Migrating www.eecs.harvard.edu to AWS

SEAS Computing is in the process of decommissioning the EECS web server, www.eecs.harvard.edu. We will provide a server hosted off premises in our virtual private cloud (VPC) in AWS (Amazon Web Services). We are building a new environment with an up-to-date software stack and operating system and will be moving only active sites from the current environment to the new one.

The current timeline for this project is:
- 7/20/2016 - Begin content migration to the new hosting environment for testing
- 8/12/2016 - Site owners complete remediation/testing of their sites
- 8/17/2016 - Production cut-over of new environment

Please contact eecs-web-migration@seas.harvard.edu to move your site.

We will not move old sites if nobody claims them. There are many sites or projects that have not been touched for years. These may have been old CMS's (content management systems) or web apps that now have well-known security issues and bugs. We strongly recommend not moving old sites that you are not keeping it up to date.

Please note that it will be your responsibility to fix and update your code to work with the new environment. Below are some differences between the current www.eecs.harvard.edu server and the new one.

Differences between old and new environment

- Access to web files
  
  Content will no longer be available via NFS or CIFS/SAMBA connections directly from your desktop or from login.eecs.harvard.edu (traditionally known as bowser). You will need to connect directly to the AWS server to upload or edit your files using SFTP/SSH/SCP.
  
  To access your content, connect to www-aws.eecs.harvard.edu please see https://www.seas.harvard.edu/computing-office/web-services/updates-existing-eecs-website for client settings.
  
  If you are on-campus or using a Harvard VPN, you can connect with your username and password. Otherwise you must use ssh-keys.
  
  Some general information about ssh-keys is available at https://wiki.harvard.edu/confluence/display/USERDOCS/SSH+Access+to+SEAS+Hosts#SSHAccessstoSEASHosts-LoggingInUsingSSHKeys.

- Detach from home folders
  
  The AWS server does not access your SEAS/EECS home directory.
  
  SEAS Computing will copy your existing EECS authorized_keys file into www-aws.eecs.harvard.edu when setting up your account, but after that you will need to manage and update the data yourself.

- Different user groups
  
  The new server will connect to SEAS ldap instead of EECS nis. Please make sure to let SEAS Computing know if multiple people need to edit your web site so we can grant those people access to connect to the new server and ensure they are in the right group to modify the files.

- New Apache software version
  
  The web server software will run version 2.4 of apache instead of the old 2.2 one. There are a few differences between the two versions described at https://httpd.apache.org/docs/trunk/upgrading.html#run-time
  
  The largest one that may affect users is authorization:
  
  If you use a .htaccess file to restrict access to your site by ip address, computer name, or username and password, then you will need to make some changes.
  
  The directives going away are Order, Allow, Deny, Satisfy.
  
  https://httpd.apache.org/docs/trunk/upgrading.html#run-time
  
  https://httpd.apache.org/docs/trunk/mod/mod_authz_core.html#require
<table>
<thead>
<tr>
<th>Server version</th>
<th>All Request Allow</th>
<th>All Request Deny</th>
<th>Granted Host based</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2</td>
<td>Order allow, deny</td>
<td>Order deny, allow</td>
<td>Order Deny, Allow</td>
</tr>
<tr>
<td></td>
<td>Allow from all</td>
<td>Deny from all</td>
<td>Deny from all</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Allow from harvard.edu</td>
</tr>
<tr>
<td>2.4</td>
<td>Require all granted</td>
<td>Require all denied</td>
<td>Require host harvard.edu</td>
</tr>
</tbody>
</table>

- **New PHP version**

The new server will have PHP 5.4 instead of PHP 5.3 on the old server. Many of the changes between these version involved the removal of deprecated features. Attempted use of those will now be a fatal error rather than a warning message. [http://php.net/manual/en/migration54.incompatible.php](http://php.net/manual/en/migration54.incompatible.php)

- **Old and new IPs for the eecs web server**
  - old IP: 140.247.63.230
  - new IP: 52.2.16.86

If you have any question about this, please contact us at eecs-web-migration@seas.harvard.edu