

# What is a customer service engineer?



A tale of a honey  
badger family



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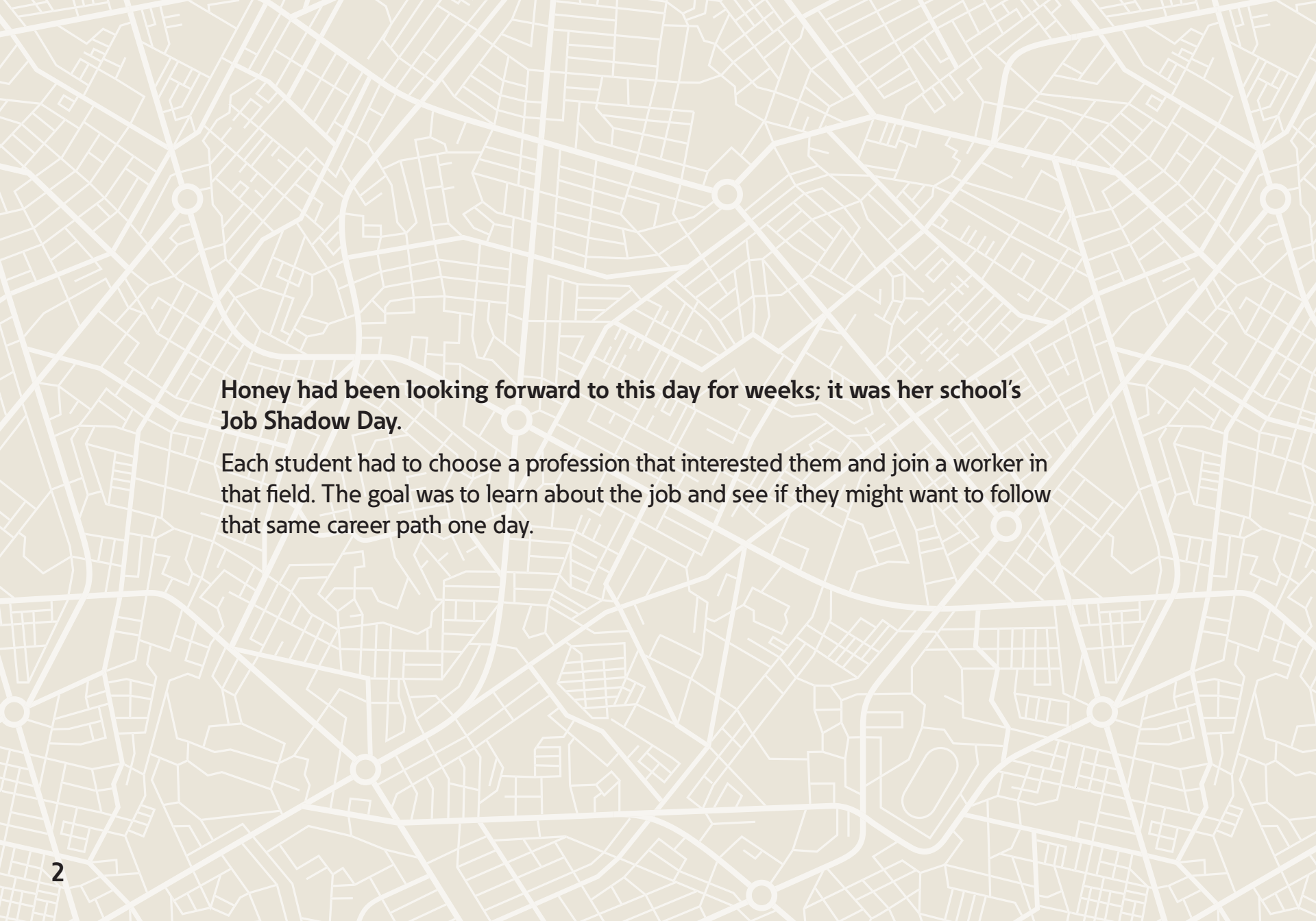


**"Honey, hold on a minute!"**

Honey's father, Huw, hadn't even turned off the car before the young honey badger flung open the back door and sprang into the parking lot.

"C'mon, Dad!" she responded excitedly.  
"Uncle Mike is waiting for us!"





**Honey had been looking forward to this day for weeks; it was her school's Job Shadow Day.**

Each student had to choose a profession that interested them and join a worker in that field. The goal was to learn about the job and see if they might want to follow that same career path one day.

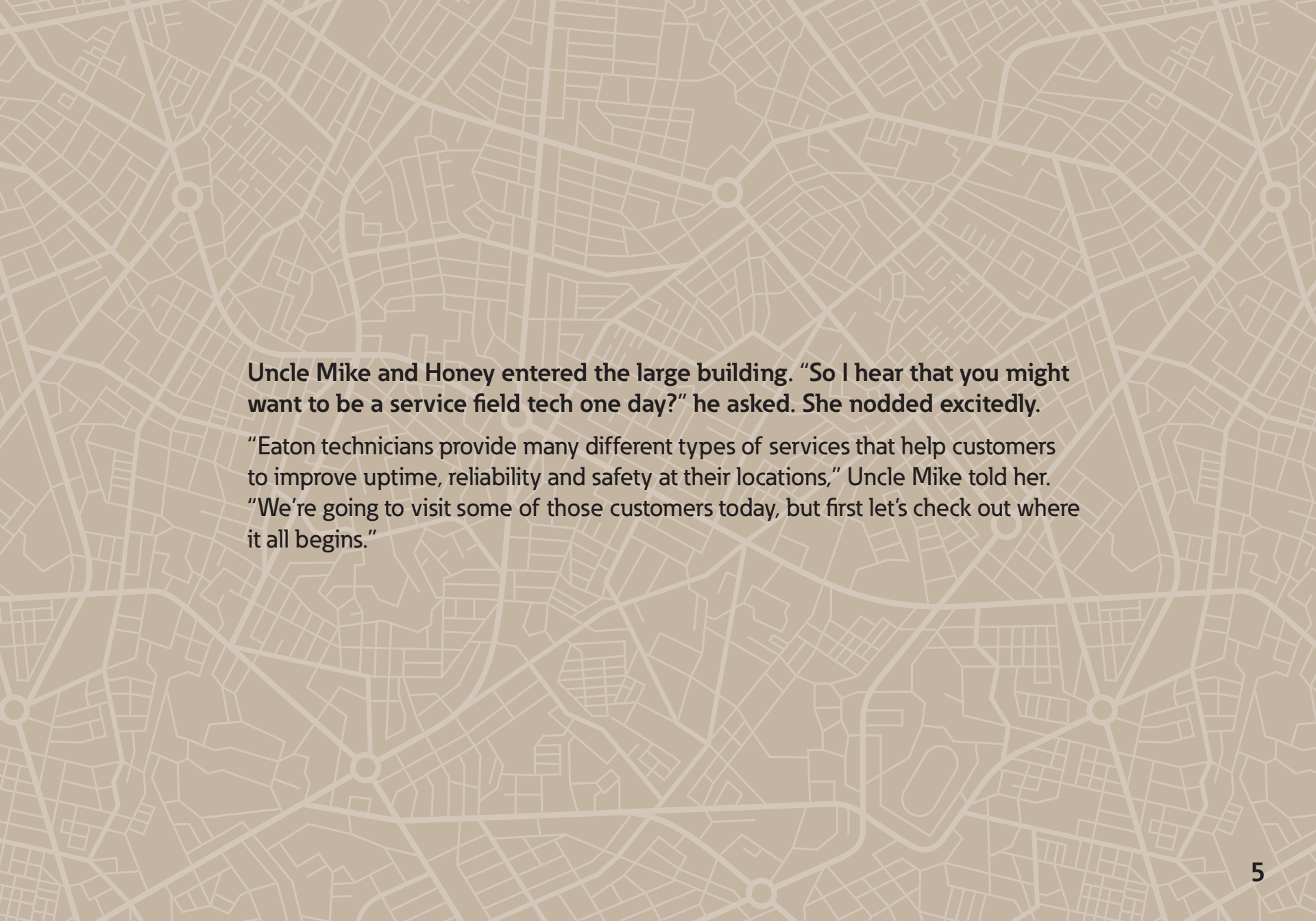




# EAT•N

*Powering Business Worldwide*



A light beige background with a faint, stylized map pattern of streets and intersections.

**Uncle Mike and Honey entered the large building. “So I hear that you might want to be a service field tech one day?” he asked. She nodded excitedly.**

**“Eaton technicians provide many different types of services that help customers to improve uptime, reliability and safety at their locations,” Uncle Mike told her. “We’re going to visit some of those customers today, but first let’s check out where it all begins.”**



Uncle Mike gave Honey a tour of the entire training facility, pointing out classrooms, offices and even a break room with a kitchen.

"Every person who is hired by Eaton starts their job here at the academy," he explained. "After at least 16 weeks of classroom and lab training, they are mentored for an entire year by an experienced, veteran technician."

"Like you?" Honey asked. "Yes, like me!" Uncle Mike replied. "I have now been an Eaton technician for 15 years. On average, our technicians have been with us for at least 10 years. So it's definitely a career you can stick with!"

## What We Do:

- Preventive Maintenance
- Brightlayer Remote Monitoring and Predictive Analytics
- Emergency Response
- Start Up and Commissioning
- Load Bank Testing
- Power Quality Monitoring
- System Upgrades

E-T-N  
Electrical Technology Network



# PPE & Safety Gear





**"I bet you're happy you don't have to go to school anymore!" Honey said.**

"Well, for Eaton service techs, the training never stops," Uncle Mike told her. "There are always new products and technologies that we need to learn about. In fact, every year we come back here for at least one full week of training."

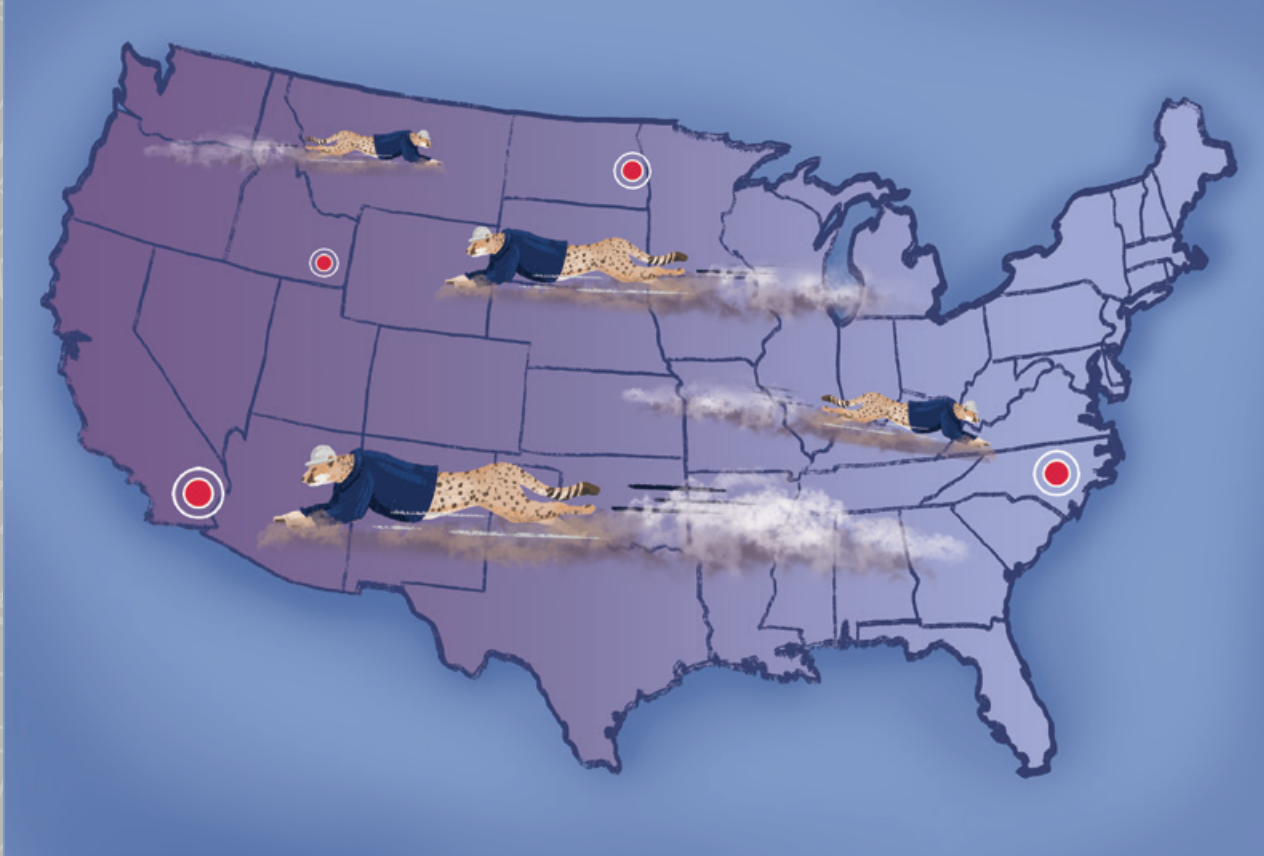
"Wow, that's a lot," Honey said.

"It is," Uncle Mike agreed. "But it's worth it. For instance, because of our annual safety training, our technicians didn't have a single electrical injury over a five-year period. That is almost unheard of in this industry!"



Next, Uncle Mike led Honey to the parking lot and opened up the back of his truck. "Wow, there are so many different parts in here!" Honey said.

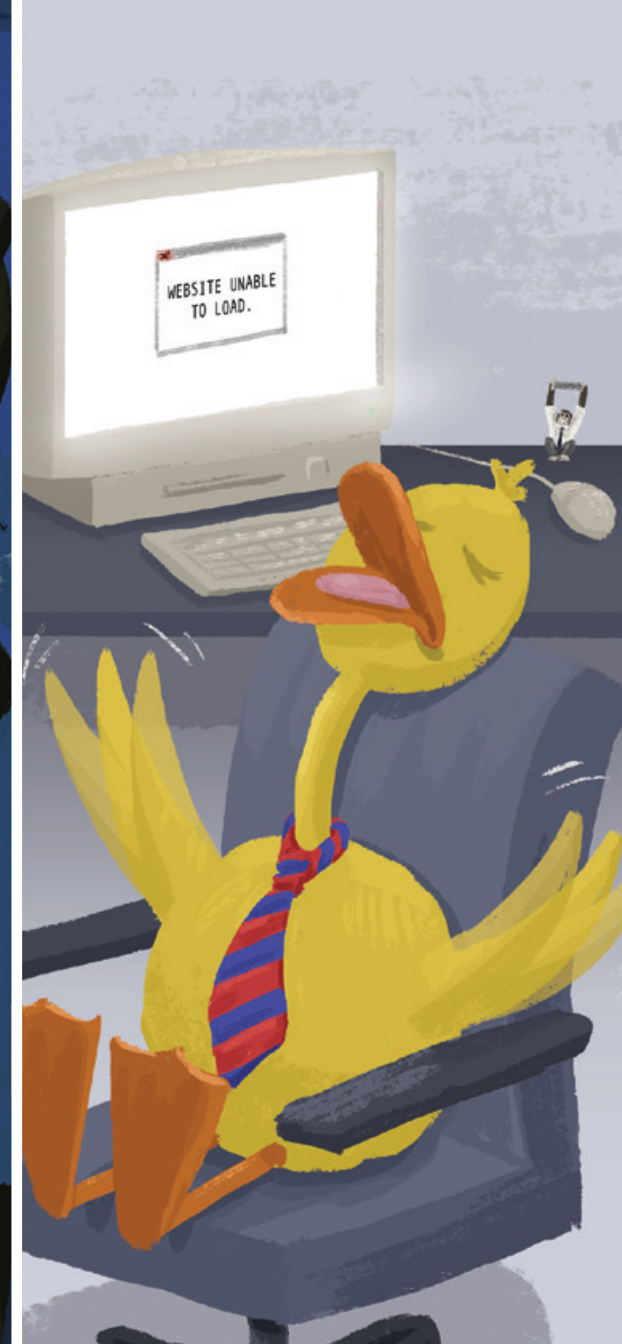
"Not only does Eaton stock \$10 million worth of certified parts in our warehouse, but every field technician carries about \$100,000 worth of inventory with them," Uncle Mike told her. "When a customer gets service direct from a manufacturer like us, they reap the benefits. Not only do we have a warehouse full of parts, but technicians are equipped with everything they need to quickly make almost any repair."



**“How long does it take to reach a customer who needs help?” Honey asked.**

“Well, because we have more than 240 factory-trained field technicians across the United States, we’re able to provide a four-hour response time to nearly three-quarters of all customers,” Uncle Richie said. “This is very important because if a customer has to wait to get their UPS fixed, it could be really bad for their business.”





**"In what way?" Honey asked.**

"If there's a power outage and the UPS doesn't work, expensive equipment can be damaged, employees can't do their work, and important data can be lost," Uncle Mike explained. "Stores can't operate their checkout stations, and since data centers form the backbone of operations for most companies, power failures there can disrupt business and cause them to lose a lot of money."

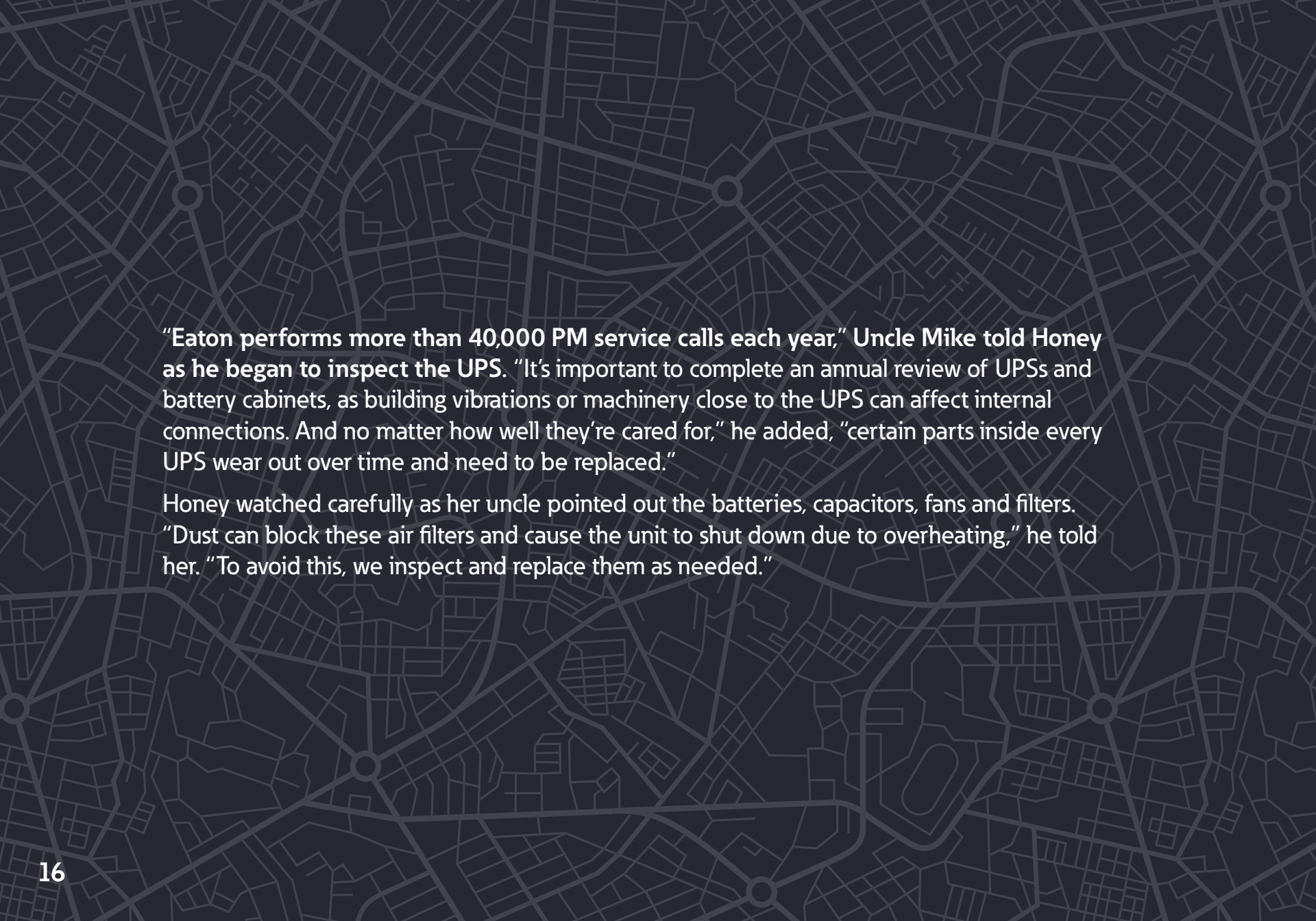
Honey's eyes grew wide. "Even worse, power outages can endanger safety," Uncle Mike continued. "For instance, doctors in hospitals can lose access to health records and communications can be lost."





**As they drove to their first appointment, Honey asked her uncle about the different types of service a UPS might need.**

Uncle Mike explained that one of the most important is routine preventive maintenance, or PM. “Just like you get a physical from your doctor every year, UPSs need to see a specialist to ensure they stay healthy too,” he said. “During a PM, we carefully look inside a UPS. Completing this type of service dramatically reduces the risk of downtime, as well as extends the lifespan of a UPS because it finds issues before a problem occurs. Get ready, we’re going to perform a PM right now at this manufacturing plant.”



**"Eaton performs more than 40,000 PM service calls each year," Uncle Mike told Honey as he began to inspect the UPS. "It's important to complete an annual review of UPSs and battery cabinets, as building vibrations or machinery close to the UPS can affect internal connections. And no matter how well they're cared for," he added, "certain parts inside every UPS wear out over time and need to be replaced."**

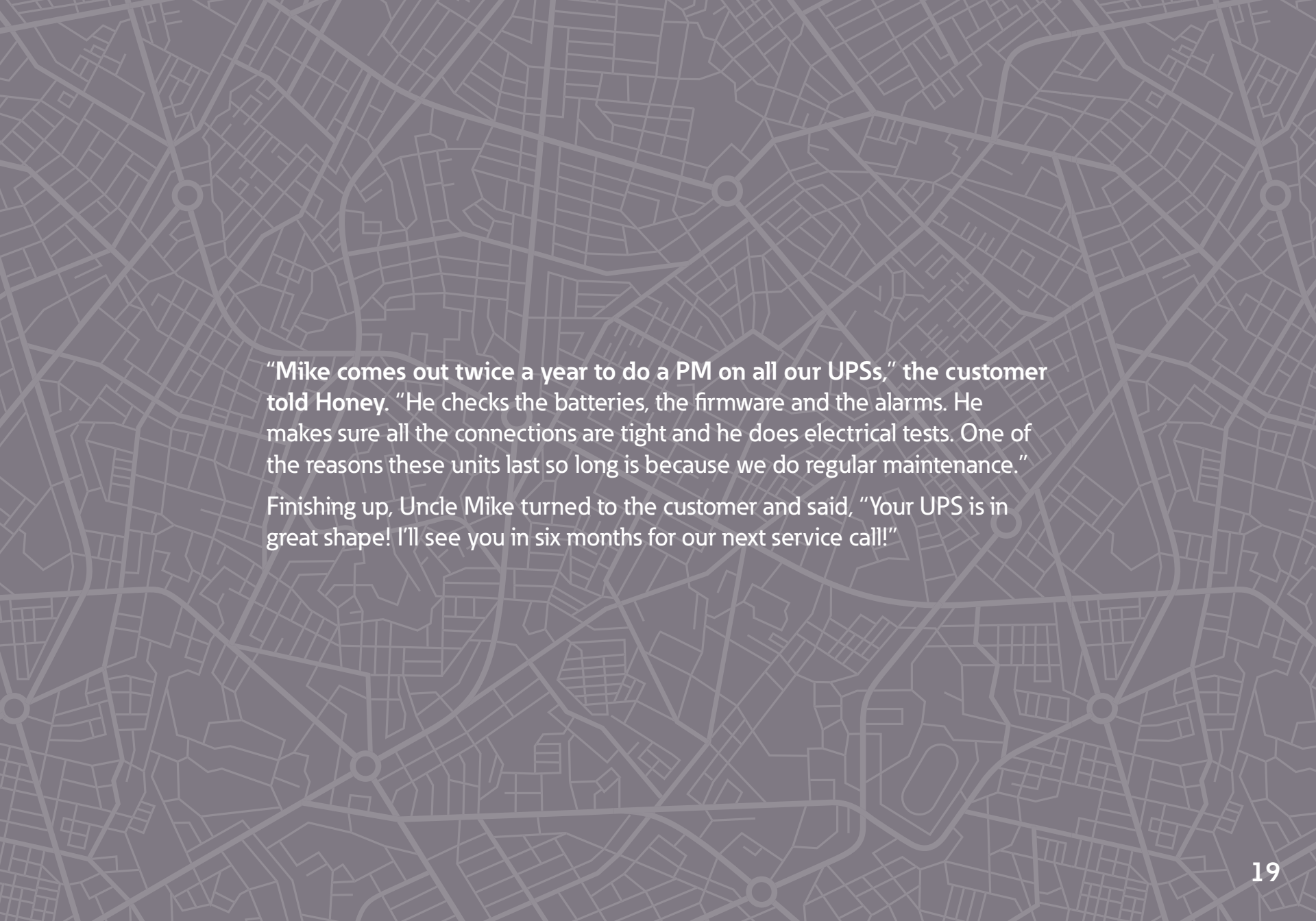
Honey watched carefully as her uncle pointed out the batteries, capacitors, fans and filters. "Dust can block these air filters and cause the unit to shut down due to overheating," he told her. "To avoid this, we inspect and replace them as needed."





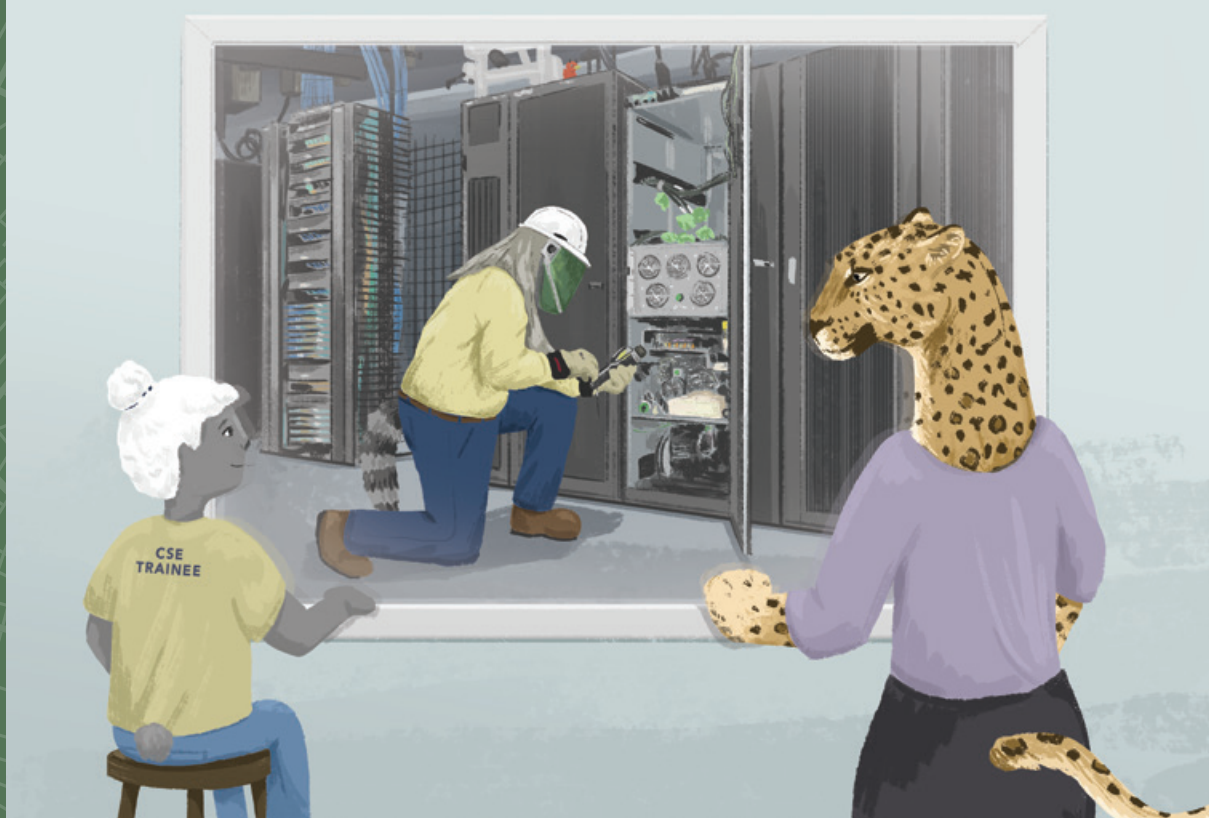
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**"Mike comes out twice a year to do a PM on all our UPSs," the customer told Honey. "He checks the batteries, the firmware and the alarms. He makes sure all the connections are tight and he does electrical tests. One of the reasons these units last so long is because we do regular maintenance."**

Finishing up, Uncle Mike turned to the customer and said, "Your UPS is in great shape! I'll see you in six months for our next service call!"



**"On to our next stop," Uncle Mike said as they returned to the truck. "We're going to perform start-up service on a new UPS at a hospital, but for safety reasons, you'll need to watch through the window."**

When they arrived, they were greeted by the hospital's facility manager. "Thank you so much for being on time," she told Uncle Mike. "I have a busy day so I really appreciate it!"

Uncle Mike smiled and whispered to Honey, "Eaton service techs meet customer-requested arrival times 99 percent of the time — not many people can say that!"

Smiling, the IT manager told Honey, "This guy is the only person I trust to work on the UPSs in my hospitals. One time, he even saved us on Thanksgiving Day!"





Shortly after completing the startup service on the new UPS, Uncle Mike received a text alert. "We've got to run now," he told the customer, "but you're all set! Make sure you call me directly on my cell phone if you have any issues at all!"

Back in the service truck, Uncle Mike explained to Honey that he received a Brightlayer notification that they needed to respond to. "What's that?" she asked, just as they pulled up to her favorite clothing store.



"Brightlayer is a remote monitoring service that uses data from our products to predict UPS component failure," Uncle Mike explained. "This allows customers to replace parts before disaster strikes.""Wow," Honey exclaimed. "Kind of like a crystal ball?"

"Indeed!" Uncle Mike said. "Our experts are constantly monitoring the data and determining if anything is unusual. If there is, they send a technician like me to fix the problem — sometimes before the customer even realizes there's an issue!"



In the back office inside the store, Honey watched as Uncle Mike diagnosed the problem: a faulty battery. “UPS battery life is affected by many factors, such as temperature, chemistry, cycling and shelf life,” he explained. “I love when technology makes my job easier. Techs and our skills are still as important as ever, but getting that notification made my visit a much more pleasant one.”

“We rely on Brightlayer to gain visibility into our equipment and ensure operations remain up and running at all 250 of our retail sites,” the store manager told Honey.



**After returning to the truck, Uncle Mike called the Eaton dispatch center to report that the store's problem had been resolved.**

"Wow, that was fast!" Honey said. "My mom is always on hold a long time when she's trying to get help with something."

"The Eaton customer support center answers incoming calls in an average of 16 seconds," Uncle Mike told her. "We don't want customers to have to wait to get the assistance they need."

# CMC

## Customer Monitoring Center





Once they arrived, Uncle Mike explained to Honey that he would use an infrared scanner to complete a thermographic inspection of the UPS.

"Infrared? Like in that 80s movie Predator?" asked Honey.

"Yeah, it's not quite alien technology though. We do use infrared scanning to hunt for unusual or concerning temperature readings," he said. "We recommend doing a scan every three months to check for hot spots."





**"And here we have it! This unit has a faulty capacitor," Uncle Mike told the data center manager. "Let me grab a new one from my service truck."**

**"What does a capacitor do?" asked Honey. "It looks like a soda can!"**

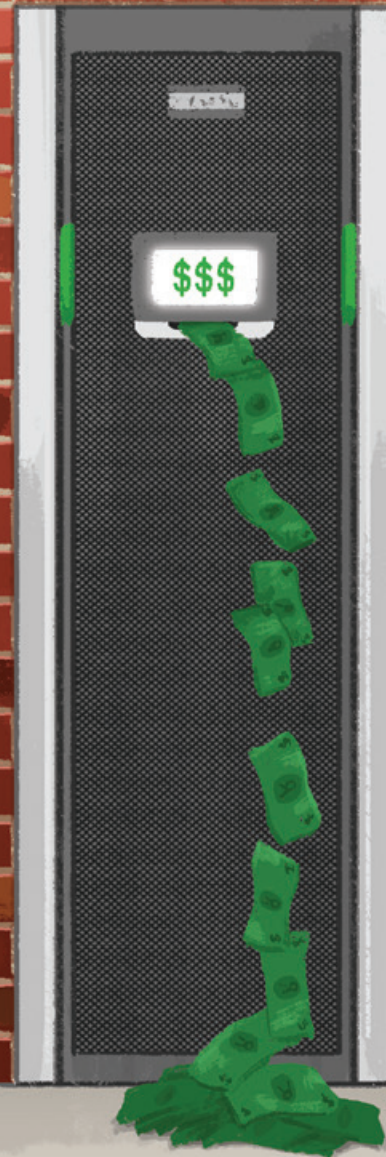
**"You're right. They do! Capacitors store and release electrical energy," her uncle explained. "Depending on the size of a UPS, it may have dozens or even hundreds inside. And just like batteries, they have a rated service life and must be periodically replaced in order to maintain UPS performance."**



"Speaking of UPS performance," the data manager said, "I heard that Eaton has a technology that can make my UPS more efficient and save me money, is that true?"

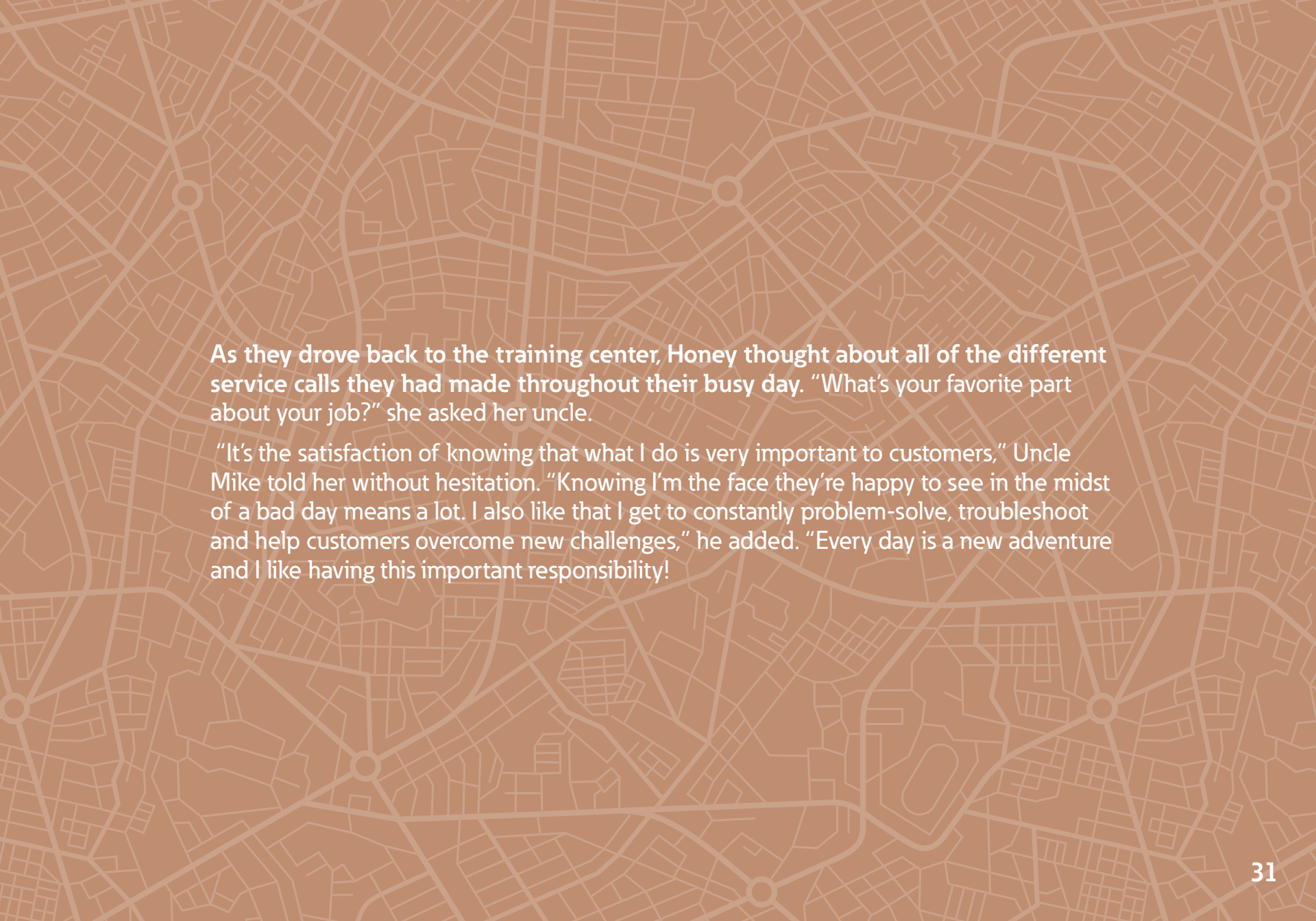
"Absolutely!" Uncle Mike replied. "We can install Energy Saver System, which enables your UPS to operate at 99 percent efficiency. This will help you save a lot of money on power and cooling costs, while also increasing reliability and reducing CO<sub>2</sub> emissions."











As they drove back to the training center, Honey thought about all of the different service calls they had made throughout their busy day. "What's your favorite part about your job?" she asked her uncle.

"It's the satisfaction of knowing that what I do is very important to customers," Uncle Mike told her without hesitation. "Knowing I'm the face they're happy to see in the midst of a bad day means a lot. I also like that I get to constantly problem-solve, troubleshoot and help customers overcome new challenges," he added. "Every day is a new adventure and I like having this important responsibility!"



Honey's dad was waiting for them when they returned to the training center. "How was it?" he asked her as they drove home.

"Amazing!" Honey replied. "We fixed UPSs in manufacturing plants, hospitals and data centers — and even at Badger Threads! I definitely want to be a service tech when I grow up!" Honey added. "But first, I think I might need to take a little nap . . ."



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