**Cloudflare Application Services - Implementation Checklist**

These are items to check when planning your implementation.

**Preparation**

* You have a list of domains and ports(if applicable)
  + You have a plan to perform the staging test before pushing production
* Read/write access to origin components
  + Authoritative DNS of the domain
  + Origin server(s)
  + Origin firewall
    - All of [Cloudflare IP](https://www.cloudflare.com/en-gb/ips/)s are added to the allowlist
  + Any other solution between the origin server and Cloudflare
* Implementation decisions
  + DNS decision is made (full setup vs CNAME setup)
  + SSL decision is made (Cloudflare cert vs custom cert)
  + Dashboard Preparations
  + Solution design(scoping) is complete
  + Product license is given
  + Customer created their Cloudflare account
  + Customer provided read/write access to their account to the Cloudflare partner

**Implementation**

* Domain (zone) is added
* Zone is activated using full setup or CNAME setup
* SSL is ordered or uploaded (if applicable)
* Origin network is prepared
  + IP allowlisting
  + Origin health check is created and marked successful
  + Additional headers and cookies are reviewed
* Cloudflare proxy is enabled for the staging host
  + QA team performed the test and marked safe
* Cloudflare proxy is enabled for the production host

**Optimization**

It’s important to deeply understand the customer’s requirements prior to optimizing. Please refer to the below check points.

Onboarding optimization

* Setup custom error pages
* Configure Cloudflare Logpush
* Configure DDoS alerts
* Integrate with Cloudflare SSO
* Enforce 2FA for dashboard access

Security optimization

* Secure origin IP address
* Always use HTTPS
* Enable WAF and fine-tune
* Setup Rate Limiting rules
* Use Firewall Rules for your needs
* Control bots to your site
* Configure security level

Performance optimization

* Define cacheable contents and cache as much as possible
* Enable Argo Smart Routing & smart tiered cache (if applicable)
* Enable image compression with Polish
* Enable code minification with Auto Minify
* Accelerate image delivery with Mirage
* Accelerate js delivery with Rocket Loader
* Enable Brotli compression
* Enable TLS 1.3, 0-RTT Connection Resumption and Enhanced HTTP/2 Prioritization
* Use Webpagetest to compare Cloudflare enabled site vs non-optimized site

**Troubleshooting Guide**

Please refer to the below check points when you’re in need of issue troubleshooting.

* Technical explanation of the symptom
* Get the error status codes
* Confirm origin health checks still successful
* Check cloudflarestatus.com
* Collect information based on the given status codes
  + RayID
  + cURL (to the Cloudflare enabled URI of a question vs to the origin directly)
  + HAR
  + Traceroute/MTR (from the client, from the edge data center)
* If can’t solve yourself, submit a ticket with below information:
  + Problem
    - Symptom (problematic outcome)
    - Expected outcome
  + How to reproduce
  + Data collected so far
  + Ask to the team