



R&D Claim 2014/15

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180Vita Ltd is a company based in the UK who are at the forefront of the online gaming industry. Each year the company works on a variety of projects (mainly websites and web apps).

In previous R&D tax credit applications individual projects have been detailed, as each project contained both R&D eligible and R&D ineligible components.

However, due to change in how the company develops its projects, this year's claim and (likely) future claims will only be centred around one highly focused project. Whilst, 180Vita Ltd owns and operates a large number of websites, including [PokerVIP](#), [DocumentaryTube](#), [PokerTube](#), [FootballTube](#) and [Poker.org](#), there is little development on those websites (today) that represents an advance in technology or had an uncertain outcome when developing it.

The R&D eligible project is named: CAP (Central Admin Panel) and is a centralised, scalable system from which a very significant number of websites can be developed and operated.

The system has three specific, overarching aims:

1. **Wasteless Development** - As evidenced by the brands referenced above, many 180Vita brands (and websites) are composed of similar elements, that require similar functionality. Imagine the process of registering to become a member of a website, or uploading a video to a website, or a function that occurs in the background such as sending of automated emails.

CAP means that repeated development of these functionalities and many others across multiple websites is no longer required.

2. **Forever Updated** - CAP is a system that becomes stronger with scale i.e. The more websites that use CAP, the more all encompassing and useful it becomes.

For example, forums' are a common feature on a lot of community based websites and as the web becomes more mature, a demand exists to embed and share many different kinds of media over different channels e.g. forums.

Whilst a website being updated in order to allow users to embed YouTube videos, or Tweets or Emojis into a comment / post is definitely not an advance in technology, CAP's value is that *only* CAP needs to be updated with the new functionality and the code *only* needs to be written once, in order for the new functionality to be available on all websites.

Thus, not only does CAP make development spend significantly more efficient, but it actually results in a higher quality of development. Deployments are tested more rigorously and there is an emphasis on flexibility, as the same "module" i.e. A commenting system, may have to function in a slightly different way depending on what website it is on.

3. **Central Ops** - CAP means that all member websites are managed using the same panel. Obviously this saves time for those that need to operate and edit multiple websites, but (similar to the point above), this ensures the management interface is *always* up to standard (as it's now 10x more important, as it is used for multiple websites) and familiar for those using it.

Technical

CAP - PHP, Yii2 framework

180Vita Websites - PHP, Yii2 framework

Database - MongoDB: Especially important as it allows for new data fields to be added to existing entities, thus keeps our data structure flexible. Building a framework to manage multiple websites is a well suited application of this relatively modern database technology.

180Vita websites and CAP communicate by directly accessing a common (unified) database. Websites and CAP are hosted from one server so the latency of website > cap requests is kept to a minimum. Processes such as cron jobs and scripts run on separate servers.

Modularity - The key premise of CAP is its *"Modular Architecture"*:

Typically a module is defined by data flow, data types, and common interfaces. These can be overridden or augmented with new functionalities according to needs of the specific brand website.

Examples of unique CAP modules include:

- **Badges** - Ability to assign badges, medals or points to users on specific websites and set criteria for award.
- **Flexible Category Editor** - Ability to create and manage categories with unlimited variables. Media items can belong to one or one hundred categories, and categories can be nested or related to each other etc.
- **Deals** - Monetization management, whereby special offers can be assigned by location, device and many other variables. Typical information is re-used, and specific offers can be deployed across multiple websites.

Technological Uncertainty

As CAP will continue to scale as it is used for more and more websites, it could become overcomplicated. For example anomalies in the data structure can occur and / or breakdowns in logic.

Ultimately, organization and diligence is paramount when maintaining and improving something that (by definition) is attempting to be *all* encompassing. Whilst it is our belief that almost all functions on the internet belong to maybe a dozen modular 'families', it has and will continue to require clear, logical thinking to keep CAP simple and flexible.

Furthermore, there is uncertainty when adding a new feature / function or website to CAP. Again, this relates to consistency, whereby any inconsistent data could corrupt CAP or worse, (with neglect) result in a tangled architecture, ultimately rendering CAP a burden rather than an aid.

Finally, the very nature of CAP means that a mistake could potentially be amplified. In future years we plan to add further safety mechanisms to CAP, so that we enjoy the best of both worlds: Our sites benefit from updates and modularity, yet are also housed totally independent of each other, so that an erroneous update to one website, will not affect others.

Final Thought

I have spent a lot of money over the last 5-6 years of doing online business, on developing, throwing away, re-developing and refining very similar functions / features. Although code and fashions will always become dated and brought up to the latest standards, my development philosophy was previously inefficient and this is why our CAP methodology is so important.

Typically online businesses, with multiple websites, treat each website as an individual entity, whereas by using modules CAP forces our business to focus on modules, which appears to be a much healthier and more logical way to tackle development.

If I had allocated our resources to the majority of staff working on improving this centralised system, rather than individual websites functions (as was previously done), then even *if* an individual website, brand or project failed, it may have improved functions on other websites, or at worst opened up a new function to be used on other websites (if suited).

Sometimes websites appear to have very unique and specific functionality, but there is almost always a 'global' use behind them. For example, the recent BBC Budget Calculator appears to specifically be developed for this year's budget, or maybe for all budgets, but if a 180Vita website needed such a feature, CAP would ensure it was developed in a more efficient manner. For example, an interface would be created where the CAP user could create fields, assign multiples / values to each field, text for the results and so forth. This could then be used on as many sites as possible, and managed centrally. Even an improvement to the admin interface, would be an effective improvement to all websites (and those operating them).

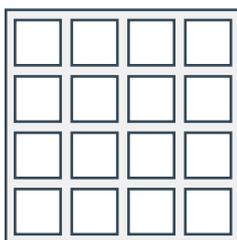
Explanation Diagram

Normal Website Development

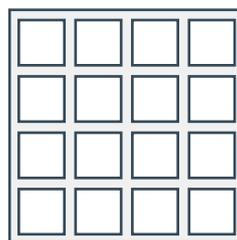
Each small square represents a Website function e.g. comments, registration, video upload, etc.

The function is build to order for the website.

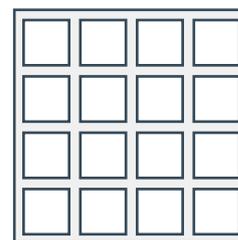
Website One



Website Two



Website Three



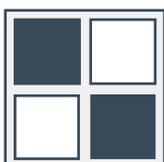
Vs.

Modular Development

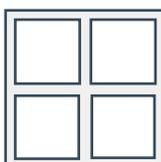
Each small square represents a website / brand.

Modular development means each module is a self governed entity that can be switched on or off on an individual website.

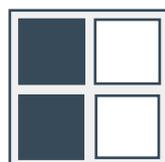
Forum



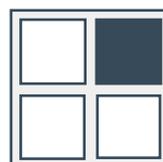
Registration



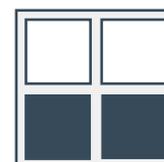
Comments



Transaction Email



CTAs



Monetization



The “Central Admin Panel” initiative is ongoing and I predict the yield from this project to compound as the project matures. CAP is intended to have a “self-learning” effect, where it becomes more useful the older it becomes.

No management system of CAP’s ability is available commercially. Although there are CRMs and CMSs on the market, nobody approaches dev of multiple websites using a re-usable and mouldable modular methodology. The specificity of much of the functionality and the standard it needs to be built to (passing stress tests, page load speed tests, responsive tests) makes such a system’s development as a third party app nonviable.

CAP is aimed to make development and management of hundreds of leading websites under one “roof” not only possible, but actually preferable - The very nature of such a system is that both website and management system must be developed hand in glove and no third party CMS can offer this. Integrating any large group of websites with a third party management system defeats the purpose of scalability and efficiency, for this system will eternally be moulded to fit differing requirements. In fact, the third party system was not necessarily intended to be changed, whereas CAP was built with a purpose of evolution in mind.