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Unlocking access with Enterprise Document Accessibility

Ensuring readability for everyone

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The impact of accessible documents on inclusive communication

Accessible documents play a pivotal role in fostering inclusive communication by breaking down barriers for individuals with diverse abilities. When documents adhere to accessibility standards, such as providing alternative text for images or ensuring compatibility with screen readers, they enable people with disabilities to access and comprehend information. This commitment to inclusivity aligns with legal and ethical considerations, and ensures that communication channels are open to everyone, promoting a more equitable and diverse exchange of information.

Universal visual accessibility is not only a legal imperative but also a strategic business necessity, regardless of the regulatory framework guiding organizational operations. When well managed, the provision of universal equal access and the enhancement of the user experience for each document across all formats can become a distinctive marketing advantage rather than a perceived business expense.

Enhance your marketing through a modern, comprehensive approach to visual accessibility, positioning your enterprise at the forefront of accessibility equity.

OpenText's Enterprise Document Accessibility solution ensures inclusivity and compliance. No matter your scale, it's cloud ready with seamless stack integration.

Enterprise Document Accessibility enables organizations to:
- Meet regulatory requirements
- Deliver equal access
- Gain brand reputation
- Achieve corporate social responsibility

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Vision impairment is a significant economic burden around the world

2.2 billion people worldwide have vision impairment.[1]

Estimated annual global productivity loss is US$411 billion in purchasing power parity.[2]

9.2 million Americans 65+ have permanent vision impairment, including 1 million who are legally blind.[3]

32.2 million Americans 18 and older experience vision loss.[4] By 2050, this US number is expected to more than double to some 50 million people, including 8.9 million 40+ with uncorrectable vision impairment.[5]

Prevent Blindness America projects that the total annual economic cost related to eye disorders is **$139 billion**.

There are estimated to be more than **30 million** blind and partially sighted people in geographical Europe.

An average of **1 in 30** Europeans experience sight loss.

There are **four times** as many partially sighted persons as blind persons.

The average unemployment rate of blind and partially sighted persons of working age is more than **75 percent**.[6]

1 EBU, *Facts and Figures*
2 International Journal of Public Health, *The Power of Advocacy: Advancing Vision for Everyone to Meet the Sustainable Development Goals*, 2022
3 American Foundation for the Blind
4 Ibid.
5 Centers for Disease Control
6 EBU, *Facts and Figures*

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Going beyond requirements

Achieving universal inclusivity surpassing mere checkbox compliance is essential. Going beyond entails generating and transforming documents for digital presentation and accessibility at scale.

Web accessibility drivers

Approximately 2.2 billion people globally,[7] including more than 32 million Americans aged 18 and above, experience various types of visual impairments, from low vision to blindness.[8] These individuals possess purchasing influence and are both valued customers and employees. They, like many others, have transitioned into the online realm as a significant portion of the world's daily commerce has shifted online.

In the digital landscape, individuals who are blind or visually impaired are thriving by embracing assistive technologies, such as screen reader software. These tools enable access to electronic, online, and mobile content. As the adoption and usage of these technologies surge,

particularly within an aging population, there is a growing demand for an online user experience that parallels the quality enjoyed by sighted customers.

Laborious "exception processes," through which blind and visually impaired customers request documents in traditional formats such as Braille (and then wait for them to be reproduced and delivered by hand), have fallen into disfavor. Consumers have become increasingly tech-savvy, wanting (and expecting) instant access to both their personal account information and widely available digital content.

Caught off guard by this sudden technology-induced shift in customer expectations, a large segment of the private and public sectors have lagged behind in their efforts to offer websites and online content in a format that is universally accessible to all customers.

In response to heightened public pressure, lawmakers revised legislation and regulatory standards to address web accessibility concerns.
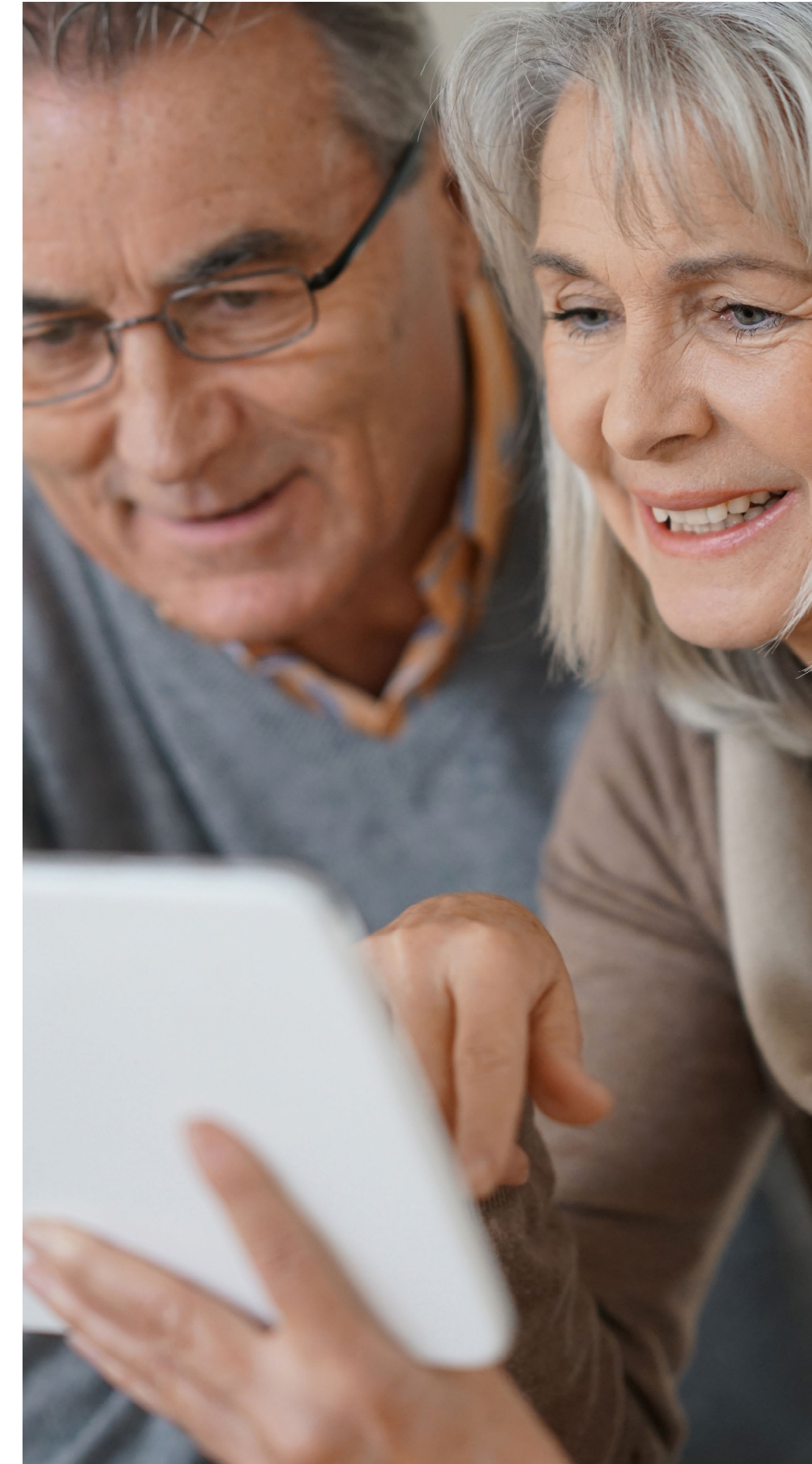
7 World Health Organization, *Blindness and vision impairment*, 2023
8 AFB, *Facts and Figures on Adults with Vision Loss*, 2020

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A growing number of successful lawsuits and settlements regarding inaccessible websites, including web-delivered personal communications, has contributed to establishing a "new normal" for online accessibility.

Today, Americans and Europeans with vision challenges benefit from a continually evolving network of legislation designed to meet changing needs and technologies.

Cornerstone legislation and principles

Foundational US and European legislation that protects the accessibility rights of citizens includes:

Americans with Disabilities Act (ADA)

The ADA states that government agencies, public accommodations, commercial facilities, and transportation organizations must take reasonable steps to provide access to services. Enacted in 1990, before the advent of the internet, the ADA has been updated and amended several times.

Many judges have agreed with the interpretation of the ADA's definition of a "place of public accommodation" to include websites. As a result, organizations have been compelled to retrofit their websites (and all electronic content, including PDF documents) with accessibility features.

Section 508 of US Rehabilitation Act

Section 508 of the Rehabilitation Act mandates how the US Federal Government procures, develops, uses, and maintains Electronic and Information Technology (EIT). Private-sector federal contractors and vendors must also comply with Section 508 to do business with federal agencies or to deliver federally funded programs or services (such as Medicare/Medicaid).

Since the US Federal Government is the largest consumer of EIT products, Section 508 has had a significant impact on the private sector.

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European Accessibility Act

The European Accessibility Act (EAA) is a legislative initiative aimed at promoting accessibility of products and services across the European Union for persons with disabilities. Enacted in 2019, the EAA sets out minimum accessibility requirements for various goods and services, including computers, smartphones, banking services, and ebooks. The act is designed to ensure that people with disabilities can fully participate in society by eliminating barriers to their access to products and services. It reflects the EU's commitment to fostering an inclusive and accessible environment, emphasizing equal opportunities and rights for individuals with disabilities throughout the member states.

Twenty-First Century Communications and Video Accessibility Act (CVAA)

Signed into US law in 2010, the CVAA is intended to help people with disabilities access broadband, digital, and mobile innovations such as the internet, television programming, mobile content, and emergency information (e.g., next-generation 911 services). Title I of the act specifically addresses broadband access, with the goal of making products and services fully accessible to people with disabilities, while Title II is concerned with video programming issues.

Web Content Accessibility Guidelines (WCAG)

Created by the non-profit organization World Wide Web Consortium (W3C), the WCAG help organizations and individuals develop truly accessible web content. This globally relevant set of standards and practices has been adopted by many countries, providing a solid foundation for web accessibility legislation. All new accessible web content, including online communications and documents, should comply with WCAG 2.2, Level AA or higher.

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Why PDF?

There are several compelling reasons why the PDF is (and will continue to be) the de facto electronic document standard for high-volume customer communications such as statements, notices, and bills.

These reasons are:

PDFs provide an unchanging snapshot

Organizations require a document of record, or a single, reliable visual presentation of business documents, including customer communications, at the time they are authored. In other words, a PDF document is the digital equivalent of a hard copy.

PDFs are portable

PDFs offer secure multi-platform support for viewing and managing documents on desktops, laptops, tablets, and smartphones, using Windows®, iOS™, Android™, Linux®, UNIX®, and other operating systems.

PDF is an open standard

Specifications for the PDF were made freely available in 1993, and PDF was officially released as an open standard in 2008 (ISO 32000-1).

PDF is commonly used as a regulatory standard for archives

In some industries, such as financial and insurance, regulatory statutes require official electronic archive records to be in PDF format.

PDF is already supported by extensive IT infrastructure

By all indications, PDF is not going away anytime soon. Government agencies and big companies have massive investments in IT infrastructure that produce millions of recurring PDF documents, such as personalized monthly notices and bills. The financial industry, an early adopter, has also invested heavily in IT technology that enables online presentment of PDF statements.

For these reasons (and others), PDF is the format of choice for organizations that need to generate and distribute business communication documents to their customers.

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Making PDFs truly accessible

"Web accessibility" is a blanket term covering every file format and content type on the internet, including PDF documents. Millions of Americans now receive web-delivered PDF versions of bank statements and other communications in lieu of mailed hardcopies.

PDF files can be created specifically to be accessible for people with disabilities. PDF file formats in use since 2014 can include tags, text equivalents, captions, audio descriptions, and more. Tagged PDFs can be re-flowed and magnified for readers with visual impairments. That said, adding tags to older PDFs and those that are generated from scanned documents can be problematic.

One of the significant challenges with PDF accessibility is that PDF documents have three distinct views, which, depending on the document's creation, can be inconsistent with each other:

- the physical view

- the tags view

- the content view

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The **physical view** is displayed and printed (what most people consider a PDF document). **The tags view** is what screen readers and other assistive technologies use to deliver high-quality navigation and reading experience to users with disabilities. **The content view** is based on the physical order of objects within the PDF's content stream and may be displayed by software that does not fully support the tags view, such as the Reflow feature in Adobe® Reader®.

To maintain their independence, blind and visually impaired people have continued to participate in exception processes that replace paper (or PDF) documents with traditional alternate formats (e.g., Braille). Since alternate hard-copy formats can be labor-intensive to produce, blind and visually impaired people often receive important documents several weeks or months later than other customers. At best, an exception process delivers an inferior customer experience and, at worse, undermines human dignity and prevents people from making timely decisions about their finances, health, and other important affairs.

For organizations, exception processes can be costly to set up and maintain. Fortunately, there is another path that is easier for both parties: accessible PDFs.

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The case for accessible PDFs

In contrast to standard PDFs, accessible PDF documents are crafted to be barrier-free, universally accessible, and usable by individuals with or without disabilities. While the top image layer appears identical to that of a regular PDF, making them visually indistinguishable, the internal metadata of accessible PDFs differs.

These documents feature unique tagging, markup, and structure that empower assistive technologies like screen reader programs to interpret the content in the correct order, enhance navigation, and deliver comprehensive information about visual elements such as images and graphs.

To meet a functional standard of accessibility, PDF documents should be designed to comply with WCAG 2.2, Level AA or higher. Ideally, documents are created in PDF/UA (Universal Accessibility) format, as defined by ISO 14289-11.

Accessible PDFs include mark-up that defines:
- Logical read and tab order
- Text and headings
- Tables
- Non-text elements (e.g., images, graphs, figures)
- Lists
- Properties, fonts, and contrast
- Language
- Bookmarks
- Links (internal and external)

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Poor design leads to inaccessible PDFs

At the desktop level, PDF documents are typically generated by converting native documents (e.g., Microsoft® Office® documents or Adobe® Creative® Suite documents) into PDF format. During the conversion process, the software application strives to create a tag structure based on the content of the original document.

If the author of the native document has not followed accessibility guidelines, explicitly identifying elements, such as headings, and properly formatting lists, tables, and other items, the software simply assigns a tag structure based on its best algorithmic guess about the document, often resulting in errors.

While software applications that generate accessible PDF output can faithfully reproduce the appearance of a native document, they cannot infer a logical reading order or produce meaningful alternative text for graphical elements. When alternative text for images is missing from the native document, the PDF conversion engine assigns generic identifiers, e.g., "Image 54," which are meaningless when read aloud by a screen reader program.

Unfortunately, the automated conversion process itself is prone to errors. Even when native documents have been designed with accessibility in mind, accessible PDFs require post-conversion inspection and adjustment by a knowledgeable technician to make their contents and tag structure comply with the specified accessibility standard (e.g., WCAG 2.2, Level AA). For example, during conversion, tables may be incorrectly tagged as graphics, or table data may become dissociated from its corresponding column or row header. Similarly, text headings may not be detected and lists without active and meaningful destinations may only be recognized as plain text.

When optical character recognition (OCR) software is applied to image-only or scanned documents, the resulting PDF document may contain garbled text, punctuation, case, and spacing. For example, "Statement Information" could be converted to "Stat ementIn forma tion" in the PDF document and thus sound like gibberish in a screen reader program. The tag structure of a PDF document generated with OCR technology will also always need to be manually adjusted by an accessibility technician using specialized software.

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Accessibility made easy

The question becomes: Can you afford to outsource that level of access? OpenText Enterprise Document Accessibility solutions can take your organization above the bar for inclusivity and make doing so affordable.

They enable you to transform, store, and present print-ready documents at scale, as well as in highly complete and structured accessible formats.

Fundamentally an Enterprise Document Accessibility solution facilitates tagging adding semantic tags and metadata to PDF files, which improve their structure and accessibility. Metadata enhancements can include adding author information, document titles, keywords, and other descriptive attributes that make it easier for users to locate and understand the content. It ought to allow conversion of all customer communication documents.

Enterprise document accessibility in customer communications' high-volume digital throughput streams fulfills several requirements. These include seamless integration with existing systems, allowing for real-time

With OpenText, you'll have enterprise-grade accessibility capabilities, including color and contrast enhancement, semantic structure, keyboard accessibility, and form optimization. It lets organizations:

✓ Ensure that color choices and contrast ratios within PDFs comply with accessibility standards.

✓ Create semantic structure elements such as headings, paragraphs, lists, and tables.

✓ Optimize PDFs for keyboard navigation, ensuring that users can interact with the document using keyboard inputs. Equip interactive forms with accessible form fields with proper labels, tab order, and validation messages.

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conversion and presentation of documents. Scalable enterprise-grade solutions cater to individual document needs or manage large print tasks efficiently, with performance scaling in tandem with project demands.

Automatic conversion and presentation of archived content in a user-friendly, easily navigable format, including compliance with accessibility standards such as PDF/UA, ensure accessibility for all users, including those relying on accessibility technologies. This not only enhances communication effectiveness but also streamlines processes, ensuring operational efficiency and compliance with regulatory requirements

Modernize document transformation
Innovate past manual transformation and remediation using a powerful on-demand engine that delivers a high degree of consistency and completeness.
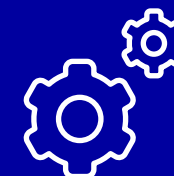
Deliver better user experiences
Rapidly present documents across a variety of digital channels to create an excellent experience for all users.

Reduce costs
Remove your reliance on third-party remediation services, de-commission legacy applications, and minimize cloud-related capital expenditures.

Incorporate within business processes
Graphically define and automate business logic and technical functions to deliver documents to the right place, in the right format—regardless of complexity.

Ensure compliance
Ensure compliance with accessibility requirements worldwide, safeguarding against potential lawsuits and penalties.

Increase brand and customer loyalty
Enhance brand reputation by showcasing a commitment to inclusivity and diversity.

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Beyond compliance to true accessibility

There's compliance, and then there's true accessibility—flexible enough to meet changing needs and evolving parameters.

Not every document is designed with inclusivity in mind. OpenText solves this problem cost-efficiently, with the quality you demand, when you need it.

Only OpenText's Enterprise Document Accessibility solutions offer complete capabilities for meeting regulatory requirements at any scale.

About OpenText

OpenText, The Information Company, enables organizations to gain insight through market leading information management solutions, on premises or in the cloud. For more information about OpenText (NASDAQ: OTEX, TSX: OTEX) visit opentext.com.

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