NOTTINGHAM COLLEGE

Being hosted on Craft Cloud

Our journey and experiences with Platform as a Service (PaaS) and Pixel and Tonic's new Craft Cloud platform powering the Nottingham College website.

craft cms

About me

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NOTTINGHAM COLLEGE

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The hosting dilemma for Craft CMS
(Part 1: Terminology)

- Should I use a **managed** or **unmanaged** hosting service?

- Do I need **high availability** or **load balancing**?

- Do I need a **Virtual Private Server (VPS)** or a **dedicated server**?

- Is **Platform as a Service (PaaS)** better for us?

- Should I use a **Content Delivery Network (CDN)?**

- Do I need a **Service Level Agreement (SLA)?**

Simple right?!

The hosting dilemma for Craft CMS
(Part 2: Provider/stack choice)

There are many hosting providers available, some are tailored, others more generalised. Here's a selection of common stacks or providers. You might use one or more of these providers currently, but the list below is certainly not the only options available by any means!
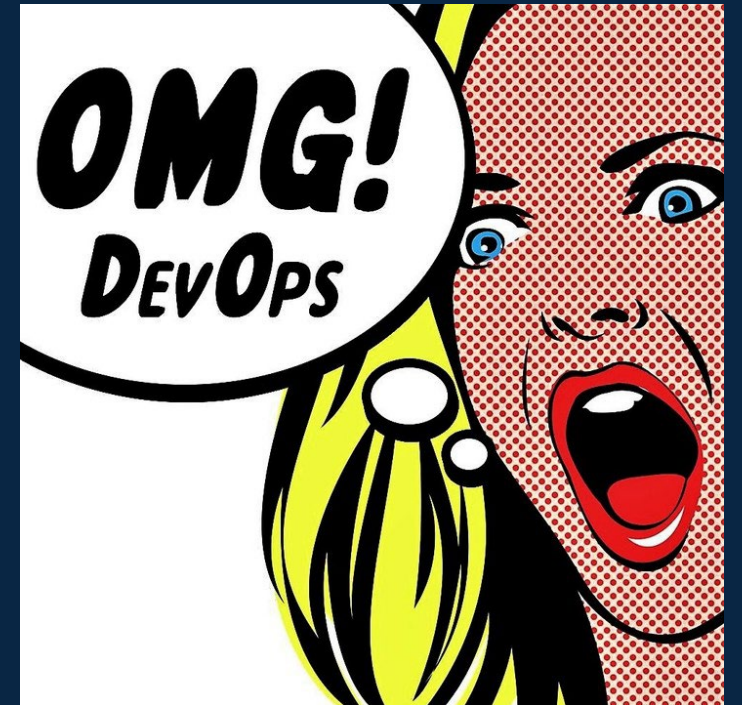
A controversial opinion...

I don't like DevOps. There, I said it.

(If you like DevOps, that's still cool though.)

Avoiding DevOps since 2015

We 💖 PaaS
(Platform as a Service)

Why? Less time spent managing infrastructure, allowing us more time for ~~breaking production~~ deploying quality code*****.

* Because we obviously never break production, the code we write works 60% of the time all the time.

Any bugs are bonus features, which is great value for money when you think about it.

Fortrabbit (2015 – 2024)

- Nottingham College and prior to its merger has been hosted by Fortrabbit for over 9 years.

- Fortrabbit is designed around Amazon Web Services infrastructure.

- Over those 9 years we have run Craft CMS 2, 3 and 5 projects on their platform.
  (We skipped 4 because we can't count)

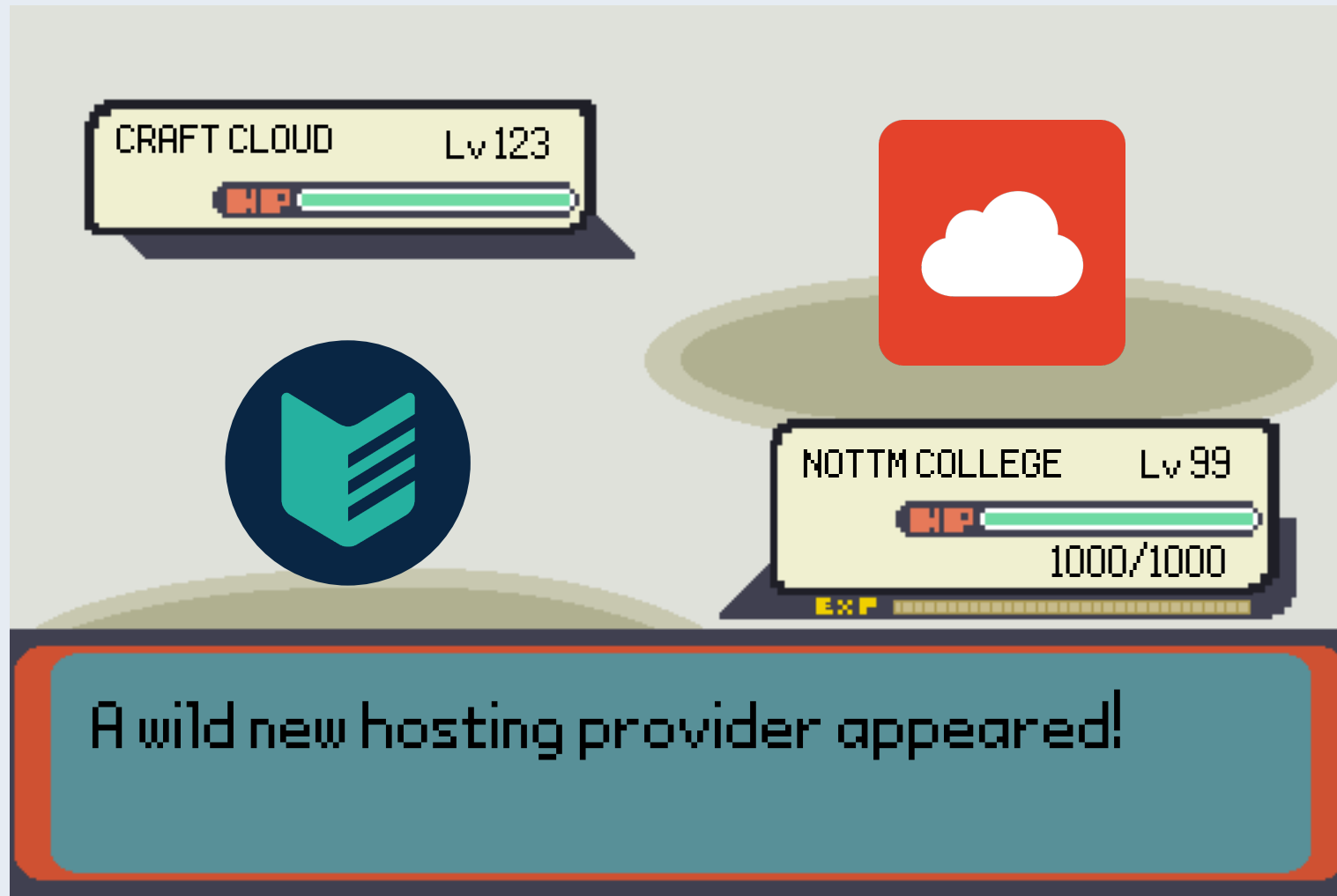**Then in August 2024 things changed...**

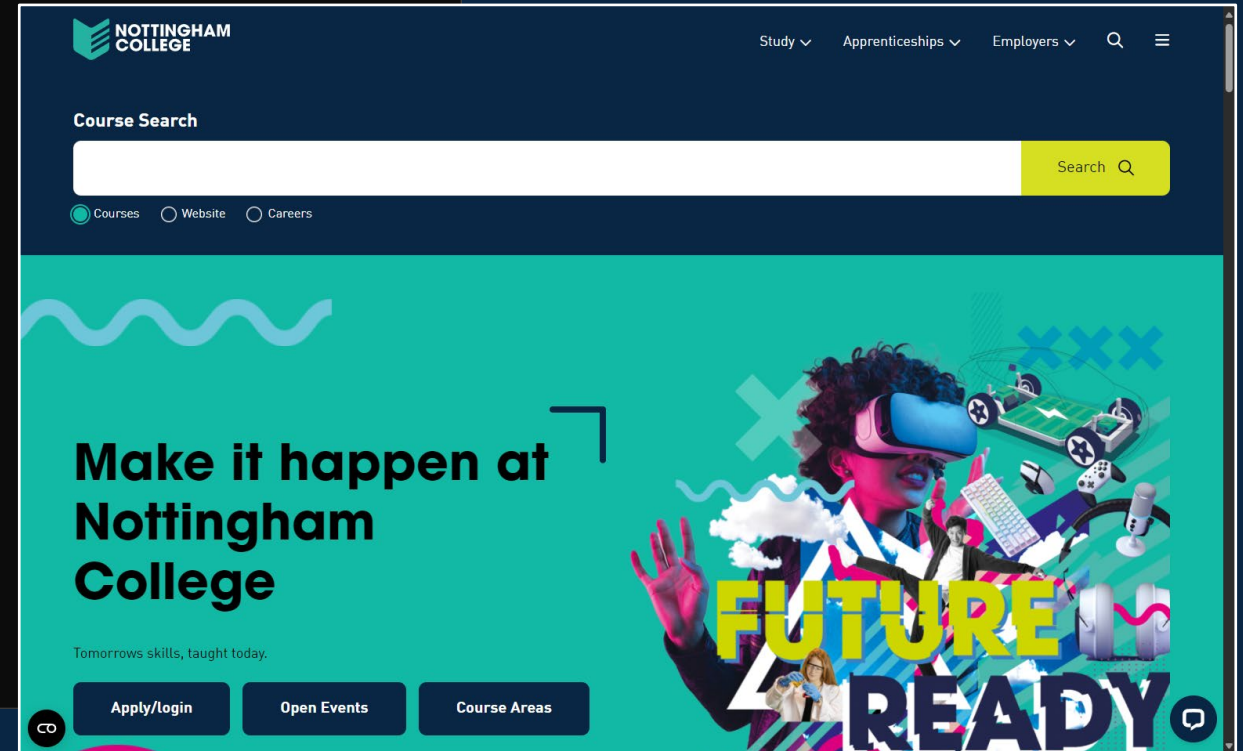# First party Craft CMS hosting is here!

Our new home - edge.craft.cloud

```
Command Prompt

Microsoft Windows [Version 10.0.22631.4602]
(c) Microsoft Corporation. All rights reserved.

C:\Users\james>nslookup www.nottinghamcollege.ac.uk 1.1.1.1
Server:  one.one.one.one
Address:  1.1.1.1

Non-authoritative answer:
Name:    edge.craft.cloud
Addresses:  2606:4700::6812:8fae
          2606:4700::6812:90ae
          104.18.143.174
          104.18.144.174
Aliases:  www.nottinghamcollege.ac.uk


C:\Users\james>
```

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FUTURE READY

Powered by Craft Cloud since 25th November 2024

Key features of Craft Cloud
(Sustainability)

Being sustainable, responsible and mindful of the planet:

Craft Cloud is committed to sustainability

Key features of Craft Cloud
(Performance/content delivery)

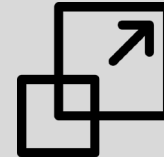Also known as the cool and super nerdy stuff:

Content Delivery

All build artifacts, front-end assets and image transforms are served from a global CDN.

Static caching

Entire pages are statically cached and served through Cloudflare, with automatic cache invalidation.

On-demand transforms

Image transforms are run separately from PHP and provided on-demand.
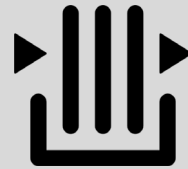
Key features of Craft Cloud
(To actively avoid doing DevOps)

Also known as **I really don't want to do DevOps ever stuff**:

Code deployments

Built-in build pipeline for composer and npm for minimal configuration.

Zero-config queue

Queue worker is automatically configured and run for you.

Automatic scaling

Serverless architecture allows on-demand scaling for any load/traffic.

Key features of Craft Cloud
(Security and support)

Also known as the I can sleep better at night stuff:

Enterprise level protection

Cloudflare's Web Access Firewall protects all Craft Cloud apps.

Automatic TLS

Craft Cloud automatically handles TLS certificates and enforces HTTPS on all requests.

Full-stack support

All support is provided directly from the Craft CMS team.

Key features of Craft Cloud
(Other notable mentions)

- Generous bandwidth allowances.

- Asset storage space upgradable to 250 GB.

- Unlimited MySQL/Postgres database storage.

- Multi-site ready, route as many domains and subdomains as you like.

- Craft CMS licence is included with Craft Cloud.

Craft Cloud resource limits/quirks

- Your web application runtime is ephemeral (temporary).

- Web requests to your app must complete within 28 seconds.

- Web responses with HTTP headers larger than 16,000 bytes **may be** dropped by Cloudflare.

- **The maximum web response length is limited to 6MB.**

- All queue jobs and Craft CLI commands must complete within 15 minutes.

- Modifying PHP configuration variables is possible but currently undocumented.

- No SSH available because there is nothing to SSH into. Craft Cloud is serverless remember!

- Asset bundles from Craft itself and any plugins are published to an artifacts CDN not the web root.

Craft Cloud things to watch out for

- When needing to write data temporarily on ephemeral storage, always use `Craft::$app->getPath();` to construct valid paths that exist and allow writing.

- Asset bundle path issues with some plugins.

- Batching longer running queue jobs (max 15 minutes).

- Asynchronous cross-site request forgery (CSRF).

- Native cron functionality is limited to 5 jobs per environment with a minimum schedule of 1 hour.

- The 6MB limit on web responses can impact web forms doing file uploads.

- Code deployments can be quite slow due to the build/runtime requirements for each deployment.

- Triggering concurrent builds can cause OAuth token issues for GitHub integrations.

The key points to recap

- Craft Cloud provides several native features/functionality which you might currently be doing with plugins or third-party services.

- Craft Cloud is highly scalable, performant and sustainable, thanks to serverless infrastructure

- Craft Cloud is still a relatively new platform, actively being developed and improved.

- Craft Cloud documentation could be better for some topics for those unfamiliar with certain aspects of the platform.

- Support comes directly from the Craft CMS team, so you are in good hands!

- Like Craft CMS itself, Craft Cloud has a public roadmap to track development/progress and encourages community feedback.

Interested in finding out more?

Craft Cloud resources:

- Craft Cloud knowledgebase
- Craft Cloud FAQs
- Craft Cloud Resource Limits

- Craft Cloud Discussions
- Plugin Development for Craft Cloud
- How the Craft team built Craft Cloud (Case study)

Are you a plugin developer? Get your free Craft Cloud sandbox environment to test your plugins and get the cloud compatible checkmark in the plugin store! Contact the Craft CMS team for more info.

Want to run a Craft CMS app on Craft Cloud? Craft Cloud provides a 7-day free trial, if you ask nicely, they'll extend it too at no charge/cost!

Thanks for listening!

Any questions? Ask away!

(Just not about DevOps!)