



a **BIG** project starts
with a small plan





think
BIG

legacy
systems

Badly designed
infrastructures

temporary solutions
become permanent

secret dominions of
previous employees



stay calm

stay sane

stay
sensible

it's a RESOURCE problem

TIME

LITTLE TIME == NO GO



STORY #1

The frightful report

CSV

over HTTPS

RDBMS

XML

...and formulae

over HTTP

RRD

can't use
the data
"as is"

no previous
knowledge
of cacti and RRD

most of the
sources
didn't exist



making
changes
is easy

the process
is mostly
automated

it works, the way we wanted!

fully
generic

we use it
in another
project

moral from story #1:
thinking big and deliver
is possible. Know your
"budget", and keep cool.

think
Big



when you are
short on time
...and alone

you got
blurry
specs

it's just a
one-off

...and it actually is

it's just a
one-off

...but you smell that it's not

STORY #2

the infamous email system mass upload

read more at <http://tinyurl.com/kchj776>



simple objects
encapsulate
entities or
functionalities

e.g.: Account, Account::Group, Writer::DB

code thoroughly
documented
in English

no hardcoded
information

chatty on
errors



now fast-forward two years later...



THEY MADE IT!

«Jo fiddled with the code for two days, and found the way to make it work. Yesterday we ran the upload, and we had no problem!»»

«I am a Perl illiterate myself, but I was still able to understand what was going on in the code»»

More Perl business stories at: <http://tinyurl.com/koqzjzr> <http://tinyurl.com/m8evolw> (in Italian)

clear code

clear comments

clear
documentation

\$readability++

\$optimization--

hardcode

NOTHING!

leave room
for expansion

moral from story #2:

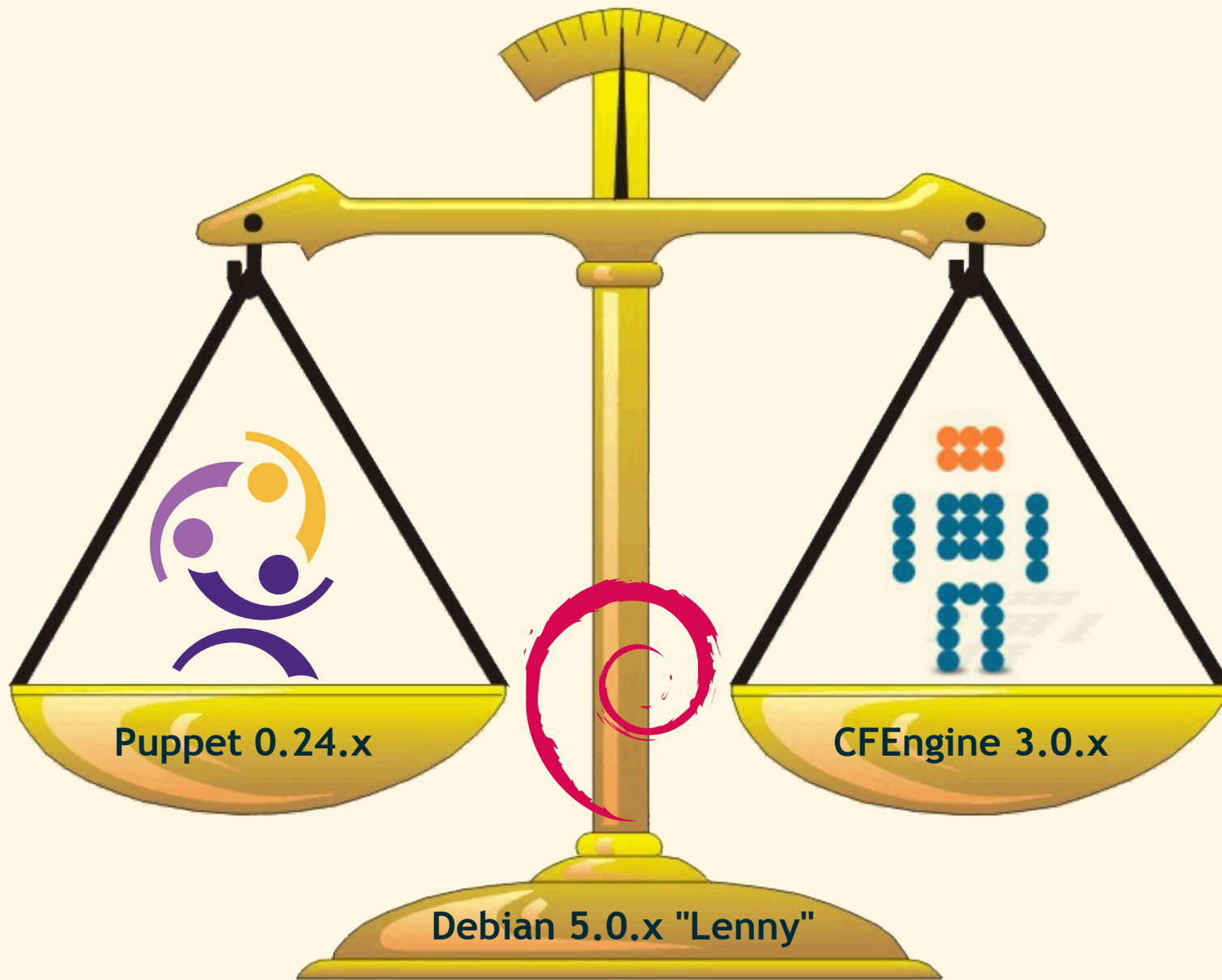
when forced to think small,
try to reach the goal without
over-engineering the solution,
and leave room for expansion.



STORY #3

the perfect infrastructure parable

read more at <http://tinyurl.com/moapjue>



Puppet 0.24.x

CFEngine 3.0.x

Debian 5.0.x "Lenny"



crappy fileserver

work around with rsync

puppetd hogging the CPU

repackage the ruby interpreter

puppetmasterd didn't scale out-of-the-box

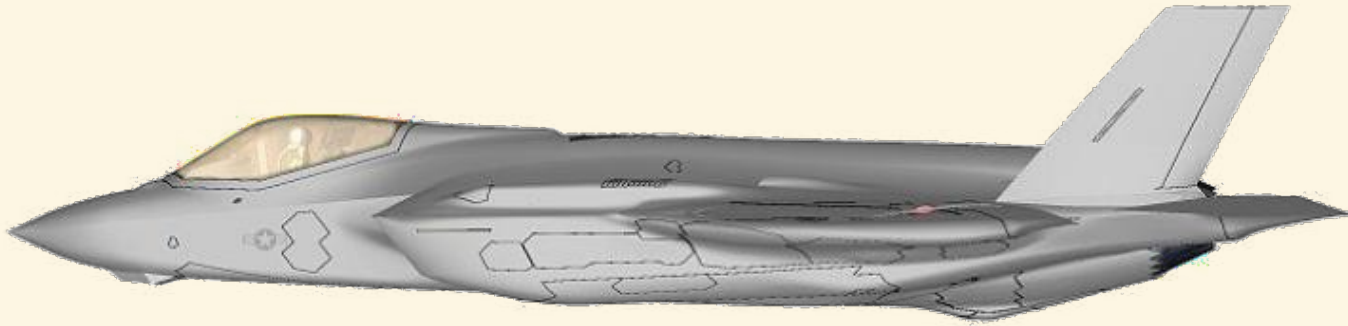
nginx reverse proxy frontend with SSL

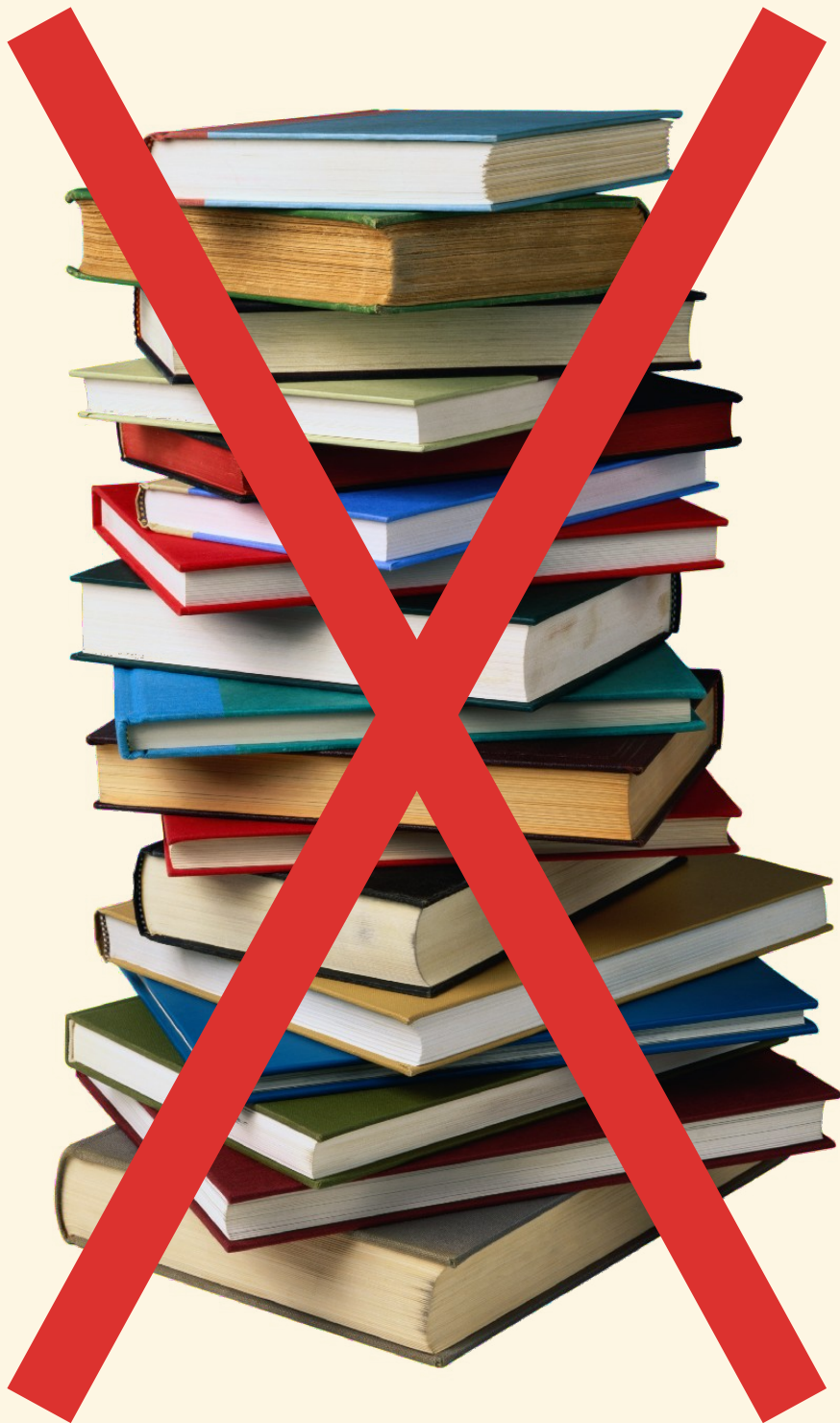
no hierarchical puppetmasters

work around with SSL dirs to make it possible

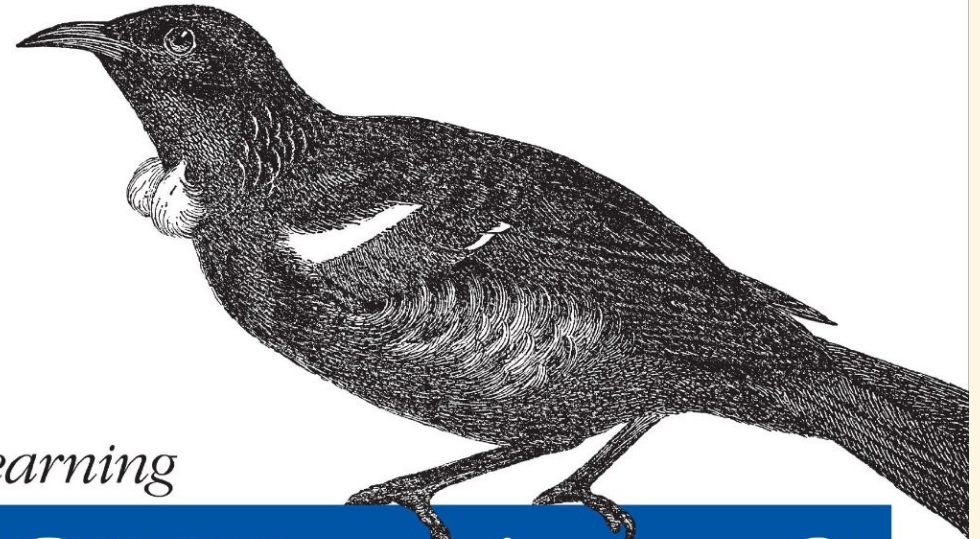








Automated System Administration for Sites of Any Size





Learning

CFEngine 3

O'REILLY®

Diego Zamboni
Foreword by Mark Burgess

	 old infrastructure	 new infrastructure
design to implementation elapsed time (* includes initial study and evaluation)	~12 months (~18 months*)	~6 months (~9 months*)
projects currently implemented besides the initial one	0	1
prospects for new projects (* when the infrastructure was active)	0*	at least 1 more coming
people engaged in configuration management in my area (besides me)	0	1
prospects for new people (* when the infrastructure was active)	0*	?
effort needed to evolve (e.g.: CM software upgrades or major reworks of the manifests/policies)	significant	reasonable
effort needed to implement a new project	N/A	1 week/man

final takeaways:

understand your constraints: blurry specs, solo projects, time shortage... are clear signs that you can't think big;

don't be afraid to start small: it's not necessarily a recipe for disaster;

stay calm stay sane stay sensible



QUESTIONS

comments?



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Thank you note

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- Numerobis architecte: <http://www.flickr.com/photos/pierreouimet/7409510280/sizes/l/>
- Oslo Opera house: <http://withstringattached.wordpress.com/2011/02/17/landscape-roof-form-relations/>
- Space Shuttle launch: http://www.sciencebuzz.org/buzz_tags/space_shuttle
- Plane project: http://flyingmachines.ru/Images7/Putnam/German_Giants/156-1.jpg
- Stop sign: <http://lonewolf librarian.wordpress.com/2009/11/14/outrage-11-14-09/>
- Calendar and clock: <http://www.physbiztech.com/news/technology/industry-falling-behind-icd-10-preparation>
- Italian 4x100 runners: http://www.runners-tv.it/news.php?news_ID=4954
- Balance: <http://alchimistadiparole.blogspot.no/2011/03/i-compromessi-sposi.html>
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