

# Drupal

Status	PRE-RELEASE
CISO owner	<a href="#">Frédéric Charpentier</a>
Last update	12 Dec 2018

## Security starter checklist

This document aims at providing a one stop shop "**checklist**" entry for project managers and developers involved in the usage of Drupal

Standard reference	Requirement	Check
<b>Users management</b>		
<a href="#">Access Control / Back-office</a>	All Drupal back-offices users accounts must be tied to a real person (i.e. nominative) and accounts are not shared between people.	<input type="checkbox"/>
<a href="#">Access Control / Back-office</a>	All Drupal user accounts must use a professional email address (i.e. @loreal.com).	<input type="checkbox"/>
<a href="#">Access Control / Back-office</a>	Drupal accounts not used within <b>90 days</b> must be automatically disabled.	<input type="checkbox"/>
<a href="#">Access Control / Back-office</a>	A L'Oréal employee must be accountable to perform a review every <b>6 months</b> .	<input type="checkbox"/>
<b>Hosting</b>		
<a href="#">Infrastructure / Hosting</a>	Drupal instance must be hosted by L'Oréal IT Global (managed by Castelis Offre Colorée).  Drupal instance must never be hosted on a shared server hosting other instances.	<input type="checkbox"/>
<a href="#">Infrastructure / Domain names</a>	Domain name must be registered by L'Oréal legal ( <a href="mailto:malika.tighiouaret@loreal.com">malika.tighiouaret@loreal.com</a> )	<input type="checkbox"/>
<a href="#">Asset Management</a>	Production URL must be registered in <b>L'Oréal Service Now</b> asset inventory.	<input type="checkbox"/>
<a href="#">Infrastructure / Database</a>	Database (e.g. MySQL) must restrict access from Internet and allow only access from the web server.  Acceptable methods: <ol style="list-style-type: none"><li>1. Firewalling</li><li>2. ACL on the database</li></ol>	<input type="checkbox"/>

Infrastructure / Database	The database service must be run with a limited system service account (not root).	<input type="checkbox"/>
Infrastructure / Web server	Run the HTTP server with a limited system service account	<input type="checkbox"/>
Infrastructure / Web server	Configure the HTTP server to server XSS Protection header  <ul style="list-style-type: none"> <li>On Apache: header always set <code>x-xss-protection "1; mode=block"</code></li> </ul>	<input type="checkbox"/>
Infrastructure / PHP	Ensure PHP is properly hardened using the following directives in php configuration files:  <pre> expose_php = Off error_reporting = E_ALL display_errors = Off display_startup_errors = Off log_errors = On allow_url_fopen = Off allow_url_include = Off disable_functions = system, exec, shell_exec, passthru, phpinfo, show_source, popen, proc_open disable_functions = fopen_with_path, dbmopen, dbase_open, putenv, move_uploaded_file disable_functions = chdir, mkdir, rmdir, chmod, rename disable_functions = filepro, filepro_rowcount, filepro_retrieve, posix_mkfifo </pre>	<input type="checkbox"/>
Infrastructure / Web Application Firewall	Production websites must be protection by the Cloudflare WAF  The following Cloudflare WAF rulesets must be enabled :  <ul style="list-style-type: none"> <li>Security Level : High</li> <li>Cloudflare Specials: On</li> <li>Cloudflare PHP : On</li> <li>Cloudflare Drupal : On</li> <li>OWASP : Low + Block</li> </ul>	<input type="checkbox"/>
Infrastructure / Web Application Firewall	Origin web server must be denied all incoming Internet traffic, unless traffic from the Cloudflare IPs ranges.	<input type="checkbox"/>
Infrastructure / Web admin interfaces	WP back-office interface URL must be protected by the LOFI protection (ex: <code>/user/login</code> ). Ask L'Oréal CISO for setup.	<input type="checkbox"/>
Infrastructure / Staging	Dev/UAT/staging websites exposed on Internet must be restricted using the LOFI protection or HTTP Pre-Authentication.	<input type="checkbox"/>
<b>Development</b>		
Development / Best practices	Development, Staging, QA, and production environments should all be configured identically, with different credentials used in each environment (e.g. different DB credentials).	<input type="checkbox"/>

Development / Best practices	Do not expose source code to anonymous users on the Internet. Use L'Oréal validated source repository (i.e. L'Oréal Bitbucket)	<input type="checkbox"/>
Development / Best practices	<p><b>Clean</b> source package from any unnecessary files and software components before delivery on production</p> <p>Examples of unnecessary files:</p> <ul style="list-style-type: none"> <li>• Unused Drupal plugins and themes</li> <li>• Configuration files: install.php, upgrade.php, phpinfo.php</li> <li>• database creations scripts are cleaned from testing data/accounts/passwords</li> <li>• Backup files: index.php.bak, file.php~</li> <li>• Old pages: page2.php, test.php</li> <li>• Development synchronization traces: .git, .cvs, .svn</li> <li>• Passwords files</li> <li>• Libraries</li> <li>• Old folders: /test/, /staging/, ...</li> <li>• Database dumps / imports files</li> <li>• Passwords</li> <li>• API access keys / certificates / token</li> </ul>	<input type="checkbox"/>
Drupal specials	<p>During code customization, never concatenate data directly into SQL queries.</p> <p>Always use argument substitution with db_query.</p>	<input type="checkbox"/>
Drupal specials	During code customization, when manipulating URI, sanitize the received URI using UriHelper::stripDangerousProtocols	<input type="checkbox"/>
Drupal specials	During code customization, escape all user's input using Html::escape() to remove HTML tags.	<input type="checkbox"/>
Drupal specials	Rename Drupal 'admin' account.	<input type="checkbox"/>
Drupal specials	Define the trusted_host_patterns directive in settings.php	<input type="checkbox"/>
Drupal specials	<p>Disallow access to authorize.php, cron.php, install.php and upgrade.php using .htaccess:</p> <pre>&lt;FilesMatch "(authorize cron install upgrade)\.php"&gt; Order deny, allow deny from all Allow from 127.0.0.1 &lt;/FilesMatch&gt;</pre>	<input type="checkbox"/>
<b>Security testing</b>		
Security testing	<p>A penetration test or a bug bounty must be launched before GO LIVE.</p> <p>Contact Digital CISO at least 1 month before end of UAT.</p>	<input type="checkbox"/>
<b>Patch management</b>		

<p>Patch management</p>	<p>The responsibility of installing Drupal <b>core + plugins + themes security hotfixes</b> must be formally assigned by contract.</p> <p>Monitoring and installation delays SLAs must be comply with L'Oréal Patch Management requirements.</p> <p>Note: Leveraging Drupal auto-update feature is highly recommended.</p>	<input type="checkbox"/>
<p>Patch management</p>	<p>Minimum Drupal branch version is <b>8.x</b> with latest security update.</p>	<input type="checkbox"/>