
**Some thoughts about security:
Know your URLs**



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Background

- Launch of a new product
- Launch backed by x-million euro advertising campaign
- Thus quite some load expected
- Rough market, jealous competitors



Talking with IT-security

[IT-security]

“Can't we just render some static HTML like in the good old days?”

[IT-security]

“Well... any suggestions?”

[CMS Expert]

“There is no static website anymore! Just think of a dynamically generated navigation component... And the old days were not that good ;-)”

[CMS Expert]

“Build a dynamic site that is 100% cached”

Basic Security

- Cache *everything* in the dispatcher
- Strict whitelisting with mod_security
- No whitelist patterns (except for the resource part in the URL)
- All URLs must be known in advance (except resource part)



Preventing Denial of Service Attacks

- Avoid requests hitting the CQ5 servers

Reminder:

- Even “<http://www.mysite.com/index.html?>” hits the CQ5 servers
- Users might add a “?” to any URL even if *you* don’t.

Solution:

- Strip off all query parameters with a rewrite rule
- Use (few) selectors where necessary
- Track number of requests per user per minute with mod_security

Cache Pollution

Your URL:

<http://www.mysite.com/index.html>

Their URL:

<http://www.mysite.com/index.001.html>

<http://www.mysite.com/index.....html>

<http://www.mysite.com/index.999.html>

Effect:

Content get's rendered again and again by CQ5. Cache is polluted.

Solution:

`mod_security`: No patterns in whitelists



Service Exposure

- Don't expose services in your URLs.



Your URL:

<http://www.mysite.com/news/articlex/gfx.Services.png>

Their URL:

<http://www.mysite.com/gfxheadline.AAAA.png>

<http://www.mysite.com/gfxheadline.AAAB.png>

Solution:

<http://www.mysite.com/content/home/services.navi.png>

=> The [navi](#) script knows which atom contains "Services".

Service Exposure

- Example: Render a 200px wide teaser image for the page “article”



Editor's Blog: Australien ist für Lebensmüde
Warum hat "Crocodile Dundee" eigentlich so ein großes Messer?
MERIAN.de-Redakteur Denis Kraß kennt die Antwort. Schwer
traumatisiert verweigert er sich der allgemeinen Australien-
Begeisterung und warnt vor den tierischen Gefahren einer Reise
nach Down Under. [mehr...](#)

Your URL:

<http://www.mysite.com/news/article.teaserimg.200px.png>

Their URL:

<http://www.mysite.com/news/article.teaserimg.1px.png>

<http://www.mysite.com/news/article.teaserimg.2px.png>

<http://www.mysite.com/news/article.teaserimg.99999px.png>

Solution:

<http://www.mysite.com/content/article/teaserimg.small.png>

=>Let the “teaserimg” script decide how big “small” is.

Conclusion...

- Know the risks
- Balance flexibility and security carefully

- ALWAYS filter parameters according to your business needs

AND

- NEVER pass a bare HttpServletRequest into a QueryBuilder ;-)

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