CONTENTSTACK™

MACH Evaluation Checklist

Enterprise business is evolving at a rapid pace. Many companies are held back by outdated tools that cannot adapt to customer demands, modern touchpoints, and market changes. MACH (microservices, API-first, cloud-native, headless) describes principles, patterns, and practices behind a rising number of modern tools that address the need for greater agility and adaptability in enterprise solutions. MACH technologies are built from the ground up to be modular, pluggable, scalable, and to support a continuously evolving enterprise architecture.

As MACH terminology becomes more popular in the enterprise software market, it can be difficult to determine which tools are truly modern. While different classes of technology (content management, commerce, search, and so forth) offer unique benefits, the following evaluation checklist covers key criteria shared by all MACH solutions. Use these factors to evaluate which solutions adhere to MACH principles.

Microservices

Independent Services
Independently develop, manage, update, and scale decoupled functionality. Adjust individual services with minimal impact and risk to the overall implementation.

Modular Implementation
Go to market quickly with light prototypes and enhance solutions over time by gradually adding and replacing services. Apply an iterative approach that does not require a full solution blueprint from the outset.

Composable Enterprise
Add, upgrade, enhance, replace, and remove enterprise systems and services independently to support both existing investments and emerging requirements. Choose technologies that allow evolution as needs change without locking into a single suite.

Integration Standards
Solutions that use microservices leverage standards such as SAML (Security Assertion Markup Language) for authentication.

API-First

Comprehensive APIs
Multiple dedicated APIs (Application Programming Interfaces) provide programmatic access to all aspects of the system. APIs can provide complete control of the entire platform without requiring a User Interface (UI).

Backwards Compatibility
The APIs are fully versioned and there are no breaking changes between versions. Customers can choose when to adopt API version changes.

Quality Documentation
A comprehensive, searchable, self-help knowledge repository provides quality technical documentation that demonstrates product capabilities and facilitates solution development.

Extensibility
MACH systems use APIs and webhooks to interact. User interfaces are customizable and extensible to allow integration with any system. Connectors are available for numerous common technologies.

Open Platform
By definition, API-first systems are open, exposing interfaces for integrating systems as well as importing and exporting data.

Cloud-Native

Software-as-a-Service

SaaS platforms require no provisioning, installation, maintenance, or system administration by the customer. This eliminates relevant infrastructure and labor costs, but also removes the cost of developing and maintaining the knowledge required to perform those tasks. No on-premises option is available. The vendor provides a Service Level Agreement (SLA) and, when needed, private cloud options.

Automatic Updates

System updates apply automatically without customer effort, downtime, licensing costs, or other fees.

Rolling Improvements

Functionality and infrastructure improvements appear steadily and continuously along with documentation, webinars, blog posts, and other supporting materials.

Performance and Scalability

High performance cloud infrastructure provides dynamic scaling to meet variable levels of demand.

Cloud Advantages

Cloud solutions can eliminate individual potential points of failure and provide for features such as caching, redundancy, backup, disaster recovery, intrusion prevention, performance and reliability testing and monitoring, and geographical distribution of the solution.

Headless

Back End Only

Host and scale front-end delivery completely separately from back-end management. Headless software does not dictate any specific front-end content delivery platform, providing unlimited flexibility in deployment. Customers can use their preferred content delivery technologies, frameworks, tooling, hosting platforms, and other preferred technologies. Using RESTful APIs that serve content as JSON, front-end developers can be highly productive with knowledge only of the data structures developed for their solution and minimal technical knowledge of the solution back-end.

Development Freedom

Solutions can employ any technology stack, programming language, and front-end framework. In addition to APIs that expose JSON, software development kits (SDKs) that further simplify implementation for several common technology platforms.

Channel Agnostic

Use native, channel agnostic RESTful APIs to create, consume, modify, and manage abstract content through web and mobile experiences, dedicated hardware such as kiosks, and any other interfaces. Adopt modern touchpoints with no customization and roll out new experiences without impacting existing functionality.

Contentstack™ – a leading Content Management System (CMS) and Digital Experience Platform (DXP) – allows organizations to manage content across all digital channels and create amazing digital experiences. Contentstack pioneered the headless CMS category and effortlessly handles large-scale, complex, and mission-critical deployments, while supporting real-world enterprise business processes and team collaboration. Contentstack's customer satisfaction is the highest in the industry and it is the preferred API-first CMS for SAP Cloud. Visit www.contentstack.com to see why marquee brands – including Best Buy, Chase, Holiday Inn, Icelandair, Morningstar, Express, Miami HEAT, Shell, and Walmart – across the globe choose Contentstack.

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