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How Apple Is Working From Home

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Normally, Apple's hardware teams meet in person at the company's Cupertino, California, headquarters to review upcoming products, often bringing key components of their devices to show colleagues.

But now that they are sidelined at home due to Covid-19, members of those teams are improvising new tactics for getting their work done. **During video calls, they have resorted to tracing shapes in the air to describe components they've had to leave back in the office**, said two employees. Because of travel restrictions, they've had to make decisions based on grainy photos of parts sent from Chinese factories, rather than doing so in person.

As the tech industry braces for an economic downturn caused by the global pandemic, its biggest companies, which sit on billions of dollars of cash reserves, are perhaps best positioned. But Apple, one of the world's most valuable companies, faces a unique set of challenges because of its secretive culture, focus on hardware and dependence on Chinese manufacturing, according to interviews The Information conducted in recent days with a dozen current and former employees, as well as others who work closely with the company.

The Takeaway

- Dependence on face-to-face meetings makes remote work difficult for some at Apple
- Most hardware prototyping has stopped as work must be in secure labs
- With travel to China banned, decision-making for parts manufacturing has slowed

Among Silicon Valley's giants, Apple is especially reliant on face-to-face meetings. It encourages employees to use the company's own communications and file-sharing services for security and reliability reasons, though it has begun allowing them to use some third-party tools like Slack and Box. Most employees aren't accustomed to holding meetings with colleagues via videoconference and some have found it difficult to use Apple's own offerings such as FaceTime, iCloud and iMessage, as they weren't designed for enterprise users, according to current and former employees.

At the same time, Apple's focus on hardware requires more physical interaction—employees need to touch and view parts in person—than the software development that accounts for much of the activity of other big tech companies (The Information has [also reported](#) on challenges facing Amazon's hardware teams). And because Apple's claim to fame is making software that works well with its hardware, its software engineers also need access to unreleased products. Apple employees say figuring out how to design and test hardware products remotely is an even bigger obstacle for the company than enforcing the rules of its secretive culture while staffers work from home.

Meanwhile, Apple has been forced to find creative ways to work with manufacturers in China without visiting their factories, many of which were shut down for weeks after the coronavirus began spreading in that country. While companies like Google and Facebook are less reliant on hardware sales, they are paramount for Apple, which needs employees on the ground in China to sign off on the look and feel of its devices at key stages in the manufacturing process.

Many of those factories have since reopened as the outbreak has slowed in China while gaining speed overseas. It might be a while, though, before Apple employees can return to China. Last week, the Chinese government announced it would ban all foreign visitors from entering mainland China and restrict most flights in and out of the country to one weekly per airline until further notice. Beijing's directive came almost two months after Apple banned travel to China for its employees during the initial outbreak of Covid-19.

An Apple spokesperson declined to comment for this story.

Corporate Culture

Apple CEO Tim Cook began encouraging employees to work remotely one week before San Francisco issued a stay-at-home order on March 16, employees said. In the weeks since, some teams at Apple have found it harder to adjust to the new arrangements than others, especially those teams who are required to handle prototypes, many of which are locked away in secure labs on Apple's campus in California.

Employees can no longer use Apple's 3-D printers and milling machines, nor can they conduct stress and drop tests of their designs. One employee said prototyping in Cupertino had mostly stopped. At first, Apple didn't have a protocol in place for employees to bring components from future products home with them, but more recently it has established a process for doing so in some instances, two employees said.

Many employees aren't used to video chatting with colleagues, current and former employees said. Some are using FaceTime for one-on-one video calls, which they said aren't ideal because they can't easily share their computer screens with their colleagues through the app. Others are using Cisco Systems' WebEx software, which Apple has approved for work.

While employees have long used WebEx for internal conference calls, they rarely turned on the video feature. Some former employees said the WebEx software on Macs was glitchy and its user interface wasn't intuitive. Since employees have begun working from home, some Apple supervisors have asked them to begin turning on video during their meetings because of the team's need for visuals, one employee said.

Current and former employees say Apple has long been reluctant to use third-party software when an Apple alternative exists. For example, Apple only approved the use of Slack for office messaging last fall, and teams have been adopting it at their own pace, according to two employees.

Some Apple employees say they have largely been able to replicate what they can do in the office at home: for instance, accessing confidential documents via corporate virtual private networks or accessing desktops remotely to work on computer-aided designs. One employee said the biggest struggle was dealing with a slow home internet connection; that person is one of four roommates working remotely from an apartment, two of them Apple employees.

Another employee said Apple has sent regular updates advising them how to work comfortably at home, emphasizing proper ergonomics such as the best angles for looking at screens and encouraging them to stay healthy and fit by doing regular stretching. Apple employees have been told they can expense office supplies and bring items home from headquarters to make their home workspaces more comfortable, including their [Vitra Pacific office chairs](#), which retail for more than \$1,000 each, two employees said.

One employee said he continues to follow Apple's security protocols at home, such as making sure others can't see his screen. However, he said he doubted his wife and small children cared enough about his work for this to matter.

China Challenge

Prior to the Covid-19 outbreak in January, Apple sent dozens of employees to China each day to oversee the manufacturing of its products, former employees say. Last year, United Airlines boasted that Apple was its largest global account, spending \$150 million on flights each year, with Shanghai and Hong Kong the top two destinations, according to a banner intended to be seen only by United employees, [a photo](#) of which was widely circulated online. Apple was responsible for 50 business class seats a day to Shanghai, the banner said.

But in late January, Cook [restricted employee](#) travel to China. For many Apple employees, traveling to its overseas factories, particularly those in China, is a critical aspect of the job. In the factories, Apple employees are able to help implement processes, quickly identify manufacturing defects and communicate status updates back to headquarters. One former employee said that even though Apple's suppliers also provide status reports, a visiting Apple employee typically verified those reports prior to the coronavirus travel restrictions.

Before the pandemic, Apple routinely sent employees to learn about manufacturing processes in China and to tour Chinese factories involved in their projects. One executive at an Apple supplier said it isn't unusual for Apple product design and manufacturing engineers to visit his factory in Shenzhen every three or four months during normal times.

With the worst of the outbreak over in China, employees say Apple is relying more heavily on its China-based workers to pick up the slack, many of whom are used to playing supporting roles for their counterparts in Cupertino.

One employee said if a hardware component breaks on the factory line, the company is asking manufacturers to send photos to engineers in the U.S. to assess the problem, since there are often no Apple staff on-site to troubleshoot the issue. The employee described the photos as grainy, adding that they were never quite as clear as engineers needed them to be.

One factor complicating the taking of these photos is that Apple has long had strict rules that prevent the bringing of unauthorized devices onto factory floors, according to former employees and documents reviewed by The Information. Only authorized employees are allowed to handle cameras, which must be approved, logged and accounted for at the end of each shift.

The cameras can't have wireless functionality and must have their removable storage sealed with tamper-proof and serialized stickers. Images taken from these devices can only be uploaded via designated computers and by approved personnel. Each image also must be logged and credited to the person who took the photo.

Since the coronavirus now prevents Apple employees from traveling to factories, some employees say product teams are pushing to enable more factory workers to take and share photos. However, Apple managers are concerned this could lead to product leaks.

One employee said it can sometimes take 24 hours of back-and-forth emails for teams in California to receive the photos they need for assessments that typically would only take seconds in person. To help expedite that process, some teams in the Bay Area have added a night shift so at least one member can respond to suppliers in China during Asia's work hours. Even still, the employee said the inability to hold a component in hand makes troubleshooting problems nearly impossible.

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Although the Covid-19 outbreak has created roadblocks for Apple, one executive at an Apple supplier said he sees no signs that the company is slowing down. Apple has continued to place a steady stream of orders for components and recently increased orders for parts related to the iPhone 11 Pro and iPhone 11 Pro Max. Apple's procurement managers, meanwhile, continue to hound his company to turn in cost breakdowns for new projects as quickly as possible.

One employee said he hopes the pandemic and the resulting creation of new work systems will convince Apple to be more flexible about allowing employees to work from home one or two days a week once the crisis abates. The employee said that prior to the outbreak, many of his colleagues were clamoring to be allowed to do just that. They hope that the current situation will convince Apple management that workers can be as productive from home as they are in the office.

Priya Anand contributed to this article.