



CATRINA HOPKINS

## A TOUGH DECISION: AUDITWERX, LLC. VS. COVID-19<sup>1</sup>

Stacy Martin, partner of Carr, Riggs, and Ingram, and CEO of Auditwerx, LLC (Auditwerx), had been closely monitoring the headlines regarding the COVID-19 virus (Coronavirus), a black swan event. Headlines that covered the virus painted a haunting story of how fast the virus spread world-wide. The first case of COVID-19 was reported in China in December 2019. The virus had been quickly declared as a pandemic in the United States by March 2020. With the latest headlines covering the pandemic, the United States government requested non-essential businesses to suspend operations, as the percentage of people becoming infected by the virus continued to soar. Due to this, Stacy had noticed a reduction in sales and fewer clients re-engaging with Auditwerx for services. The decrease in revenue and delayed collection of outstanding receivables made it increasingly difficult for Auditwerx to stay on budget.

As a valued partner of Auditwerx for 7 years, in October 2019, Ms. Martin was appointed to the role of Chief Executive Officer (CEO). As CEO, Ms. Martin was primarily responsible for the day-to-day management, supervision, and quality assurance of Auditwerx. Before the pandemic, Ms. Martin had been working to increase the size of the Auditwerx team and had been ramping up her onboarding initiatives. With new recruits on payroll, Ms. Martin took pride in the focus given to the development and training of the new team members, so that Auditwerx had continued success.

As states and cities declared a “state of emergency”, “safe at home” procedures had been put in place. Anyone not considered an essential worker was directed to not leave home. Companies that did not normally have employees work from home scrambled to change processes, which allowed employees to work remotely and kept services operational. Many companies had found that they had a lack of proper protocols in place to test and capture controls during the remote process, which made it so that they were not able to show that controls were operating as intended. “Auditwerx had strived to provide guidance and reminders for clients to concentrate on controls regardless of what is going on in the economy” (Stacy Martin, 2020).

To help maintain the budget, Ms. Martin and the Auditwerx partners had taken a 20% to 30% salary decrease. This unfortunately was not enough leverage to compensate for the decrease in business. Ms. Martin was faced with figuring out how else she could save the budget. Could pricing be reduced on services during the COVID-19 pandemic? Or maybe provided a new type of service? Had staff exhausted re-engaging past clients? Could existing clients be put on a payment plan to help them get through the pandemic? As Stacy Martin mulled over the options, she thought to herself, this was not going to be an easy decision to make.

---

<sup>1</sup> Copyright © 2021, *Catrina Hopkins*. This case was prepared for the purpose of class discussion, and not to illustrate the effective or ineffective handling of an administrative situation. Names and some information have been disguised. This case is published under a Creative Commons BY-NC license. Permission is granted to copy and distribute this case for non-commercial purposes, in both printed and electronic formats.

## **Auditwerx, LLC, a Division of Carr, Riggs, and Ingram Capital Group**

Carr, Riggs and Ingram Capital Group (CRI) had been a top provider of various accounting services since 1997. By 2014, CRI had established the firm as one of the largest accounting firms nationally, with forty-two offices located throughout Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Tennessee, and Texas (Advisor, 2014). Ranked as the 23<sup>rd</sup> largest accounting firm in the United States in 2014, CRI continued to expand the services they offered and acquired the Florida based firm Auditwerx (Carr, 2014). Auditwerx had proven their success at providing auditor assurance engagement services for service companies so clientele throughout the United States (US) and internationally could meet regulatory and compliance control services (Advisor, 2014). This success made Auditwerx the perfect addition to the CRI family. As a division of CRI, it was decided that Auditwerx would continue being successful by providing service organizations with system and organizational control reports (SOC Reports). Leveraging their forward momentum, CRI contracted 100,000+ clients, had 300+ partners, and employed 1,900+ professionals (See Exhibit 1) ("CRI Firm Facts," 2019). The continued growth and forward momentum helped CRI improve their ranking among the other top CPA firms. According to Accounting Today, CRI ranked 20<sup>th</sup> out of the top one hundred accounting firms in 2019 (See Exhibit 2) ("Accounting Today," 2019).

### **Auditwerx, LLC**

Before the black swan event of COVID-19, Auditwerx had operated as a division of CRI for six years. Under the umbrella of their parent company, Auditwerx had been able to continue to offer their clients the attestation services that they had become accustomed to. Combining the resources, skills and experience that both CRI and Auditwerx possessed, it was possible for Auditwerx to offer the accessibility and personalized attention that clients expected from a boutique firm and allowed Auditwerx to continually improve the already great quality of service they provided ("Auditwerx," 2019a). Offering clientele expertise in corporate governance as well as operational and information technology (IT) strategies in order to meet the standards set for system and organizational controls, Stacy Martin and the other three partners at Auditwerx, had all strived to build on the expertise and skillsets at Auditwerx. By 2019, Auditwerx proudly boasted being able to provide expertise equivalent to one hundred fifty combined years in eleven field areas (See Exhibit 3) ("Auditwerx," 2020a) across a multitude of industries (See Exhibit 4) ("Auditwerx," 2020b). During 2019, Auditwerx had clients in thirty-seven states and in five countries globally. Approximately sixty-eight percent of their business was derived from producing SOC 2 reports, thirty-two percent for SOC 1 reports and all other reports equated to less than one percent (See Exhibit 5) ("Auditwerx," 2020c).

## **System and Organizational Control (SOC) Reports**

The American Institute of CPAs (AICPA) developed a cybersecurity risk management reporting framework which provided a way to communicate pertinent information regarding Cybersecurity risk - management efforts (Halterman, 2018). Once an organization obtained a SOC report, the report could be utilized to educate the organization's stakeholders about pertinent systems or processes and controls they had in place to detect, prevent and respond to breaches (Halterman, 2018). Originally, operating effectiveness reports were governed by the American Institute of Certified Public Accountants' (AICPA) Statement of Standards (SAS) No. 70. As the evolving risk for a broader audience grew, the comprehensive Statement of Standards on Audit Engagements (SSAE) 16, used as a means to define how companies report on compliance controls through SOC reports, was developed and on June 15, 2011 the three Service Organization Control (SOC) reports became effective (Auditors, 2015). On May 1, 2017, a new auditing standard, SSAE 18, took the place of the SSAE 16 (Isberto, 2019) and the name SOC changed from Service Organization Control to System and Organization Controls.

SOC audits could be performed by any Certified Public Accountant (CPA) provided that the CPA was compliant with the most current updates for all three types of SOC audits that were established by the AICPA. Additionally, it was a requirement that the auditor possess the technical expertise, training, and certification to perform SOC audits, otherwise known as engagements (See Exhibit 6) (Isberto, 2019). Under the new SSAE 18 guidelines, many vendors, such as nonprofit organizations, government entities, insurance agencies, manufacturing, and trucking organizations, were able to acquire SOC reports.

SOC reports, over time, had evolved due to changing local and international standards and the needs of organizations:

- **SOC Readiness** – The auditor investigated organizational procedures and controls to ensure companies had the necessary documentation, controls and processes in place before moving forward with an engagement period for a SOC Report.
- **SOC 1** – Used by an organization to gain an independent third-party opinion of the internal controls that could affect the financial reporting of entities that utilized the organizations services.
- **SOC 2** – A comprehensive report that provided detailed information and assurance that the organization had controls in place specifically relevant to the trust services of security, availability, integrity, confidentiality and privacy for systems used to process the data as well as the information being processed.
- **SOC 2+** - provided independent third-party opinion on the design, suitability, and operating effectiveness of controls that were relevant in meeting other compliance frameworks such as HIIPPA, HITRUST, ISO 27001/27002, NIST SP 800-53 or 800-171, CMMC, or FCS.

Each of the SOC 1 and SOC 2 reports featured the following four sections (Isberto, 2019):

- Management's Assertion
- Description of Services
- Auditor's Opinion
- Results of Testing

Auditwerx offered many other different types of attestation services in addition to SOC Readiness, SOC 1 and SOC 2 reports ("Auditwerx," 2020d):

- **SOC 3** – For organizations that did not want to expose the confidential information that was contained in a typical SOC 2 report, but the organization needed to highlight their internal controls that pertained to security and data privacy over their environment.
- **Cybersecurity** – With the new SSAE 18 standards and the name change for SOC reports to System and Organization Control, SOC for Cybersecurity was added to the suite of SOC reports. This report provided a risk management framework that gave organizations a way to communicate relevant and useful details about the effectiveness of their cybersecurity risk management program. Essentially, SOC for Cybersecurity provided a structured approach to implementing effective, measurable, and risk mitigating security controls.
- **Canadian CSAE** – This report was based on Canadian assurance standards, CSAE 3416. The Canadian CSAE was comparable to a typical SOC 1 that was framed around financials but is specific to Canadian standards.
- **International ISAE** – Based on the guidelines established by ISAE 3402, this SOC report incorporated both US and international standards and was ideal for companies that operated outside a single country's borders.
- **Health Insurance Portability and Accountability Act (HIPAA) Assessment** – This standard was created for the security of electronic protected health information (ePHI). It evaluated

security management, assigned security responsibility, workforce security, information access, security awareness and training, security incidents, contingency plans for emergencies and disasters, evaluation of security effectiveness, and business associate contracts with the business partners of the hospital ("Auditwerx," 2019b).

- **PCI Services** – Provides organizations the ability to demonstrate that they were committed to payment card and PCI compliance standards set by the Payment Card Industry (PCI) Data Security Standard (DSS) for storing, processing, or transmitting cardholder data.

## **A Black Swan Event: COVID-19 (Coronavirus)**

COVID-19 took the world by surprise. China was the first country to report the shocking effects of coronavirus in December of 2019. The primary presenting symptom was a dry pneumonia that affected the patient's lungs. With labored breathing and low oxygen saturation, many of the patients with the worst cases were hospitalized and placed on ventilators, only to die a short time later. It was identified that patients with immune deficiencies or the elderly had a higher risk of infection as opposed to the rest of the general populace. As studies were conducted on patients that were infected more information was released regarding new symptoms for COVID-19 that were very similar to the common cold or flu (See Exhibit 7) (Unknown, 2020). Shortly after China announced the existence of Coronavirus in Wuhan, many other countries began reporting that they had patients with similar symptoms related to COVID-19. Italy was one of the first countries to see the devastating effects of the virus. With a large portion of Italy's population being elderly, the country's resources were quickly overwhelmed with infected patients. As their numbers continued to increase, Italy ordered everyone to self-quarantine by staying at home. Social media outlets quickly became overwhelmed with heartfelt stories from the good people of Italy collectively singing from their balconies as more devastating pleas emerged. People were dying at home only to have funeral homes refuse to come get the bodies. One huge catalyst that helped the cries of the Italian people to be heard, a famous Italian actor, Lucas Franzese, posted a video of himself at home, his deceased sister laid in the bed behind him, as he cried, begging for help for the removal of her body ("Coronavirus: Italian Actor Forced to Stay in Quarantine with Sister's Dead Body," 2020).

As headlines from around the world became an everyday reminder of the severity of COVID-19, the world was stunned by how aggressive this black swan event was. They watched helplessly as Coronavirus spread through their communities. In the US, President Trump took what would be the first of many aggressive actions by blocking all travel to and from China. By closing the borders from the first infected area, he hoped he could prevent the virus from becoming prevalent in the US. But as world-wide cases of COVID-19 multiplied, it was apparent that the US borders would have to be closed completely. President Trump not only closed the borders but ceased travel within the US as much as possible. It was apparent that the US would not go unscathed by Coronavirus as multiple states reported their first cases on record. Hospitals within areas that reported a high number of Coronavirus cases were quickly overwhelmed. Medical resources became scarce. States were pleading for additional personal protection equipment (PPE) such as masks and gowns. Increasingly, as people needed to be put on ventilators, the various states realized as they pulled normally unused devices out of storage, that they were short on these lifesaving machines as well. Within weeks of the first case of COVID-19 reported in the US, President Trump declared a state of emergency and he implored manufacturers to switch to war-time efforts by helping to produce items that were in demand, such as ventilators, hand sanitizer, and medically safe masks (Buchman, 2020).

As the number of reported cases within the US continued to rise and the death toll spiked to unprecedented numbers (See Exhibit 8), President Trump met with Governors from each of the states and rallied for them to embark on "safe at home" orders for their communities. "Safe at home" was a means of creating a self-quarantine requirement for all Americans that were not deemed essential workers (See

Exhibit 9) (Casiano, 2020). President Trump also requested that all non-essential companies transition toward having operations performed remotely, so that their employees would be able to practice the safe at home measures that were implemented. For the businesses that were not able to work remotely, they were asked to temporarily close their doors for services. Millions of Americans suddenly found themselves unemployed as the death tolls in the US soared (Romm, 2020). In New York, as the governor demanded more medical supplies and ways to increase medical facilities, multiple refrigerated trucks were parked outside of the hospitals to house the bodies of the many lives lost to the horrendous virus (See Exhibit 10) (Press, 2020).

## Challenge

Stacy Martin stared out her window from her office at the Tampa Bay. The water was so serene to look at and Ms. Martin felt a calmness watching the rolling waves. The view provided a nice reprieve from the headlines regarding COVID-19 that raced across her monitors.

Before COVID-19, Ms. Martin and her team had worked hard to meet the growing demand for services. When Ms. Martin was appointed as CEO in October of 2019, she promptly started looking for new talent to become members of the Auditwerx family. Ms. Martin's campaign to ramp up onboarding had been successful. In February of 2020, Ms. Martin had training classes set up for two new groups of employees that joined the company at various levels and had another training class scheduled to begin in March of 2020.

Ms. Martin turned around and sat back down at her desk. The three monitors that monopolized the workspace on her desk, all reflected news reports that concerned the effect Coronavirus had inflicted on people and businesses, both internationally and within the US. Facing the COVID-19 pandemic was a situation that Ms. Martin did not expect but Ms. Martin was determined to lead Auditwerx through the black swan event while keeping the business as successful as possible. Ms. Martin skimmed through a few of the headlines. It was devastating to see that so many people were infected or had died. It seemed that every hour, news stations and papers reported the distressing newest statistics regarding the number of infected or of casualties posted by the World Health Organization (WHO) and the Center for Disease Control (CDC). As the world proved to be paralyzed by COVID-19, reported cases in the US had continued to climb steadily. President Trump had just conducted another of his daily news briefs designed to update Americans about what the government was doing to stop the further spread of the Coronavirus and to provide direction as to what the American people could do to help. Ms. Martin looked out her office door at the various team members seated at their desks. As Ms. Martin observed the teams continued effort to fulfill engagements,

Ms. Martin appreciated the dedication her teams showed as the world seemed to fall apart around them. From the conversations that she had been a part of, everyone at Auditwerx knew that things would get worse before they got better. Cases of people infected with COVID-19 continued to be an emergent issue in the US. President Trump had instructed all non-essential businesses to send employees home to work remotely. Even though a CPA firm was still considered to be among the essentially needed services, both CRI and Auditwerx took the safety of their employees seriously and decided to close offices located across the US and have everyone work from home.

The Outlook program on Ms. Martin's computer signaled that it was time for her meeting with the other Auditwerx partners regarding the immediate future of Auditwerx due to COVID-19. Ms. Martin grabbed her laptop and headed to the board room. They had to devise a plan that would support a workforce that was one hundred percent remote. Auditwerx had always had a few remote employees, but the new fully remote work environment presented new complexities for Ms. Martin as she would have to monitor the entire staff's productivity from afar and evaluate the effective progression for each engagement. Ms.

Martin also had new staff members that needed to find ways of coping with distance learning as they continued to understand their role with Auditwerx. Seasoned staff members that had never worked remotely had to learn how to stay motivated in a remote environment.

Two days after her meeting with the other partners at Auditwerx, Ms. Martin began to implement the process of having everyone work from home. Following the meeting, Ms. Martin polled the Auditwerx staff. It was critical for Ms. Martin to know if everyone had all the equipment they needed at home to remain productive. Once Ms. Martin knew that everyone was properly equipped, she announced that going forward, everyone would be working remotely. It truly was bittersweet for Ms. Martin to send everyone home. That very afternoon, Ms. Martin had previously arranged for everyone at Auditwerx to have a fun get together afterwork at a local restaurant. Now, instead, she was sending everybody home to practice social distancing, a far cry from her original plans. As everyone packed up their belongings, the chatter in the office was centered around the impact COVID-19 had on society. As the last person left for the day, Ms. Martin turned off the lights, locked the doors to the office and headed to her car, unsure of when she would physically see her team again.

Everyone that could, including the Auditwerx team, had practiced “safe at home” measures for approximately a month. Companies that normally did not have employees work from home scrambled to change their processes, allowing employees to work remotely and to keep their businesses operational. Unfortunately, many companies were not able to establish operations remotely. Across the US, companies were forced to close their doors. Hotels and other service industry organizations were among some of the industries that had to cease services. Restaurants that were able to offer curbside pickup or delivery, operated with skeleton crews and realized only a fraction of the revenue to which they were accustomed. As stores struggled to maintain stock levels of high demand items like toilet paper, hand sanitizer and disinfecting wipes, trucking companies strived to deliver shipments as quick as possible.

Ms. Martin clicked on the proposed budget for the year. For the previous year, Auditwerx had seen an increase in contracted engagements. Due to this, Ms. Martin had aggressively forecasted a forward-thinking budget. But COVID-19 proved to be relentless. Ms. Martin had begun seeing a reduction in sales and increase in the number of clients not re-engaging with Auditwerx for services. The decrease in revenue and delayed collection of outstanding receivables was making it increasingly difficult for Auditwerx to stay on budget. “Going into the pandemic, we were already trailing behind Revenue at 80% of budget. Operating Expenses were at 11% under budget, however, salaries are 63% of expenses.”(Stacy Martin, 2020)

CRI and Auditwerx had researched how other firms contended with the loss of revenue. The Managing Partner of CRI contacted other CPA firms and it seemed to be the unanimous consensus that firms had already leveraged their workforce by laying off some of their team members in order to counterbalance the loss of income.

The curve of reported cases for COVID-19 still had not begun to flatten in the US. There were no indications on when the pandemic would end (See Exhibit 11). The stock market closed early on multiple days due to volatility. The financial toll that other organizations experienced due to COVID-19 was reflected in the communications that Stacy Martin received. Ms. Martin had been working with clients to ensure payments continued to come in on time, but clients had begun to ask for extensions. “Auditwerx has strived to provide guidance and reminders for clients to concentrate on controls regardless of what is going on in the economy” (Stacy Martin, 2020).

On the Auditwerx blog, several articles inspired by COVID-19 were published. The sales team had been tasked to work on re-engaging clients and Stacy Martin as well as the other partners voluntarily took a

twenty to thirty percent reduction in pay. None of these measures seemed to be enough to counterbalance the missing receivables as the budget continued to miss monthly goals.

## Recommendation

As CEO of Auditwerx, Stacy Martin had to find a way to save the budget. As COVID-19 continued to wreak havoc across the nation. Ms. Martin found herself looking for options that could help her keep the budget on target. There were many alternatives:

- Do nothing: This option would not change anything
  - There was always the choice of allowing the scenario to play out naturally by not changing how Auditwerx was conducting business and hope for the best. Choosing the path of “do nothing” could go one of two ways, depending on how the scenario ended after the world heals from COVID-19. Auditwerx could revel in the success or pick up the pieces in the aftermath. Auditwerx was well established and clients that might not be re-engaging might return, owning the knowledge that COVID-19 was not an excuse for the lack of a SOC report for their organization. If Stacy Martin decided to do nothing, would she be able to support her staff and operations until business normalized again?
- Default: Decrease size of workforce—the common choice amongst other firms
  - Right before COVID-19 Ms. Martin had invested an abundance of resources in growing the Auditwerx workforce. Auditwerx had seen a steady flow of engagements prior to Coronavirus. Companies that did not normally have employees work from home scrambled to change their processes, allowing employees to work remotely and to keep services operational. The operational changes that companies were experiencing could have a delayed impact on the testing provided by Auditwerx. Many companies could find that they had a lack of proper protocols in place to test and capture controls during the remote process, making them unable to show that their controls were operating as intended. Once the world begins to recover from COVID-19, Ms. Martin knew that clients were going to be even more reliant on the staff at Auditwerx to help them pave the way through their compliance efforts. If Ms. Martin decided to downsize the workforce at Auditwerx, she would later have to contend with trying to recoup from the loss of professionally seasoned talent.
- Offer discounted services: This would help maintain clients struggling, but would it affect the profit margin in a positive or negative way?
  - Discounting services was always an option. Thought needed be put into which services to discount and how much of a reduction would be needed in order to save the budget. Many clients were already asking for a discount. As no company was the same, neither were contracts. Would it be wise to provide clients a standard percentage off services across the board? Should this just be offered to existing clients? Or should it be offered to clients of a specific size? Leveraging prices had been practiced with industries throughout history in order to ensure sales continued to drive revenue.
- Decrease workforce pay: This would lower operational expenses while keeping services fully functional.
  - Decreasing the pay for the employees at Auditwerx could help with the budgetary concerns, but for how long? The partners had already taken pay reductions of twenty to

thirty percent. Unfortunately, that wasn't sufficient to keep Auditwerx on budget. By forcing a pay reduction on employees, morale of the staff could take a blow, perhaps leading to a decrease in productivity. Furthermore, a decrease in production could ultimately have a negative effect on the overall budget. With staff feeling the stress of not having left their homes for months and suffering through the morbid daily headlines, Stacy Martin understood that she had to tread carefully when it comes to the staff's morale.

- Other options that might not have been considered
  - What other options were available? Ms. Martin understood that the recommendations considered might not be the best choice and that other ideas could exist. Auditwerx needed to remain productive, but on budget. Stacy Martin thought about contacting the local college to see if she could provide other ideas for how she could contend with the failing budget. Surely this scenario could be a good case study for classes.

## References

- Accounting Today. (2019). *The 2019 Top 100 Firms*. Retrieved from <https://www.accountingtoday.com/data/top-accounting-firms>
- Advisor, C. P. (2014). Firm Strengthens Services with Acquisition of SOC Audit Practice. Retrieved from <https://www.cpapracticeadvisor.com/firm-management/news/11443373/firm-strengthens-services-with-acquisition-of-soc-audit-practice>
- Auditors, L. C. S. (2015). SOC Reporting History and Fundamentals. Retrieved from <https://linfordco.com/blog/soc-reporting-history-and-fundamentals/>
- Auditwerx. (2019a). *About Us*. Retrieved from <https://www.auditwerx.com/about-us>
- Auditwerx. (2019b). *HIPAA Assessment*. Retrieved from <https://www.auditwerx.com/hipaa>
- Auditwerx. (2020a). *Our Expertise*. Retrieved from <https://www.auditwerx.com/our-expertise>
- Auditwerx. (2020b). *Industries*. Retrieved from <https://www.auditwerx.com/industries>
- Auditwerx. (2020c). In (pp. Statistics for Auditwerx). Auditwerx.com.
- Auditwerx. (2020d). *SOC Suite of Services*. Retrieved from <https://www.auditwerx.com/socreporting>
- Buchman, B. (2020). Trump Orders Companies to Ramp Up Production of Ventilators, Masks. Retrieved from <https://www.courthousenews.com/trump-orders-companies-to-ramp-up-production-of-ventilators-masks/>
- Carr, R., and Ingram (2014). Press Release. Retrieved from <https://www.cricpa.com/it-audit-firm-auditwerx-acquired-by-cri/>
- Casiano, L. (2020). Coronavirus: Who Are Considered 'Essential' Workers? [Press release]. Retrieved from <https://www.foxnews.com/us/coronavirus-who-are-considered-essential-workers>
- CRI Firm Facts. (2019). In (pp. Statistical poster of CRI for 2019). Internet: Carr, Riggs, & Ingarm Capital Group.
- Halterman, F. B. C. K. (2018). *SOC for Cybersecurity: A backgrounder*. Retrieved from AICPA Website: <https://www.aicpa.org/content/dam/aicpa/interestareas/frc/assuranceadvisoryservices/downloadabledocuments/soc-for-cybersecurity-backgrounder.pdf>
- Isberto, M. (2019). Benefits of SSAE 18 and how the New Standard Affects Data Centers. Retrieved from <https://www.colocationamerica.com/blog/ssae-18-changes>
- Press, A. (2020). FEMA is sending 85 refrigerated trucks to New York City to serve as temporary morgues. *MarketWatch*. Retrieved from <https://www.marketwatch.com/story/fema-is-sending-85-refrigerated-trucks-to-new-york-city-to-serve-as-temporary-morgues-2020-04-01>

Romm, T. (2020). Americans have filed more than 40 million jobless claims in the past 10 weeks, as another 2.1 million filed for benefits last week. Retrieved from <https://www.washingtonpost.com/business/2020/05/28/unemployment-claims-coronavirus/>

Stacy Martin, C. (2020) *COVID-19 Interview with Stacy Martin, CEO Auditwerx/Interviewer: C. Hopkins.*

Unknown. (2020). Symptoms of Coronavirus (COVID-19). In (pp. <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>). Center for Disease Control Website.

YouTube. (2020). [Mobile application software]. Retrieved from <https://www.youtube.com/watch?v=KEQ3Bvuvf4>

## Acknowledgements

This case study is based upon work supported by Auditwerx, LLC. A special thank you to CEO, Stacy Martin.

## Biography



**Catrina Hopkins** is currently a Doctor of Business Administration student at the University of South Florida and obtained her MIS in Cybersecurity at the Florida Institute of Technology. As an attestation professional at Auditwerx, LLC. Catrina helps companies navigate standards set for system and organizational controls through readiness or SOC reports. Before Auditwerx, LLC., Catrina has 20+ years in management. Catrina's long-term endeavor is to be in academia.



### **Protagonist: Chief Executive Officer, Stacy Martin**

After earning her master's degree in accounting from the University of South Florida, Ms. Martin had built up an impressive professional portfolio. For approximately 10y years, Ms. Martin worked as a Certified Public Accountant (CPA) at a large competing accounting firm. During her time at that firm, Ms. Martin became a member of the Florida Institute of Certified Public Accountants (FICPA). After becoming a Certified Information Systems Auditor (CISA), Ms. Martin became a partner at Auditwerx. Ms. Martin mentored as a member of the American Institute of Certified Public Accountants (AICPA), graduated from Leadership Tampa Bay, and served on the board for the Accounting and Financial Women's Alliance (AFWA) Tampa chapter. In October 2019, Ms. Martin was announced as the new CEO of Auditwerx

## Exhibit 1: At a Glance: Carr, Riggs, & Ingram



# CRI FIRM FACTS

**FOUNDED IN 1997** • **10 STATES**  • **25+ MARKETS**

Stretching from New Mexico to North Carolina, Carr, Riggs & Ingram CPAs and Advisors (CRI) is a top 25 nationally ranked full-service accounting and advisory firm offering innovative tax, accounting, audit, consulting, and advisory services to more than 100,000 clients in the U.S., Canada, Mexico, Puerto Rico, and overseas military installations.

---



**1900+**  
PROFESSIONALS



**300+**  
PARTNERS

---



**TOP 25 CPA FIRM**  
(as ranked by Accounting Today)

---

**100,000+**  
CLIENTS





**20+ YEARS**  
OF CONSISTENT GROWTH  
SINCE FORMATION

---

**CRI FIRM VALUES:**

CLIENT SERVICE.  
RESPECT.  
INTEGRITY.



**SERVICES**

- Accounting & Auditing
- Advisory
- Business Support & Transactions
- Business Tax
- Employee Benefit Plans
- Governance, Risk & Assurance
- Individual Tax & Planning
- IT Audits & Assurance

**INDUSTRY EXPERTISE**

- Captive Insurance
- Construction
- Financial Institutions
- Governments
- Healthcare
- Institutional Real Estate
- Insurance
- Manufacturing & Distribution
- Nonprofits

**CRI FAMILY OF COMPANIES**

-  Auditwerx
-  CRI Advanced Analytics
-  CRI Capital Advisors
-  CRI Solutions Group
-  CRI TPA Services
-  Level Four Advisory Services
-  Paywerx
-  Preferred Legacy Trust

CRI is a proud member of Prime Global, an international association of independent accounting firms.

 [CRIcpa.com](https://www.cricpa.com)

Source: (2020) Carr, Riggs & Ingram Capital Group. CRI <https://www.cricpa.com/wp-content/uploads/2019/06/CRI-Firm-Facts.pdf>

Exhibit 2: 2019 Top 100 CPA Firms

THE 2019 **accountingTODAY** TOP 100 FIRMS

RANK	19	18	Firm	Headquarters	Chief executive	Year end	REVENUE		Offices	Partners	PERSONNEL				FEE SPLIT (in percent)				
							\$ mn.	% chg.			% chg.	Professionals	% chg.	Total emps.	% chg.	A&A	Tax	MAS	Other
1	1		Deloitte <sup>5</sup>	New York City	Cathy Engelbert	June	19,897.00	7.26	120	5,492	2.16	73,855	12.18	94,637	11.48	32	17	51	0
2	2		PwC <sup>§1</sup>	New York City	Tim Ryan	June	15,400.00	5.26	94	3,500	5.20	NA	NA	54,000	NA	41	25	34	0
3	3		Ernst & Young <sup>§</sup>	New York City	Kelly Grier	June	14,000.00	7.69	82	3,500	6.06	33,600	5.66	45,300	4.38	31	28	32	9
4	4		KPMG <sup>§2</sup>	New York City	Lynne Doughtie	Sept	9,460.00	5.58	101	2,213	1.61	26,447	2.00	35,736	2.00	31	28	41	0
5	5		RSM US <sup>3</sup>	Chicago	Joe Adams	April	2,141.72	8.23	85	825	3.25	7,252	2.44	9,670	1.15	37	36	26	1
6	6		Grant Thornton <sup>4</sup>	Chicago	J. Michael McGuire	Dec	1,865.22	6.53	58	623	1.30	6,616	3.13	8,556	2.60	33	26	41	0
7	7		BDO USA	Chicago	Wayne Berson	June	1,470.00	4.26	61	576	2.31	4,958	2.40	6,592	2.03	49	34	17	0
8	8		CLA <sup>5</sup>	NA	Denny Schleper	Dec	954.00	10.29	110	785	6.80	4,056	-9.32	5,521	0.82	34	34	5	27
9	9		Crowe	Chicago	Jim Powers	Dec	923.90	9.04	34	323	2.87	3,402	11.87	4,510	11.28	32	27	41	0
10	10		CBIZ & MHM <sup>6</sup>	Cleveland	Chris Spurio and Andy Burczyk	Dec	784.91	9.23	91	440	3.77	2,470	2.4	3,876	1.28	29	27	44	0
11	12		Moss Adams	Seattle	Chris Schmidt	Dec	691.00	19.76	27	341	6.56	2,066	7.89	3,076	6.95	42	37	21	0
12	11		CohnReznick	New York City	Frank Longobardi	Jan	645.00	4.71	25	258	-4.80	1,908	0.85	2,659	0.45	53	29	8	10
13	13		BKD	Springfield, Mo.	Theodore Dickman	May	594.62	5.36	36	279	2.57	1,824	-1.03	2,611	-0.76	49	30	21	0
14	14		Baker Tilly	Chicago	Alan Whitman	May	578.40	5.82	27	282	-3.42	2,095	2.50	2,901	1.93	34	30	32	4
15	16		Marcum	New York City	Jeffrey Weiner	Dec	549.75	17.09	26	239	13.81	1,219	30.10	1,784	27.16	42	35	14	9
16	15		Plante Moran	Southfield, Mich.	James Proppe	June	542.58	4.17	22	274	2.24	1,796	5.34	2,495	4.26	37	26	36	1
17	17		Dixon Hughes Goodman	Charlotte, N.C.	Matt Snow	May	430.00	6.44	29	235	-1.67	1,385	4.37	2,001	2.62	31	30	39	0
18	18		EisnerAmper	New York City	Charles Weinstein	Jan	360.70	2.30	17	170	4.94	979	5.61	1,401	4.55	47	43	10	0
19	20		Wipfli	Milwaukee	Rick Dreher	May	323.60	14.63	48	253	16.59	1,229	3.98	1,819	7.70	29	32	32	7
20	19		Carr, Riggs & Ingram	Enterprise, Ala.	William Carr	Sept	305.97	6.93	30	296	12.98	1,346	6.40	1,975	9.06	50	44	6	0
21	21		Eide Bailly	Fargo, N.D.	Dave Stende	April	299.20	11.06	32	260	8.33	1,386	12.77	2,044	11.03	40	42	9	9
22	23		Citrin Coopeman & Co.	New York City	Joel Cooperman	Dec	270.00	11.57	10	220	5.77	675	14.99	1,045	12.37	42	45	8	5
23	22		Armanino	San Ramon, Calif.	Matt Armanino	Dec	268.00	8.06	11	109	36.25	900	26.94	1,165	24.60	22	36	36	6
24	25		Withum	Princeton, N.J.	William Hagaman	June	206.20	17.55	12	133	17.70	720	35.85	1,031	28.07	43	43	10	4
25	24		Mazars USA	New York City	Victor Wahba	Aug	205.00	8.47	9	103	-11.97	601	5.25	857	2.27	39	36	25	0

**Key and notes:** Last year's rankings have been revised based on updated 2017 revenue provided by firms. Some firms' rankings will therefore differ from those reported last year.  
 \* Firm estimate § Gross revenue P Reported equity and non-equity partners as a single combined figure. NC No change NA Not available or not applicable NR Not ranked  
 1 PwC's revenue figures and partner figures are Accounting Today estimates based on firm reports; all other figures are firm-supplied. 2017 total employee figure includes North America and Caribbean; 2018 number reflects PwC US only. 2 KPMG reported business offices, not every physical location. It also reported its fee split as a rounded percentage (given here) and exact dollar amounts (given in the Databank on page 8.) 3 RSM reported its fee split as a rounded percentage (given here) and exact dollar amounts (given in the Databank on page 8.) 4 Total personnel includes professionals in Grant Thornton's India Service Center in Bangalore. 5 CLA does not have a headquarters location — there is no single place from which the firm is controlled or directed. 6 Office figures are for CBIZ; MHM has 27 offices.

MUMA CASE REVIEW

RANK		Firm	Headquarters	Chief executive	Year end	REVENUE		Offices	PERSONNEL					FEE SPLIT (in percent)				
19	18					\$ mn.	% chg.		Partners	% chg.	Professionals	% chg.	Total emps.	% chg.	A&A	Tax	MAS	Other
51	53	Prager Metis CPAs	New York City	David Neste and Glenn Friedman	Jan	97.03	17.61	11	74	NA	325	21.72	504	23.83	29	35	36	0
52	59	Cohen & Co.	Cleveland	Randall Myeroff	Sept	96.43	31.41	12	69	16.95	407	32.14	556	29.91	44	41	4	11
53	50	Aprio	Atlanta	Richard Kopelman	Dec	96.14	12.93	5	61	15.09	323	4.19	459	8.00	29	53	13	5
54	51	Frazier & Deeter	Atlanta	Seth McDaniel	Dec	96.01	14.82	9	46	9.52	230	7.48	318	7.43	35	35	0	30
55	56	Katz, Sapper & Miller	Indianapolis	David Resnick	Dec	94.67	19.32	3	42	10.53	342	7.55	445	6.21	23	46	23	8
56	54	Hill, Barth & King	Canfield, Ohio	Chris Allegretti	Aug	94.00	17.50	16	83	15.28	303	8.21	484	9.50	14	38	11	37
57	52	Horne	Ridgeland, Miss.	Joey Havens	Dec	90.89	10.14	13	39	NC	479	15.70	571	1.78	31	11	45	13
58	55	BlumShapiro	West Hartford, Conn.	Joseph Kask	Dec	83.40	5.04	7	62	-4.62	307	1.32	445	-2.41	54	32	2	12
59	57	Blue & Co.	Carmel, Ind.	Brad Shaw	Dec	83.24	5.67	10	50	-1.96	346	2.06	465	1.09	28	26	42	4
60	58	Schneider Downs	Pittsburgh	Timothy Hammer and Steven Thompson	Dec	82.90	8.65	2	45	7.14	473	27.15	512	14.54	42	34	24	0
61	62	RKL <sup>9</sup>	NA	Edward Monborne	Dec	82.51	21.46	9	49	16.67	326	15.19	447	22.80	31	26	10	33
62	60	Honkamp Krueger & Co.	Dubuque, Iowa	Greg Burbach	Dec	81.20	14.53	8	51	13.33	222	1.37	475	5.56	14	19	12	55
63	61	Doeren Mayhew	Troy, Mich.	Chad Anschuetz	Sept	74.83	7.65	5	58	-6.45	208	4.00	324	NC	46	31	11	12
64	65	Berkowitz Pollack Brant	Miami	Joseph Saka	Dec	72.40	8.38	5	14	-6.67	181	-5.24	260	4.00	15	48	7	30
65	72	BerryDunn	Portland, Maine	John Chandler	June	70.46	26.48	6	37	NC	274	29.86	354	23.78	39	12	45	4
66	66	Kaufman Rossin	Miami	Blain Heckaman	May	70.10	8.35	4	53	20.45	252	7.69	375	8.38	38	36	10	16
67	67	K-Coe Isom	Loveland, Colo.	Jeff Wald	March	66.52	3.05	23	52	-3.70	230	3.60	355	-9.67	27	43	30	0
68	70	SVA CPAs	Madison, Wis.	Carl Schultz	May	65.82	15.78	5	43	2.38	155	5.44	285	2.15	15	19	12	54
69	68	Grassi & Co.	New York City	Louis Grassi	Dec	65.00	5.01	5	30	-9.09	182	-9.00	269	-7.24	48	38	9	5
70	63	Clark, Schaefer, Hackett & Co.	Cincinnati	Kerry Roe	June	64.24	-5.28	6	42	10.53	289	NC	405	1.76	50	40	7	3
71	75	Montgomery Coscia Greilich <sup>10</sup>	Plano, Texas	Gary Boyd	Dec	60.49	11.96	3	29	7.41	230	1.32	290	2.11	29	39	27	5
72	80	SingerLewak	Los Angeles	Jim Pitrat	Oct	60.03	12.16	10	43	2.38	225	13.07	305	10.51	40	41	7	12
73	84	Schellman & Co.	Tampa, Fla.	Chris Schellman	Dec	58.57	20.24	1	14	NC	151	19.84	192	18.52	100	0	0	0
74	78	Skoda Minotti	Cleveland	Gregory Skoda	Dec	58.55	9.11	4	41	7.89	185	-3.65	288	-1.03	31	25	6	38
75	79	MGO	Los Angeles	Kevin O'Connell	Dec	58.50	9.14	12	34	9.68	277	25.34	351	22.30	50	13	9	28

**Key and notes:** Last year's rankings have been revised based on updated 2017 revenue provided by firms. Some firms' rankings will therefore differ from those reported last year.  
\* Firm estimate § Gross revenue P Reported equity and non-equity partners as a single combined figure. NC No change NA Not available or not applicable NR Not ranked  
9 RKL does not have an official headquarters location. 10 Announced plans to merge into Baker Tilly in June 2019.

RANK				REVENUE			PERSONNEL					FEE SPLIT (in percent)						
19	18	Firm	Headquarters	Chief executive	Year end	\$ mn.	% chg.	Offices	Partners	% chg.	Professionals	% chg.	Total emps.	% chg.	A&A	Tax	MAS	Other
76	76	MCM CPAs	Louisville, Ky.	Diane Medley	Dec	57.07	5.86	5	50	11.11	260	2.36	384	8.17	39	41	6	14
77	74	Seiler	Redwood City, Calif.	George Marinos	Dec	57.00	3.64	3	20	11.11	169	13.42	232	11.54	NA	NA	NA	NA
78	73	SC&H Group	Sparks, Md.	Ronald Causey	Dec	56.22	1.39	3	43	-2.27	222	-3.48	298	3.83	21	16	63	0
79	77	Aronson	Rockville, Md.	Larry Davis	Dec	56.02	4.20	1	31	-8.82	177	0.57	256	1.19	37	38	23	2
80	81	BerganKDV <sup>11</sup>	St. Cloud, Minn.	Dave Hinnenkamp	June	55.73	6.99	7	52	26.83	319	46.33	399	31.68	18	41	12	29
81	82	Bennett Thrasher	Atlanta	Jeff Eischeid	June	55.72	10.53	1	38	5.56	217	11.86	296	10.45	27	59	5	9
82	69	Postlethwaite & Netterville	Baton Rouge, La.	Dan Gardiner	April	55.56	-4.72	8	35	2.94	318	3.92	400	5.26	43	19	33	5
83	71	Raich Ende Malter & Co.	New York City	Ellis Ende	Dec	53.60	-4.80	3	38	-11.63	150	12.78	229	7.51	40	60	0	0
84	83	Aldrich	Salem, Ore.	Martin Moll	Dec	52.60	6.91	7	35	2.94	213	3.40	300	3.09	30	34	11	25
85	94	Vavrinek, Trine, Day & Co.	Rancho Cucamonga, Calif.	Kevin Pulliam	Dec	52.50	23.53	13	47	14.63	216	18.03	313	22.75	78	18	4	0
86	95	Rea & Associates	New Philadelphia, Ohio	Don McIntosh	Oct	50.41	23.37	12	53	29.27	190	9.83	301	16.22	42	34	14	10
87	87	Brown Smith Wallace	St. Louis	Anthony Caleca	Dec	49.97	8.77	3	29	3.57	277	7.78	332	8.85	32	34	19	15
88	85	KLR	Providence, R.I.	Alan Litwin	Dec	49.54	5.63	4	30	3.45	179	5.29	237	4.41	29	36	35	0
89	88	PYA	Knoxville, Tenn.	Edward Pershing	Dec	49.34	9.23	5	36	2.86	128	0.79	229	1.33	12	19	69	0
90	86	Freed Maxick CPAs*	Buffalo, N.Y.	Henry Koziol	April	49.00	6.52	4	31	NC	221	4.25	293	1.38	35	35	30	0
91	89	Mauldin & Jenkins	Atlanta	Donald Luker	May	48.70	9.68	7	52	18.18	206	13.81	317	12.01	63	30	2	5
92	92	Wolf & Co.	Boston	Mark O'Connell	Sept	46.90	8.56	4	30	11.11	168	5.66	231	5.00	38	24	0	38
93	93	Miller Kaplan Arase	North Hollywood, Calif.	Douglas Waite	Feb	46.75	7.47	6	28	7.69	160	8.11	222	8.29	55	21	21	3
94	91	Kemper CPA Group	Evansville, Ind.	John Rubenacker	April	45.68	4.55	29	69	-2.82	225	3.21	331	0.30	43	39	18	0
95	90	Baker Newman & Noyes	Portland, Maine	Dayton Benway	Dec	45.40	2.25	4	38	-5.00	172	-2.27	250	-3.10	37	52	11	0
96	NR	Gursey   Schneider	Los Angeles	Stephan Wasserman	Nov	44.88	17.76	6	16	14.29	136	3.82	192	6.67	4	30	0	66
97	NR	Lutz	Omaha, Neb.	Mark Duren	April	44.00	25.53	4	35	34.62	183	48.78	262	49.71	32	35	9	24
98	NR	Brown, Edwards & Co.	Roanoke, Va.	Jason Hartman	May	42.40	13.07	9	43	13.16	236	4.89	338	6.62	50	38	6	6
99	96	PBMares	Newport News, Va.	Alan Witt	Dec	41.70	3.47	10	40	5.26	124	1.64	216	1.41	27	42	12	19
100	NR	Clark Nuber	Bellevue, Wash.	Robert Wheeler	Dec	41.00	6.22	1	23	NC	143	-2.72	203	0.50	51	41	0	8

**Key and notes:** Last year's rankings have been revised based on updated 2017 revenue provided by firms. Some firms' rankings will therefore differ from those reported last year.  
 \* Firm estimate § Gross revenue P Reported equity and non-equity partners as a single combined figure. NC No change NA Not available or not applicable NR Not ranked  
 11 Office figures do not reflect June 2018 merger with HSMC Orion, which added two offices.

Source: (2019) Accounting Today: The 2019 Top Firms. Accounting Today <https://www.accountingtoday.com/data/top-accounting-firms>

### Exhibit 3: Collective Expertise at Auditwerx

---

- Certified Public Accountant (CPA)
- Certified Information Systems Security Professional (CISSP)
- Certified Information Security Manager (CSM)
- Certified Information Systems Auditor (CISA)
- Certified Internal Auditor (CIA)
- Certified in the Governance of Enterprise IT (CGEIT)
- Certified in Risk and Information Systems Control (CRISC)
- Microsoft Certified Solutions Expert (MCSE)
- Certified Information Technology Professional (CITP)
- Chartered Global Management Accountant (CGMA)
- Certified Fraud Examiner (CPE)

Source: (2020) *Auditwerx: Our Expertise*. Auditwerx, LLC <https://www.auditwerx.com/our-expertise>

## Exhibit 4: Industries Covered at Auditwerx

---



### TECHNOLOGY SERVICES

Banking Platforms  
 Dealer & Franchise Technologies  
 Capital Markets Platforms  
 Cloud Platform & SaaS Systems  
 Compliance Platforms  
 Customer Relationship Management  
 Data Warehousing  
 Hosting & Infrastructure  
 Managed Security  
 Real Estate Management

### FINANCIAL SERVICES

Insurance Risk  
 Banking  
 Foreign Exchange  
 Loan & Title  
 Debt Collection Receivables Management  
 Retirement Plan Administration  
 Stock Options Management  
 Tax Processing  
 Transaction Processes

### PROFESSIONAL SERVICES

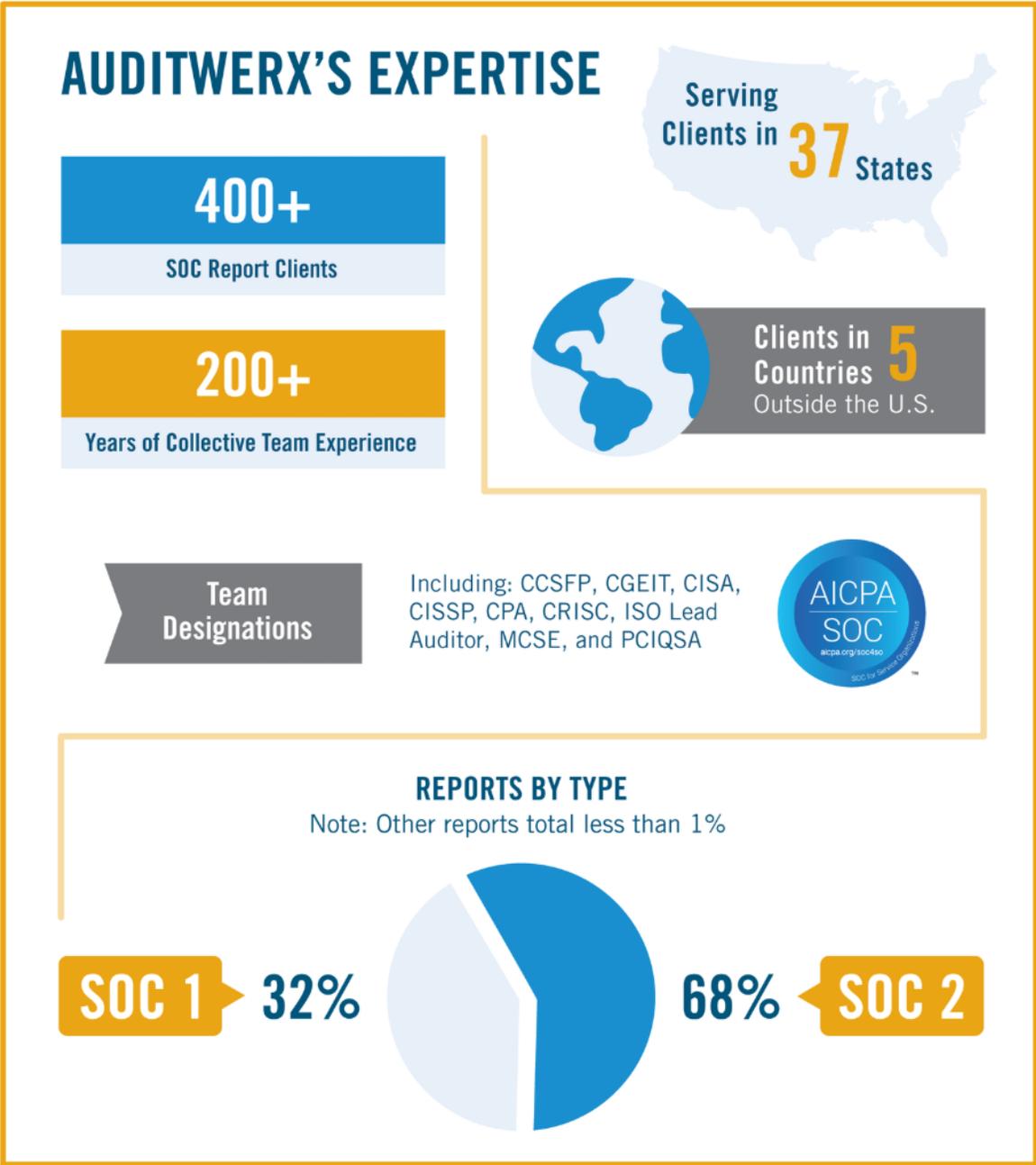
Audit & Recovery Claims  
 Employee Benefits  
 Reimbursement  
 Governmental Medicare /  
 Medicaid Claims Processing  
 Medical, Property & Life Claims  
 Property & Life Claims

### PROCESSING SERVICES

Call Center  
 Human Resource Administration  
 Verification Services  
 Payroll & Workforce Management  
 Marketing & Consultation  
 Print & Mailing  
 Subscription Fulfillment  
 Transportation & Logistics

Source: (2020) *Auditwerx: Industries*. Auditwerx, LLC <https://www.auditwerx.com/industries>

**Exhibit 5: At a Glance: Auditwerx**



Source: (2020) *Auditwerx: Industries*. Auditwerx, LLC <https://www.auditwerx.com/about-us>

**Exhibit 6: SOC 1, SOC 2 and SOC 3 Comparison**

---

# SOC Report Comparison

## SERVICE ORGANIZATION CONTROL REPORTS

	What it reports on	Who uses it
SOC 1	Internal controls over financial reporting	User auditors & users' controller's office
SOC 2	Security, availability, processing integrity, confidentiality or privacy controls	Management, regulators & others. Shared under NDA
SOC 3	Security, availability, processing integrity, confidentiality or privacy controls	Publicly available to anyone

Source: (2020) *Benefits of SSAE 18 and How the New Standard Affects Data Centers: A First Look: Moving From SSAE 16 to SSAE 18*. Collocation America <https://www.colocationamerica.com/blog/ssae-18-changes>

**Exhibit 7: Symptoms of Coronavirus (COVID-19)**

## Symptoms of Coronavirus (COVID-19)

Know the symptoms of COVID-19, which can include the following:



**Cough**



**Fever**



**Chills**



**Muscle pain**



**Shortness of breath or difficulty breathing\***



**Sore throat**



**New loss of taste or smell**

Symptoms can range from mild to severe illness, and appear 2-14 days after you are exposed to the virus that causes COVID-19.

\*Seek medical care immediately if someone has emergency warning signs of COVID-19.

- Trouble breathing
- Persistent pain or pressure in the chest
- New confusion
- Inability to wake or stay awake
- Bluish lips or face

This list is not all possible symptoms. Please call your medical provider for any other symptoms that are severe or concerning to you.



[cdc.gov/coronavirus](https://www.cdc.gov/coronavirus)

317142-A May 20, 2020 10:44 AM

Source: (2020) Symptoms of Coronavirus (COVID-19). CDC <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>

## Exhibit 8: Number of COVID-19 Cases vs. Deaths by State

New And Total Cases, By State And Territory

Data as of 7:33 a.m. on June 10, 2020. Daily heatmap as of 11:50 p.m. ET, June 10.

PERCENT CHANGE VS. PREVIOUS WEEK

-100% -50% -5% +5% +50% +100%

STATE	AVG. NEW CASES/DAY				TOTALS SINCE JANUARY	
	3 weeks ago	2 weeks ago	Last week	This week	CASES	DEATHS
<b>United States</b>	<b>20,825</b>	<b>21,183</b>	<b>20,721</b>	<b>25,923</b>	<b>2,191,048</b>	<b>118,432</b>
New York	1,468	1,200	823	895	385,760	30,974
New Jersey	800	764	489	327	168,107	12,869
California	2,255	2,622	3,030	3,387	167,234	5,556
Illinois	1,678	1,275	835	596	134,778	6,537
Massachusetts	763	552	372	251	106,422	7,769
Texas	1,049	1,451	1,729	2,651	101,259	2,129
Florida	659	985	1,269	2,408	85,926	3,061
Pennsylvania	710	588	502	405	84,683	6,361
Michigan	447	409	210	193	66,798	6,061
Maryland	683	678	620	433	63,229	3,016
Georgia	658	656	731	848	80,912	2,605
Virginia	1,038	922	684	513	56,238	1,586
Louisiana	326	394	416	596	48,634	3,062
North Carolina	755	696	1,073	1,226	46,167	1,190
Connecticut	336	240	175	140	45,440	4,226
Arizona	361	716	1,187	1,740	43,445	1,283
Ohio	535	481	389	445	43,122	2,633
Indiana	447	433	379	384	41,438	2,491
Tennessee	386	502	450	633	32,770	508
Minnesota	678	475	435	337	31,675	1,376
Colorado	274	320	184	179	29,886	1,638
Alabama	483	363	539	788	28,206	810
Washington	235	281	293	345	27,192	1,245
Iowa	345	317	310	270	24,861	680
Wisconsin	441	417	291	279	23,876	719
South Carolina	201	232	675	727	21,533	621
Mississippi	307	313	275	308	20,641	938
Nebraska	260	270	168	157	17,414	239
Missouri	187	214	194	204	17,371	945
Rhode Island	132	119	77	58	16,269	885
Utah	150	270	348	370	15,839	152
Arkansas	154	270	342	448	13,928	208
Kentucky	128	217	177	179	13,197	520
Nevada	121	126	192	242	12,189	475
Kansas	107	114	94	133	11,753	251
Delaware	112	82	51	58	10,499	431
New Mexico	127	141	145	112	10,153	456
District of Columbia	101	90	67	45	9,903	527
Oklahoma	85	91	103	247	9,355	366
Oregon	38	55	109	161	6,368	187
Puerto Rico	82	146	121	106	6,111	147
South Dakota	88	65	80	63	6,109	78
New Hampshire	65	70	48	34	5,450	331
Idaho	38	31	39	68	3,743	89
North Dakota	38	32	39	30	3,193	75
Maine	45	37	32	30	2,878	102
West Virginia	49	24	16	28	2,418	88
Wyoming	11	6	13	18	1,144	18
Vermont	3	7	12	4	1,135	56
Hawaii	0	1	5	10	782	17
Alaska	3	13	14	14	707	12
Montana	1	8	3	13	655	20
Guam	1	1	1	1	192	5
Virgin Islands	0	0	0	0	73	6
Northern Marianas	0	1	1	0	30	2
American Samoa	0	0	0	0	0	0

Source: Center for Systems Science and Engineering at Johns Hopkins University

Source: (2020) *Tracking The Pandemic: Are Coronavirus Cases Rising Or Falling In Your State?.* NPR <https://www.npr.org/sections/health-shots/2020/03/16/816707182/map-tracking-the-spread-of-the-coronavirus-in-the-u-s>

## **Exhibit 9: List of Workers or Industries Considered to be Essential**

---

- Law enforcement
- Public safety workers
- Food production
- Health care providers
- Workers who provide security services to hospitals and other critical industries
- Emergency personnel
- Workers conducting COVID-19 research and testing
- Pharmacy employees
- Mass transit and airport personnel
- Food and agriculture workers
  - Including grocery store and restaurant personnel
- Energy sector employees
- Mortuary and funeral service workers
- Manufacturing personnel who produce safety and sanitary products, medical equipment, pharmaceuticals, chemicals and food processing.
- Military and workers that support nation security commitments
- Water and wastewater employees
- Bank employees
- Payroll and certain insurance workers
- Vendors that provide essential services like childcare and hardware supply stores
- News media
- Building cleaners and janitors
- Trash collection and disposal personnel
- Animal shelters
- Some warehouse fulfillment centers
- Food banks
- Mail and shipping service centers
- Some charities
- Cannabis industry workers in legalized areas
- Liquor stores

*Source: (2020) Coronavirus: Who are considered 'essential' workers?. Fox News*  
<https://www.foxnews.com/us/coronavirus-who-are-considered-essential-workers>

## Exhibit 10: Refrigerated Trucks Used as Morgues

---



*Source: (2020) Fema is sending 85 refrigerated trucks to New York City to serve as temporary morgues.*  
MarketWatch, Associated Press <https://www.marketwatch.com/story/fema-is-sending-85-refrigerated-trucks-to-new-york-city-to-serve-as-temporary-morgues-2020-04-01>

## Exhibit 11: Monthly Timeline

Dec. 2019	<ul style="list-style-type: none"> <li>• Wuhan China reports a cluster of pneumonia cases to the World Health Organization (WHO)</li> </ul>
January 2020	<ul style="list-style-type: none"> <li>• WHO discloses the genetic sequence of COVID-19</li> <li>• Thailand reports the first recorded case outside of Wuhan</li> <li>• WHO director announces Public Health Emergency of International Concern (PHEIC) after conducting a research trip to China</li> <li>• The first Coronavirus case was confirmed within the United States</li> </ul>
February 2020	<ul style="list-style-type: none"> <li>• WHO release the Strategic Preparedness and Response Plan internationally</li> <li>• States with weaker health systems were directed to take heed</li> <li>• Many other countries began reporting Coronavirus cases</li> <li>• President Trump began closing the United States (US) borders for travel to/from other countries</li> <li>• President Trump passes executive order for businesses that are not deemed essential to send employees home to work remotely</li> <li>• Many Americans find themselves unemployed or furloughed as not all industries can support remote work environments</li> <li>• Unemployment agencies are overwhelmed with benefits requests</li> </ul>
March 2020	<ul style="list-style-type: none"> <li>• WHO characterizes COVID-19 as a pandemic</li> <li>• COVID-19 cases are now documented across the US</li> <li>• All professional sports games in the US were suspended to prevent large groups of people gathering</li> <li>• The 2020 Olympic Games were postponed in China. Schools closed in the US and cities began releasing “safe at home” executive orders</li> <li>• Curfews are put into effect in critical areas around the US</li> <li>• The stock market crashes multiple times in the US. Countries around the world closed their borders for travel</li> <li>• Italy’s death toll rose to more than 12,000</li> </ul>
April 2020	<ul style="list-style-type: none"> <li>• Countries around the world reported the devastating effect that Coronavirus was having in their areas.</li> <li>• Over 16 million American’s were filing unemployment due to companies being asked to close their doors temporarily if they were not considered an essential business.</li> <li>• The US death toll of 18,860 surpassed the death toll of 18,849 reported in Italy.</li> <li>• Over 2,000,000 people are reported to have been infected with COVID-19 worldwide</li> </ul>
May 2020	<ul style="list-style-type: none"> <li>• The curve of reported COVID-19 cases in the US started to flatten.</li> <li>• President Trump announced that some businesses in the US can start re-opening as long as they follow strict social distancing guidelines.</li> <li>• Americans were encouraged to practice social distancing measures by not gathering in large groups, wearing face coverings, and staying six feet away from others.</li> <li>• Parks and beaches reopen for the Memorial Day holiday. People flock outside in large groups.</li> <li>• The stock market starts climbing back to pre-Coronavirus highs.</li> <li>• People gathered in the streets in port</li> </ul>
June 2020	<ul style="list-style-type: none"> <li>• Masses of people gather in the streets in protest for an African American, George Floyd, that was killed by a police officer kneeling on his neck in front of bystanders.</li> <li>• Social distancing was not being practiced by the protestors as the crowds continue to grow.</li> <li>• President Trump announces that phase two of opening the country back up was to be implemented.</li> <li>• Businesses affected by the riots that erupted from the George Floyd protests are not able to open due to the stores being emptied by looters or burnt down by arson.</li> <li>• The US began reporting an incline of reported Coronavirus cases again.</li> </ul>

*Source: (2020) Developed by Case Writer*