**SITUATION:** To implement an amazon CloudFront to efficiently deliver static content, leverage Amazon S3 for regional failover and static content storage, and employ AWS Lambda Edge for dynamic content processing. This process is to optimize the performances using catching behaviour and distributional settings with a secure content delivery with HTTPS.  
  
**TASK:** The task is to implement CloudFront for content delivery on my static website with low-latency access also use CloudFront with Amazon S3 f for regional failover and static content and with AWS **Lambda Edge** for dynamic content, Configure caching behaviours and distribution settings for optimal performance. Implement HTTPS for secure content deliver.  
  
**ACTION:**  
=>Edge function is of two types CloudFront for receiving inputs and output for static mostly and lambda edge for dynamic function to give the endpoint output.  
  
1static content: we need to set up Amazon S3 bucket for static content-Go to the Amazon S3 console Create a new S3 bucket or can use an existing one to store your static content, then upload the static website content with is HTML or we can also take images.  
  
2.In the properties of s3bucket enable static website hosting.  
3. Dynamic content: Go to AWS lambda function in that Create a new Lambda function for dynamic content processing by writing a new code or by uploading any lambda function code.  
  
4.Create a new CloudFront distribution and specify the origin settings:  
- For static content, set the S3 bucket as the **origin**.  
-For dynamic content set the Lambda function as the origin using the **lambda function Associations**.  
  
5.After that define default behaviours for caching static and dynamic content Set TTL (Time to Live) values based on your content update frequency.  
  
6.In the cloud front section enable CloudFront distribution settings and configure SSL/TLS settings request for a new SSL certificate or can also take the existing one.  
  
7.Wait for the CloudFront distribution to be deployed then update the DNS settings to point our domain to the CloudFront distribution, Test access to your static and dynamic content using the CloudFront URL.  
  
8. Set up additional S3 buckets in different AWS regions for regional failover, configure the CloudFront distribution to include regional S3 buckets as additional origins also update CloudFront behaviours to handle failover based on S3 bucket availability.  
  
9. We can also use AWS CloudWatch to monitor CloudFront metrics, Lambda Edge executions and S3 metrics. Optimize caching behaviours, TTL values and Lambda Edge functions based on performance insights.  
  
10.It is best to keep on updating the lambda function, give proper IAM roles and regular check of SSL.  
  
**RESULT**: The implementation of Amazon CloudFront, Amazon S3, and AWS Lambda Edge results in a highly optimized and secure global content delivery solution. The organization benefits from low-latency access to static content, regional failover for enhanced reliability, and dynamic content processing for a good user experience. The content delivery infrastructure is monitored and optimized for performance and security best practices are see and ensure a secure content delivery environment.