



Large Scale Drupal

at the University of Oregon



UNIVERSITY OF
OREGON



PACIFIC NORTHWEST
DRUPAL SUMMIT



The Problem

A department hosts their own website on aging hardware in some dusty closet and administers it on their own, effectively on an island.



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... or 30? 40? we have no idea how bad the situation actually is due to a legacy of decentralized IT.



The Problem

This is inefficient, in every sense of the word.

- No shared virtual/physical resources
- No shared codebases
- No shared staff (devs & sys admins)

... but everyone is trying to accomplish similar goals.



The Service Need



We need a centrally managed way to host a wide range of Drupal sites.



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- Move everyone into the same environment, encourage staff to utilize the same tools
- Eliminate redundant VMs and aging hardware
- Make it easier for central Information Services to administer/monitor servers



The Problem, Pt. II

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The Reprogramming



The Problem, Pt. II

The Reprogramming



Fixing this is not an institutional priority,
so we're not going to get upfront resources.

The Problem, Pt. II

The Reprogramming



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(random find from a Google image search for “frustrated” here)

The Problem, Pt. II

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Departments/staff are used to getting things
their way. (Heavy flexibility/customization
burden)

The Problem, Pt. II

The Reprogramming



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Departments/staff are used to getting things
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We will have to solve this on our own.



Why solve this on our own?

- We have to build it first to prove that it's a viable solution
- Wanted full control and ability to customize.
 - We don't know what we need, so we need to be able to adapt as we go.
- 2 other Aegir instances already in use on campus.
 - Our expectation was that it would be easier to migrate them into a similar system.



Our Implementation

- Aegir hosting system
 - Provision
 - Hostmaster
 - Contrib modules
 - Custom modules/drush commands
- Site Build Workflow
 - Drush
 - Git
 - Staging to Production

Walkthrough



Login Required



Please log in with your **Duck ID** to access the requested service.

To protect your privacy, always log out and quit your web browser when finished.

Login

Content Lead In

UO Cosmic



For easier theme development, the theme registry is being rebuilt on every page request. It is *extremely* important to [turn off this feature](#) on production websites.

Help

Content Top

Content

Content Aside

Create Drupal Hosting Access Request

Profile Information

DuckID:

Preferred Name:

Title:

Phone:

Department:

Supervisor or Manager:

Enter the DuckID of your supervisor or manager.

[Add another item](#)

Administration

RT Ticket #:

Administrative use only

Menu settings

Revision information

☒ Create new revision

Log message:

An explanation of the additions or updates being made to help other authors understand your motivations.

Authoring information

Publishing options

[Save](#) [Preview](#)



Challenges

- Asking departments to give up power
- Providing support
- Managing expectations
- Implementing [policy](#)
- Abandoned sites (developer leaves, slow to be replaced if ever)



Challenges

- Infrastructure Limitations
- Security
- High availability



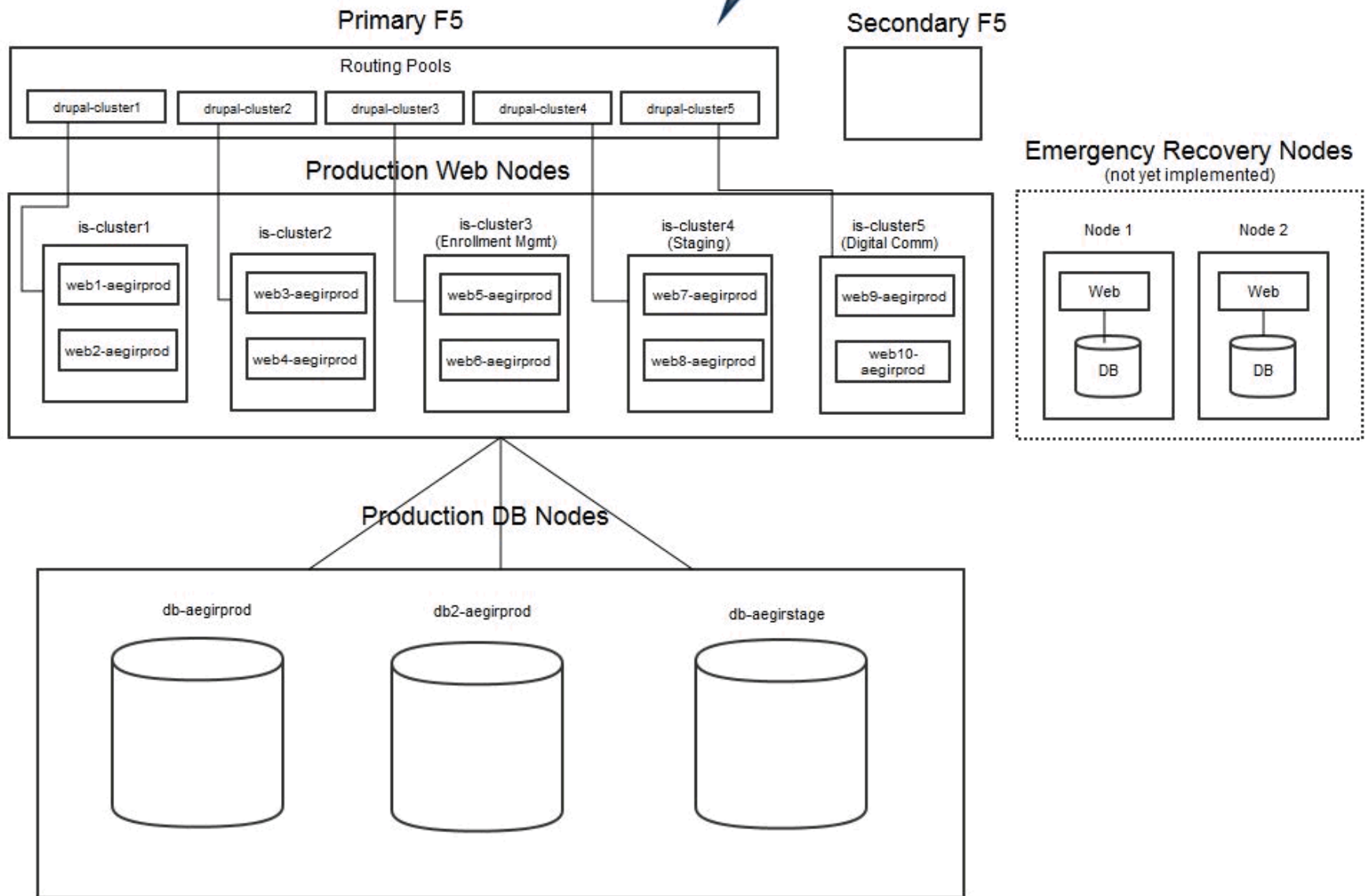
Successes

- Shared successes (more common code -> sometimes you get updates for free)
- Shared Support and Resources
 - Standardized platform ([UO Vanilla](#))
 - Shared Services
 - SSL Certificates (wildcard)
 - Domain Names (*.uoregon.edu and .org/.com)
 - SSO (Shibboleth)
 - LDAP Integration
 - Load Balancing
 - Git Hosting
 - Monitoring



Successes

- Backups
- Security Patches (Drupalgeddon story time?)
- Consolidation of VMs





Under the hood

Dev:

- 1 hostmaster node
- 4 web nodes (2 per pack)
- 2 db nodes
- 1 mgmt server

Test:

- 1 hostmaster node
- 4 web nodes (2 per pack)
- 2 db nodes
- 1 mgmt server

Prod:

- 1 hostmaster node
- 3 db nodes
- 10 web nodes (5 packs, 2 shared packs, 1 staging)
- 1 mgmt server

Memory: 3.7G

CPU

- cpu family : 6
- model : 37
- model name : Intel(R) Xeon(R) CPU E5-2650 0 @ 2.60GHz
- stepping : 1
- microcode : 1805
- cpu MHz : 2793.000
- The size of the cpu seems to vary between web nodes.
- Ex. cluster one has 2.0Ghz per node and cluster two has 2.6 and the staging cluster has 2.8

Files:

- NFS Mounted file shares

Current List of Participating Sites



[105 production sites] (*.uoregon.edu unless otherwise implied)

aaa	aaalaser	aad	academicaffairs	admissions
advancement	aei	aeirooms	anvill-lti	architecture
around	art	arthistory	ba	brand
brp	business	campuspartners	cascadia	casitdataservices
casitforms	casitjobs	casprofile	casweb	chemdemos
climatechange	communications	conferences	convocation	cpw
craftcenter	creative	csc	ctl	dh-demo
digital	eda	emu	enggraddb	epicndb
eteacher	ewp	ffp	financialaid	gc3f
gcr	geo	geogadvising	global	goc
gradschool	graphicacy	greennano.org	gsi	gssadvising
histcourses	housing	hp	idr	inclusion
internalaudit	international	intldeptnet	inventory	jasma
kindertek.com	kwax.com	landarch	music	netphi
oelp	oem	olis	ombuds	opdr
orientation	outdoorprogram	palss	pd	pdx
petrarch	physicsnet	Pods	policies	pppm
president	prevention	provost	publicrecords	rare
registrar	rmitchel	safe	scheduling	sci
spaces	spm	status	studentlife	trustees
ugs	uonews	uoregon.edu	visit	www.opurp.org



Thank you

- Questions?
- [Drupal Hosting Steering Committee Charter](#)
- [Drupal Hosting Terms of Service](#)

Steering Committee

- Matt Coughlin - [Finance and Administration](#)
- Jason Huebsch - [Digital Communications](#)
- [Daniel Mundra](#) - Speaker, [College of Arts & Sciences IT](#)
- [Josh Rose](#) - **CivicActions**, formerly [Student Life](#)
- [Vid Rowan](#) - Speaker, [Human Resources](#)
- Jesse Sedwick - [Information Services](#)
- Derek Wormdahl - [Information Services](#)



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- Paul Kozik - [Digital Communications](#)
- William Myers - formerly [Interactive Media Group](#)
- Ed Parker - [Digital Communications](#)
- Richard Silver - [Human Resources](#)
- All the departments and developers at the University of Oregon who use our service and support our endeavor.
 - 18 Departments
 - **41 Web Developers**