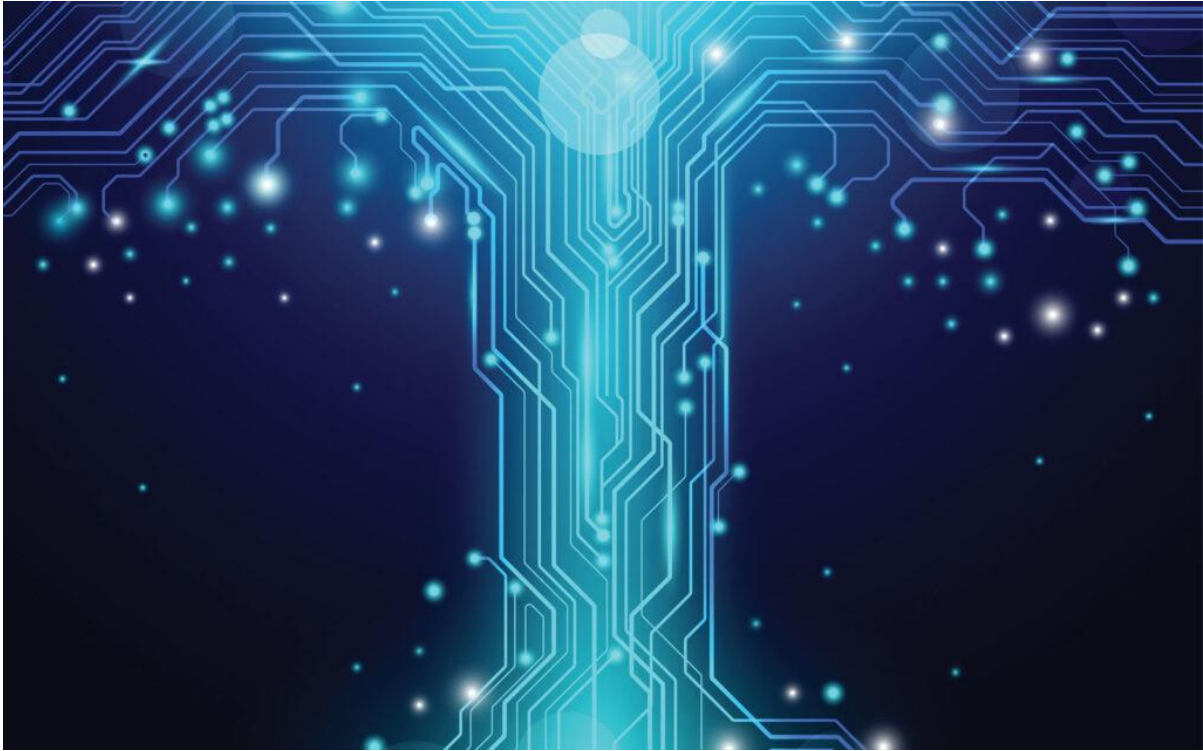


The Dollars and Cents of Paper vs. Digital



It's easy to see the convenience afforded by digital documents over paper ones—but what are the economic implications of going digital? **While your exact costs will vary, we estimate that the cost of a paper document is 141X more than a digital document.**

Let's break down the costs of paper versus digital documents to see how much money your organization could save by going paperless.

Paper Document vs. Digital Document Storage

We can calculate the cost of storing a document in your office as:

Cost to store 1 page for 1 year =

$$\frac{12 \times \text{monthly cost per ft}^2 \times \text{ft}^2 \text{ of 1 file cabinet}}{\text{Number of documents per file cabinet}}$$

The cost of office space will vary significantly depending on your location. But let's use [Tallahassee, Florida](#) as our example, where the cost per square foot currently averages \$21.79 per month. Assuming a file cabinet with a 3 ft footprint will hold 5,000 sheets of paper:

$$\frac{12 \times \$21.79 \text{ per ft}^2 \times 3 \text{ ft}^2}{5,000 \text{ pages per file cabinet}} = \$0.0159 \text{ per page, per year}$$

Next, let's calculate the cost of storing a digital document.

$$\frac{12 \times \text{cost per GB per month}}{\text{Number of documents per GB}}$$

The number of documents per GB will obviously vary depending on the type of document you store, with word processing documents taking very little space, and other documents like images or PDFs taking more. **Price per GB will also vary depending on several factors:**

- **Retrieval speed**
- **Type of redundancy**
- **Amount of data stored**

But let's suppose you need approximately 50 TB of "hot" storage for frequently accessed documents with zone-redundant storage (which stores data in multiple physical locations to reduce the risk of data loss). That will cost you approximately **\$0.023 per GB per**

month. If each 1-page document is 1 MB (on the high side), you can store 1,000 documents with one 1 GB of storage.

We can calculate the annual cost of storage for one document as:

$$\frac{12 \times \$0.023 \text{ per GB}}{1,000} = 0.000276$$

Your cost to store one digital document comes to approximately three 100ths of a cent per year.

Comparing \$0.0159 to store a paper document versus 0.000276 to store a digital one, **paper storage costs 57.6 times more**. And unlike physical storage space, the price of cloud-based storage is likely to continue to decline in the coming years.

Additional Paper Document Costs

However, if you also need to print a document before you can store it, costs get even higher.

Cost of Paper

In the years since COVID-19 hit, several factors have led to a spike in the cost of paper:

- **Supply chain disruptions**
- **Increased demand for lumber**
- **Wage increases**
- **Labor shortages**
- **Cost of transportation**

As a result, [the cost of paper products](#) has risen 37% since 2019. In 2023, [a single sheet of bulk paper](#) costs approximately **\$0.008**.

Cost of Ink or Toner

But even with rising costs, the cost of the ink or toner to print a document is even higher than the cost of the paper itself.

To calculate this cost, we'll use the formula:

$$\frac{\text{Cartridge Price}}{\text{Pages each cartridge will yield}} = \text{Cost per Page}$$

Both factors will vary depending on the type of printer you use and how much toner each page requires (printing images uses more toner than text, for example). But Lifewire.com gives us an estimated cost of \$20 per cartridge and 500 pages per cartridge.

$$\frac{20 \text{ per cartridge}}{500 \text{ pages per cartridge}} = \$0.04 \text{ per page}$$

Total

Our total cost of paper, toner, and storage comes to a little over 6 cents per page:

$$\$0.008 + \$0.04 + \$0.0159 = \$0.0639$$

Compare that to the cost of storing a digital document:

<p>\$</p> $\frac{\text{Cost of a paper document: } \$0.039}{\text{Cost of a digital document: } \$0.000276} = 141$	<p>Total cost for a paper document is 141 times higher than digital</p>
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Learn More

As noted, these numbers are estimates—but it's clear that whatever the exact figures come out to for your situation, **digital documents just make financial sense.**

