Python Enterprise vento di libertà

by Simone

Europython 2011

Firenze

Abstract

Nell'enterprise la scalabilità verticale è ferma, l'HTTP Session è un dramma, XML è considerato un bug, i DB vengono messi in discussione, JMS è saturo, SOA un bluff. Parlerò di una diversa filosofia per le architetture Enterprise. Python è dinamico, object oriented, offre un forte supporto all'integrazione ed è fornito di una estesa libreria standard e, non da poco, può essere imparato in pochi giorni. Molti programmatori Python possono confermare un sostanziale aumento di produttività e ritengono che il linguaggio incoraggi allo sviluppo di codice di qualità e manutenibilità superiori. In questo talk parlerò quindi di produttività e qualità.

Il talk è un chiaro mezzo per diffondere python.

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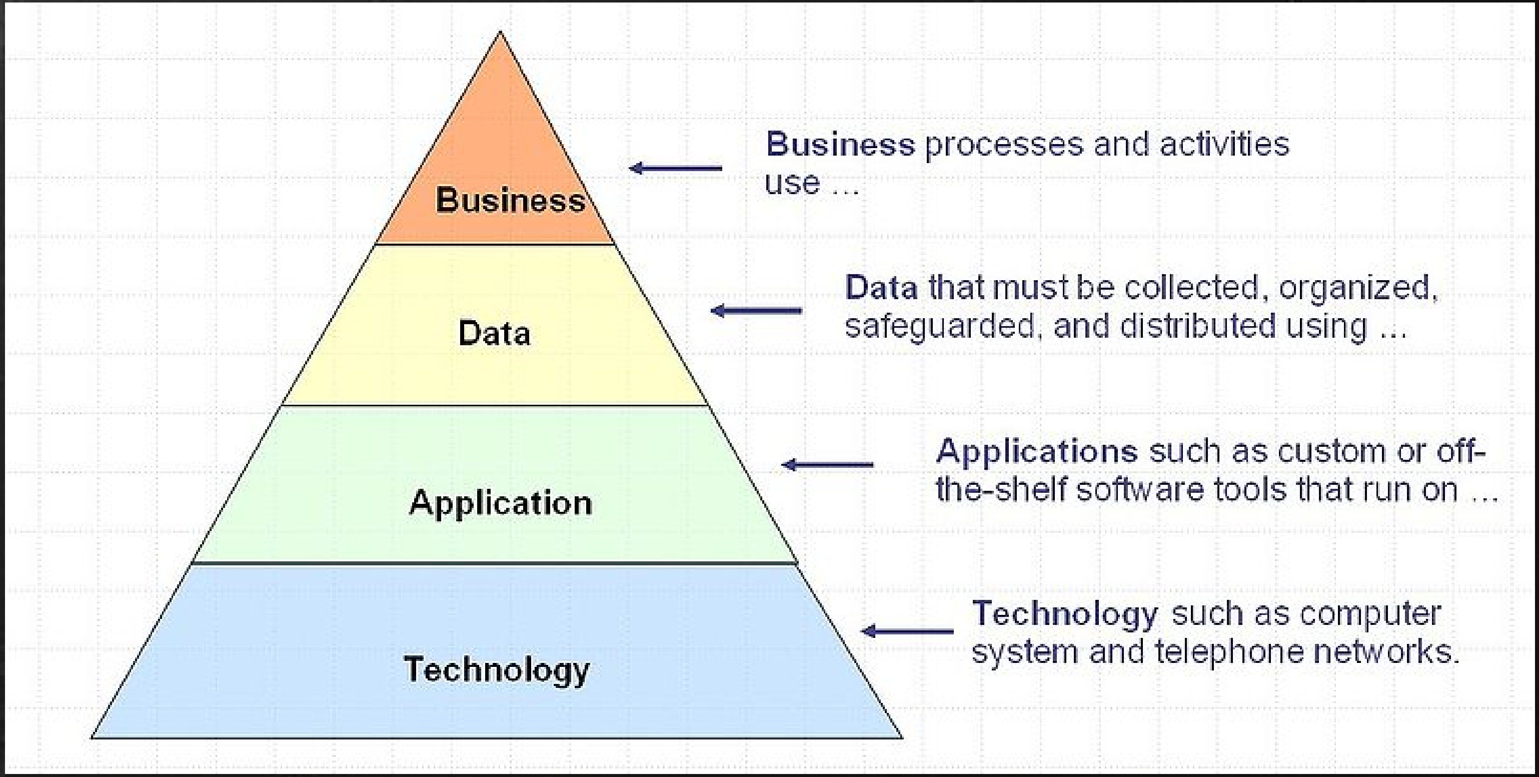
Enterprise Software EAS

Services provided by enterprise software are typically business-oriented tools such as online shopping and online payment processing, interactive product catalogue, automated billing systems, security, content management, IT service management, customer relationship management, resource planning, business intelligence, HR management, manufacturing, application integration, and forms automation.

Enterprise Architecture EA

The software is intended to solve an enterprise-wide problem (rather than a departmental problem) and often written using an Enterprise Software Architecture.



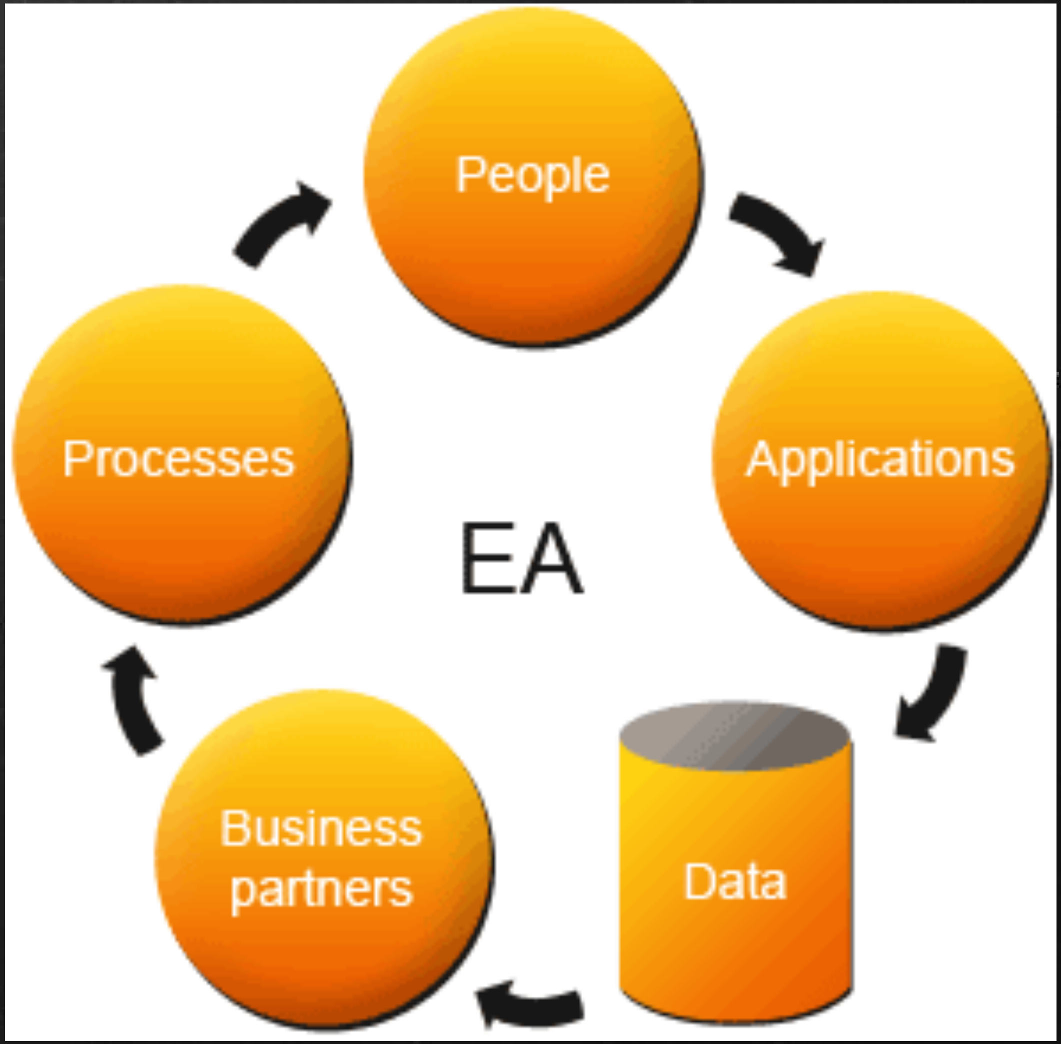
Business processes and activities use ...

Data that must be collected, organized, safeguarded, and distributed using ...

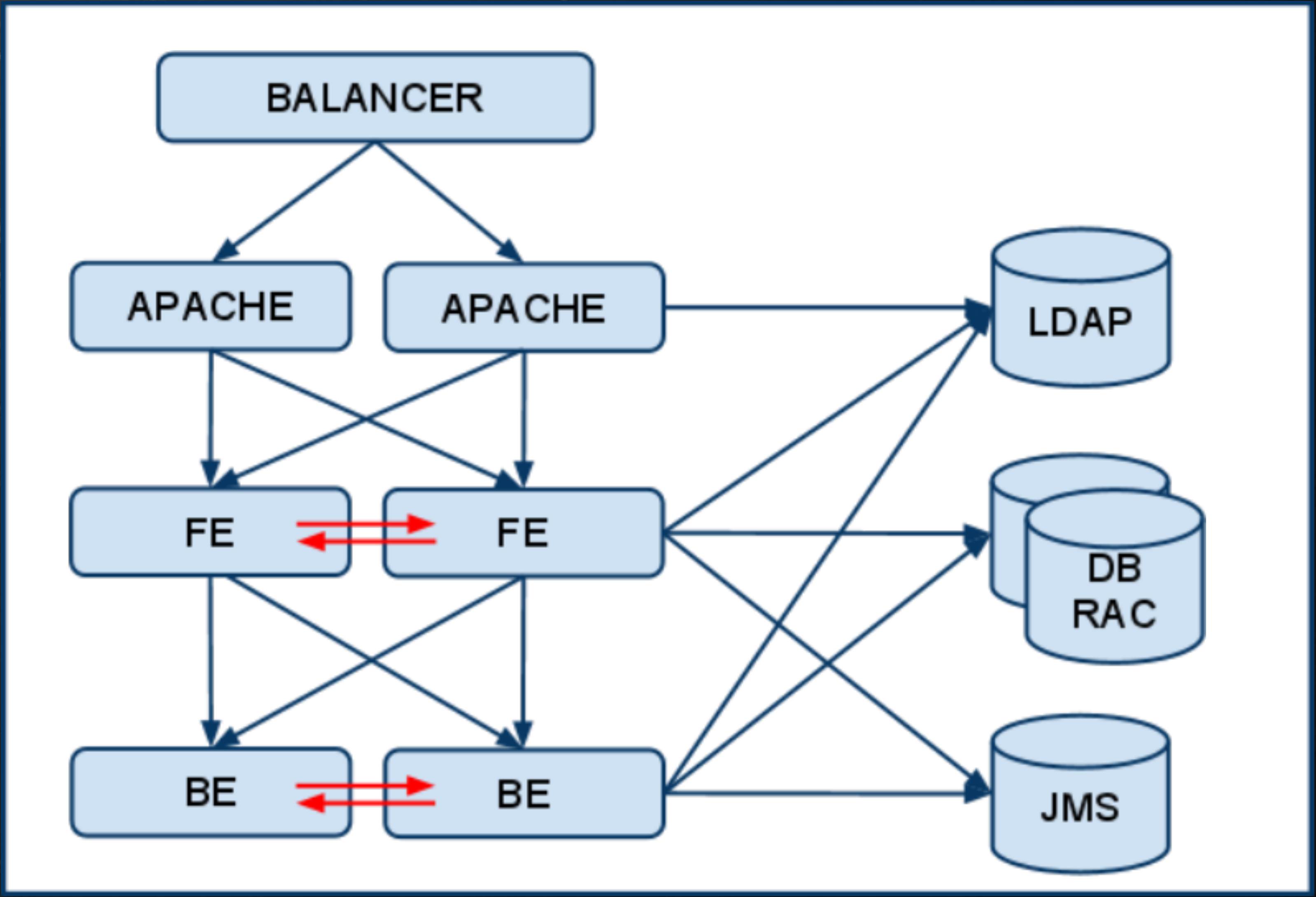
Applications such as custom or off-the-shelf software tools that run on ...

Technology such as computer system and telephone networks.

Enterprise Application



Enterprise Application



Software Architect

ACROSS
ACTIVITIES
ANALYSIS
AREAS
ALSO
APPROPRIATE
ARCHITECTS
ABILITY
ARCHITECTURES
APPLICATION
ARCHITECTURAL
APPLICATIONS
COMPANY
ASSOCIATED
COMPLEX
COMPUTER
COMMUNICATE
ARCHITECT
ARCHITECTURE
BEST
ASSIGNED
CREATE
BASED
BUSINESS
COMMUNICATION
CANDIDATE
CRITICAL
CLIENT
CAPABILITIES
DEMONSTRATED
DECISIONS
DEFINING
DEVELOPING
DRIVE
CONSULTING
CUSTOMER
DATA
DESIGN
DEGREE
EXCELLENT
DEFINE
DIRECTION
INDUSTRY
EDUCATION
CONCEPTS
ENSURE
DEVELOPMENT
DEVELOP
EMPLOYEES
ENVIRONMENT
EQUIVALENT
INITIATIVES
DELIVERY
FRAMEWORK
ENGINEERING
FIELD
INCLUDING
INCLUDE
ENSURING
IMPLEMENTATION
INFRASTRUCTURE
GOVERNANCE
DOMAIN
ENTERPRISE
CURRENT
ETC
EA
GOALS
GROUPS
EXPERIENCE
LEVEL
MAY
GROUP
LEADERSHIP
JOB
MANAGEMENT
MODELING
LEADING
INTEGRATION
MEMBERS
KEY
INFORMATION
NEEDS
LEAD
NEW
LARGE
OPERATIONAL
MULTIPLE
MODELS
PRACTICES
ORGANIZATION
KNOWLEDGE
MUST
MEET
PERFORMANCE
RESPONSIBLE
POSITION
PROCESSES
MICROSOFT
PROJECT
RISK
PROJECTS
METHODOLOGIES
PREFERRED
STANDARDS
PROCESS
OPPORTUNITIES
PRINCIPLES
PROBLEM
REQUIRED
STRATEGY
RFPS
PRODUCT
PROGRAM
SENIOR
REQUIREMENTS
RELATED
PROVIDE
ROLE
PRODUCTS
SERVICES
SECURITY
SKILLS
STRATEGIC
SCIENCE
SUPPORT
SOFTWARE
SOLUTION
SOLUTIONS
RESPONSIBILITIES
STRONG
STAFF
SYSTEM
SYSTEMS
TECHNICAL
TECHNOLOGY
TEAMS
WELL
YEARS
TEAM
USING
WITHIN
TECHNOLOGIES
WORKING
WORK
UNDERSTANDING

Software Architect

So.. what Enterprise is?

I'm confused

:-(

I've seen things...

...you people wouldn't believe.

HTTP Session Replication (100+)

OutOfMemoryE (GC, Leak, perm gen, ecc)

Response time (30sec+)

Kilomentri di code JMS

Database mono-connection (transactional?)

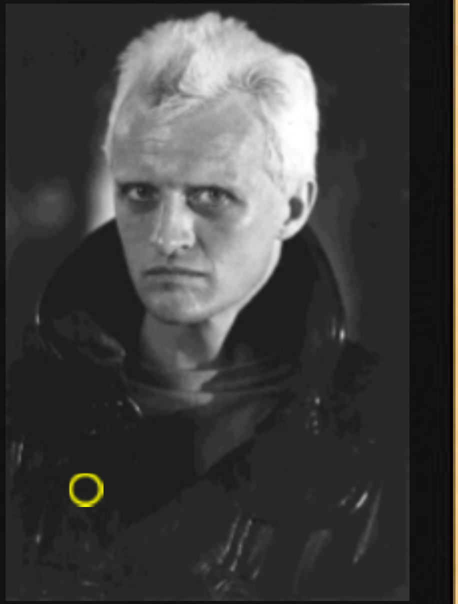
CPU 200% per le XML trasformations

SOA XML-JOINs

EJB extend BufferOutputStream

Keep alive 120sec

Servlet throw threads



All those components will be lost in time... like tears in rain

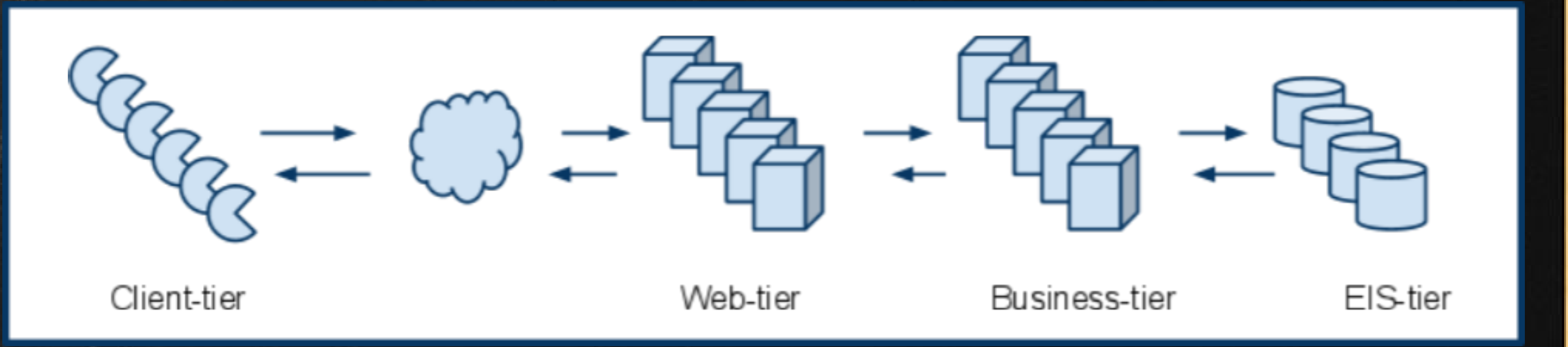
Time to Market

Mobile (+ device)

Presentation Logic -> Client side (ajax)

Backends -> new horizon (nosql db)

Productivity -> KISS limit the complessity



Application world wide

- Socials:
  - Twitter
  - Facebook
  - Linkedin
  - Buzz
- Google Apps
- etc...

Solve a wide problems?
Solve scalability problems?
Have a multiple geo-distribution?
Are Enterprise?

Memory issue?

We use just a node for server. (don't ask me why)

JVM -Xms == -Xmx == 512Mb

1GB, 2 o 3?

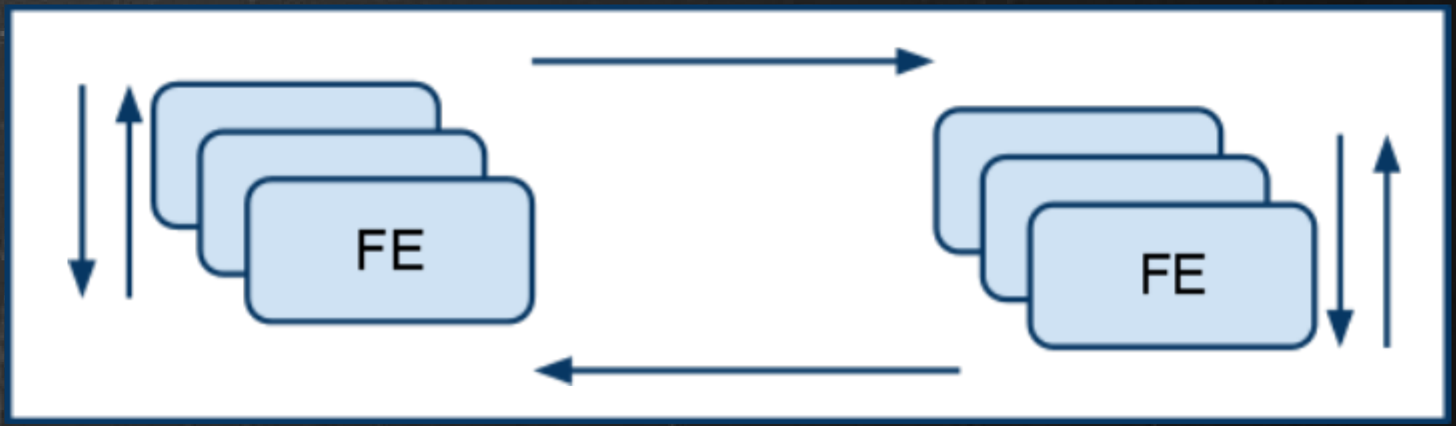
server stop for 120sec+

If we add more CPU?

But we have 8 CPU ... and only one is used (30%)

Can we buy a new big server?

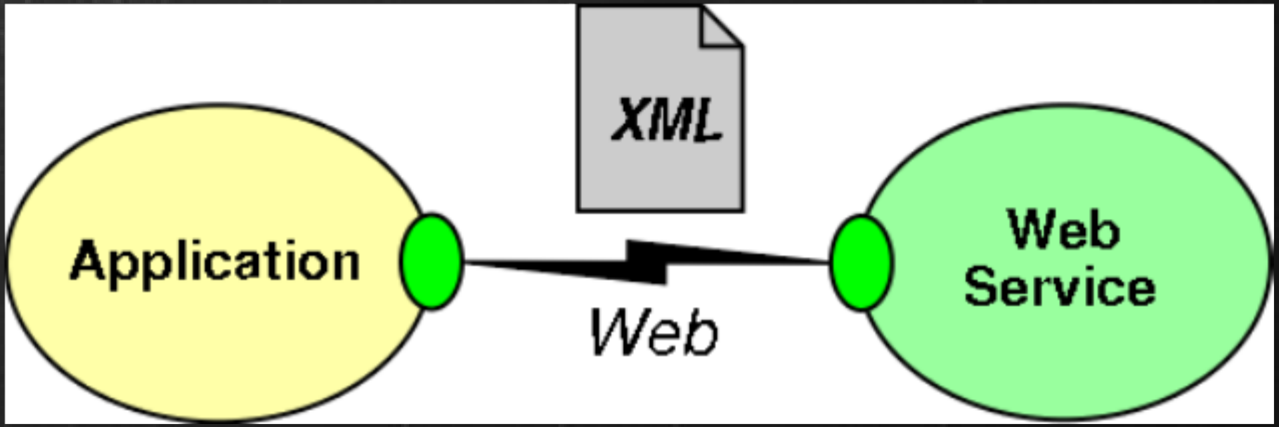
The scalability has a cramp



The HTTP Session replication is a tragedy

better stateless

- XML
- SOAPTransport Protocol
- WSDL Standard Format
- UDDI and XML Standard Formats
- Attachments
- Authentication
- (and kilometers of standard)



HTTP is not enough?
REST?

EJB

scalability

JMS

TODO list or event driven

SOA

nothing to lose

Do you need help?

Consultants

we can solve all your issues

Don't ask me to do something

tell me what you need

```
>>> import this
The Zen of Python, by Tim Peters

Beautiful is better than ugly.
Explicit is better than implicit.
Simple is better than complex.
Complex is better than complicated.
Flat is better than nested.
Sparse is better than dense.
Readability counts.
Special cases aren't special enough to break the rules.
Although practicality beats purity.
Errors should never pass silently.
Unless explicitly silenced.
In the face of ambiguity, refuse the temptation to guess.
There should be one-- and preferably only one --obvious way to do it.
Although that way may not be obvious at first unless you're Dutch.
Now is better than never.
Although never is often better than *right* now.
If the implementation is hard to explain, it's a bad idea.
If the implementation is easy to explain, it may be a good idea.
Namespaces are one honking great idea -- let's do more of those!
```

Why python is the best choice?

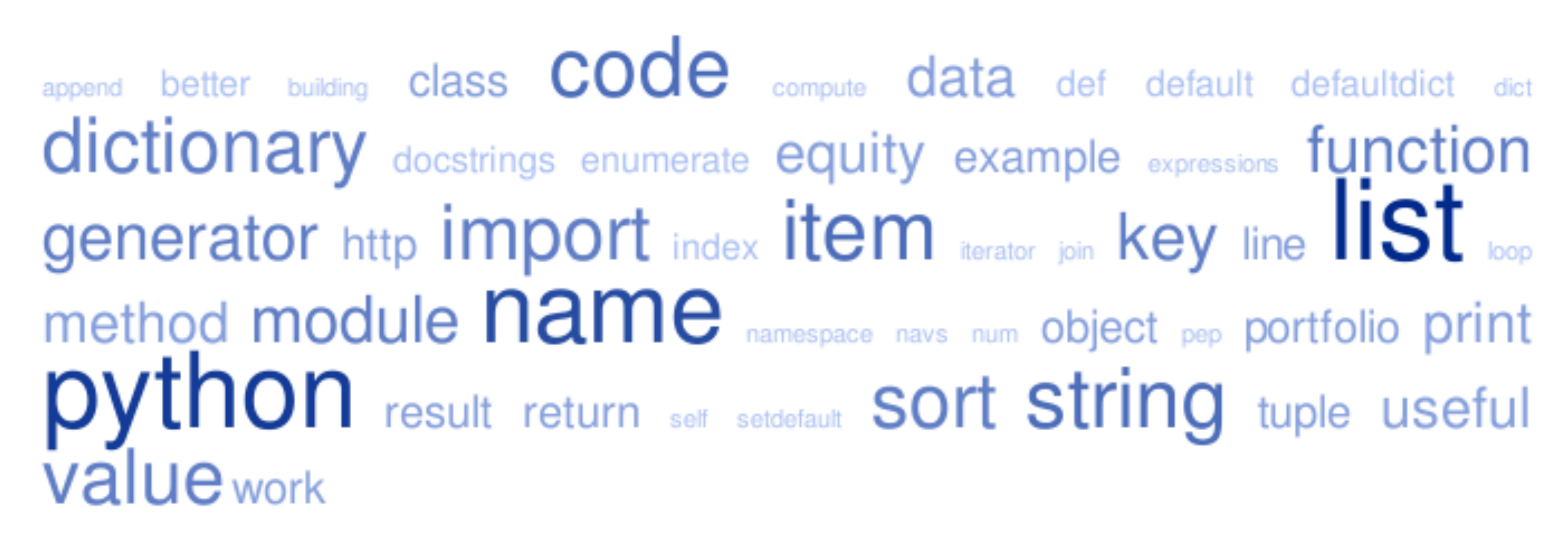
Because the pythonist exist

In italy
all company search Java or DotNiet developers
Who cares pythonists?

That's just only the first smell to
why this pythonists are so special

In the world, if you have python in your CV, you have a
different contractual power.

What is the secret of success?


append better building class code compute data def default defaultdict dict
dictionary docstrings enumerate equity example expressions function
generator http import index item iterator join key line list loop
method module name namespace navs num object pep portfolio print
python result return self setdefault sort string tuple useful
value work

the answer is within yourself

...because we like python!

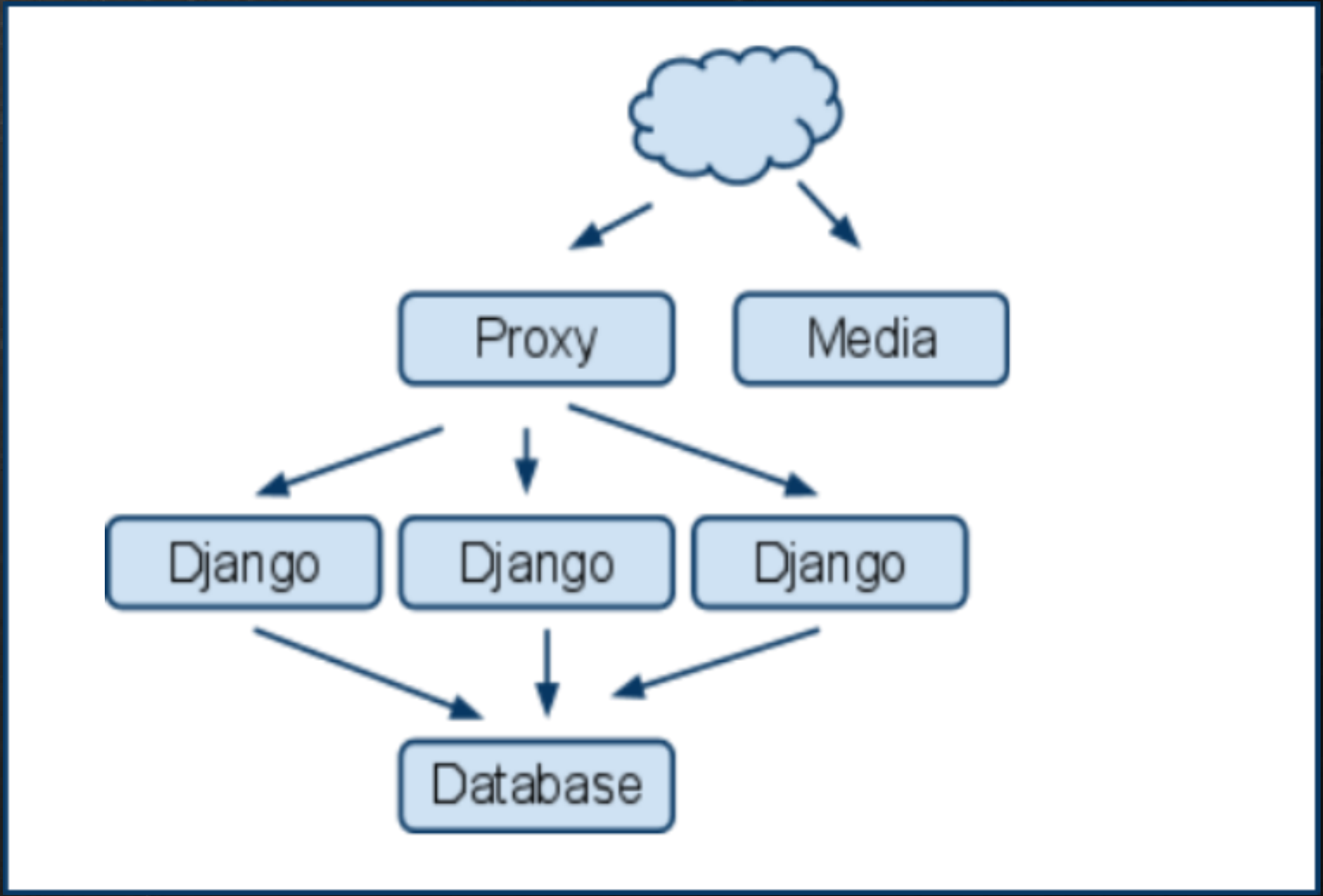
- beautiful source code
- simple indentation
- dynamic
- we can change a type on fly of an object
- because I can, you can, we can...

- beacuse is a language that leaves me free

Fear can hold you prisoner.
Hope can set you free.

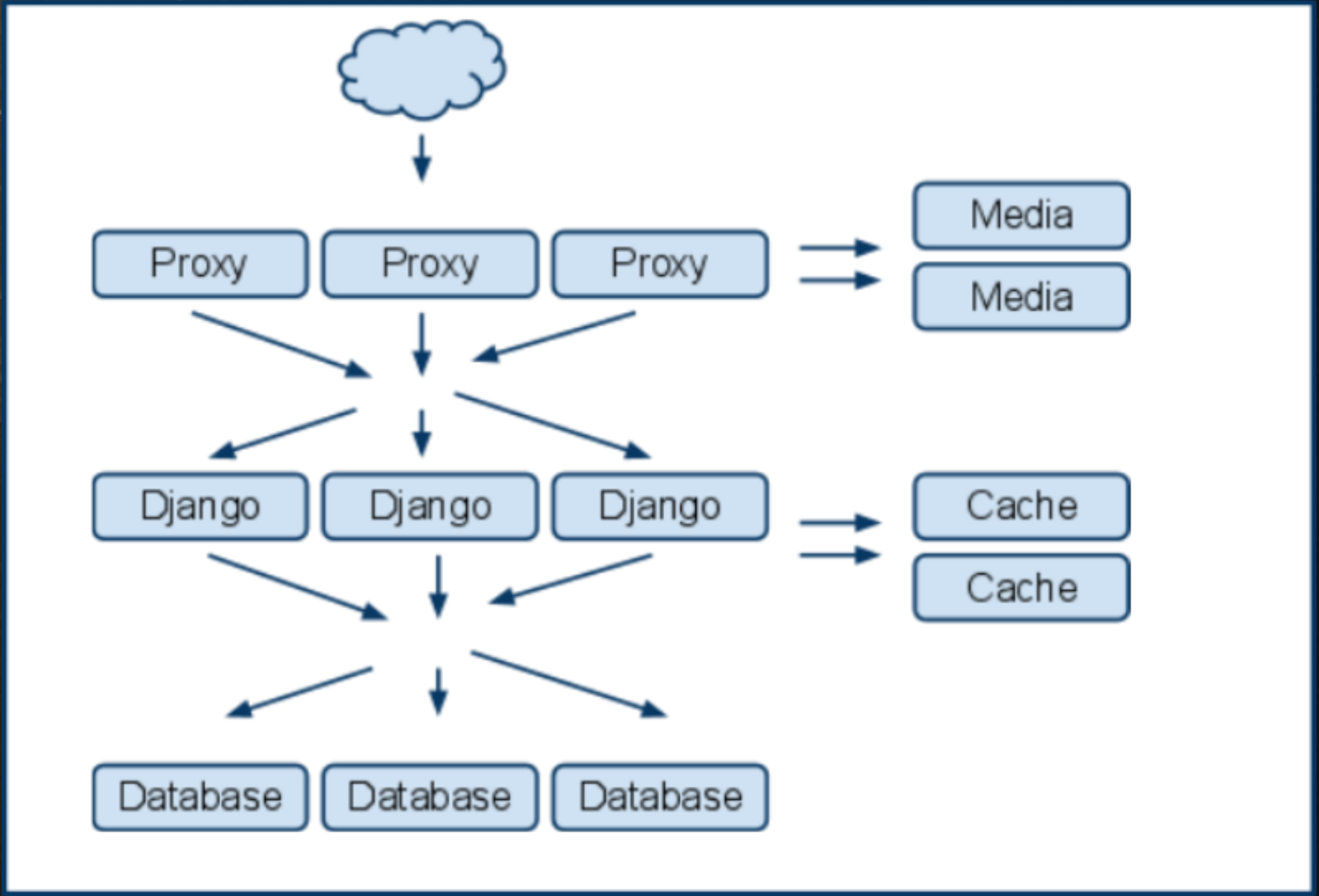
refactor your code

HA Clusters
Failover Clusters



Somebody told you it was a complex problem?

Better Failover...



.. or maybe you could use NoSQL

● WebServices	● **suds / SOAPpy / jsonrcp**
● Remote Invocation	● **PyRo / RPyC**
● Distribuite Task	● **Celery**
● Messaging	● **Stomp / JMS Bridge**

Productivity

Quality

Testing

Maintenance

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Questions?

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