

GOOGLE CLOUD CDN



The Google CDN, stores cached pages of each website on our network. It caches the html, CSS & Javascript needed to load each page. Thus visitor requests will not unnecessarily use resources on our infrastructure. The CDN provides fast response times, higher SEO & speed ranking. Data is loaded from the closest available point from the user request.



Load Balancer Front-end Forwarding Rule

In the front-end of the network architecture sits a layer 7 GCP Load-Balancer attached to a global version 4 IP address. It is a Layer 7 LB thus all public SSL Connections terminate here. Google provides a SSL certificate for any domain using its Load-Balancer. This certificate is then loaded onto the load balancer ensuring all connections are secure. Connections to the proxy which sits behind the balancer and routes traffic as stated in a URL map, can be either HTTP/HTTPS(2)/TCP



Public IP Address



URL Map



Firewall



VM Images

DEV CONTROL NODE
Development control Instance

ADMIN NODE
Designers Working Server Read Capabilities

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CONTENT NODE
Clients Live Websites are served to visitors off these nodes

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Bucket Sub-Folder : wp-app
CLOUD STORAGE BUCKET

GCS Sub-Folder
Bucket Folder : sv-wp-media

GCS Sub-Folder
Bucket Folder : versioning



Storage (GCS)

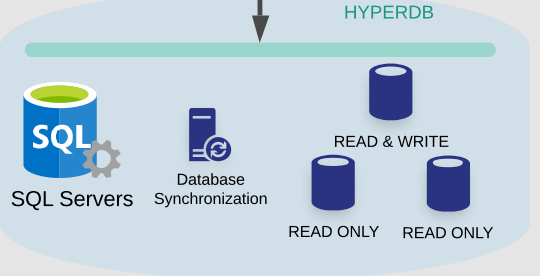
WordPress File System



The WordPress (WP) file system is located within a Google Cloud Storage Bucket (GCS). It is from this bucket that all Instance Nodes within the network sync. Not of the nodes besides the dev control instance have write access to the bucket folder location. The designer admin nodes as well as the client content nodes only pull changes down from the cloud into their respective local file systems, from which each one's web server will serve up the php files requested from the web. The dev control node has the ability to upload changes made within the file system to GCS, which are then automatically synced down to each node with read access to the bucket location.

This sync functionality is achieved via a bash script located on each node. It is located at /opt/c2d/downloads/gcs-sync

GITHUB SCRIPT



Splitting of the WordPress SQL Database is done via a drop-in called HyperDB. This plugin is highly customisable, although currently we have it configured to randomly direct SQL Queries between the slave nodes