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A Handbook on Sitecore CMS Implementation

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INTRODUCTION

Sitecore, the world-popular digital experience software, enables enterprises to develop and deliver seamless and highly personalized digital experiences. The Sitecore “Customer Experience Platform” integrates a powered. NETbased Content Management System (CMS) and a fully-adaptive Digital Marketing System (DMS), comprising of several tools pertaining to e-commerce and digital marketing.

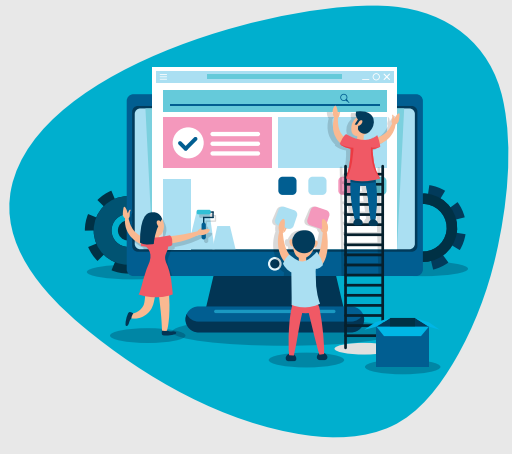
Businesses have adopted Sitecore CMS in large numbers owing to its user-friendly interface, high scalability and a comprehensive set of features and functionality, rarely packed together in any one solution

THE SITECORE DEVELOPMENT APPROACH

Sitecore CMS allows creating, managing and publishing data to websites.

- Sitecore offers an advanced development environment, with multi-site development capabilities, robust data management capabilities, robust OMS module, multi-device and multi-brows - er development capabilities, integration translation capabilities and more. Sitecore offers 1,300 classes and 5,000 methods, offering a rich and highly powerful development framework.

- The CMS incorporates a powerful desktop interface, which matches the look and feel of a Windows desktop. A fully customizable role-based system, with multiple applications for specific tasks such as managing users, editing content, monitoring campaigns, setting up workflows, and other tasks make it easy to get things done.



- Sitecore offers possibilities for unbridled customization, and developers may extend or customize the Sitecore management interface. The core database, which stores the configuration and settings for the user interface may be easily accessed and changed using the Sitecore management interface.

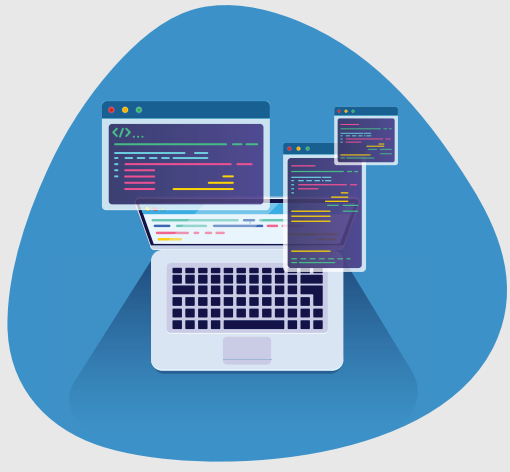
- Sitecore CMS offers web content editors and marketers full control over all aspects of their website, including creating blog posts, social media marketing, e-commerce integration, deep personalization and other facets. A highly flexible extensibility framework makes customization easy.

- The intuitive page editor, the corner stone of the Sitecore platform, which works out of the box, offers an easy way to manage content. A content editor with a solid Sitecore imple - mentation in her hands can leverage the page editor to create and manage their daily content in double quick time, effortlessly. The Page Editor makes the task of re-using content equally seamless. Leveraging Sitecore's built-in languages allows creating multiple versions of the same content, in different languages.

- One best practice is to break the design and development process into sprints, to discover any potential issues early on in the development process. Testing is best done in close collaboration with developers, during sprint iterations, without waiting for the very end.

SITECORE'S SMART SCALABILITY

- Scalability is a key USP of Sitecore. The platform is highly scalable, capable of matching any business need, size and budget.
- Developers may configure Sitecore xDB environments to run as a standalone installation, scale vertically or scale horizontally.
- A standalone installation, ideal for development or testing, is an all-in-one configuration where the developer installs all Sitecore xDB components on the same computer. A minimal installation could include a Sitecore application server instance with all the required components for content management, content delivery, processing, reporting, and session tracking, a collection database such as MongoDB to record the customer experience, a reporting database such as SQL Server to provide reporting data for Analytics, and different content databases for master, core, and web.
- Vertical scaling or scale-up, ideal for small to medium businesses, involves adding resources to a single node in a system, such as adding CPUs or memory to a single computer. Sitecore xDB allows installing single instances of each component on separate servers, marking a shift up from a single server to a multi-server environment.



- Horizontal scaling or scale-out is adding more nodes to a system, such as adding a new computer to a distributed software application. Sitecore allows deploying multiple servers for specific components, such as content delivery, processing, content management, or collection, to increase capacity. For example, developers may add multiple clusters of content delivery servers, to match higher demand, and deliver web content to contacts quickly.
- The Sitecore Experience Database is also easily scalable, to improve performance and handle large amounts of seasonal or unexpected data. Implementing fully scalable xDB architecture improves performance and availability greatly.

TEMPLATES AND PRESENTATION COMPONENTS OFFER UNBRIDLED FLEXIBILITY

A Sitecore page consists of three main types of objects: Layouts, Renderings, and Data Templates. A Sitecore template is a structure defining the data definitions for a piece of content, rather than the presentation.

Templates do not store any data themselves and just create a definition. Each data template contains specific properties for different needs, for example, a Contact Us Template contains properties such as Phone Number.

Every piece of content in Sitecore requires a data template and defines the properties of the content.

- For instance, if a developer wants to add a “Call To Action” block to a page, the first step is to create a new “Call To Action” data template for it. Sitecore developers may view or create templates within the 'Templates' node in the tree view.

- Sitecore components are small bits of functionality, which may be added to a layout, as required. For instance, both the header and the footer of a page would be specific components. Defining a component requires coding.

- Components offer unbridled flexibility and re-usability. Content editors add components onto a page using placeholders, or areas on a page to which components may be dragged. Sitecore developers may define as many placeholders as they desire in a page. Placeholders may also be configured to only allow certain components onto a page, offering developers the power to enforce standard information architecture.

- The Sitecore Experience Marketing (DMS) powers personalization. The editor simply sets the required rule and selects a new data source. A site visitor who satisfies the conditions of the rule sees the personalized content.

CONTENT STRUCTURE AND MEDIA ASSETS FACILITATE ROBUST DEVELOPMENT

- A Sitecore implementation is on track if it is built on a powerful content structure that facilitates multiple channels and modes publication.

- The Sitecore backend automatically generates a strong content tree, with a unique URL for every item. Since the content tree holds only items with a URL, there is a clear definition between site pages, data source content and website configuration.

- The CMS is made up of three databases – a core database, a master database and a web database, besides a web application. The core database, accessible through the CMS, manages membership, handles system settings and holds the entire configuration for all applications in the CMS. Users may use this database to easily configure any settings, override standard functionality, build custom applications, and add functionality.

- The master database, which holds content data, can be workflow enabled and customized. As such, manipulating the master database makes it possible to lock down to certain roles, or route content through an approver or translator.

- The web database stores live content for the web application. The content tree hosts all content contained in a Sitecore web application, including content and media library items intended for the use of content editors, the layouts, and the system and templates folders for developers and system administrators.

- The Media Library contains all media items, such as images, documents, videos, and audio files, offering a central repository to keep files organized. Sitecore users may manage all their media items such as images to be embedded in a webpage or available for download, from the Media Library. Users may navigate the content tree or use Sitecore's search functionality to quickly find media items.

- Marketing teams can launch campaigns and track how contacts interact with media items, such as PDFs, videos, or other documents on the website by classifying media items as digital marketing assets. Adding a taxonomy tag to items from the Media Library classifies the item as a digital marketing asset. Marketers may then use Experience Analytics to track asset downloads and engagement value. The Path Analyzer reveals the paths that contacts take to reach the asset.

SITECORE'S EFFICIENT SECURITY AND WORKFLOW MANAGEMENT

- Sitecore offers robust security. Its security model allows admins to grant or deny access to specific users to almost every aspect of a website, enabling enterprises to implement the time tested rule of minimal access privileges to users.

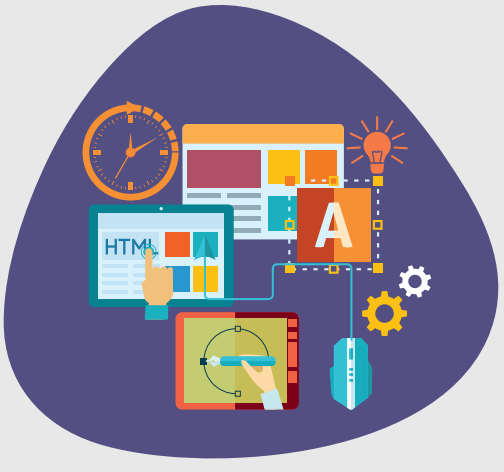
- Sitecore's set of predefined security roles makes the task of assigning access rights to a specific set or group of users easy. Admins can also create new roles to assign relevant access rights. Sitecore also offers global roles that all users across domains can access or see.

- Admins may create security domains, or a collection of security accounts of users and roles, which may be administered as a unit with common rules and procedures.

- Sitecore uses the .NET security engine, which offers several advantages such as plug-and-play features offered by Microsoft, abstraction from the actual data source, the option to replace or extend the default configuration with custom providers, and more. ASP.NET engine is also proven to be much faster than other options, offering the winning combination of speed with security.

CACHING: A KEY USP OF SITECORE

- Sitecore offers different types of caches.
- The prefetch cache for each database contains items of the Sitecore class PrefetchData, which consists of data pulled out from the database at Sitecore startup, for the obvious purpose of faster load times at run time. The cost is obviously longer start-up times.
- The data cache, another cache for each database, contains the item data pulled from the database. The difference is that this cache is populated whenever requested. The cache minimizes the number of requests to the database, improving performance greatly.
- There is also an item cache for each database, containing objects used extensively in the code, which improves performance greatly. The HTML cache or the web cache caches the actual HTML generated from sub-layouts and renderings.
- Sitecore allows users the option to set the size of the item cache in the same place as the data cache. The cache is differentiated by default based on the environment. For instance, the HTML cache is always cleared on publishing, and both the Item cache and the data cache is updated incrementally in an atomized way.
- Sitecore's cache tool, accessible from the URL- http://yoursite.com/sitecore/admin/cache.aspx allows users to view the different caches, and also the size and the usage of cache.



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CONCLUSION

Sitecore is an enterprise favorite, used by major international organizations such as Experian, Toshiba, Canon and Nestlé. The rich slew of features and functionality which make development a piece of cake, and offer scope for unbridled customization, while still maintaining highly intuitive UX and robust security, makes Sitecore rank at the very top in the list of the most popular CMS.

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Founded in 2009, Suyati Technologies partners with clients to engineer great experiences for digital customers. We collaborate with businesses to strategize and implement impactful digital initiatives that position our clients ahead of the competition. We are digital-first and we focus on delivering great customer experiences that accelerate exponential growth.

Our custom technology solutions ensure that you win stakeholder support, secure early wins through competitive advantage, and transform your business for future growth. And our tailor-made platform, Mekanate, helps you discover your business DNA from your passive and active data, and use it to initiate, integrate and achieve operational effici ency.

With our niche and rich expertise in a wide range of technologies and services - CMS, CRM, e-commerce and Marketing Automation. We help companies across the globe leverage their best on web and cloud platforms.

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