



# HARMONIZING IMAGE CAPTURE FOR THE HYBRID OFFICE WITH TWAIN DIRECT

By Kevin Neal, P3iD Technologies

Let's face it, creating and managing effective hybrid office digital workflow solutions is not an easy task. Although nearly everyone agrees on the business value, and many businesses have started on their hybrid office journeys, organizations get bogged down deploying solutions without a clear strategy due to many variables and technology limitations. So, let's take a look at a few "what ifs" and see if we can't outline a fundamental strategy, using logic and common sense instead of over-hyped marketing and sales propaganda. ▶

## WHAT DOES DIGITAL CAPTURE WORKFLOW EUPHORIA LOOK LIKE FOR THE HYBRID OFFICE?

What if there was technology that helped harmonize your organization’s overall digital capture workflow? Would this be useful to provide excellent user experiences because they could work with whatever imaging device, wherever they are, and however they wanted? Do you think great user experiences result in happier and more productive workers with more satisfied clients?

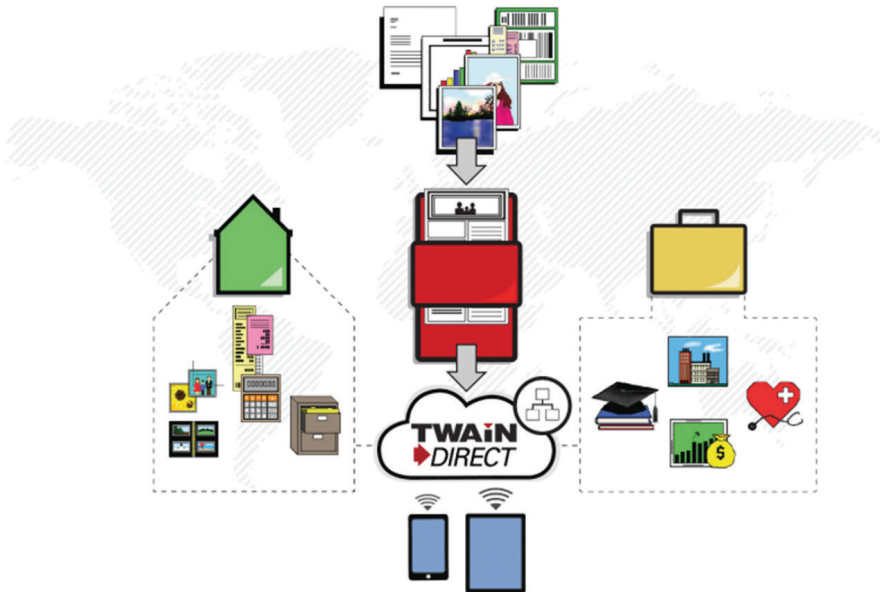
Additionally, from a business continuity and burden standpoint, what if this image acquisition harmonizing technology was available as open source and supported by a group with vast experience developing hybrid office solutions?

What if this open-source technology could provide organizations the peace of mind of having access to the source code to support and develop additional capabilities to fit their precise business needs? Would it be of business value to have one core technology platform instead of the software development burden of supporting many different technologies?

It exists. Introducing the TWAIN Direct project from the TWAIN Working Group.

## TWAIN WORKING GROUP CREATED TWAIN DIRECT FOCUSED ON THE HYBRID OFFICE

The TWAIN Working Group (TWG), a non-profit technology group developing industry



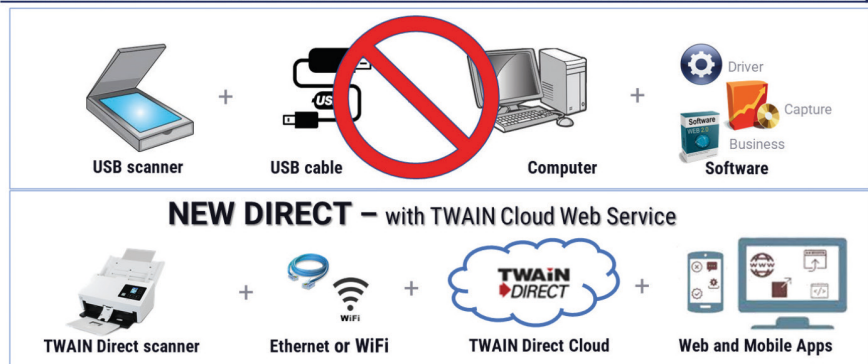
standards for image acquisition to hardware devices, has recognized the need for the hybrid office for many years based on real industry needs. Specifically, TWG has seen high growth for “distributed capture” (i.e., hybrid office solutions) that captures documents and data as quickly as possible into a workflow system.

Based on this big trend among our community members as well as the overall industry demand for hybrid office solutions, TWG took its TWAIN Classic specification, an image acquisition device to software application specification, used by millions of

document scanning devices daily, and created the TWAIN Direct project. TWAIN Direct is a RESTful API (application programmers’ interface) version of the TWAIN Classic driver.

What this simply means from a non-technical perspective is that now the TWAIN specification can be much more easily integrated with third-party software applications including mobile applications and cloud services. Also, and this is a massive fundamental enhancement, the TWAIN Direct specification can be hosted inside of the scanner’s firmware, so this eliminates the need for a personal computer to have the driver installed.

### Traditional USB attached versus TWAIN Direct scanner connectivity



## THE BUSINESS VALUE OF TWAIN DIRECT

As the project name “TWAIN Direct” might indicate, one of the rather apparent values for a software application-direct-to-imaging device (typically a document scanner) connectivity is to eliminate the cost of a personal computer, plus associated software, to operate the scanner.

Tangible cost savings of eliminating the need for PCs alone can be significant to justify implementing TWAIN Direct. However, suppose you consider the indirect costs such as IT burden, user productivity, and client satisfaction. In that case, you can appreciate even more the importance of TWAIN Direct as a critical part of your overall capture strategy.

In a few examples of IT burden and costs, consider several time-consuming activities such as provisioning the PCs with all the required software, and the commitment to update operating system software, scanner driver software and scanning application software. This IT effort can cost departments lots of money if they pay another internal department for technical shared services. Also, USB scanners and printers are notorious for various technical issues, from USB memory problems to driver conflicts and, finally, the dreaded USB disconnects for whatever unexplainable reason.

Lastly, there is a lot of lost opportunity to offer document scanning in high-security networking environments such as Citrix, PCoIP (PC over IP), virtualized desktops, and, generally, in thin client infrastructures. Although there are some workarounds to using scanners,

## Eliminate PC Costs With TWAIN Direct

Example includes quantity discounts

Quantity of Computers	10	50	200	500
Computer Hardware	\$850	\$800	\$750	\$700
Operating System Software	\$50	\$45	\$40	\$35
Anti-Virus Software	\$25	\$20	\$15	\$10
<b>TOTAL COST</b>	<b>\$9,250</b>	<b>\$43,250</b>	<b>\$161,000</b>	<b>\$375,500</b>

printers, and other peripherals in these environments, these are often expensive and unreliable because scanner drivers are not designed specifically for these environments.

In these situations, a scanner driver RESTful API such as TWAIN Direct, which only requires a network connection, is an ideal solution that provides both productivity and security. In addition, the zero-footprint architecture of TWAIN Direct is utterly operating system agnostic, doesn't rely on any proprietary network protocols, and does not require any locally installed software.

## HYBRID OFFICE USE CASES FOR TWAIN DIRECT

So, if both the business justification and the business value are clear for TWAIN Direct, then the next logical step is to understand precisely to which use cases this technology applies. A critically important initiative in an effective digital capture strategy is empowering users to work anywhere, at any time, on any device that is simple, secure and efficient.

Because of the versatility of TWAIN Direct, it is an ideal technology tool to harmonize a mixed environment of devices

for various use cases that allow users to work in a ubiquitous manner that is the easiest and most effective for them. In addition, TWAIN Direct addresses many traditional challenges for deploying scanning devices, including connectivity, software interoperability, and network security.

- **Corporate office – TWAIN Direct** supports push or pull scanning so a Corporate Office can deploy a mixed fleet of scanning devices. This diverse fleet can include multifunction shared scanning devices, high-volume production scanners and desktop scanners, all without the cost or burden of a computer to operate each scanning device.

- **Remote Offices –** As almost everyone might agree, working from home and remote offices is a trend that will never go away and will likely accelerate. For example, during the COVID pandemic lockdowns, many companies were caught off guard when they needed to offer their work-from-home employees digital transformation tools. A quick and easy answer to provide work-at-home digital tools was to purchase a cheap all-in-one printer/