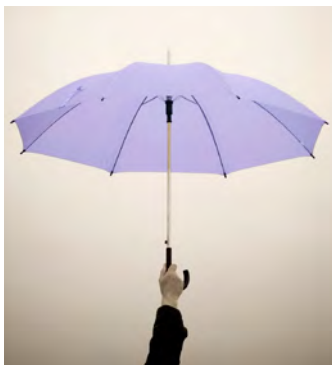


Welcome to the April edition of 4Sight. We hope that this newsletter finds all of you well. For those of you with multiple points of revenue within your business, be sure to look at the article on unifying your revenue centers. Also, we hope you'll take a few minutes to look at our Executive Insight section where CEO Dave Oder explains how Shift4 provides the industry's most resilient, reliable service.



Unifying Your Revenue Centers

If you have multiple lines of revenue in your business (i.e. restaurants within your hotel, e-commerce sales in addition to your brick-and-mortar location, etc.), now is the time get them all under the Shift4 umbrella.

We have been approached by a few clients recently who realized that a good portion of their business was coming in through channels not served by Shift4. With a simple phone call and some technical magic on our side, we were able to bring their additional revenue centers under Shift4's protective umbrella – saving them time and money.

Why Should You Be Next?

What benefits are there for customers who do likewise? You know about Fraud Sentry[®] and its ability to protect you from "trusted-employee" fraud and Shift4's industry-leading security, speed, and reliability. Those are the obvious answers, but the benefits from unifying your revenue centers are greater than just that. You will also gain access to:

- True enterprise-wide accounting and auditing functionality
 - Simplified with pre- and post-settlement auditing
 - A single repository of historical transaction data for chargeback defense
- One point of contact for customer support
 - 24/7 support by Las Vegas-based Shift4 employees
- All cardholder data is stored offsite in Shift4's secure, PCI-compliant data centers
 - Drastically reduced PCI scope for your organization

What's more, Shift4's transaction fees are based on volume, so the additional transactions from new revenue centers may lower your rates and end up saving you even more money.

Shift4 maintains integrations to more than 350 POS/PMS providers. We have certified integrations for Hospitality, Retail, Food & Beverage, e-Commerce, Mail/Telephone Order, and more. Chances are we already support the business lines and solutions you are currently using. If not, give us a call; we are constantly developing new features and may be able to develop a new integration to your existing provider.

If there's something we can do to help you move additional revenue centers under the Shift4 umbrella, please feel free to leave a comment here, or to contact our Support department by phone at 702.597.2499 (select option 2) or e-mail support@shift4.



[com](#).

Executive Insight: Resilience + Redundancy = Reliability

Companies that process payment transactions talk about "five nines" or 99.999% reliability – but none truly deliver it. In reality, a really good processing company delivers around 99.8%. That seems pretty good, too. But is it? It means in a given year, they average less than two hours a month of service disruption.

Unfortunately, to "achieve" these uptimes, most processors fudge the numbers. They use the phrase "net of scheduled maintenance," when describing their uptime, which means only unplanned downtime counts against their total even though their scheduled maintenance still disrupts service.

Being up 100% of the time on a 24-hour basis means being up 8,760 hours. So, 99.8% would be up around 8,742 hours; or down 18 hours a year. "Net of scheduled maintenance" doesn't change things that much; it still means down approximately 18 hours a year or 1.5 hours each month.

Now, let's get rid of the "net of scheduled maintenance" and look at the numbers again. 8,760 (up 24/7/365), minus 18 hours (99.8% up), minus 12 hours (maintenance) equals a real world uptime of 8,730, which is actually 99.65%.

Even if they are up 100% of the available time, with "net of scheduled maintenance" removed, the best they can do is 99.86%.

The point is, when you are comparing actual uptimes, scheduled maintenance is a significant consideration. Why is this important? It's important because Shift4 maintains all of our systems at the highest industry and security levels and we do it without any scheduled maintenance downtime. So, when we say we are up 99.98% of the time, we really are. And when we say that we have the best uptime in the payments industry we mean just that – and the numbers prove it.

In the interest of full disclosure, just because we are up 99.98% of the time, doesn't mean that you will be able to authorize payments 99.98% of the time. If the processor that you or your bank have chosen is one of those 99.6% processors, that's the best you can expect. Your own Internet Service Provider can also affect your uptime.

How is Shift4 able to maintain this level of uptime? Architecture, architecture, architecture! Our data centers are designed so that each function of the system is redundant. Some functions have as much as 12 times redundancy and are load balanced. Our SQL servers are connected to a Raid 10 Storage Attached Network (SAN) and all data on the SAN is replicated to a matching SAN in a data center at a different location.

Unlike most gateways, we have redundant connections to each processor. If processors have multiple geographically dispersed data centers, Shift4 connects to each one. Because of this, you will have better uptime for a particular processor with Shift4 than you could have with a direct connection. Each Shift4 data center utilizes multiple networks so that no single hub, router, or firewall could bring the system down.

Because Internet connectivity is of paramount importance, each of Shift4's data centers has four different connections to the Internet. Unlike other gateways and processors that employ a single, very large pipe to the Internet, Shift4 believes that several large pipes can guarantee better uptime and performance.

Performance is further improved by Shift4's adaptive routing technology. We "score" routes from your Internet provider to our four providers based on speed and reliability and send back the optimal route for you to use.

Of course, Shift4 also utilizes multiple levels of hardware and software firewalls to assure the security of all transactions. Uninterrupted Power Supplies (UPS) and generators back up building power while redundant HVAC systems maintain an operational environment thus ensuring system availability of "five nines."

What does it mean for a system to be resilient?

System resiliency means that the system can automatically adjust to the external environment without any interruption in service. For us, that means if a processor is having trouble or goes down in one geographical location we can connect to the processor's alternative connection in another state. Further, if the processor's local telecommunication company has trouble with one of our processing centers, we can automatically route the traffic through our alternative data center with a different telecommunications provider.

Resilience also means that if hardware supporting a particular function experiences malfunctions, it can be fixed without an interruption in service. If operating systems or Shift4 software need to be upgraded, it can happen without interruption. It also means that if one of our Internet providers cannot provide connectivity to us, our system will switch to an alternative connection. What's even better is that it tells the system at your location not to bother with the problem provider, but to merely move to another.

A recent alert to our customers told you that you need to make sure that your firewalls have outbound rules that allow connectivity to spans of IP addresses. If you lock yourself down to only one IP address, when DOLLARS ON THE NET sends you an alternative path, you will not be able to take it. Effectively, this negates the resiliency of your own operation. Some folks believe they should lock things to a single IP because security and PCI require it. As member number one of the PCI council, we can assure you that this is not the case. PCI only requires that you know to whom you are connecting. (Note that we are talking about "outbound rules.")

Follow Shift4's prescribed procedures for installation and setup and you will enjoy payment processing with the best uptime in the industry.

Important Message from Shift4 Support

In our efforts to continue to provide world-class service, Shift4 is constantly enhancing and updating our offerings and infrastructure. We are in the process of bringing an additional state-of-the-art data center online, and in that process have, and will continue, to modify and add new front-end telecommunication connections. This will result in increased bandwidth, availability and redundancy – increasing processing speed and enhancing solution resiliency.

As these new connections come online, it is very important that merchants ensure their IP restrictions are configured in the manner prescribed by Shift4 during our installation process.

UTG requires no inbound Internet firewall rules whatsoever. However, good security practice is to limit outbound connectivity to the Internet. In order to correctly interact with Shift4 Corporation's Internet-based systems, and when creating outbound firewall rules, merchants must allow for a range of IP addresses which may be used by the UTG.

In the interest of security, the IP addresses are not published here, but they can be provided to clients by our Customer Support representatives. If you need assistance with this or any other issue, please contact us at 702.597.2480 (select option 2) or via e-mail at support@shift4.com.



Are You on LinkedIn?

Recently LinkedIn announced a number of changes to the way business information is displayed on their site. Most exciting of all the changes for us is the ability clients now have to add testimonials to your page and to your specific products. If you're a LinkedIn user and would like to recommend Shift4 or one of our products, you can find our page [here](#). We'll pick the best review submitted for each product and send its author a Shift4 care package.

Just For Fun: The Shift4 Cruiser gets an Extreme Makeover

Those of you who follow Shift4Corp on Facebook or Twitter are by now familiar with our Friday antics and the Shift4 Cruiser world tour. For those who aren't, each week our Shift4-branded Chevrolet Suburban makes an "appearance" at some famous locale around the globe. You can view the images on our Facebook page [here](#).

The Cruiser, loving called "the Barney-mobile" by many in the office (in homage to the purple dinosaur), has been a part of Shift4 for the last four years. It has served us well during that time, but the vinyl wrap that made it "Barney" was a little worse for wear after four years in the scorching Las Vegas sun.

For those who are curious, here's a few pictures of the re-wrapping process and of "Barney's" new look -- and of his new, as-of-yet unnamed, Silverado sidekick:

