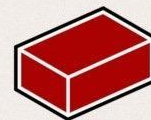


Admin Tales Of Fail

Why Redbrick broke and how admins (past and present) fixed it(mostly)!



Redbrick
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SYSTEM ADMIN



WHAT SOCIETY THINKS I DO



WHAT MY MOM THINKS I DO



WHAT HACKERS THINK I DO



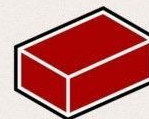
WHAT MY BOSS THINKS I DO



WHAT I THINK I DO



WHAT I REALLY DO

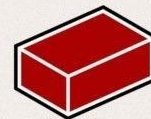


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No really:

- Package Management
- Configuration Management
- User Management
- Disk Management
- Debugging
- Monitoring
- Troubleshooting
- **Procrastinating**
- ...
- Installing
- Updating
- Documenting
- Networking
- Allocating resources (VM's , webspace, etc)

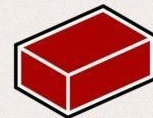
Oh and sometimes college work :)



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What we're going to talk about:

- The Rebrick System Architecture
- Documentation (The Good The Bad And The Ugly)
- Pushing the “Big Red Button”
- FrankenServers - And How They Occur.



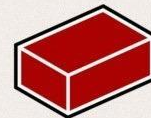
Also Some Good Stuff :)

PERFORM MAJOR UPGRADES



CAN STILL SSH

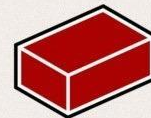
imgflip.com



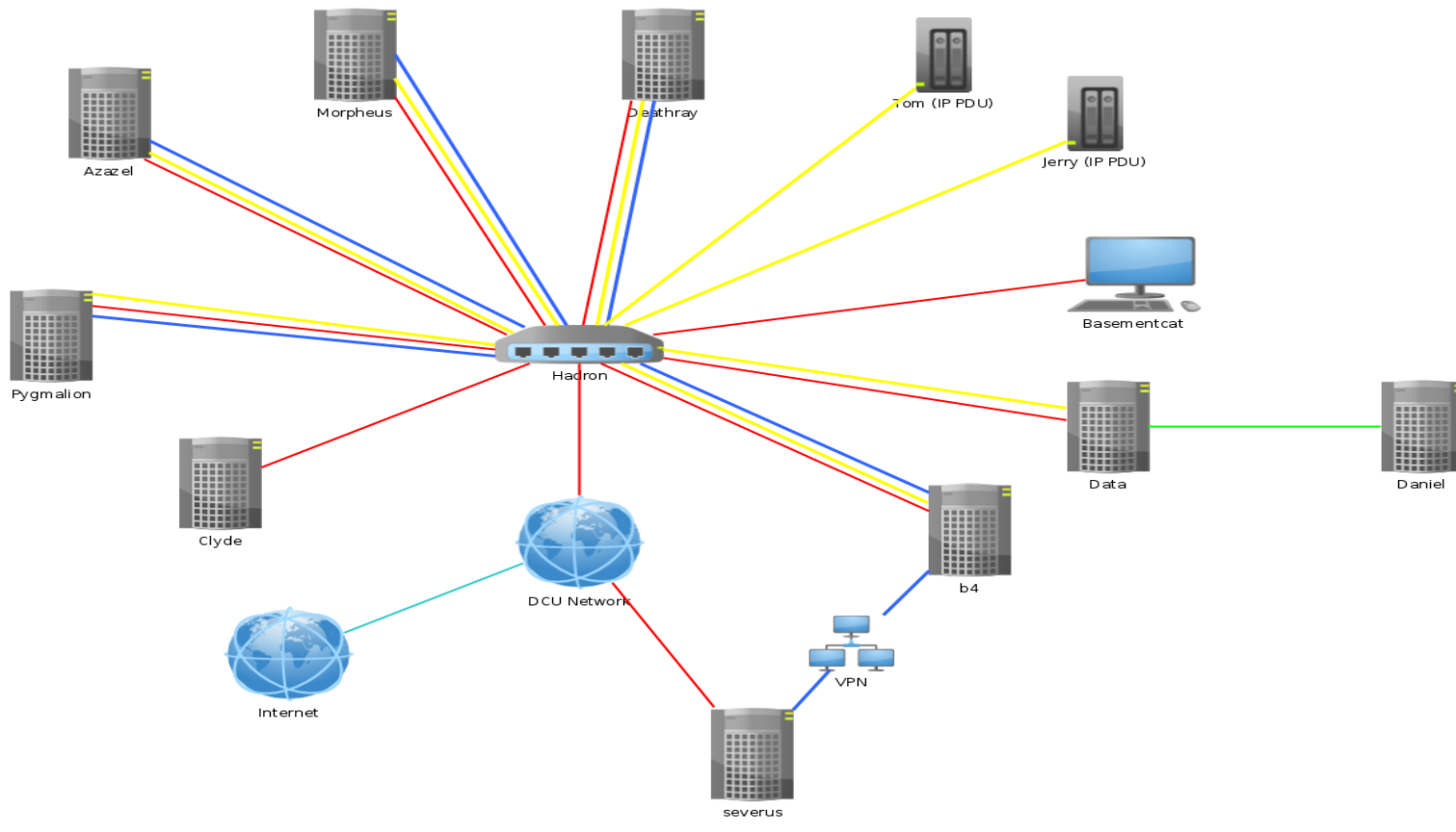
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The Architecture

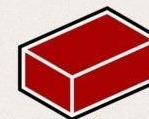
(Apparently)



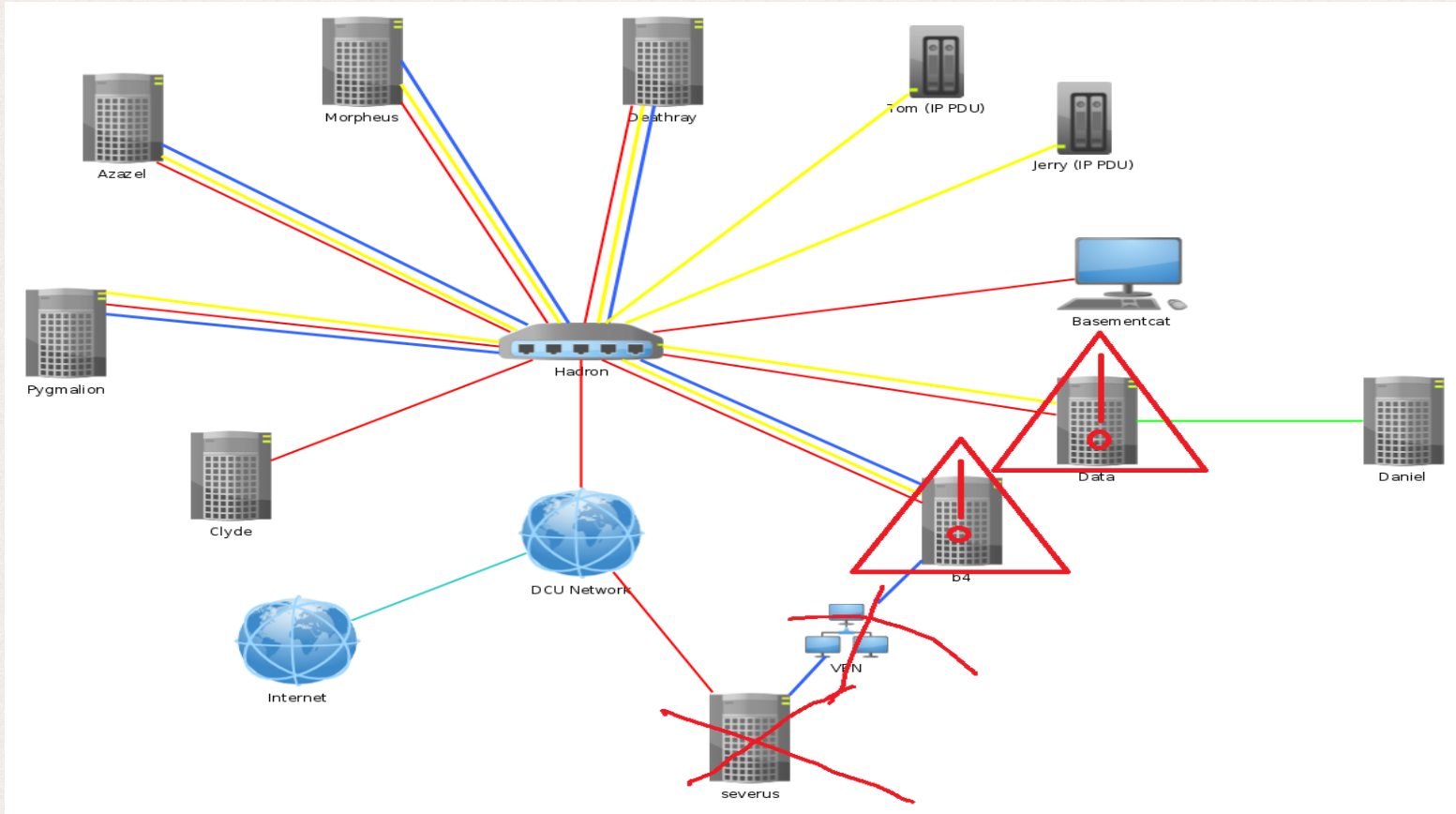
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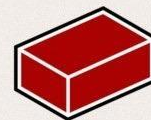
The System According to docs. - Neat Manageable.



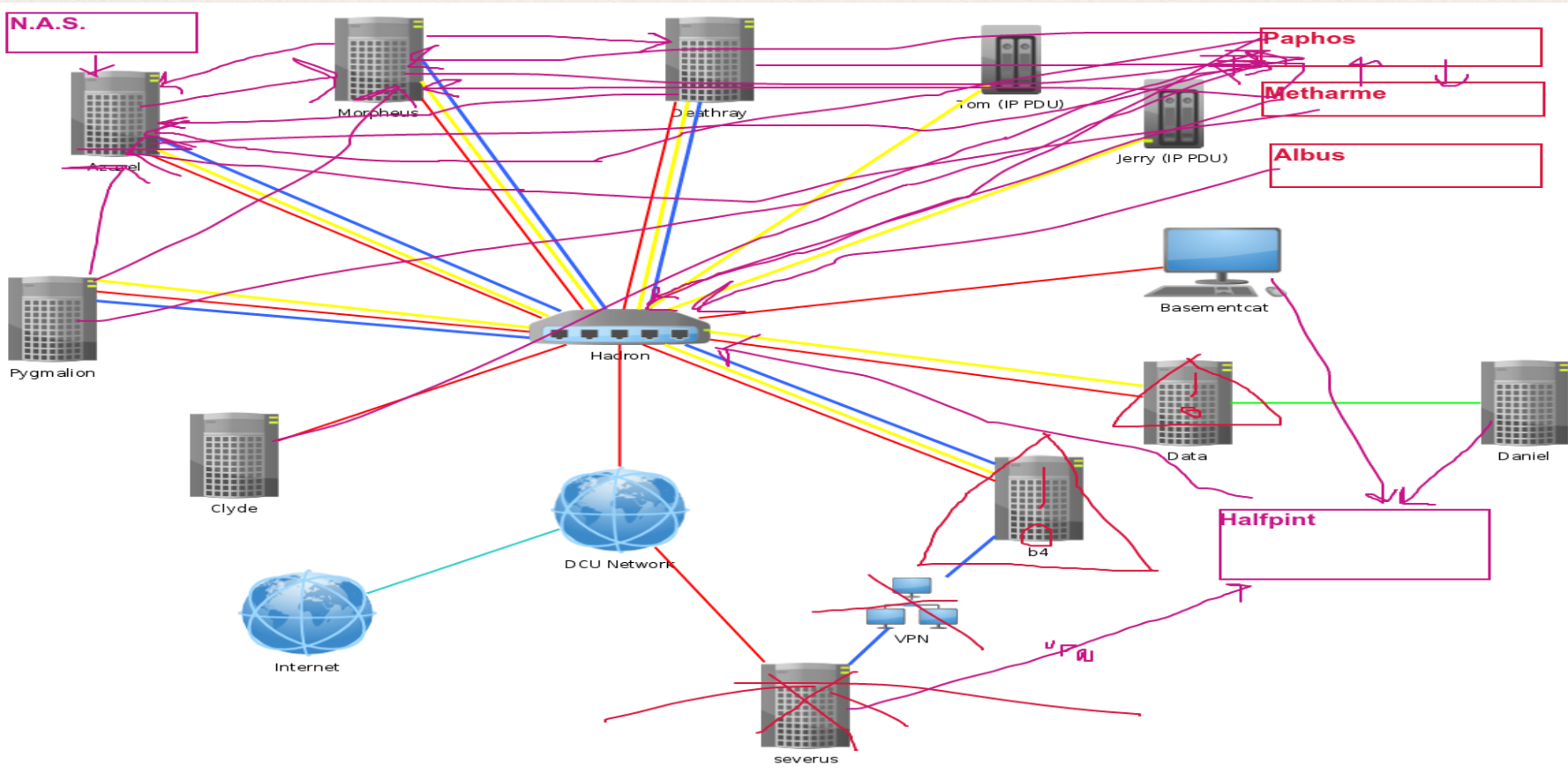
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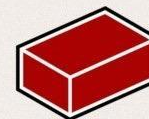
The System As It Actually Stands - Much the same. Small Additions.



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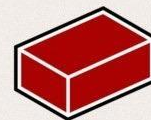


The System Taking into account coupling/software dependencies





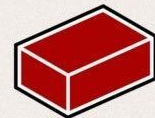
MOTHER OF GOD



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So that leaves us with:

- Some things that just work
- A half understanding of how things are set up.
- Unaware of some of the proxying/custom setup and configuration details
- Some hacky solutions to some stuff

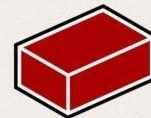


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Documentation

A Blessing and a Curse



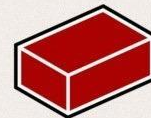
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Some examples

“Pubcookie

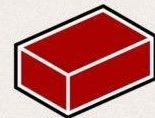
This page document's [murphy](#)'s pubcookie setup. This has changed a little since RSPM took over.”

“To access the DRAC on either machine, you'll need to do some ssh port forwarding via sprout. ”



Docs the good and bad

- Docs are awesome when they're up to date
- When they're not up to date they're awful
 - But how do we know that they're right??
 - Trial and error is not a good approach
 - as we learned
- Thats the problem.

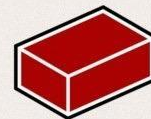


Do you even \$RandomService Bro??

- What type of things should we document??
 - This in itself is a very hard question.
- Do we just document random software trivia?

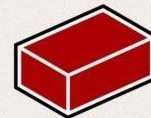
- Can it be found by Googling?
 - If its system specific and cant be found by Googling, definitely document it.

- Something immediately obvious to me, may not be obvious to someone else.
- TLDR
 - EVERYTHING!



FrankenServers

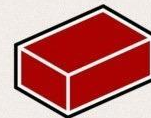
It's ALIIIIIVE it's still alive right??



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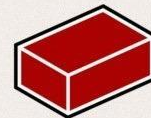
Every Day Is Day One

- At the end of the day we are a college society.
- All admins are volunteers and are new learners, not extremely experienced, learning on the job and docs or non-complete docs
- High Turnover rate / people coming and going.
 - This creates an interesting problem, the amount of information lost about how the system works every year is pretty big. Unless the admins have done a massive amount of (well documented) work
- “this hacky solution will work always right?”



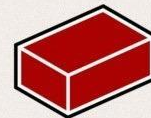
Pushing The Big Red Button

(Meme Incoming...)



Redbrick

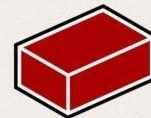
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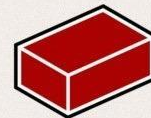
The Straw(s) That Broke The Camels Back

- Critical Vulnerability relating to C libraries needed to be patched.
- Patching C libraries in the past had led to NSCD problems among others.
- We (the admins) had ~1week left off before college.
- Update work had been post-poned many a time.
- 10.04 was reaching end of life.
- We decided to act and perform updates.



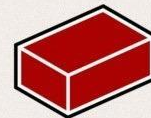
The Straw That Broke The Camels Back

- So stuff broke ... kind of... maybe... ok alot.
- We got everything ~stable. Then had a hardware failure on our primary services box. Which runs mail, and web services.
- We then had to migrate services to an older machine. Deathray.
- Provision two new servers, Metharme and Paphos.
- Migrate everything to the tow new server.
- Pray to god it all worked..



When A Plan Comes Together

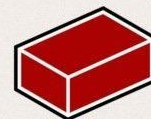
(Or Y'know... the guys who built it help out.)



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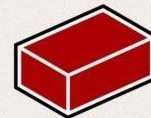
Things were looking up

- We weren't alone, admins past and present were helping out.
 - Filling in some of the gaps in documentation as well as answering obscure trivia about the system.
 - We were losing hours of work over 3 word commands that couldn't be googled. (getent group)
-
- Now that things have started to go well we've realised
 - WE BETTER DOCUMENT WHAT WE JUST DID.(later)
 - We ran into some random configuration problems when moving servers around.
 - Needing to allocate certain amounts of space for old logs etc.



What's Left To Do

(INSERT WITTY REMARK HERE)



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Not Much Really.

- Fix mailman / lists.redbrick.dcu.ie
 - allowing societies access to edit mailing lists again.
- Fix pubcookie for authentication, cmtwiki etc.

- Although there's not much, these are critical services that need to be restored ASAP.

