

| CASE STUDY

# Avis – Digital Platform Redevelopment on Magnolia CMS



## BACKGROUND

**Avis is the third largest car rental business in the world. Their European arm, Avis Europe, operates over 3,000 rental locations across 112 countries in the EMEA region. The majority of their sales are processed through their web platform, which at peak times is responsible for taking thousands of bookings every hour.**

Avis Europe's e-commerce platform encompasses a large number of software systems, including an enterprise content management system (CMS) and a facade of

REST services that simplify a complex hierarchy of underlying Avis and third-party software systems. This architecture is implemented using many different software frameworks and technologies, with enterprise Java at the heart of all critical systems.

As part of their drive to continually improve their online services, Avis embarked on a series of improvements to their digital platform. A key requirement was to update the CMS. Avis had previously implemented Magnolia CMS

as a content hub to serve content to their multiple brand and partner websites.

Priocept were appointed to provide consultancy services to help define the most appropriate new CMS solution and then to provide software development services to implement it. This involved upgrading the CMS, developing new content authoring features, and improving existing e-commerce functionality.

## MULTI-SITE, MULTI-BRAND AND MULTI-LANGUAGE

Avis Europe have over 100 sites managed under a central Magnolia platform. These are currently split into multiple brands that include Avis and Budget, in addition to branded portals for airlines such as Iberia, British Airways and Aer Lingus.

Although the core functionality of all sites is uniform, the look and feel of each site differs to reflect the unique branding of each organisation. Priocept addressed this requirement by implementing separate themes for each site and through the advanced use of Magnolia's "multisite" feature.

With a presence in 112 countries, Avis Europe needed to deliver translated content at scale. Priocept implemented the Translations.com connector for Magnolia to integrate and automate all translation processes within the CMS.

Translations.com are the global leader in translation services and technologies. Their connector for Magnolia allows content editors to send content for translation directly from within the CMS and then pull the translated content back into the system once it becomes available. The translations can then be reviewed and accepted by editors before the changes are published.

This process allows content editors to orchestrate the translation process from within Magnolia, significantly reducing the effort required to translate content.

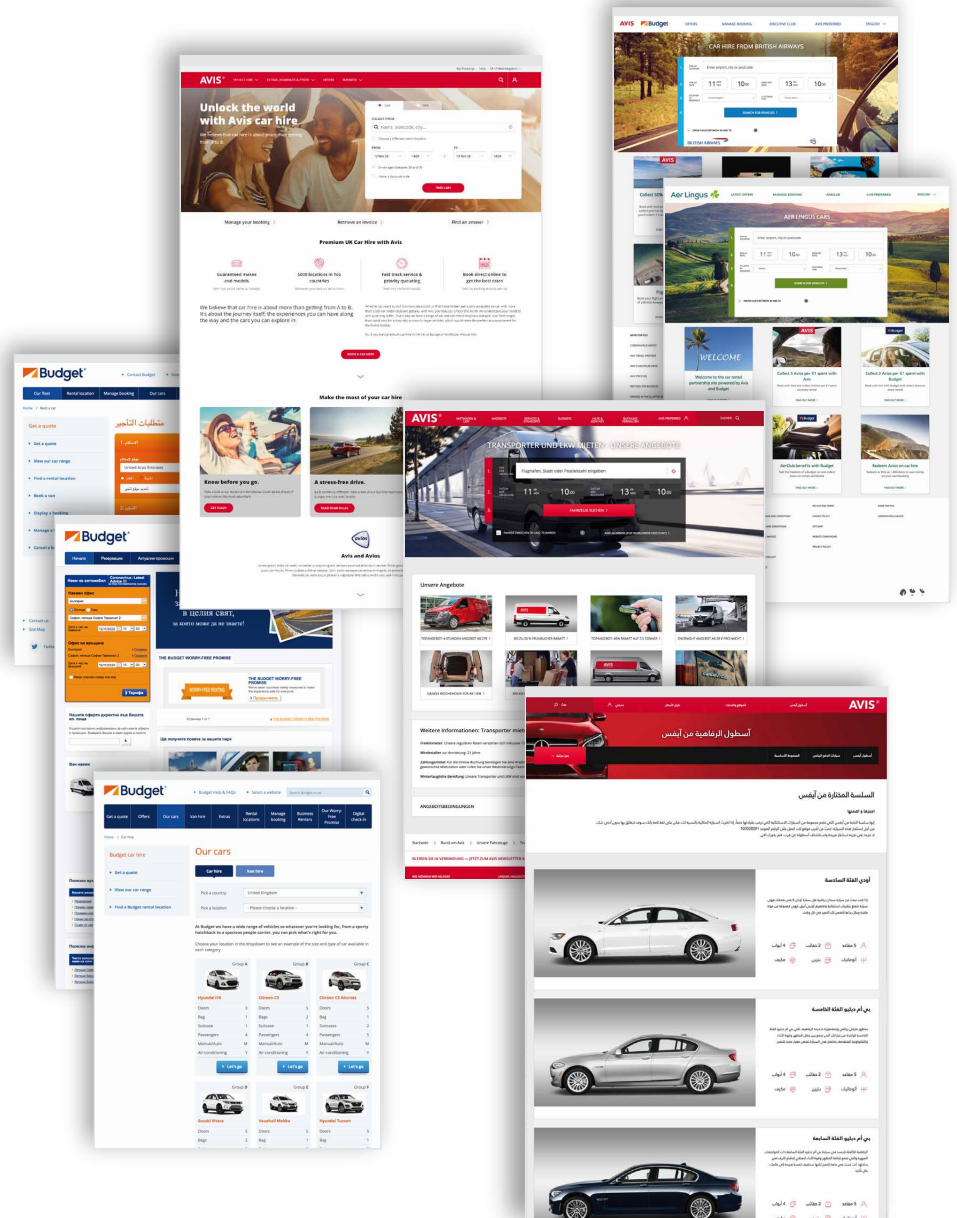


Figure 1: A sample of sites for the Avis, Budget and IAG (International Airlines Group) brands

## ADVANCED CMS TEMPLATING

Magnolia makes it easy for content editors to create pages by adding a set of components to predefined templates. Page templates mandate the layout for a page, which enforces the use of components in a uniform manner.

A page template is restrictive by design, forcing content editors to follow the guidance laid out by a user experience designer as to how a page should be structured to best serve the end user.

But what if more flexibility is needed? The restrictive approach can be frustrating if every time a variation of the page layout is required it is necessary to go back to the software development team to request a new template. This request then passes into the development cycle followed by the testing and release cycles. A simple request to add a new section to a page can result in several weeks of waiting before the change is ready.

To solve this problem, Priocept implemented a flexible grid system within the CMS. This allows the content authors to define the layout of each row in a page and to add any component anywhere on the page. This is backed up by a set of HTML and CSS templates for each component that have been developed to sit perfectly in any section of the grid. Any component can be placed in any section of the page layout and will look as if it was always designed to be there. This approach gives the content editors total control over the site design and significantly reduces ongoing development costs.

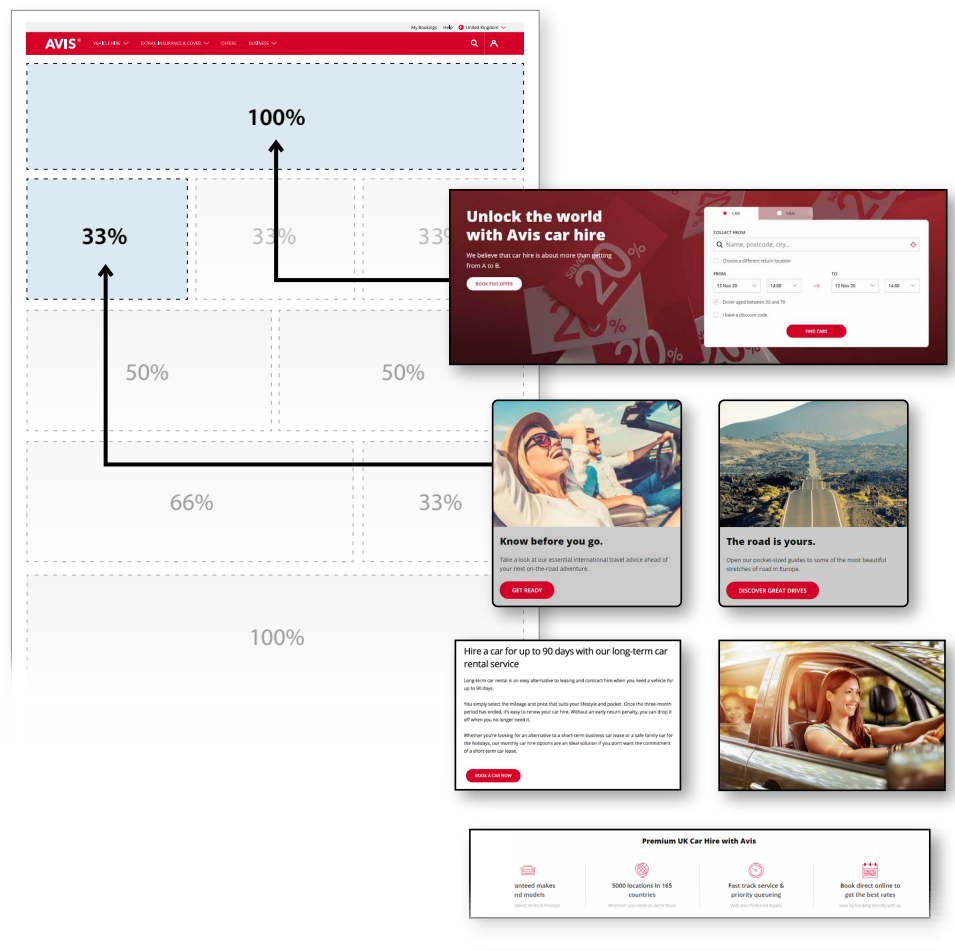


Figure 2: Adding components to a page using the flexible grid structure

## CONTENT REUSE

Avis Europe's customer base covers hundreds of locations and regions. Minor variations in online messaging to best suit a given region can have a big impact on user behaviour and conversion rates. Avis required a solution to deliver over 100 sites with similar but not identical structure, whilst retaining the ability to override content where necessary to present a tailored experience for local markets.

To meet this requirement, Priocept implemented Magnolia's Live Copy feature which allows editors to create linked

copies of content. When a source content element is updated the changes can be automatically propagated to all copies, greatly reducing content entry effort. Copies can also be directly edited so that they can have minor variations, overriding the master content item. This provides a flexible and precise way to efficiently manage subtle content differences across regions.

The Live Copy product feature was available from Magnolia only with "incubator" status at the time of

development, which meant that it had not yet made its way into an official Magnolia release. Priocept contributed to the Magnolia product development process by feeding in requirements based on Avis Europe's particular needs. Magnolia then delivered a fully supported version of Live Copy as part of a production software release.

## THIRD-PARTY INTEGRATIONS

Priocept developed and enhanced various integrations within Magnolia. These included:

- Rental Stations** – Avis have over 200,000 car rental stations around the world. Priocept developed a Magnolia content application that extracts data from Avis backend services and makes this data available from within Magnolia just like any other piece of content.
- Limelight CDN** – An integration between Magnolia and the Limelight content delivery network (CDN) ensures that the latest content is always available after each publication.
- OpenJaw** – Underpinning the process to book a car is the e-commerce booking system, OpenJaw. Priocept upgraded the integration between Magnolia and OpenJaw to make it compatible with the latest version of Magnolia.
- Tealium** – Tealium is an advanced analytics platform for capturing customer data. Avis uses this platform both for collecting analytics and for running A/B and multivariate tests to optimise the user journey and improve conversion rates.

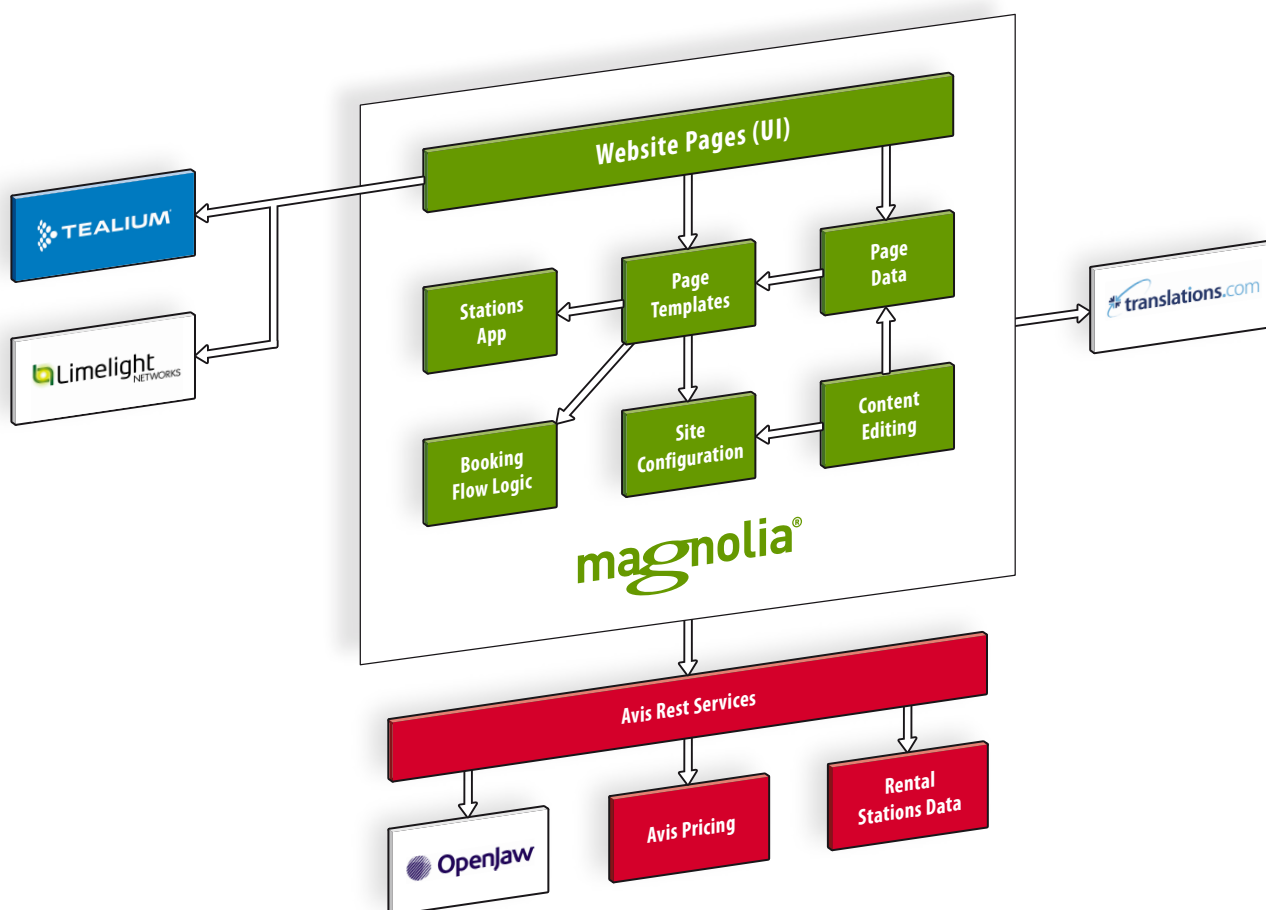


Figure 3: Technical architecture of the Avis Digital Platform

## RESULTS

Priocept worked closely with Avis, providing expert CMS consultancy services to design a future-proofed new CMS platform that enables Avis to efficiently serve content to their millions of customers. Priocept then took responsibility for the implementation of the newly designed platform, working with Avis and their other partners to deliver a fully upgraded content management

system that is the central pillar of the Avis e-commerce platform.

The upgraded Magnolia platform was rolled out for editors across all Avis Europe regions and immediately addressed many legacy issues relating to the content editing process. The new system fulfilled Avis Europe's requirement to ensure

content could be created once, automatically translated, and published anywhere.

The new platform, including critical improvements to the e-commerce booking journey, has been instrumental in increasing conversion rates and revenues across all brands and locations.

# PRIOCEPT

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WEB OPERATIONS ■ CLOUD INFRASTRUCTURE ■ IoT / EMBEDDED