is crucial for business continuity. If one connection fails, another can take over seamlessly. Use different providers, like OptConnect and Comcast, to run separate lines directly to different hubs for diversification. We offer a special pricing program for customers using the OptConnect cell modem.

#### OptConnect Cell Modem (Reliable and Cost-effective Secondary Internet):

- Hardware is free
- Cell service is \$25.00 per month

Thousands of locations use OptConnect cell modems, the perfect solution for internet redundancy. With one hub on this modem, even if your ISP LAN connection for another hub goes down, this will remain operational. The main goal is to ensure your entire store is never completely down at the same time.

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#### **Hub Ports:**

• We want to ensure your hubs are on different internal ports within SpyderWash. Please send us a picture of your hub number (found on the back). We can make this change remotely, and nothing is required on your end.

#### **Smart Plugs:**

- Available on Amazon for under \$20.00, these are used to remotely reboot hubs, routers, or cell modems. If you encounter a network error on a specific hub or internet source, you can reboot it remotely without physically resetting it.
- Smart plugs help manage power consumption and keep devices connected during outages. They can be programmed to turn on/off based on specific conditions.

#### **Battery Backups (UPS)**

- The simple solution is a high-quality battery backup and surge protector with at least a 350 joules rating such as the APC Back-UPS Pro 1000 Battery Backup System because a simple surge protector is not always sufficient. These can be purchased on Amazon for \$100.00 to \$150.00
- **Uninterrupted Power Supply:** They can provide backup power during outages, ensuring that essential devices, such as your hub, router, and system keep running without interruption

## **Spare Parts:**

- Keeping spare equipment (routers, switches, hubs, boards, readers, etc.) on hand allows for quick replacements in case of hardware failures.
- The hub is the system's brain. Without it, the system can't operate. If you had to choose one spare SpyderWash part to keep on hand, we recommend it be a hub.

#### Important Note: Proper network configuration is critical.

#### **Check Your High-Speed Internet Connection:**

#### 1. Dynamic IP Address Requirement:

- Ensure you have a dynamic IP address (not static). There are two types: DHCP and PPPoE. If your ISP provided a username and password, it's PPPoE; otherwise, it's DHCP.
- Configure your router as a DHCP client on the WAN side (it requests an IP from your ISP) and as a DHCP server
  on the LAN side (it assigns IPs to devices like computers, phones, and SpyderWash).
- **Important:** Using static IPs will cause pairing issues with the hub and constant disconnects. Power-cycling the hub may temporarily resolve the issue, but it's not a permanent fix. You must use a dynamic IP address.

#### 2. Disable Outbound Firewall:

Disable the outbound firewall on your modem/router as it could potentially block the hub.

#### 3. Telnet Transmission:

Ensure that telnet transmissions are not being blocked.

#### 4. ISP-Specific Instructions:

- If using Comcast, ensure they disable "smart data packets."
- If using Spectrum, avoid using the Ubee model modem.

### 5. Internet Reliability:

- It is crucial that your internet connection is reliable and stable. If the internet drops, so will the hubs and the
  connected washers/dryers until the connection is restored.
- If a particular hub disconnects more frequently, it could be due to a faulty port on your modem/router. Try connecting the hub to a different port.

Important Note Regarding Hub Installation: These guidelines should help enhance the performance and reliability of your SpyderWash system.

Hubs should be installed on walls, facing outward, near their assigned machines. This setup can significantly reduce or eliminate network errors at the laundromat. For optimal placement, ensure the hubs:

- Are installed in central, elevated spots on walls or columns, free from physical obstructions and distant from other electronic devices like Bluetooth-enabled TVs
- Are within 30 feet of the machine they connect to
- Maintain an unobstructed line-of-sight to the connected machines
- · Are installed at least 3 feet away from any Wi-Fi access points
- Are not mounted directly on ceilings, inside ceilings, or in back rooms. They must be visible to the washers and dryers.

Mounting the Hub on a steel column can affect the Bluetooth signal, as metal can interfere with it, reducing both range and connection quality. If necessary, minimize the metal between the Hub and the receiver. Our Hub's external antenna should help enhance signal strength.

- To avoid signal interference, do not place Hubs close to Wi-Fi devices. When a Bluetooth device is near a Wi-Fi access point, it can cause interference, reducing the Bluetooth signal quality and Wi-Fi range.
- For optimal performance, position the Hub at least 15 to 20 feet away from Wi-Fi access points, but no closer than 3 feet.
- To ensure optimal performance, position the Hub on a wall facing outward rather than on a ceiling facing downward. If you have multiple hubs, it is best to mount them on opposite columns or on the walls behind your machines. The Hub's maximum line-of-sight range is approximately 40 feet, so make sure your washers and dryers have a clear line of sight to each Hub.

Proactive planning and redundancy are crucial for maintaining a stable internet connection and ensuring the proper functioning of the SpyderWash system. Our primary goal with these efforts is to minimize potential downtime across your store. These steps should significantly enhance the reliability and performance of your SpyderWash system, ensuring a smoother experience for your card-only customers. We're optimistic that, through our joint efforts, we will effectively resolve the intermittent network issues you've encountered. However, it's important to recognize that occasional challenges may still arise. Internet-based products often face various challenges that require a combination of proactive measures and time to address. While we can't prevent every network error or issue with specific washers or dryers, we can prevent an entire store outage where no customer can pay for laundry. During peak times, heavy usage can cause noticeable delays. Even though each transaction is only a few hundred bytes, noticeable delays can occur without a reliable and stable internet connection. Adding additional hubs and using OptConnect can effectively reduce downtime caused by internet delays.

Using the attached referral forms will make the OptConnect hardware free. OptConnect offers a cell modem and cellular plan for approximately \$25.00 per month, per device. Many laundromats, hotel chains, and apartment complexes rely on the cell modem due to its high reliability and cost-effectiveness. Each device features two Ethernet ports, allowing you to connect up to two hubs per device.

If you already have an OptConnect device, have the device's serial number ready before contacting them. When addressing internet issues, it's important to understand the difference between signal strength and speed. Signal strength refers to the intensity of the signal received, while speed relates to the data transfer rate. Generally, stronger signal strength correlates with higher data transfer speeds, up to the maximum modulation and coding scheme (MCS) rate. OptConnect can help identify issues like poor signal strength, speed problems, and other common issues. Alternatively, you may consider upgrading to a higher-grade antenna for better connectivity.

Please keep this information in mind when troubleshooting with OptConnect or your internet service provider (ISP) to avoid downtime and improve overall connectivity.

If you require any technical assistance during installation of the SpyderWash Products or further explanation of these instructions, please do not hesitate to contact Setomatic Systems Support at <a href="Support@setomaticsystems.com">Support@setomaticsystems.com</a> or call 516-752-8008 directly and one of our dedicated Support Specialists will assist you further.

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