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WHITE PAPER · BUSINESS CASE

# Why Modernize? The Business Case for Rebuilding an Aging Website

*The security, accessibility, and mobile risks quietly accumulating in websites built more than a few years ago — and what a verified, measurement-driven modernization delivers.*

Includes a live case study: the Harrington County Historical Society, a demonstration rebuild drawn from a real modernization project. The organization portrayed is fictional; the modernization work is real.

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Most small-organization websites are built once and then left alone. They keep working in the narrow sense — the pages load — while the risk underneath them compounds: unpatched platforms, accessibility failures that have become legal exposure, and layouts designed for screens most visitors no longer use. This paper lays out the four risks I find in nearly every aging site, with data, and describes a modernization approach where the result is *measured*, not promised.

**~62%**
of worldwide web traffic comes from mobile devices (StatCounter)

**1 in 4**
U.S. adults lives with a disability (CDC)

**4,000+**
U.S. web-accessibility lawsuits filed per year (UsableNet)

**90%+**
of WordPress vulnerabilities originate in plugins and themes (Patchstack)

## 1. What an aging website looks like

The problems rarely announce themselves. A site that looks "fine" to the person who commissioned it eight years ago commonly carries:

- A fixed desktop-width layout that forces phone users to pinch and zoom;
- No image alternative text, low-contrast text, and controls a keyboard or screen reader cannot operate;
- A content-management platform several major versions behind, with abandoned plugins;
- Copy-paste debt — boilerplate legal text from someone else's template, events years out of date, payment buttons wired to the wrong products;
- Contact details as plain text instead of tappable links, and no working forms.

Each item is small. Together they cost visitors, invite legal trouble, and put the organization's name on a site that can be compromised.

## 2. Security: the unpatched-platform problem

WordPress powers roughly **43% of all websites** (W3Techs), which makes it the most attacked software on the web. The attack surface is rarely WordPress core: security researchers consistently attribute **over 90% of disclosed WordPress vulnerabilities to plugins and themes** (Patchstack), and firms that clean infected sites report outdated components as the leading cause of compromise (Sucuri). A small organization's hacked site does real damage: malware served to visitors, phishing pages hosted under a trusted local name, and search-engine blacklisting that outlasts the cleanup.

> **The modernization answer:** for content sites, remove the attack surface entirely. A statically generated site (I build on Next.js) has no database, no server-side code, no plugins, and no admin login to attack — and therefore no patching treadmill to fall behind on.

## 3. Accessibility: a legal exposure and a real audience

More than **1 in 4 U.S. adults** lives with a disability (CDC). Web accessibility is also now firmly a legal matter: plaintiff-side firms have filed **over 4,000 digital-accessibility lawsuits per year** in recent years (UsableNet's industry tracking), alongside a much larger volume of private demand letters — and small businesses and nonprofits are regular targets. The regulatory direction is one-way: the Department of Justice's 2024 rule requires state and local government websites to conform to WCAG 2.1 AA, and courts routinely treat WCAG as the de-facto standard for everyone else.

Meanwhile, the WebAIM Million study finds detectable accessibility failures on roughly **96% of the web's top million home pages**. Most organizations discover they have a problem only when the demand letter arrives.

> **The modernization answer:** build to the current standard — WCAG 2.2 AA — and verify it with tooling rather than asserting it: automated axe-core scans of every page at multiple screen sizes, keyboard-only test passes, and measured color contrast, delivered as a written audit report with the project.

## 4. Mobile: designing for the actual audience

Mobile devices generate roughly **62% of worldwide web traffic**, versus about 36% for desktop (StatCounter) — and for local organizations that people look up on the go, the mobile share runs higher still. Google now indexes and ranks the mobile version of a site (mobile-first indexing), so a desktop-only layout is a search problem as well as a usability problem. Speed compounds it: Google's research found **53% of mobile visitors abandon** a page that takes more than three seconds to load — and aging sites routinely ship full-size unoptimized photographs to phones.

> **The modernization answer:** mobile-first layout verified at widths from 320px up, touch targets sized to current standards (44px), images automatically resized and optimized per device, and performance validated with Lighthouse.

## 5. Search, trust, and continuity

Modernization is also the moment to fix what visitors and search engines silently penalize: missing page metadata, no sitemap, broken social-share previews, and — the most common rebuild mistake — dead links. Every legacy URL should permanently redirect to its new page so that years of bookmarks, citations, and search results keep working. Done correctly, a rebuild preserves search equity while improving every ranking signal Google measures.

CASE STUDY — LIVE DEMONSTRATION

### A county historical society, rebuilt and verified

My demonstration site — the Harrington County Historical Society — is drawn from a real modernization project (the client organization, people, places, and photographs are fictionalized). The original site was WordPress with a 2018-era theme: a fixed 1,100px desktop layout, no alternative text on any image, link contrast of 2.6:1 against a 4.5:1 standard, a plugin cart charging under wrong item names, boilerplate legal text copied from another organization, and a 26-page click-through index for its most-used genealogy content.

| Measure | Legacy site | After modernization |
|---|---|---|
| **Platform** | WordPress + aging theme and plugins | Static Next.js — no database, plugins, or admin login to attack |
| **Accessibility** | No provisions; multiple WCAG failures | WCAG 2.2 AA, verified: 0 serious/critical axe-core violations across 158 page-states |
| **Mobile** | Fixed 1,100px desktop layout | Mobile-first, verified 320–1440px, zero horizontal scroll |
| **Lighthouse** | — | 100 accessibility / best-practices / SEO on every template; desktop performance 100 |
| **Continuity** | — | Every legacy URL 301-redirects to its new page |
| **Capability** | No forms; plain-text contact info | Accessible contact and nomination forms; searchable 573-family genealogy index |

The demo is live, and the audit methodology and results ship with it — the point is that every claim above is a measurement.

## 6. The modernization path

1. **Capture.** Every page, image, and quirk of the existing site is extracted and preserved verbatim before anything changes. Nothing is lost.
2. **Rebuild.** Modern stack, content carried over word-for-word. Anything questionable is flagged for client review — never silently rewritten.
3. **Verify.** Automated accessibility, responsive, and performance audits, with a written results report.
4. **Launch.** Static hosting that costs little to nothing, needs no security patching, keeps every old link alive — and hands the client a site that stays modern instead of quietly decaying.

## Sources


- StatCounter Global Stats — mobile vs. desktop market share.
- Centers for Disease Control and Prevention — Disability Impacts All of Us.
- UsableNet — annual digital accessibility lawsuit reports.
- U.S. Department of Justice — Title II web accessibility rule (2024).
- WebAIM — The WebAIM Million (annual accessibility analysis).
- W3Techs — usage statistics of content management systems.
- Patchstack — State of WordPress Security; Sucuri — Hacked Website Threat Report.
- Google/SOASTA research — mobile page speed and abandonment.
- Parker Technology Solutions — build and verification records for the Harrington County Historical Society demonstration site (July 2026).


## See it, then let's talk about your site

Explore my live demonstration rebuilds, then get an honest assessment of where your current site stands on security, accessibility, and mobile experience.


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