



FOR THE CTO

# Your Engineers Are Maintaining Salesforce. Not Building Your Product.

A technical brief for CTOs evaluating what the platform is actually costing your engineering org and what the move looks like.

**mengage**



Every quarter your engineers spend time on SFMC that does not ship product. Segment requests, data extension builds, AMPscript maintenance, journey debugging, none of it moves your product forward. It keeps the marketing team running. That is the actual cost of the platform, and it does not appear on the contract. This brief covers the architecture comparison, integration model, migration approach, rollback position, and what other enterprise engineering teams found when they made this move.

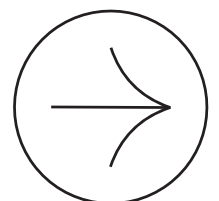
SFMC: SEQUENTIAL BATCH MODEL	MOENGAGE: EVENT-DRIVEN PARALLEL MODEL
<p>Deployment Pipeline:</p> <p>JIRA TICKET &gt; DEV/HTML &gt; SQL QUERY</p> <p>&gt; DATA EXTENSION &gt; TESTING/QA</p> <p>&gt; LIVE DEPLOYMENT</p> <p>High IT dependency. Long cycle times. Engineer in critical path of every campaign.</p>	<p>Deployment Pipeline:</p> <p>END-USER CONFIG (VISUAL EDITOR)</p> <p>&gt; EVENT TRIGGER (REAL-TIME BEHAVIOUR)</p> <p>&gt; PUSH / EMAIL / IN-APP / SMS (INSTANT)</p> <p>Marketer-operated. Event-driven. Engineers exit the critical path entirely.</p>

THE DIFFERENCE IS NOT WORKFLOW. IT IS WHO HAS TO BE INVOLVED. ON SFMC, THAT IS ALWAYS AN ENGINEER. ON MOENGAGE, IT NEVER IS AFTER GO-LIVE.

## What That Architecture Costs Your Org, Beyond the Contract

Starbucks' customer profiles were 24 hours stale on SFMC because the architecture could not ingest POS data in real time. That was not a configuration problem. It was the model working as designed.

**They moved to MoEngage. Profiles updated on behaviour in real time. The conversion window that opens in the first 24 hours after a customer joins became actionable the same day. That is one example of what batch latency costs commercially. The engineering cost sits behind it, and it compounds every sprint.**



## The Proprietary Skill Trap

Every engineer you develop on SFMC becomes a platform dependency, not a transferable asset. When they leave, the institutional knowledge leaves with them. The certified SFMC engineer you paid \$111K–\$170K to develop is not a transferable asset, they are a platform dependency.

MoEngage uses Jinja, an open standard templating language used across Python, Django, Ansible, and the broader engineering ecosystem. Engineers already know it. Work built in Jinja is portable. There is no platform-specific certification required, and no proprietary syntax to learn or maintain.

### THE ENGINEERING PROBLEM

Your Engineers Are  
Not Building Product.  
They Are Running  
Salesforce.

On MoEngage, engineers exit the critical path after SDK integration. Permanently. Marketers own the platform from go-live. No tickets, no SQL, no specialist dependency. Your engineers go back to building products.

That is the only question that matters here: **how many sprints has your team lost to SFMC in the last six months? And how many of those would have shipped product instead?**

Salesforce Ben, the most-read independent SFMC community, documents this plainly: **for the world's largest enterprises, there is no easy lift and shift. The platform you are currently paying for is in maintenance mode. The engineering cost of staying is covered in the final section of this brief.**

## AGENTFORCE: THE DEPLOYMENT REALITY BEHIND THE MARKETING

Agentforce for Marketing (Campaign Creation, Personalization Decisioning, Segment Intelligence) is built inside Marketing Cloud Next. MCN is not an upgrade to SFMC. It is a new platform built on Data Cloud and Salesforce Core, with a different underlying architecture. For an existing SFMC customer, accessing that AI roadmap means adopting a platform you are not currently on. That transition requires rebuilding your data extensions from scratch. Salesforce Ben, the leading independent SFMC community, documents this directly: “for some of the world’s largest enterprises, there is no easy lift and shift.” The engineering debt created by that transition is the actual barrier, not intent.

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Salesforce, Adobe, and Oracle have had a decade to make the architectural shift from sequential batch to event-driven streaming. They have not done it. If that debt could have been resolved, it would have been. No AI overlay resolves batch latency at the infrastructure level.

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CTO, MOENGAGE

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## Engineering Tax - Quantified

WHAT YOU'RE PAYING FOR	WHAT SFMC REQUIRES	WHAT THAT COSTS YOUR ENG ORG
Every new audience segment	<b>Any segment beyond basic filters requires SQL in Automation Studio. Queries time out at 30 minutes. No self-serve for marketers.</b>	IT or BI involved in every target list. Developer time pulled from product work for each request.  SOURCE: SALESFORCE BEN
Complex campaign (SQL + APIs)	<b>AMPscript, data modelling, API connections. Senior engineer required throughout.</b>	Verified SFMC customer: "We can't wait to switch to another platform, even though it will result in a lot of rework on our end."  SOURCE: CAPTERRA SFMC REVIEWS
Transactional + promotional messaging infrastructure	<b>1 to 2 FTE permanently absorbed in platform maintenance. None of this builds product.</b>	Every order confirmation, receipt, or service alert consumes Super Messages at standard or elevated rates. When delivery fails, there is no native fallback.  SOURCE: SUPER MESSAGES  MOENGAGE'S TRANSACTIONAL MESSAGING API CONSOLIDATES TRANSACTIONAL AND PROMOTIONAL UNDER ONE END POINT, ONE DATA MODE, ONE TEAM. THE 1-2 FTE YOUR TECH TEAM CARRIES TO MANAGE TRANSACTIONAL OPERATIONS ON SFMC DOES NOT EXIST ON MOENGAGE.
Campaign cycle	<b>Linear journey architecture. Every change goes back in the dev queue.</b>	7-8 weeks from brief to send. Salesforce's own figure, used to justify the MCN rebuild.  SOURCE: SALESFORCE BEN
Keeping the platform running	<b>AMPscript and SFMC SQL are proprietary. Skills built here transfer nowhere.</b>	Certified SFMC developers: \$111K-\$170K base. Consultants: \$110-\$185/hr, up to \$555/hr via SI partner. When they leave, so does everything they built.  SOURCE: FOUND HQ
Path to Marketing Cloud Next	<b>Salesforce calls it "convergence not migration," but admits the path isn't clear for all aspects of the marketing lifecycle. For large enterprises, there is no easy lift and shift. Agentforce is a separate licence on top.</b>	Re-architecture of your data model, journeys, and segmentation. Timeline and cost depend on how deeply embedded your current MCE setup is. No published roadmap for full feature parity.  SOURCE: SALESFORCE BEN

## The MCN Decision You've Already Inherited

If you are currently on Marketing Cloud Engagement, staying is not a neutral position. Salesforce's own roadmap requires every MCE customer to eventually move to Marketing Cloud Next. Agentforce for Marketing is an additional licence on top of that migration.

The relevant comparison now is not MCE vs MoEngage today. It is MCE + MCN re-architecture on Salesforce's terms and timeline, vs a MoEngage migration on yours. Both require engineering work. Only one of them puts you on a platform built for the way marketing actually runs now.

## What SFMC Specialist Roles Cost Your Organization

The engineering overhead of SFMC is not just internal headcount. It generates a permanent demand for certified specialists, roles that exist specifically because the platform requires them.

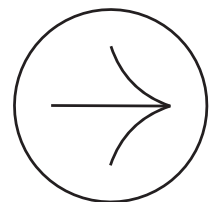
On SFMC, these four roles are a permanent operational cost. On MoEngage, none of them exist as an ongoing dependency.

SFMC ROLE	INDEPENDENT RATE	VIA SI PARTNER	ON MOENGAGE
<b>MC Architect</b>	\$170-\$185 /HOUR	\$340-\$555 /HOUR	Not required. MoEngage solutions engineer leads architecture at no additional cost.
<b>MC Engineer</b>	\$110-\$130 /HOUR	\$220-\$390 /HOUR	Engineering involvement ends after SDK integration. Marketers own the platform from go-live.
<b>MC Administrator</b>	\$70-\$95 /HOUR	\$140-\$285 /HOUR	Existing CRM or marketing manager handles this. No specialist certification required.
<b>MC Email Developer</b>	\$85-\$105 /HOUR	\$170-\$315 /HOUR	Drag-and-drop editor and no-code dynamic content replace HTML/AMPscript dependency entirely.

SOURCE: FOUNDHQ (FOUNDHQ.COM/BLOG/SALESFORCE-MARKETING-CLOUD-CONSULTANT-COST)

# 70%

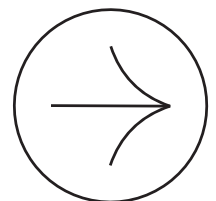
**Reduction in**  
Engineering bandwidth



## DATA LAYER

## Integration Architecture - Where Most Technical Evaluations Start

INTEGRATION	WHAT IT DOES	ENGINEERING IMPLICATION
<b>Snowflake, BigQuery, Databricks</b>	Bi-directional sync. MoEngage reads from your warehouse and writes clean event data back in real time.	Your data warehouse stays in place. No re-architecture of the data layer. No brittle copy-and-sync routines.
<b>AWS S3, SFTP, Redshift</b>	Automated data movement for bulk imports and event exports.	Replaces manual ETL jobs. Closed-loop data cycle maintained automatically.
<b>Identity Resolution</b>	Create and update users via Data API using email, phone, or custom identifier, not just internal ID.	Solves anonymous user reconciliation natively. No custom middleware needed.
<b>Open Analytics</b>	Direct query access to MoEngage data from your existing warehouse in real time.	Your analytics team keeps Mixpanel or Amplitude. No migration of existing analytics workflows.



SDK AND API SURFACE

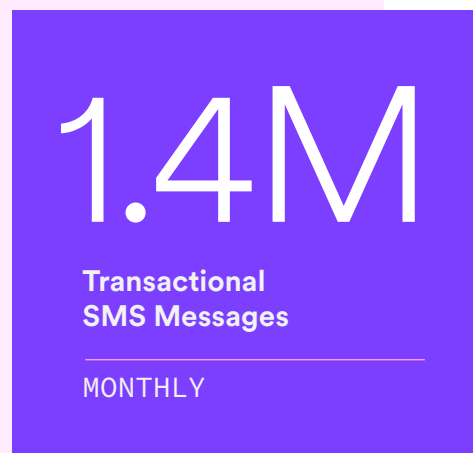
What Your Team Finds at [developers.moengage.com](https://developers.moengage.com)

SDK COVERAGE - 7 PLATFORMS	API SUITE - DOCUMENTED WITH CURL EXAMPLES
<p><b>iOS</b> (Swift, SPM support, full API reference at <a href="https://moengage.github.io">moengage.github.io</a>)</p> <p><b>Android</b> - modular architecture. Separate modules for push, in-app, geofence, real-time triggers, and inbox. Include only what you need. Binary size stays controlled.</p> <p><b>React Native</b></p> <p><b>Flutter</b></p> <p><b>Cordova</b></p> <p><b>Unity</b></p> <p><b>Capacitor</b></p> <p>All SDKs on public GitHub with versioned changelogs. Android modular architecture means you ship only the modules your product requires.</p>	<p><b>Data API:</b> Track User, Create Event, Bulk Import, Identity Resolution</p> <p><b>Push API:</b> Campaign and single-user transactional push, SHA-256 auth</p> <p><b>Inform API:</b> Unified transactional messaging - SMS, email, WhatsApp via single endpoint. One auth pattern, one monitoring surface, one data model.</p> <p><b>Content API:</b> Dynamic personalization via external API at send time. Jinja templating, PII masking on response fields, 3-retry logic, 5-second timeout.</p> <p><b>Campaign APIs:</b> Create, update, test, change status programmatically</p> <p>DC-specific endpoint routing - dedicated data centre per enterprise customer. IP whitelist documentation available from solutions engineer pre-POC.</p>

THE INFORM API - VENDOR CONSOLIDATION AT THE INFRASTRUCTURE LEVEL

If your organization holds separate vendor contracts for transactional SMS, marketing email, and push notifications, the Inform API collapses all three behind a single endpoint. One authentication pattern. One monitoring surface. One data model across transactional and promotional messaging.

**Loblaws sends 1.4 million transactional SMS messages monthly** alongside promotional campaigns - four channels, one platform, one team. The consolidation is architectural, not just operational.



**/AI ARCHITECTURE - MERLIN AI VS AGENTFORCE FOR MARKETING**

# What Merlin AI Is. How It Compares. And Why the Access Gap Matters.

The full Agentforce for Marketing suite (Campaign Creation, Personalization Decisioning, Segment Intelligence, Conversational Email) is built inside Marketing Cloud Next. MCN is not an upgrade to SFMC. It is a new platform, built on Data Cloud and Salesforce Core, with a different

underlying architecture. For an existing SFMC customer, accessing that AI roadmap means adopting a platform you are not currently on. MoEngage Merlin AI is in production from day one of deployment, no migration prerequisite, no additional licence.

Here is the documented architecture of both systems.

### The Two-System Architecture

Merlin AI operates as two asynchronous systems that function independently and in combination:

SYSTEM 1: PROPRIETARY WORKSPACE INTELLIGENCE	SYSTEM 2: FOUNDATION MODEL GENERATION
<ul style="list-style-type: none"> <li>- Operates entirely within MoEngage infrastructure. No customer data leaves your workspace environment.</li> <li>- Learns from your historical campaign data: past performance, keyword effectiveness, user behaviour patterns, channel response rates.</li> <li>- Powers the Keyword Impact Quotient (KIQ) algorithm, which identifies which copy patterns and message structures have historically driven engagement within your specific workspace, not generically across all customers.</li> <li>- This is the layer that makes Merlin AI workspace-aware. Suggestions from System 1 are grounded in your actual customer behaviour, not generic training data.</li> </ul>	<ul style="list-style-type: none"> <li>- Runs on Microsoft Azure OpenAI, AWS, and Stability AI. Enterprise-grade infrastructure with layered content filtering and responsible AI controls.</li> <li>- Your customer data, PII, account details, and business identifiers are never passed to these partners. The separation is architectural, not a contractual policy.</li> <li>- Workspace intelligence from System 1 can be passed as non-identifying context to improve generation quality. You control what context is included.</li> <li>- Azure OpenAI is operated entirely within Microsoft's Azure environment and does not interact with OpenAI's consumer services.</li> </ul>

### THE DATA ISOLATION QUESTION YOUR SECURITY TEAM WILL ASK

Customer data never reaches the foundation model layer. System 1 runs entirely on MoEngage's AWS infrastructure with no connection to third-party models. When a user invokes generative features, they may optionally pass workspace-level signals - anonymized performance patterns, not customer data as context. The foundation model receives no account information, no PII, no identifiable business data. This is published architecture, not a verbal assurance. Ask for the AI policy documentation during technical discovery.

## What the AI Layer Produces - Production Evidence

CAPABILITY	WHAT IT DOES
<b>Copywriter</b>	Generates campaign copy. KIQ surfaces historically effective keywords from your workspace. Marketer accepts, edits, or ignores.
<b>Best Time to Send</b>	Predicts optimal send time per individual user from engagement history. Replaces broadcast scheduling.
<b>Churn and Dormancy Prediction</b>	Merlin AI identifies customers with high propensity to churn, go dormant, or uninstall. Pre-emptive campaigns trigger at the right propensity threshold.
<b>Content API+ Jinja Templating</b>	Fetches dynamic data at send time. Full Jinja templating for complex personalisation. PII masking on API response fields. 3-retry mechanism, 5s timeout.
<b>Flow Assist</b>	A marketer describes a journey in plain English. The platform builds it. No Jira ticket. No developer in the critical path. The bottleneck that currently sits between a campaign brief and a live journey is gone.
<b>Decisioning Agents</b>	Replaces the rules engine your team built and maintains manually. Offers are decided per individual at send time by the AI, not by a static logic tree someone on your team has to update every time the business changes a promotion.
<b>Next Best Channel</b>	The platform determines per user which channel to use based on live engagement history. That is one less custom system your engineers are responsible for keeping accurate.
<b>Creative Agents</b>	Brand guidelines are ingested once. Copy and visuals are generated against them at scale. The dependency on a developer for Jinja templating or an agency for creative variants per segment is removed.
<b>Recommendations</b>	Product and content recommendations are generated from real-time behavioural signals, not a batch affinity model your data team has to refresh. No pipeline to maintain. No separate recommendation engine to integrate and monitor.
<b>Proactive Assistant</b>	Surfaces anomalies and opportunities: segments about to churn, underperforming campaigns, untapped audiences without a BI request or an analyst building a report. The insight finds the team, not the other way around.

## MIGRATION ARCHITECTURE

# How the SFMC to MoEngage Migration Works

### Phase 1: Data Model Mapping (Month 1)

Your SFMC schema is mapped to MoEngage data architecture. Planning and validation only, no live traffic moves. Output is a documented data model and integration spec your team reviews before anything is built.

Engineering note: Your SFMC environment runs unchanged. Zero traffic impact. Full rollback optionality, nothing committed to production infrastructure yet.

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### Phase 2: Pilot Environment (Months 2–3)

A single channel goes live on MoEngage while SFMC runs everything else. Dependencies are identified in production, not a test environment. Edge cases in your data model surface here before they become incidents.

Engineering note: MoUpgrade credits cover the MoEngage licence while SFMC is active. Zero dual licence cost. SFMC remains system of record for all other channels.

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### Phase 3: Channel Migration (Months 3–6)

Journeys, personalization blocks, and transactional alerts migrate channel by channel. Each channel validated against agreed performance criteria before SFMC is wound down on it. Sequence is determined by your risk priority. Low-dependency channels first.

Engineering note: Parallel run, not a cutover. Your peak trading periods are protected if the schedule accounts for them. Each channel migration is independently reversible.

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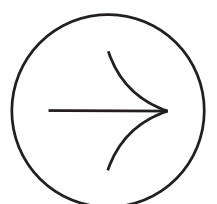
### Phase 4: Managed Dual Run (Until legacy contract expires)

Both platforms operational. MoEngage progressively takes over channels. SFMC winds down on its natural contract schedule. No forced cutover. No big-bang risk.

Engineering note: Transition is cost-neutral throughout. MoUpgrade credits are structured to match your remaining SFMC contract duration.

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THE 20-BATCH DELIVERY CYCLE REFERS TO ITERATIVE SEQUENCING OF JOURNEY AND CAMPAIGN MIGRATIONS IN PHASE 3. THE BATCH STRUCTURE IS CUSTOMIZED PER CLIENT BASED ON CAMPAIGN COMPLEXITY AND DEPENDENCY MAPPING. YOUR SOLUTIONS ENGINEER DEFINES THE SEQUENCE FOR YOUR ENVIRONMENT DURING THE PILOT PHASE.



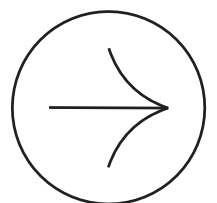
## Enterprise Security and Compliance Summary

STANDARD	MOENGAGE STATUS	ENGINEERING IMPLICATION
ISO 27001	Certified	Meets enterprise procurement security requirements.
SOC 2 Type 2	Compliant	Controls audited over time. Report available for security review.
GDPR / CCPA	Built-in controls	Data residency options, consent management, and deletion workflows included natively.
SSO + 2FA	Included, no additional config	Works with your existing IdP. No separate identity management setup.
Data Residency	Regional data centres available	DC-specific API endpoints per region. Data sovereignty requirements are addressable.
VPC Support	IP whitelisting documented	Content APIs and data pipelines work in VPC environments. IP ranges published in help docs.
AI Data Isolation	Customer data never reaches LLM layer	Published architecture-verifiable in MoEngage's AI policy documentation. Not a verbal assurance.

### PRODUCTION EVIDENCE

## What the Architecture Produces at Scale

The following are technical outcomes from named SFMC migrations in production. Starting state, what was migrated, how long it took, and what measurably changed. These are not projected outcomes. They are what the architecture delivered.



CUSTOMER	STARTING POINT	WHAT MIGRATED	ARCHITECTURE NOW	MEASURABLE OUTCOME
<b>LOBLAWS (CANADA)</b>	SFMC. 16M loyalty members. 5 business lines. Fragmented transactional and promotional messaging.	Full loyalty programme. All 5 business lines. Transactional + promotional on single platform.	Inform API. Unified data model. 99.99% delivery SLA. Sub-5-second transactional delivery.	70% reduction in engineering bandwidth. Capacity moved from platform maintenance to product work.
<b>STARBUCKS INDIA</b>	SFMC. 500+ disconnected POS systems. Customer profiles 24 hours stale. No real-time offline data ingestion.	Full POS integration. Real-time event ingestion. Unified customer profile across all 430 stores.	Real-time event triggers + Merlin AI. Golden 24 Hours conversion window activated.	2x mobile order growth. 20% subscription growth. \$500K annual martech savings.
<b>NZZ (SWISS MEDIA GROUP)</b>	SFMC. No app strategy. Email-only. 3-day campaign build cycles. New app launch blocked by platform limitations.	Full omnichannel including app push. Email, push, in-app. 144 JIRA tickets resolved during implementation.	Omnichannel + lifecycle automation. Campaign creation reduced from 3 days to 3 hours.	€180K saved annually. 162M emails at 42% open rate. 145M push at 2.34% CTR.
<b>GLOBAL HOSPITALITY GROUP (IN PROGRESS)</b>	SFMC. Maintenance mode. Building secondary tech stack to compensate. Cost and complexity no longer justifiable. 21-vendor RFP run.	W-Model migration. 5 channels. 260+ use cases. Full Snowflake integration. 50 campaign managers in scope. Migration started Feb 2026.	Parallel run. Both platforms live through full transition. Braze eliminated at final stage. MoEngage selected on AI personalisation, data integration, and omnichannel coverage.	Migration live. Reference contact available on request.

**BRANDS THAT MADE THE MOVE FROM LEGACY PLATFORMS**



# Your Salesforce renewal conversation is coming.

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Before that conversation happens,  
consider your options.

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