Initialization. Step 1.
CP initiates distribution by sending information to CDN Hub

CNAME here is the name the CP wants to associate with its content.
Initialization. Step 2

CDN Hub creates distribution for CP with each independent CDN.
Initialization. Step 3

CDN Hub receives distribution name for each independent CDN. It updates table mapping CP-CDN pair with distribution name returned by CDN.
Initialization. Step 4

On completion of step 3, CDN Hub returns success or failure to CP Origin Server.

**Success**

CDN Hub NAME

CP Control Server

CDN Hub

CDN Hub must return the DNS name it associates for the CP. For example, if the CP is Netflix, the CDN Hub might have a DNS name netflix.hub.com.
Initialization. Step 5

Upon receiving CDN Hub NAME, CP updates its DNS table.

CP associates CNAME it sent to CDN Hub with the name it received back from the Hub. It can now advertise this CNAME and requests to this name will be routed through the CDN Hub.
Content Request Step 1.

Useragent requests CP content at CNAME advertised by CP. The CNAME is advertised as a URL, and a parameter in the URL is a value signed by the CP. Useragent gets back NAME of CDN Hub.
Content Request Step 2.

Useragent sends request to CDN Hub DNS server
Content Request Step 3.

CDN Hub calculates which CDN is best to distribute Useragent’s request using efficient distribution algorithm. It forwards the distribution name to the Useragent.
Content Request Step 4.

Useragent requests content from Independent CDN. It includes in the request URL a signature parameter for CDN Verification.
Content Request Step 5.

Independent CDN verifies that Useragent’s request is authorized by checking signed URL is valid with public RSA key.
Content Request Step 6.

In the event of a cache miss, the Independent CDN pulls content from the Origin Server. It does this by offering the Content Password provided by the Origin Server upon initiation.
Content Request Step 6.

Independent CDN transfers content to Useragent. Useragent transfers QoS statistics to CDN Hub to be used in future calculations.