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



[achim.schermuly-koch@cassini.de](mailto:achim.schermuly-koch@cassini.de)

# 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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**Cassini Consulting GmbH**  
**Technology Guidance**

Achim Schermuly-Koch

Halskestraße 46  
40880 Ratingen  
Deutschland

T +49 (0)151 11 44 38 18  
F +49 (0)21 02 94 34 738  
[visit www.cassini.de](http://www.cassini.de)