

# RUNNING DRUPAL AT STANFORD

Marco Wise  
marco.wise@stanford.edu

~~RUNNING~~ FIXING  
DRUPAL  
AT STANFORD

Marco Wise  
marco.wise@stanford.edu

# DRUPAL 6

	Installation	Upgrades	Extra Functionality	Freedom
DIY on AFS	You	You	None	Complete
Installer	ITS	Some You Some ITS	Some	Mostly Complete
Stanford Sites	ITS	ITS	Lots (more coming)	Less

Not Recommended

# DRUPAL 6

	Installation	Upgrades	Extra Functionality	Freedom
DIY on AFS	You	You	None	Complete
Installer	ITS	Some You Some ITS	Some	Mostly Complete
Stanford Sites	ITS	ITS	Lots (more coming)	Less

# Collaboration Tools Installer

IT Services » Infrastructure Tools » Collaboration Tools Installer

Stanford faculty, staff, and students with full administrative privileges\* over a group or department cgi-bin directory can install unique instances of a number of commonly-used web-based collaboration tools. While content creation and user administration remains the responsibility of the administrator, IT Services makes sure that back-end application code and "Stanford Modern" themes/skins are supported and maintained (i.e., kept functional, infrastructure-integrated, and updated).

**DID YOU KNOW?** [Stanford Sites](#) is another option for installing a Drupal-based website. Stanford Sites may be used to create websites for individuals, as well as departments and groups, and runs on servers dedicated solely to Drupal hosting. [Compare more features of Drupal on the Stanford Web Service and Stanford Sites](#)

## Install Step 1

- Select an application

```
-select-
drupal
mediawiki
wordpress
```

- Select cgi-bin space

```
-select-
/afs/ir/dept/athletics
/afs/ir/dept/businessaffairs
/afs/ir/dept/ips_web
/afs/ir/dept/its
```

You have reached your database limit in the following directories. You may not add additional databases to these directories.

/afs/ir/group/ttsclasses

[Go To Step 2: Configuration](#)

\*Note: You can install applications in cgi-bin space for which you are a member of a <department>-admin PTS group. The list of directories offered above reflects your -admin PTS group privileges according to current system records.

### COLLABORATION TOOLS

- [Drupal Service Page](#)
- [MediaWiki Service Page](#)
- [WordPress Service Page](#)

### RELATED PAGES

- [Infrastructure Tools](#)
- [Stanford Web Services](#)
- [Web Services Wiki](#)
- [Stanford CGI Service](#)
- [AFS at Stanford](#)
- [Stanford WebAuth](#)



[tools.stanford.edu](http://tools.stanford.edu)

Recommended if:  
Total Freedom > Ease of Use

[tools.stanford.edu](http://tools.stanford.edu)

Recommended if:  
Total Freedom > Ease of Use

but, please, think of your clients, they may not speak drush

# DRUPAL 6

	Installation	Upgrades	Extra Functionality	Freedom
DIY on AFS	You	You	None	Complete
Installer	ITS	Some You Some ITS	Some	Mostly Complete
Stanford Sites	ITS	ITS	Lots (more coming)	Less

sites.stanford.edu

Recommended if:  
Ease of Use  $>$  Total Freedom

# MODULES

admin\_menu  
auto\_nodetitle  
biblio  
calendar  
cck  
content\_access  
css\_injector  
ctools  
date  
email  
features  
feeds  
feeds\_xpathparser  
filefield  
globalredirect  
google\_analytics

imageapi  
imagecache  
imagefield  
insert  
job\_scheduler  
jquery\_ui  
link  
mollom  
nodeformcols  
path\_redirect  
pathauto  
pathologic  
semanticviews  
stanford\_events\_importer  
token  
vertical\_tabs

views  
views\_slideshow  
webauth v.3 (v. 3.3 coming soon)  
wysiwyg [with CKEditor JS libraries]

# STANFORD WEB SERVICES

STANFORD UNIVERSITY

SUNet Sign In



## DEPARTMENT OF CLASSICS

Search this site...



[PEOPLE](#) [PROGRAMS](#) [RESEARCH](#) [COURSES](#) [NEWS & EVENTS](#) [RESOURCES](#)



### ABOUT US



### PROGRAMS



### FEATURED COURSES



webservices.stanford.edu

Recommended if:

Awesome - (a little \$) > Not so Awesome

# DRUPAL 7

	Installation	Upgrades	Extra Functionality	Freedom
DIY on AFS	You	You	None	Complete
No Installer, yet				
Stanford Sites (soon)	ITS	ITS	Lots (more coming)	Less

# DRUPAL 7

	Installation	Upgrades	Extra Functionality	Freedom
DIY on AFS	You	You	None	Complete
No Installer, yet				
Stanford Sites (soon)	ITS	ITS	Lots (more coming)	Less

# DRUPAL 7

	Installation	Upgrades	Extra Functionality	Freedom
DIY on AFS	You	You	None	Complete
No Installer, yet				
Stanford Sites (soon)	ITS	ITS	Lots (more coming)	Less

[techcommons.stanford.edu](http://techcommons.stanford.edu)

Recommended if:  
you can't wait

# RECAP

for the DIY crowd

## Drupal 6

use [sites.stanford.edu](http://sites.stanford.edu), but if you really need total freedom use the installer on [tools.stanford.edu](http://tools.stanford.edu)

## Drupal 7

wait for [sites.stanford.edu](http://sites.stanford.edu), but if you really can't, use the instructions on [techcommons.stanford.edu](http://techcommons.stanford.edu)

# RECAP

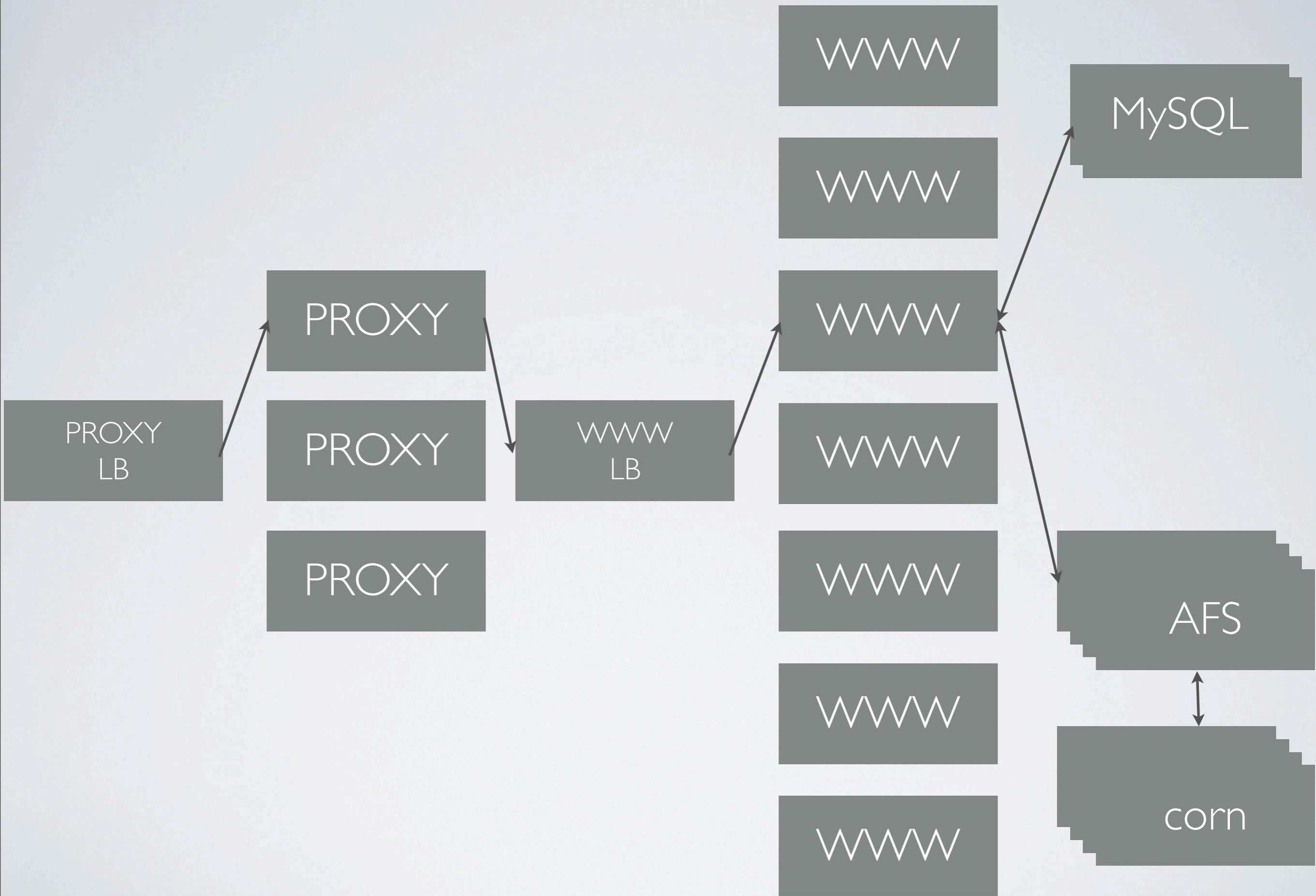
for contractors and those looking for contractors

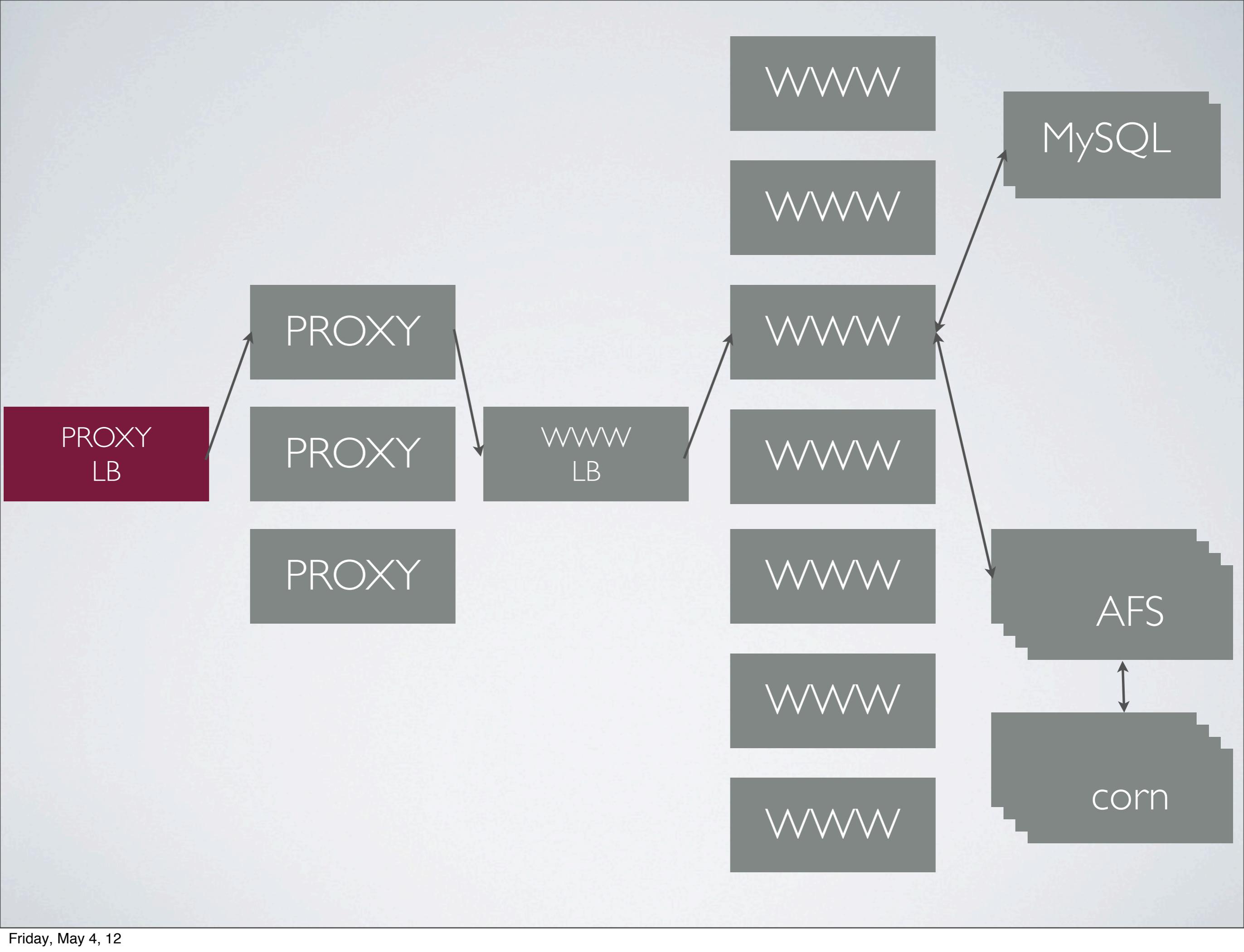
Drupal 6 and Drupal 7

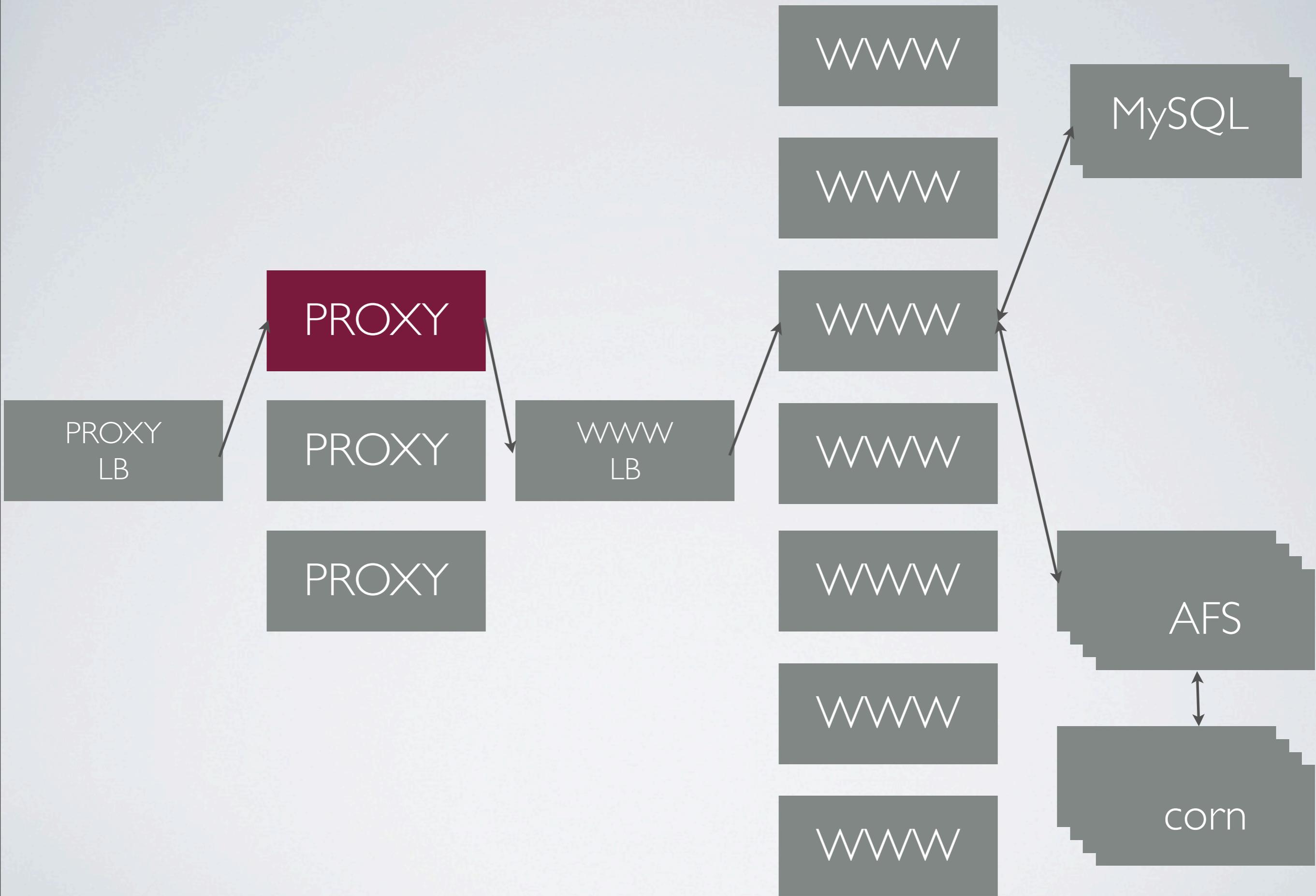
Talk to Stanford Web Services: [webservices.stanford.edu](http://webservices.stanford.edu)

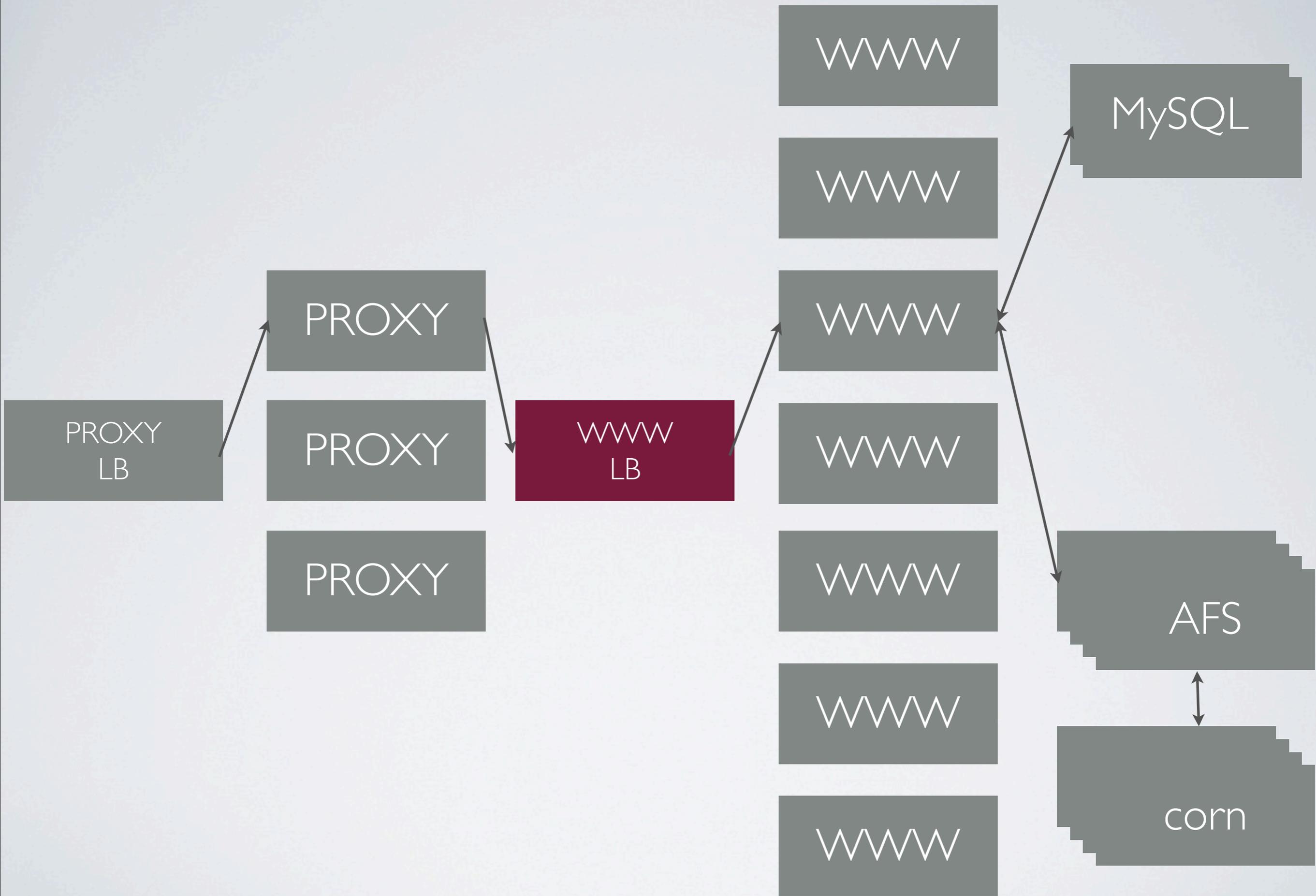
# DRUPAL 7

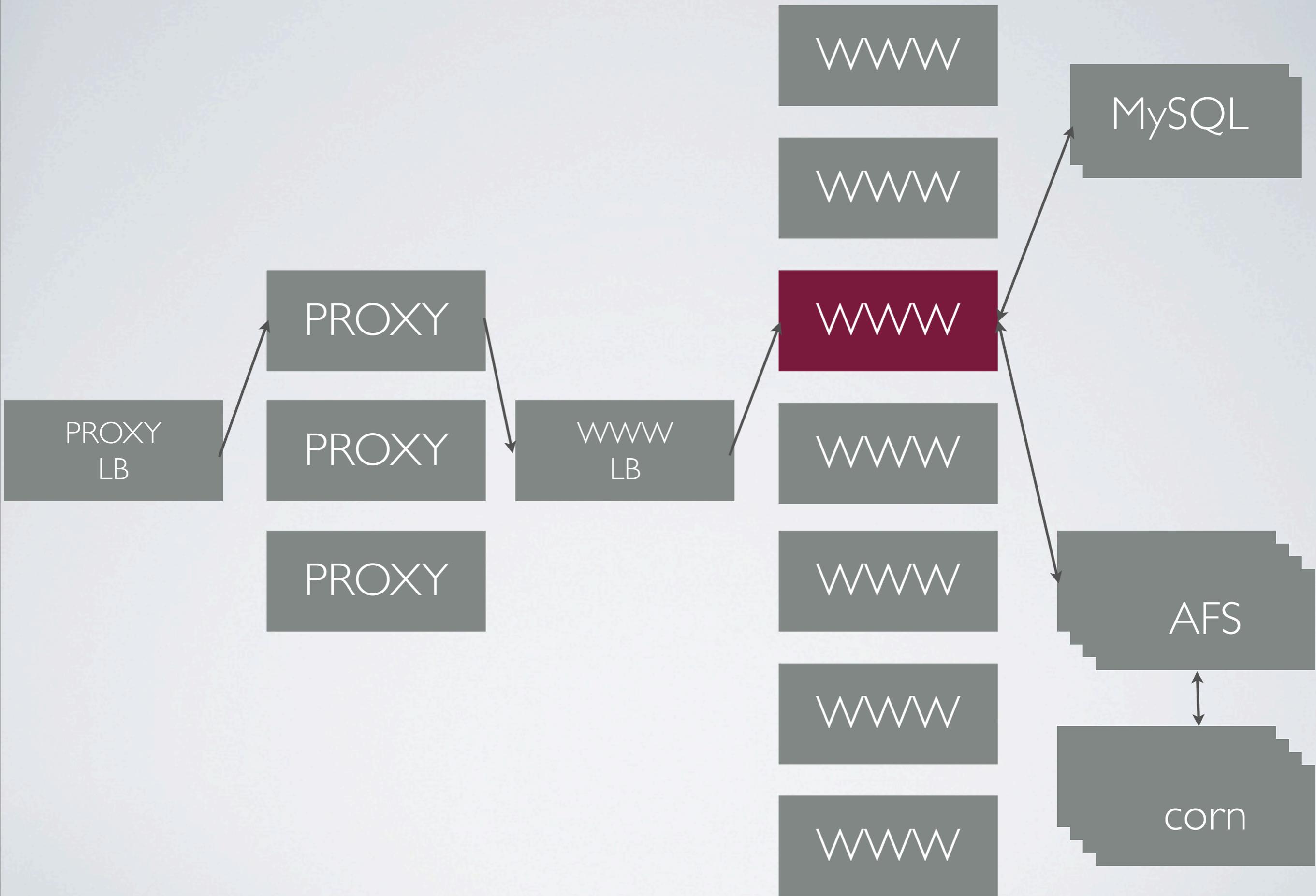
	Installation	Upgrades	Extra Functionality	Freedom
DIY on AFS	You	You	None	Complete
No Installer, yet				
Stanford Sites (soon)	ITS	ITS	Lots (more coming)	Less

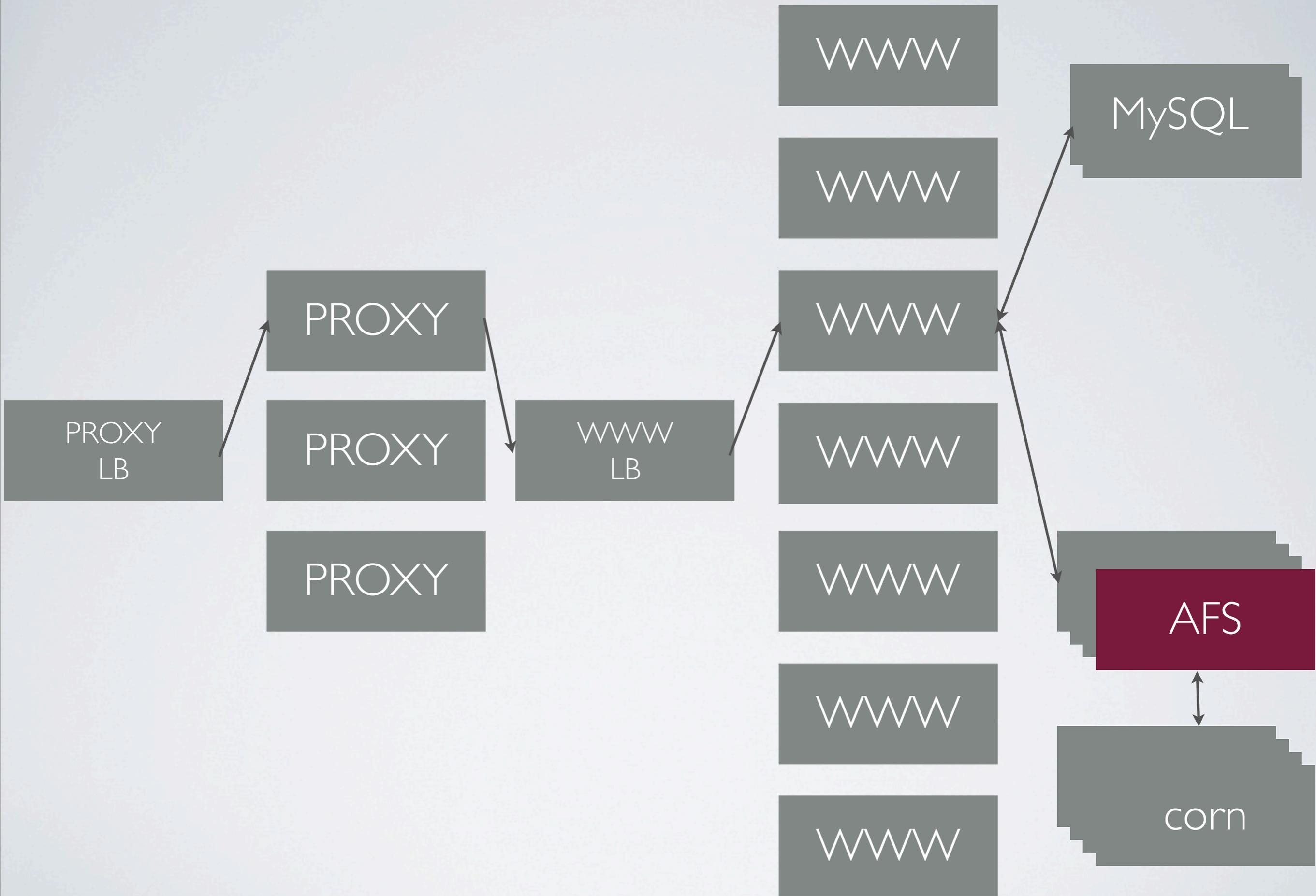


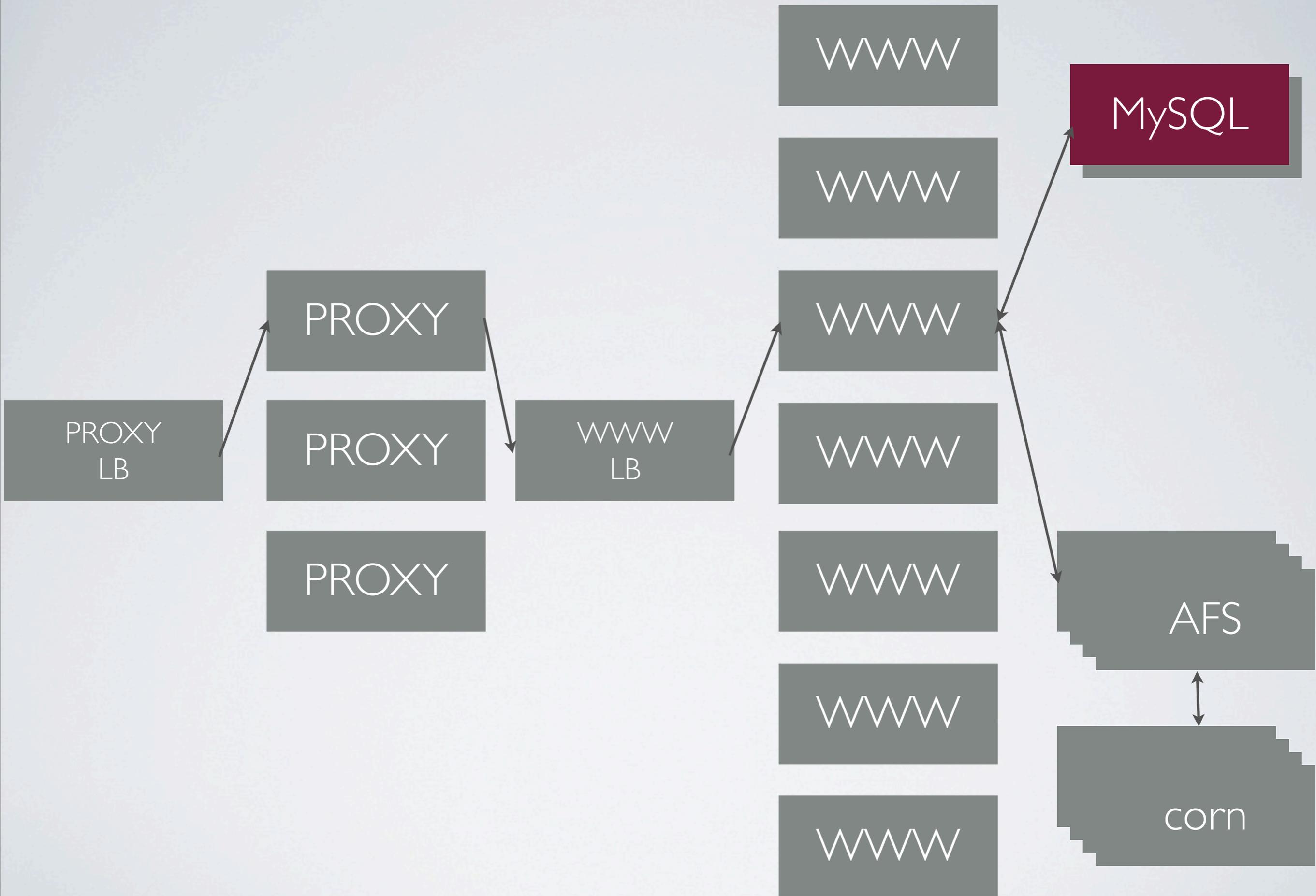






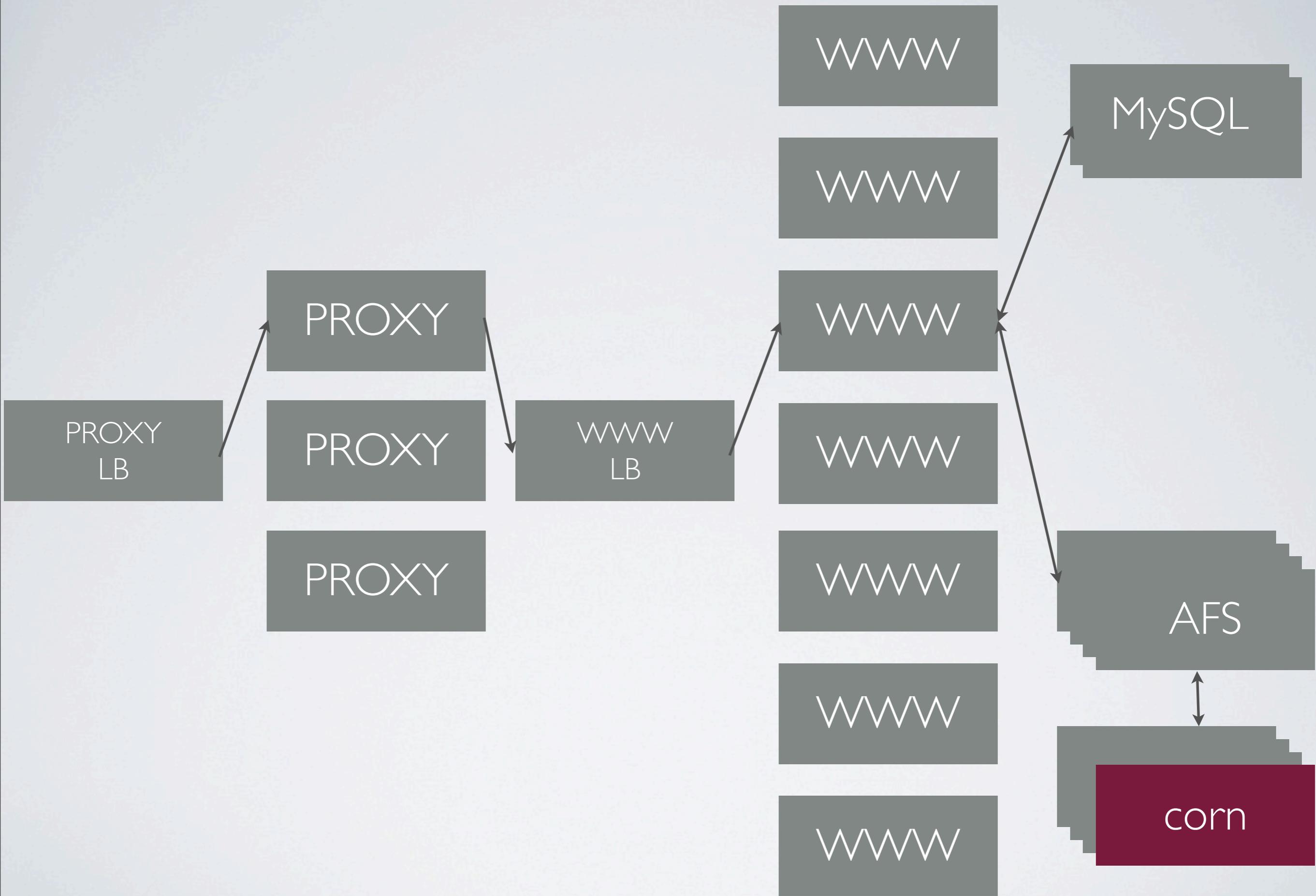






# CORN

AKA timeshare, Stanford Unix machines, etc.

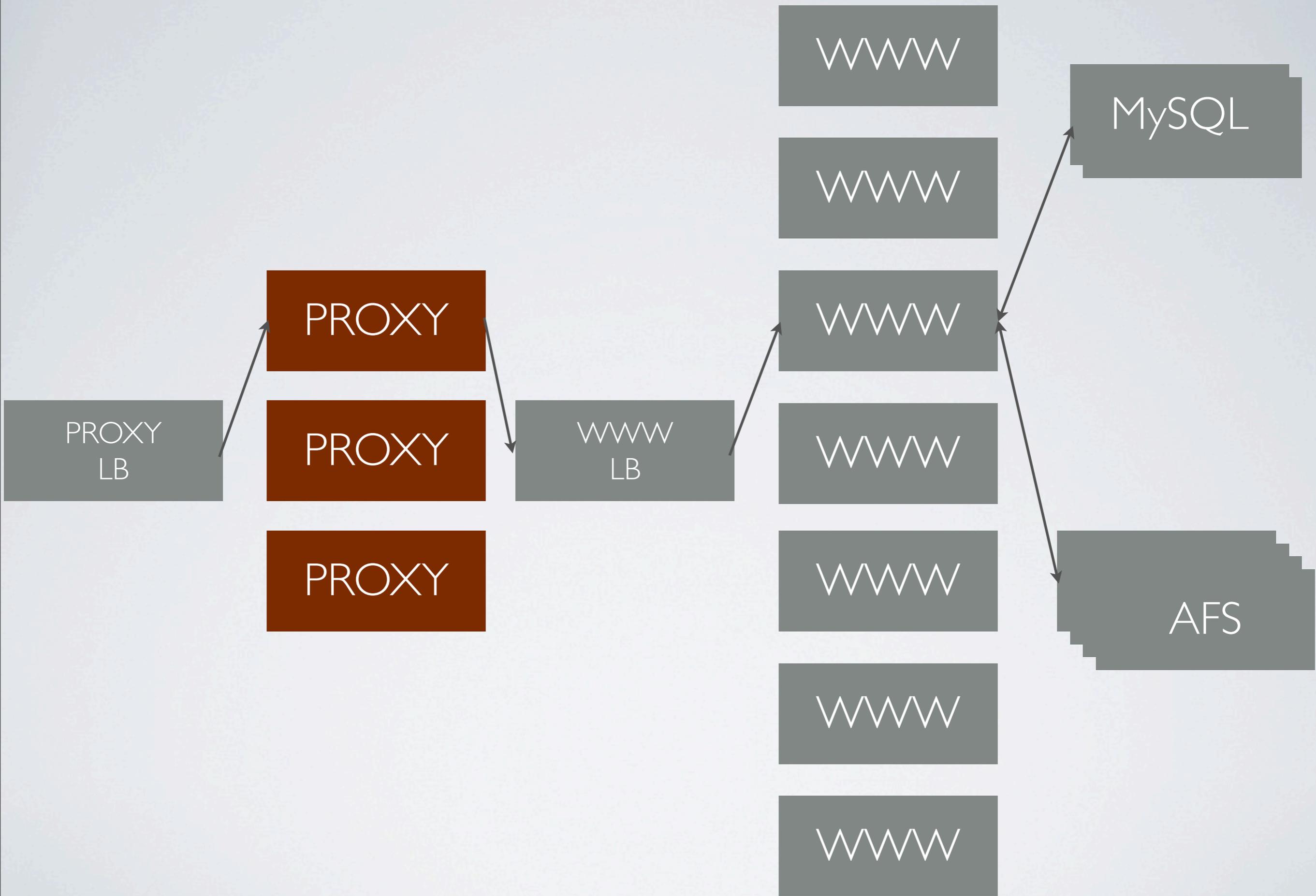


# TIPS

- You can't ssh into the www servers, use corn.stanford.edu
- Drupal goes in /cgi-bin, it won't run out of /WWW
- You need to use SFTP to transfer files (no FTP or FTPS)
- You can use php.ini in local web application directories
- If things go wrong, create an empty file called .suexecd at Drupal root to display errors in the browser that would normally go to Apache's error.log

# VIRTUAL HOSTS

AKA subdomains, vanity URLs, reverse proxies  
e.g. pacscenter.stanford.edu, biology.stanford.edu



foo.stanford.edu



[www.stanford.edu/group/foo/cgi-bin/drupal](http://www.stanford.edu/group/foo/cgi-bin/drupal)



foo.stanford.edu/



foo.stanford.edu = [www.stanford.edu/group/foo/cgi-bin/drupal](http://www.stanford.edu/group/foo/cgi-bin/drupal)



Nice, here's my home:  
[www.stanford.edu/group/foo/cgi-bin/drupal/](http://www.stanford.edu/group/foo/cgi-bin/drupal/)



foo.stanford.edu/group/foo/cgi-bin/drupal/**contact**



PROXY



Thanks for visiting!  
Contact page is: /group/foo/cgi-bin/drupal/**contact**



foo.stanford.edu/group/foo/cgi-bin/drupal/**contact**



PROXY

foo.stanford.edu = www.stanford.edu/group/foo/cgi-bin/drupal



www.stanford.edu/group/foo/cgi-bin/drupal/group/  
foo/cgi-bin/drupal/**contact**

404

Reverse Proxy Module for Drupal to the rescue.



foo.stanford.edu/



foo.stanford.edu = [www.stanford.edu/group/foo/cgi-bin/drupal](http://www.stanford.edu/group/foo/cgi-bin/drupal)



Nice, here's my home:  
[www.stanford.edu/group/foo/cgi-bin/drupal/](http://www.stanford.edu/group/foo/cgi-bin/drupal/)



foo.stanford.edu/



foo.stanford.edu = [www.stanford.edu/group/foo/cgi-bin/drupal](http://www.stanford.edu/group/foo/cgi-bin/drupal)



Nice, here's my home:

[www.stanford.edu/group/foo/cgi-bin/drupal/](http://www.stanford.edu/group/foo/cgi-bin/drupal/)



foo.stanford.edu/**contact**



PROXY



Thanks for visiting!  
Contact page is: /**contact**



foo.stanford.edu/**contact**



foo.stanford.edu = www.stanford.edu/group/foo/cgi-bin/drupal



www.stanford.edu/group/foo/cgi-bin/drupal/**contact**

# REVERSE PROXY

Tip: Don't use it unless you are already using it.

Use the host command to find out where  
your virtual host is handled from

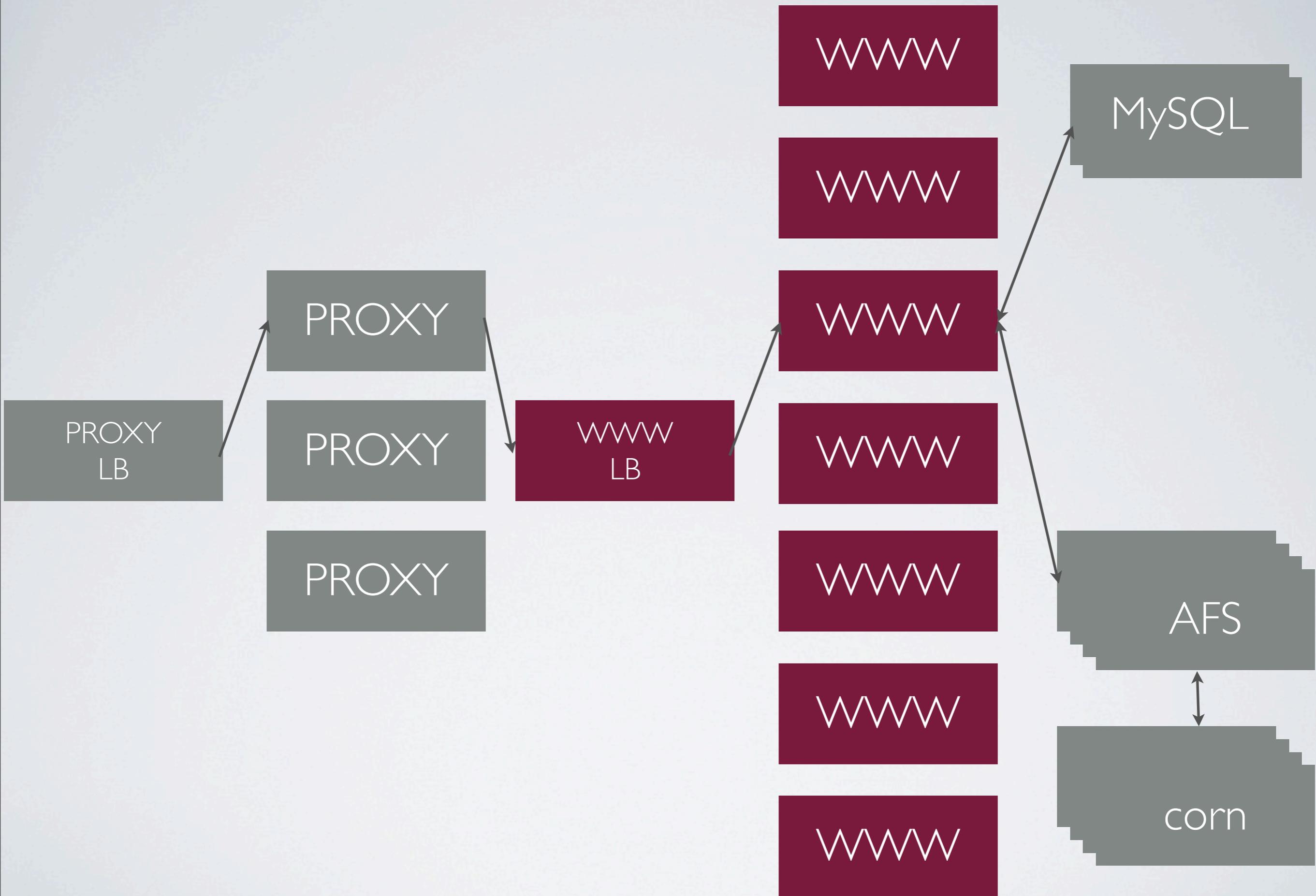
pacscenter.stanford.edu is on the proxy servers

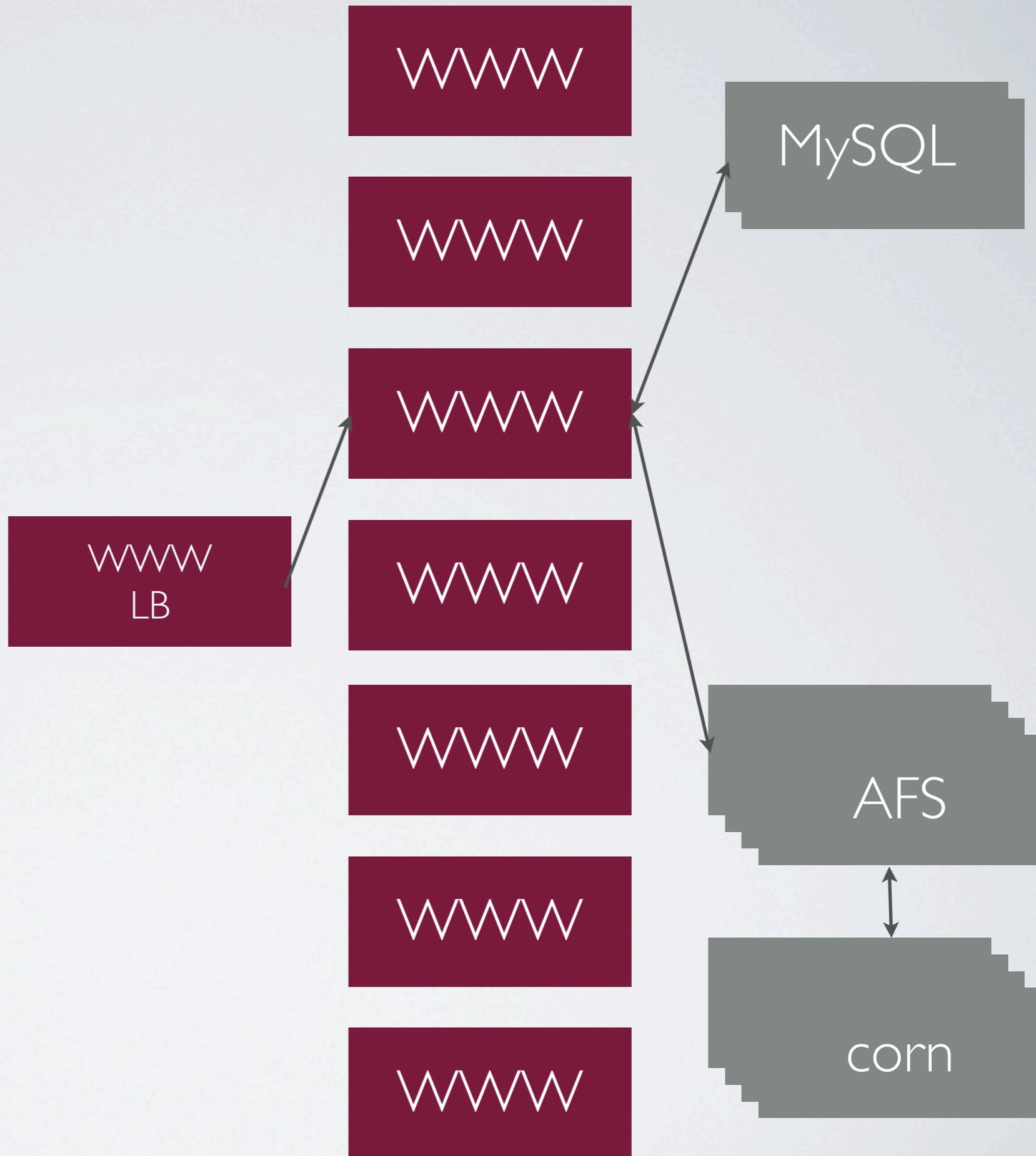
```
$ host pacscenter.stanford.edu
pacscenter.stanford.edu is an alias for proxy-
service.best.stanford.edu.
proxy-service.best.stanford.edu is an alias for
proxy1.stanford.edu.
proxy1.stanford.edu has address 171.67.216.21
```

biology.stanford.edu is handled by the www servers

```
$ host biology.stanford.edu
biology.stanford.edu is an alias for www-lb.stanford.edu.
www-lb.stanford.edu has address 171.64.13.26
```







# SUEXEC

www.stanford.edu/**dept/fo**o/cgi-bin/



**dept-fo**o.cgi user

www.stanford.edu/**group/fo**o/cgi-bin/



**group-fo**o.cgi user

# Overriding Apache config using .htaccess files

Most Options are already set, and overriding them is not allowed.

Trying to (and Drupal does), results in errors.

`/.htaccess`

Installation fails unless the `.htaccess` at Drupal's root is modified.

```
#Options +FollowSymLinks
```

/sites/default/files/.htaccess

SetHandler Drupal\_Security\_Do\_Not\_Remove\_See\_SA\_2006\_006

Options None

Options +FollowSymLinks

/sites/default/files/.htaccess

SetHandler Drupal\_Security\_Do\_Not\_Remove\_See\_SA\_2006\_006

#Options None

#Options +FollowSymLinks

## /sites/default/files/.htaccess

```
SetHandler Drupal_Security_Do_Not_Remove_See_SA_2006_006
```

```
#Options None
```

```
#Options +FollowSymLinks
```

```
# First process Allow directives, then Deny ones. If none  
match, deny by default.
```

### **Order Allow,Deny**

```
<FilesMatch "\.(gif|jpe?g|png|ico|swf|css|js|jar|shtml?|html?|xhtml?|  
xml|txt|pdf|mov|doc|xls|ppt|pps|odt|ods|odp|docx|xlsx|pptx|  
mp3|wma)$">
```

### **Allow from all**

```
</FilesMatch>
```

# CLEAN URLs

foo.stanford.edu/?q=contact



foo.stanford.edu/contact

- To get rid of the ?q= part of the URL, make sure the RewriteBase in the root .htaccess file points to the correct location.
- If you are using a Reverse Proxy server, or no vanity URL, it needs to be the AFS path (minus the /afs/ir part).
- If you are using a vanity URL on the WWWs, use RewriteBase /

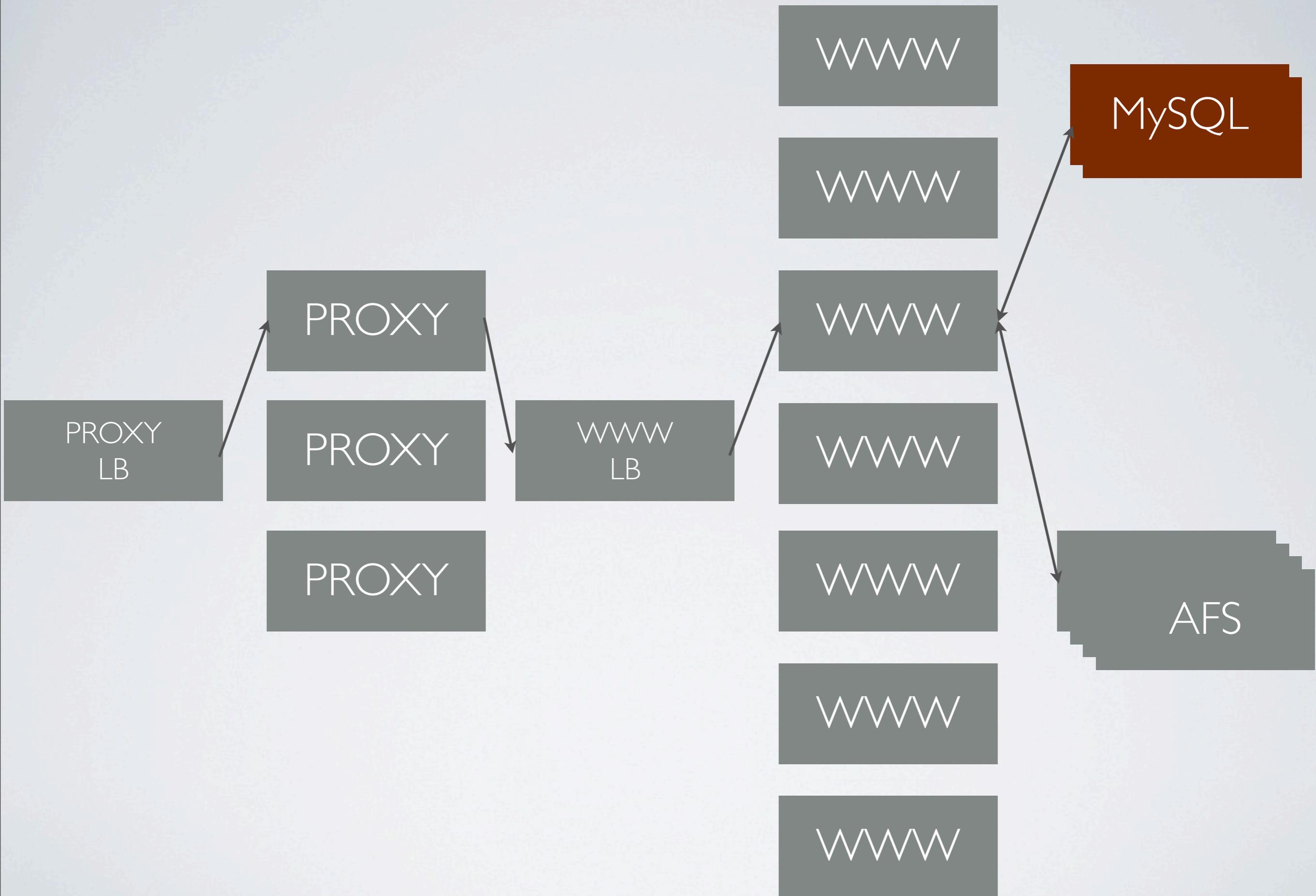
# /tmp

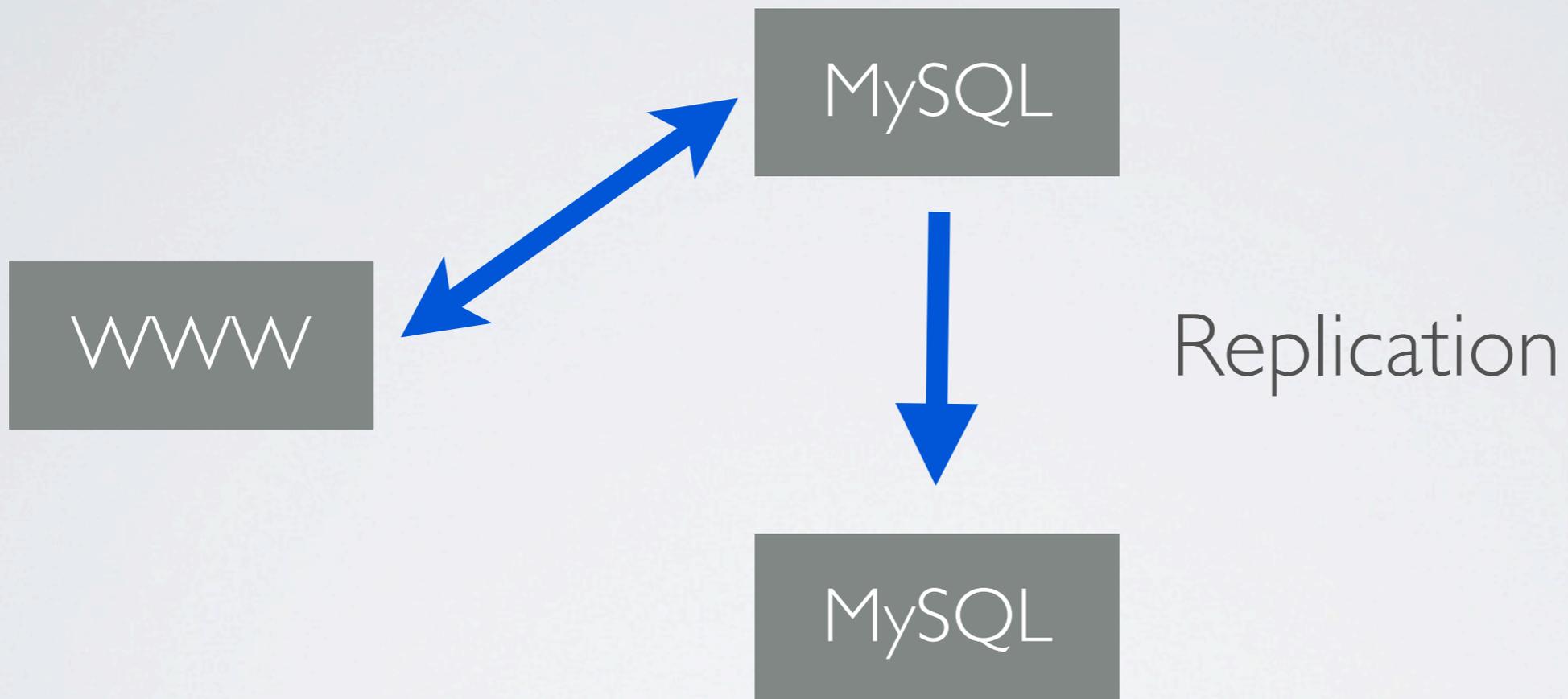
The /tmp directory is not shared among WWWs.

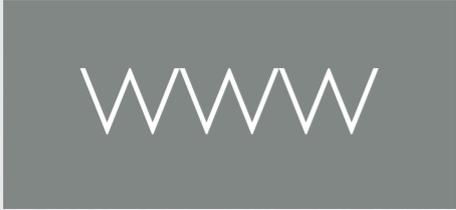
Drupal 6: if you upload multiple files, set the temporary directory to /sites/default/files/tmp

Drupal 7: does not seem to have issues (yet)

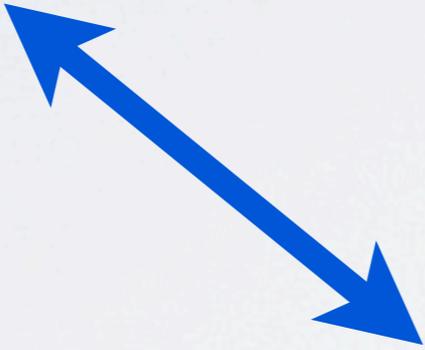
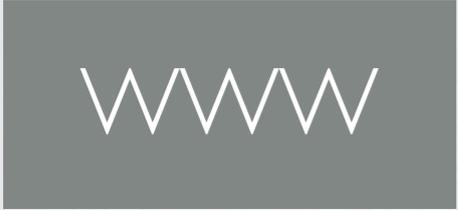
MYSQL  
or, where  $1 + 1 = 3$



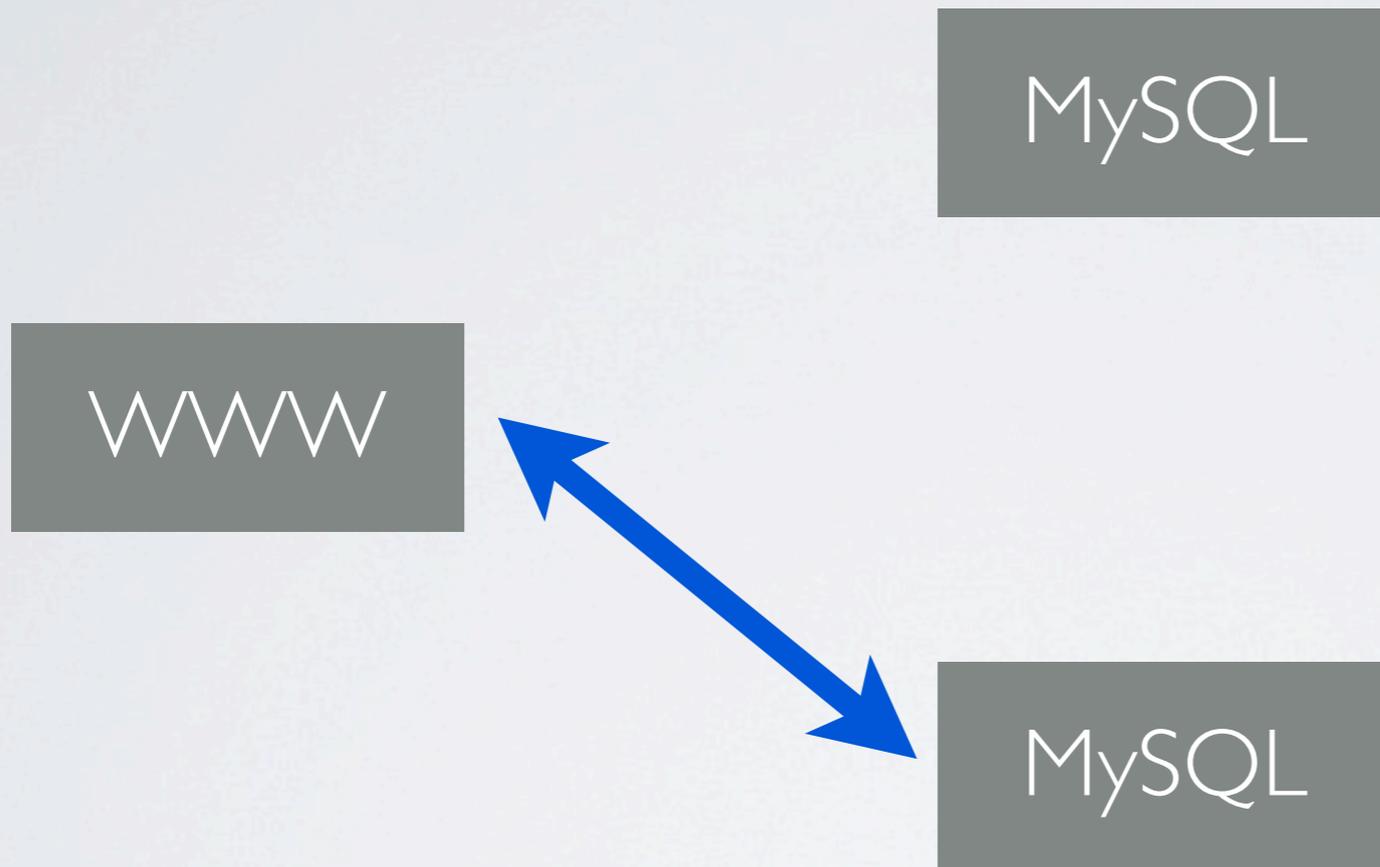


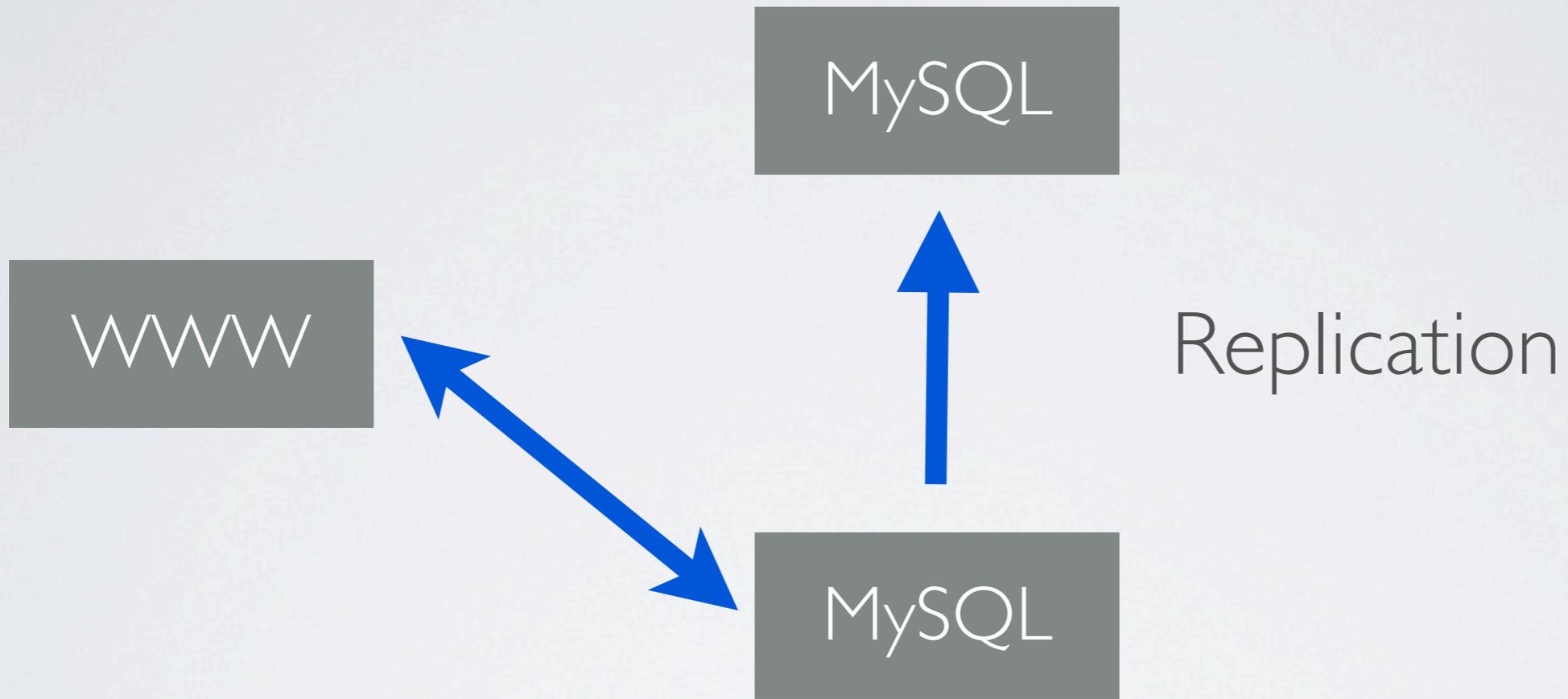


MySQL



MySQL





MySQL

IDs: 1, 3, 5, 7, 9, 11



MySQL

IDs: 2, 4, 6, 8, 10, 12

Problem:

Drupal 6, at install time, assumes that the Authenticated User Role will get ID #2

# Authenticated User can now be edited

Name	Operations	
anonymous user	locked	<a href="#">edit permissions</a>
admin	<a href="#">edit role</a>	<a href="#">edit permissions</a>
authenticated user	<a href="#">edit role</a>	<a href="#">edit permissions</a>

## Mystery Roles

Account information

**E-mail address: \***

A valid e-mail address. All e-mails from the system will be sent to this address. You can also use it to receive a new password or wish to receive certain news or notifications from us.

**Status:**

Blocked

Active

**Roles:**

admin

authenticated user

Default Role

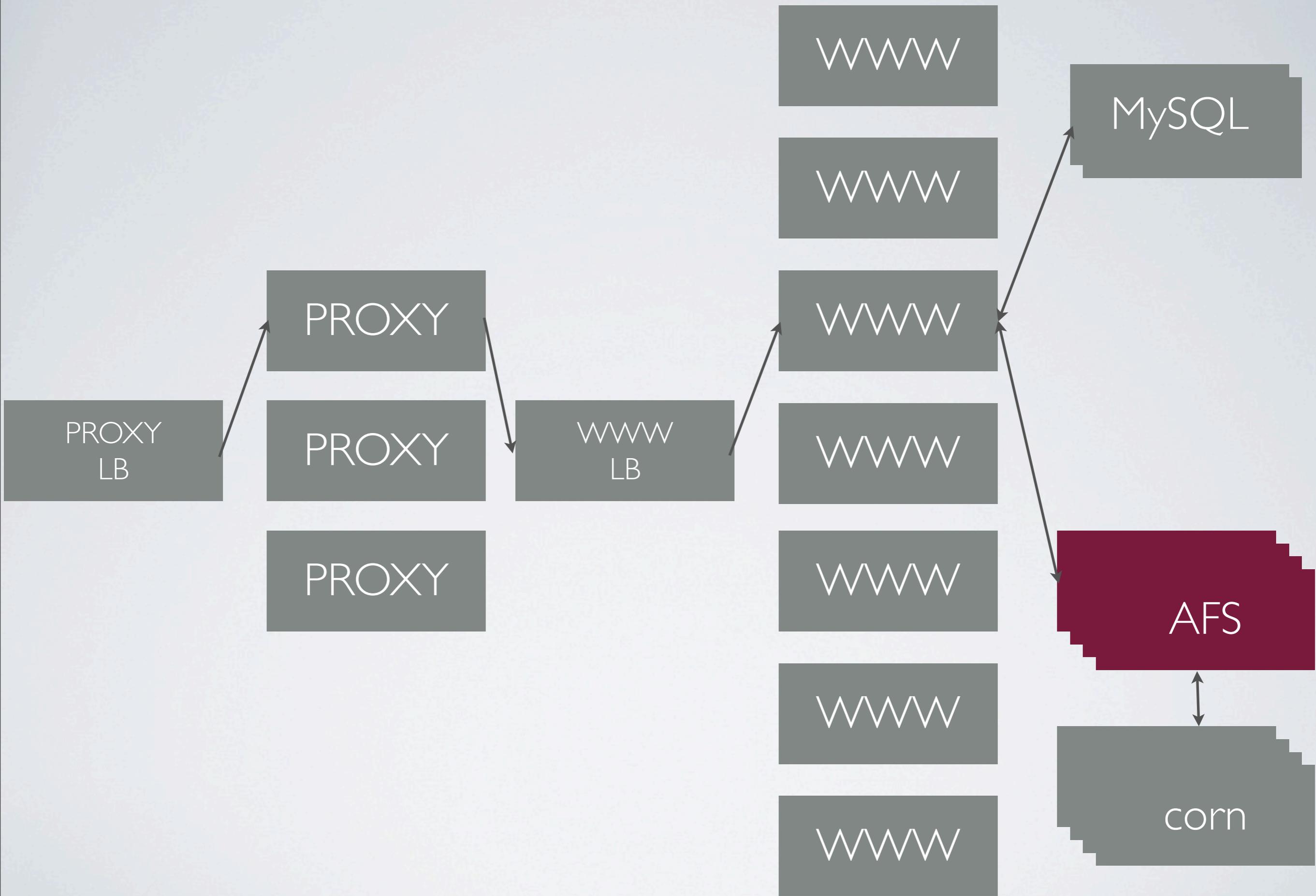
Docs Team

Confusion:

IDs for nodes, users, etc. will skip numbers.  
e.g. node/1, node/3, node/5, etc.

# AFS

A networked, distributed file system  
AKA why won't `chmod 777` work?



`/WWW` ← static files

`/cgi-bin` ← PHP (Drupal)

`/db_private` ← Database backups (4 days)

`/.backup` ← File backups (24 hours)

# AFS

- AFS adds Access Control Lists (ACLs) to UNIX permissions
- AFS ignores UNIX permissions
  - Except: executables need to be readable by owner
- ACLs are applied to directories and not files
- ACLs for groups are set on PTS groups
- `system:anyuser` really does mean any user in the world

# AFS

		root	files / webauth
foo-admins dept-admins	your admins	all	all
system:administrators	ITS admins	all	all
system:dept-admins	possibly helpful folks	all	all
system:www-servers	The web server	read	read
service.tools	Collab Tools	write	write
group-foo.cgi dept-foo.cgi	Drupal	read	write
system:anyuser	evildoers	none	none

# AFS

Note: users need to have at least list permissions up to the directory where they can read or write, or they won't be able to get to it.

# AFS Commands

**fs la** to list ACLs

**fs sa** to set ACLs

Use **fsr** instead of **fs** to set ACLs recursively

Read more at: <https://itservices.stanford.edu/service/afs>

# UNIX Permissions

.php files need to be readable by the owner

/sites/default/files needs to be set to 777 if:

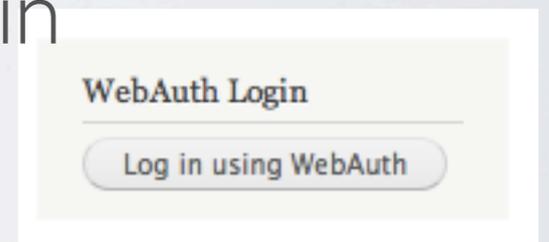
- \* Drupal 7
- \* directory not owned by the .cgi user
- \* Bug not fixed (<http://drupal.org/node/944582>)

# WMD

One less username and password to remember

# WebAuth Module for Drupal (WMD)

- Originally written by Ken Sharp, updated by Chapter Three, and now maintained by IT Services
- Installed by the Collaboration Tools Installer and on Stanford Sites
- Available for both Drupal 7 and Drupal 6 at [wmd.stanford.edu](http://wmd.stanford.edu)
- Logs users in using WebAuth, not Drupal's own login
- Creates accounts automatically
- Assigns roles based on workgroup membership



# Customize WebAuth's behavior

[Home](#) » [Administration](#) » [Configuration](#)

WebAuth 

WEBAUTH SETTINGS

ROLE MAPPINGS

AUTHORIZATIONS

## Stanford WebAuth options

Hide Local Drupal Login Block

Show Local Drupal Login Block

Hide the Local Drupal Login Block if it's not needed by local accounts to prevent users from entering their SUNet ID and password there by mistake. This does not affect the *user/login* form which can still be used to log in as *user 1* when needed.

## WebAuth Link Text

The text for the WebAuth link. It's what users will click on to log in using WebAuth. (E.g.: "Log in with WebAuth")

## Post-Login Destination

Drupal node to which the browser redirects after successful weblogin. (E.g.: 'node/add/page' will automatically redirect user to a new content page.) If unsure, just leave blank to keep Drupal's default behavior.

## Restricted Access Message

Message to be displayed to user when access to content is restricted.

# Add Roles based on Workgroups

[Home](#) » [Administration](#) » [Configuration](#) » [WebAuth](#)

WebAuth 

WEBAUTH SETTINGS

ROLE MAPPINGS

AUTHORIZATIONS

DRUPAL ROLE	WORKGROUP (E.G. STANFORD:STAFF)	ACTION
<input type="text" value="administrator"/>	<input type="text"/>	<input type="button" value="Add Mapping"/>
Stanford Student	stanford:student	<input type="button" value="Remove Mapping"/>
Stanford Staff	stanford:staff	<input type="button" value="Remove Mapping"/>
Stanford Faculty	stanford:faculty	<input type="button" value="Remove Mapping"/>

# Manage Access through the GUI

[Home](#) » [Administration](#) » [Configuration](#) » [WebAuth](#)

WebAuth 

WEBAUTH SETTINGS

ROLE MAPPINGS

AUTHORIZATIONS

Require ANY valid user

If checked, anyone with a valid SUNet ID will be allowed to log in. This overrides whatever users or groups are entered below. Default is on.

## SUNet IDs of users permitted access

mmarco

Enter one SUNet ID per line.

## Workgroups permitted access

itss:docs

Enter one workgroup (e.g. "stanford:staff") per line. You can create and maintain workgroups using [workgroup manager](#).

Save configuration

## WebAuth Module for Drupal (WMD)

- creates a `/sites/default/webauth` directory
- creates and manages `/sites/default/webauth/.htaccess`
- creates a `/sites/default/webauth/check.php` file

If something seems wrong, check the directory above. If it's not there, disable and re-enable the module, making sure that Drupal can write to `/sites/default` (temporarily).

# CRON

Drupal 6 requires you set up a periodic visit to your site's cron.php page to trigger all the regular cleanup tasks.

Drupal 7 doesn't require it but it's recommended.

For this purpose, use ITS' scheduling service  
<https://tools.stanford.edu/cgi-bin/scheduler>

For the command, use something like:

```
curl -sS https://<your site's location>/cron.php
```

# SUPPORT

- Stanford Drupal Handbook: [techcommons.stanford.edu](http://techcommons.stanford.edu)
- General Help: [drupallers@lists.stanford.edu](mailto:drupallers@lists.stanford.edu)
- Stanford Sites and Collaboration Tools Installer: HelpSU