

CASE STUDY

CPS uses Myra to ensure consistently high availability and performance of the BMG website



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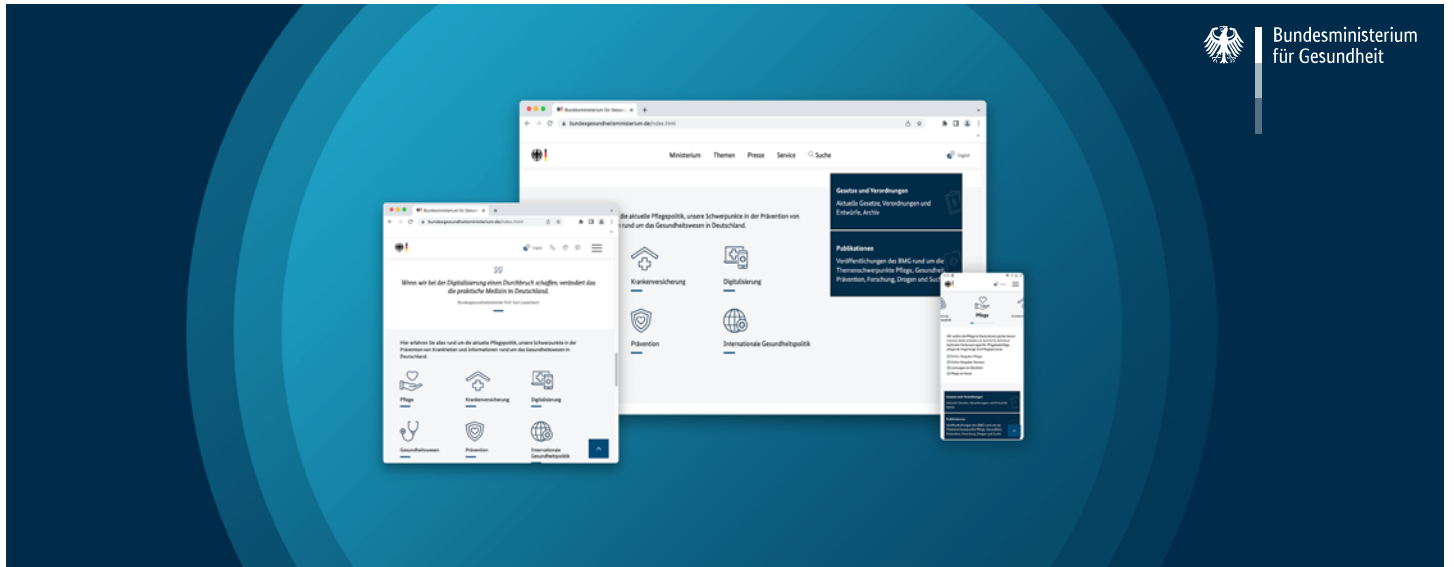
coding. powerful. systems
CPS GmbH (BMG)

Solutions

DDoS Protection
High Performance CDN



MYRA



Bundesministerium
für Gesundheit

With Myra, CPS ensures consistently high availability and performance of the TYPO3-based website of the Federal Ministry of Health

Executive Summary

Founded in 1998, coding. powerful. systems. CPS GmbH (CPS) is a professional digital agency based in Berlin. The full-service provider creates digital applications, websites and apps for the public and private sectors. The company programs powerful systems for sustainable, barrier-free and high-performance web applications. CPS's customers include well-known institutions such as the Federal Ministry of Health (BMG) and the Berlin S-Bahn.

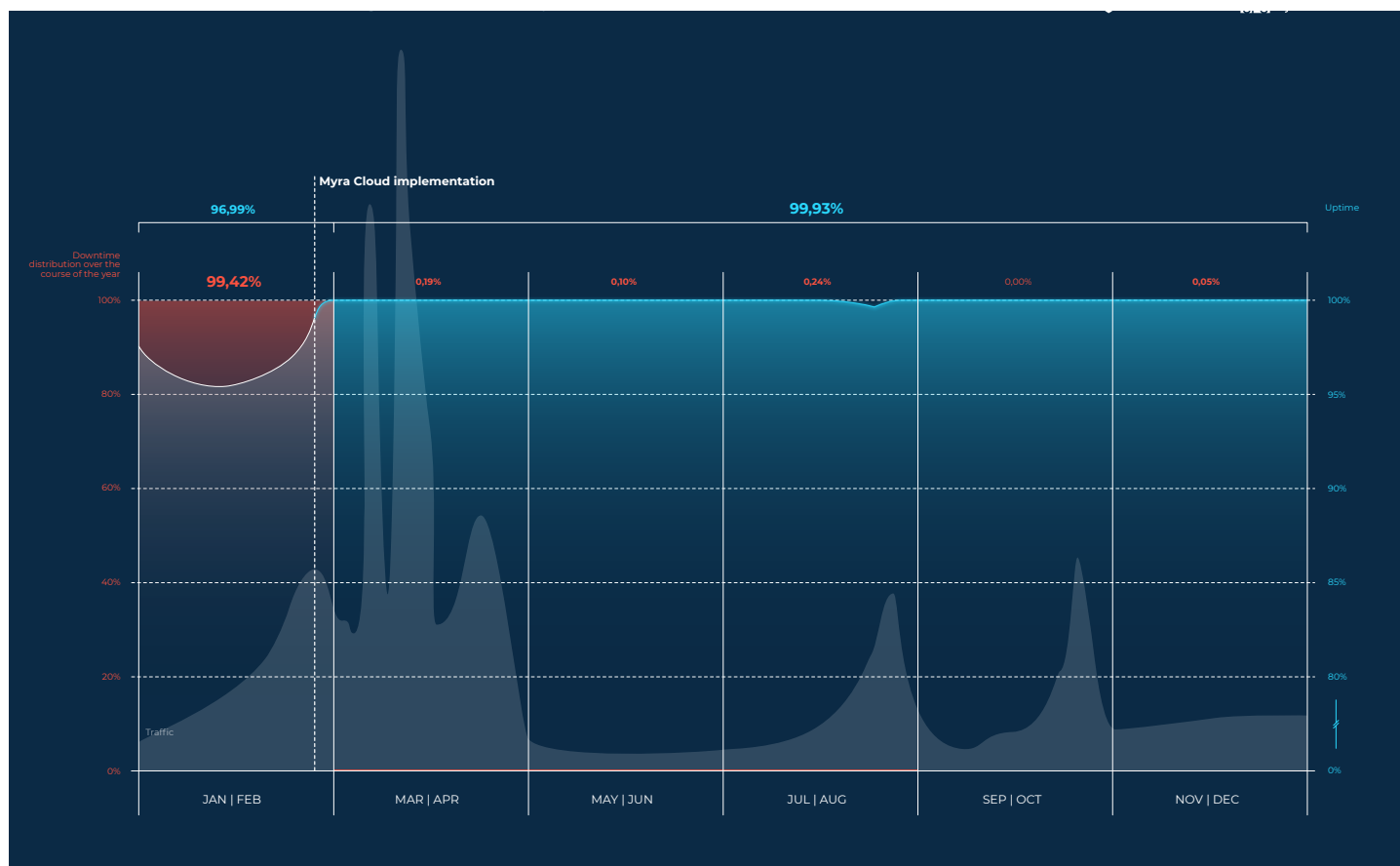
In order to offer customers an optimal and customized communication solution on the web, CPS works together with highly specialized service providers. One of these is Myra Security GmbH.

Starting Point and Objectives

CPS manages the BMG's online presence. The ministry's website contains up-to-date information on topics such as care, dementia, digitalization, coronavirus and much more. With this wide range of information, the BMG is fulfilling its obligation to provide information. Especially in exceptional situations, it is essential that millions of citizens can access the official websites and apps of the government and authorities, e.g. the BMG and the Federal Center for Health Education (BZgA), at any time. With the outbreak of the corona pandemic, the BMG was confronted with such an exceptional situation overnight: Especially at the beginning of the pandemic and during the first lockdowns in the first quarter of 2020, the population's need for information increased rapidly, which is why the BMG's information pages were suddenly accessed millions of times and were overloaded. CPS helped the BMG in the search for a solution to effectively minimize downtimes of the website to a minimum.

As a long-standing partner of Myra, the digital agency established contact between the security-as-a-service provider and the BMG. An important criterion in the search for a service provider was the speed of implementation. "In order to prevent another unplanned downtime of the BMG's website and ensure that the ministry could fulfill its duty to provide information, a solution had to be found that could be implemented at extremely short notice," says Sascha Böttcher, Managing Director of CPS. "We know and appreciate Myra's fast

emergency response, high level of certification and list of reference customers." In fact, Myra was awarded the contract after just a few discussions with those responsible at the ministry. After signing the contract, the Myra High Performance CDN and DDoS protection were implemented within three hours and the constantly high availability of the ministry's information pages was ensured.



Implementation

The Myra High Performance CDN delivers all static and dynamic content of the BMG website in the shortest possible time using the most advanced web technologies, in particular RAM caching. Myra's caching function generally improves the performance of the website and reduces the load on the origin server – in this case on the BMG's servers. For this purpose, Myra operates a global CDN infrastructure on the most important Internet Exchanges. The content is delivered directly from the RAM, which avoids slow access to the hard disk or SSD.

The CDN is operated using caching rules in the classic pull method or to reduce INGRESS traffic (traffic between your origin server and the CDN caches) and the CDN caches (cache warming) via the direct content upload using the push method. An upload via API is also possible. The content is delivered completely decoupled from the customer's infrastructure, making the website independently scalable. The advantage: Short loading times worldwide and maximum availability for critical websites.

By opting for the Myra High Performance CDN recommended by CPS, BMG kills two birds with one stone: The product is

part of Myra Application Security, which also includes DDoS protection. This means that Myra also protects the domain www.bundesgesundheitsministerium.de against DDoS attacks at application level (layer 7). Myra DDoS protection can be used independently of the existing infrastructure and can be implemented quickly, as no additional hardware or software is required. There are basically two approaches for the technical connection: In the first step, either the customer's DNS entry is adapted for Layer7 protection or the authoritative DNS server is transferred to Myra. The second step is to import the relevant zones or set up a CNAME entry, depending on the approach selected. The team of experts at the Myra Network Operations Center (NOC) then works together with the customer for configuration and SSL-termination to filter the traffic.

With regard to the TYPO3 CMS, there was also the challenge of conveniently integrating the caching behavior of around 5,000 HTML pages and 7,000 PDFs into everyday editorial routine. Immediate updating of content while maintaining stability and without causing any significant additional work for the editorial team. was the task to be solved. For this purpose, CPS developed a TYPO3 extension that fulfills these requirements and bridges the gap between the TYPO3 CMS and MYRA.

Summary

Thanks to CPS and Myra, the BMG was able to meet the challenges posed by the sharp increase in traffic quickly and effectively. The result: minimized downtime and the certainty that the information pages of the BMG are always accessible to all citizens. Thanks to the Myra High Performance CDN, the ministry's web presences are highly performant and available even during peak loads. The Myra DDoS Protection also ensures that malicious overload attacks at application level do not lead to website downtime.

For a higher-level authority such as the BMG, the smooth functioning of the website is of crucial importance – and not just because of the obligation to provide information. Especially in times of crisis such as a pandemic, when the demand for up-to-date information is high, the website must be able to reliably withstand a rapid increase in page views," summarizes CPS Managing Director Sascha Böttcher. "With our expertise and together with our partner Myra, we delivered the right solution for the acute challenges of the BMG at the right time."

Benefits Overview



Through the cooperation with Myra, the ministry benefits from the following advantages:

- maximum availability thanks to Myra's multi-redundant infrastructure
- low implementation and maintenance costs, as no additional hardware and software is required
- Legally compliant GDPR conformity
- Local 24/7 support from Germany via the Myra NOC (Network Operations Center) at the headquarters in Munich
- Access to the expertise and industry experience of a highly certified specialist provider
- Certified security in accordance with ISO 27001 on the basis of IT baseline protection of the BSI
- Convenient interaction with the CMS thanks to TYPO3 extension from CPS

ISO 27001 BSI zertifiziert
auf der Basis von IT-Grundschutz
Zertifikat Nr.: BSI-IGZ-0667-2024



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